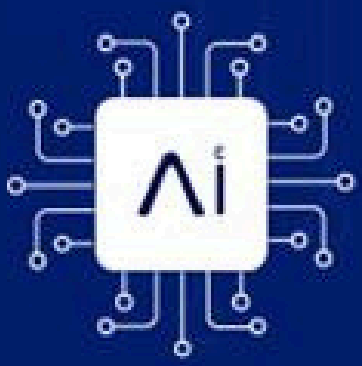
CODEWORK

Transforming ideas into digital realities



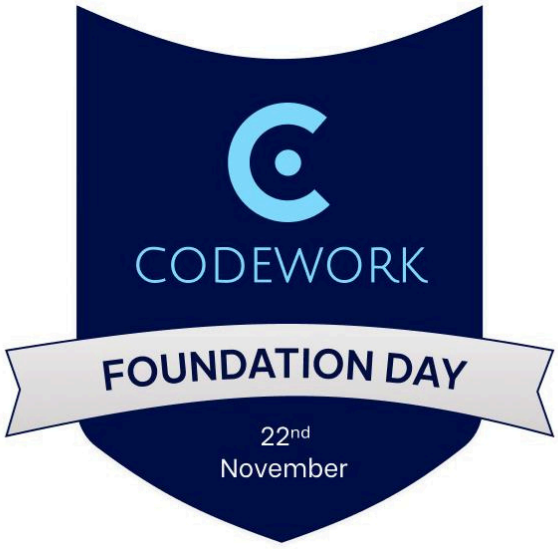
AI Automations

CODEWORK

Innovating the Next Era of AI Solutions

Proudly presents

Released on the occassion of



PREFACE

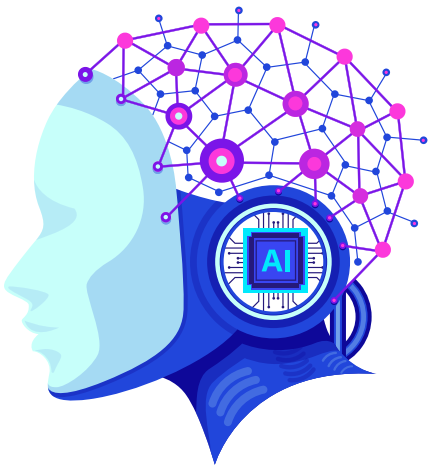
Innovation begins with a question, “How can we make this better?” At CODEWORK, this simple question has fueled countless hours of curiosity, collaboration, and creation. The result of that shared pursuit is this compilation: 100 AI Automations thoughtfully curated, designed, and built by our AI team.

This booklet represents more than workflows or lines of code, it reflects a mindset. A mindset rooted in progress, efficiency, and the belief that technology should meaningfully enhance the way we work, learn, and live. The workflows showcased here are built to solve real challenges faced across industries; from streamlining routine tasks and improving accuracy to empowering data-driven decision-making and enabling scalable innovation.

Each automation is a testament to our team's commitment to excellence and our culture of relentless experimentation. It also marks a milestone in CODEWORK’s ongoing journey toward building solutions that shape the future of digital intelligence; reliable, accessible, and transformative. To the team behind this work: your creativity and determination have transformed ideas into lasting value.

To the innovators and organizations who will explore these workflows: we hope this inspires fresh thinking, sparks new applications, and becomes a resource you return to often.
The future of work is automated — thoughtfully, responsibly, and boldly.
This booklet is one step toward that future.

– Team CODEWORK



Message from The Managing Director

It is with great pride that I present this compilation of 100 AI Automations, created by the talented AI team at CODEWORK under the mentorship of Mr. Prasanth- our AI Engineer. This collection reflects more than technical capability; it represents a culture of innovation, perseverance, and the willingness to solve real-world problems with intelligence and intention.

Each contributor has demonstrated ownership, curiosity, and commitment throughout this journey, and the outcome speaks for itself. The solutions showcased here are not only functional but also future-focused, aligning with our vision of shaping meaningful and accessible AI adoption.

To everyone involved, thank you for the discipline, creativity, and teamwork that made this possible. This achievement marks a promising beginning, and I am confident it will inspire even greater advancements in the days ahead.

Ms. Christina Arulraj
Managing Director

Message from The Executive Director

This compilation of 100 AI Automations stands as a proud reminder of what dedicated young minds can accomplish when given the right environment, opportunity, and guidance. Onboarding this talented team of AI trainees was driven by a belief, that potential becomes progress when nurtured with purpose.

Watching them evolve from learners to contributors has been truly rewarding. Their collaboration, passion for technology, and willingness to challenge themselves have transformed this initiative into a meaningful milestone for CODEWORK.

I extend my heartfelt appreciation to every trainee, mentor, and team member involved in this journey. May this achievement become the foundation for even greater innovation, growth, and impact in the world of AI.

Ms. Mathumitha Chennakesavan
Executive Director

Message from The AI Architect

This compilation of AI automations stands as a milestone in CODEWORK's journey toward innovation-driven learning and execution. It represents not just workflows, but the curiosity, discipline, and collaboration of our young AI Trainees who have transformed ideas into meaningful solutions under the leadership of Mr. Prasanth and the guidance of our Tech Associates. Their work reflects the power of mentorship and the potential unlocked when talent is nurtured with the right environment and purpose.

This booklet serves as a testament to CODEWORK's culture; where young minds are inspired to explore, innovate, and build with confidence. I am proud of the dedication behind this effort and look forward to seeing these promising sparks evolve into real-world impact.

Mr. Ajay Dev K S
AI Architect

Message from The Head- Training & Development

Compiling this booklet of 100 AI Automations has been an honor and a truly rewarding experience. Working alongside the AI Trainees and Interns, and coordinating with the mentorship team, has allowed me to witness firsthand how curiosity evolves into capability and how collaborative effort fuels innovation. What stands before you is not just a collection of workflows, it is a testament to learning, teamwork, perseverance, and the spirit of experimentation.

This compilation marks a momentous milestone for CODEWORK, reflecting our culture of nurturing young talent and translating ideas into meaningful, real-world solutions. I extend my heartfelt appreciation to everyone who contributed, supported, and believed in this initiative.

Mr. Neaven Christopher Arulraj
Head- Training & Development

AI TEAM PROFILES

Mr. Prasanth Pradeep Kumar
AI ENGINEER

Prasanth Pradeep Kumar holds an MSc in Data Science from Kingston University, London, and has 5.8 years of experience across AI, ML, and data-driven domains. His curiosity for solving real-world problems through data-led approaches fueled his continuous learning journey, ultimately leading him to Codework, where he saw an opportunity to strengthen his expertise and collaborate with like-minded professionals. He currently serves as an AI Engineer, contributing to cutting-edge, high-impact projects while leading a team of 15 members. His time at Codework has been both inspiring and enriching, offering exposure to modern technologies and an environment that continually motivates technical and professional growth.

Ms. Keerthika M
PROJECT MANAGER

Keerthika holds an M.Com and an MBA in Finance and has also cleared the CA Intermediate examination. While her professional journey began in the finance domain, she soon discovered a strong interest in software, technology, and AI, an interest that encouraged her to pursue a bold transition into the tech field. Her experience at Codework has been a defining phase in this journey, offering continuous learning, real-world exposure, and meaningful challenges that have strengthened her skills and expanded her perspective. She enjoys exploring new concepts, nurturing her curiosity, and growing steadily into the tech professional she aspires to be. With a belief in lifelong learning and adaptability, Keerthika remains enthusiastic about contributing meaningfully to the ever-changing landscape of technology.

Mr. Sridhar M
PROJECT MANAGER

Sridhar currently serves as a Project Manager at Codework.ai. He holds a Bachelor's degree in Mechatronics Engineering and began his career in data science, where he built a strong technical and analytical foundation before transitioning into project management, blending technical insight with effective planning, coordination, and execution. Drawn to Codework.ai for its innovative, AI-driven environment and forward-thinking culture, his journey with the organization has been enriching, filled with continuous learning, meaningful collaboration, and the opportunity to contribute to impactful, future-ready solutions.

AI TEAM PROFILES

Ms. Pavithra A
Jr. AI ENGINEER

Ms. Pavithra A is a Junior AI/ML Engineer at Codework, whose journey into the field of technology began from an unexpected but transformative career shift. She completed her master's degree in Biochemistry from the University of Madras before transitioning into Data Science—a decision that led her to pursue the Post Graduate Program in Data Science and Engineering at Great Lakes Institute of Management. Joining Codework has become a significant milestone in her professional growth, offering her the opportunity to work on cutting-edge AI solutions while continuously learning and evolving. What began as a new direction has now become a passion, driven by her enthusiasm for emerging technologies, meaningful challenges, and the support of a collaborative and motivating team.

Mr. Satheshkumar P
Jr. AI ENGINEER

Satheshkumar is an Jr. AI Engineer at Codework, with his journey in technology grounded in a strong academic foundation in Mechanical Engineering from PSG College of Technology, Coimbatore. Motivated by curiosity and a passion for intelligent systems, he further pursued a Post Graduate Program in Data Science Engineering from Great Learning in collaboration with Great Lakes, Bangalore. Joining Codework.ai marked a significant step in his professional growth, where he was inspired by the organization's innovative culture and its commitment to building impactful, future-focused solutions. At Codework.ai, he continues to engage in meaningful challenges, collaborate with skilled peers, and contribute to projects shaping the evolving landscape of artificial intelligence.

Mr. Nitish Shyam K S
Jr. AI ENGINEER

Nitish's interest in technology developed during his college years, where he grew increasingly fascinated by data science and the fast-moving world of artificial intelligence. Although his academic path was in Electronics and Communication Engineering, his curiosity pushed him to explore AI independently, building small projects that strengthened both his understanding and passion for the field. His journey gained momentum when he joined Codework AI, where he found a collaborative environment and the opportunity to work on real-time projects, tools, and emerging frameworks. This hands-on exposure has helped him grow not only technically but also as a problem solver and contributor within the team.

AI TEAM PROFILES

Mr. Saran Menon P
SOFTWARE ENGINEER

Saran Menon is a Software Developer on the Development team at Codework. His passion for technology led him to pursue a B.E. in Computer Science at S.A. Engineering College, and he now brings three years of industry experience to his role. He joined Codework driven by the opportunity to be part of a forward-thinking organization that values quality engineering and collaboration. His journey with the company has been rewarding, offering engaging challenges and opportunities to contribute to multiple projects, including AI-powered automations. He enjoys solving complex problems alongside a talented team and remains committed to continuous learning and meaningful contribution toward shared success.

Mr. Sainath M
SOFTWARE ENGINEER

Sainath M completed his B.E. in Mechanical Engineering and later transitioned into the tech industry, building over five years of experience as a Full Stack Developer. Seeking to expand his skill set and explore emerging technologies, he connected with CodeWork through LinkedIn and officially joined the organization on 19-08-2024. Since then, his journey of over 1.3 years at CodeWork has been professionally enriching. In addition to strengthening his expertise in full stack development, he has gained hands-on exposure to AI workflows involving data preparation and model-related tasks. He has also contributed by sharing workflow improvement ideas with the AI team, helping streamline and optimize processes.

Ms. Lakshana L
Jr. TECH ASSOCIATE

Lakshana completed her B.E. in Computer Science Engineering at Dr. Sivanthi Aditanar College of Engineering under Anna University. She is currently working as a Software Developer at CODEWORK, where her journey has been both enriching and transformative. Through hands-on exposure, continuous learning, and real-world project experience, she has grown significantly—both technically and personally. Lakshana values the opportunities CODEWORK has provided and remains grateful for the support, guidance, and environment that continue to help her evolve in her professional path.

AI TEAM PROFILES

Ms. Nithisha S
SOFTWARE ENGINEER

Ms. Nithisha completed her B.E. in Computer Science and Engineering at Dr. Sivanthi Aditanar College of Engineering and later joined CODEWORK as a Software Developer. Her role involves working on both frontend and backend development using technologies such as Next.js, React, TypeScript, Python, and PostgreSQL. Being part of CODEWORK has enabled her to explore her strengths, take on real-world challenges, and continuously refine her skills. Through this journey, she has grown with confidence and contributed to meaningful, impactful work.

Mr. Parthasarathy G
AI TRAINEE

Mr..Parthasarathy is currently pursuing his B.Tech in Artificial Intelligence and Machine Learning and joined CODEWORK with the goal of gaining hands-on project exposure beyond academics. His experience at CODEWORK has strengthened his skills in backend development, AI integration, and real-world problem solving, while also deepening his passion for AI-driven innovation. The learning environment, mentorship, and access to live projects at CODEWORK have played a crucial role in helping him explore cutting-edge applications of AI and shape his journey toward becoming a future-ready AI professional.

Mr. Meganathan V
AI TRAINEE

Mr. Meganathan V is currently in his final year of B.Tech in Artificial Intelligence and Data Science at St. Joseph's Institute of Technology, Chennai. While he had a strong theoretical foundation in AI and ML, he sought practical exposure to real-world projects, which led him to connect with CODEWORK on LinkedIn and inquire about internship opportunities. He joined the organization as an AI Intern on June 2, later earning a promotion to AI Trainee in July. His journey at CODEWORK has been highly enriching, offering hands-on experience in data collection, dataset cleaning, model training, validation, annotation, and documentation. He values the supportive work culture, collaborative environment, and the encouragement to explore new skills, all of which have helped him grow both technically and personally.

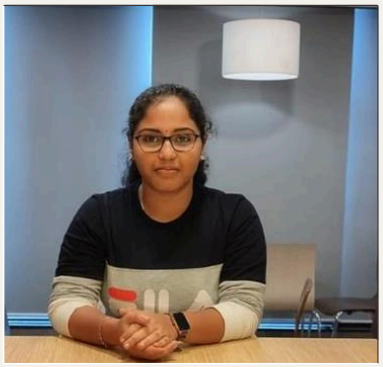
AI TEAM PROFILES

Mr. Kathiravan M
AI TRAINEE

Mr. Kathiravan is a passionate technology professional with a solid foundation in software development and a growing interest in artificial intelligence and automation. With experience across multiple tools and frameworks, he approaches every challenge with a practical and analytical mindset. His journey with CODEWORK has been a significant stepping stone, offering real-world project exposure, structured learning, and collaboration with an innovation-driven team. The supportive environment and mentorship have strengthened both his technical abilities and professional confidence. Moving forward, he remains committed to expanding his expertise and contributing to meaningful, future-ready AI solutions.

Ms. Priscilla Gragoria
AI TRAINEE

Ms. Priscilla holds an M.Sc. in Data Science, which laid the foundation for her strong interest in artificial intelligence and machine learning. At CODEWORK she works on diverse and challenging assignments that helped her enhance her technical skills and strengthen her practical understanding of AI. The hands-on learning experience, mentorship, and collaborative environment at CODEWORK have played a significant role in her growth. In November, she advanced to the position of Junior AI Engineer, marking a meaningful milestone in her professional journey. Her time at CODEWORK has been both enriching and inspiring, further reinforcing her commitment to building impactful, AI-driven solutions and continuing her path of growth in the field.



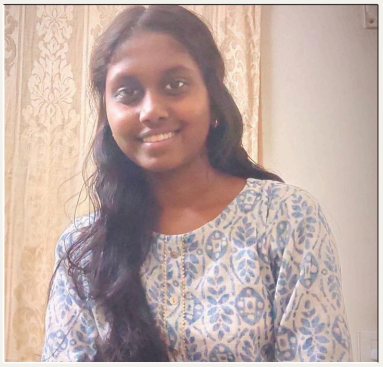
Ms. Harinivashini S
AI TRAINEE

Ms. Harinivashini is currently pursuing her B.Tech in Artificial Intelligence and Data Science at St. Joseph's Institute of Technology and is set to complete her degree in 2026. She joined CODEWORK as an AI Trainee through campus recruitment, driven by her strong interest in AI, machine learning, and programming. Her journey at CODEWORK has been highly rewarding, shaped by a supportive learning environment and mentors who encourage experimentation, problem-solving, and growth through experience. The workplace has provided her with the freedom to explore new concepts, apply ideas in real projects, and steadily strengthen both her technical skills and personal development.

AI TEAM PROFILES

Ms. Dhivya Dharini P
AI TRAINEE

Ms. Dhivya Dharini P is currently pursuing her B.Tech in Information Technology at Anand Institute of Higher Technology and is expected to complete her degree in 2026. She joined CODEWORK as an AI Trainee through campus recruitment, driven by her strong interest in artificial intelligence, machine learning, and coding. Her experience at CODEWORK has been deeply enriching, supported by a learning culture that encourages curiosity, exploration, and growth through trial and improvement. The guidance and collaborative environment have allowed her to confidently enhance her technical skills while also developing personally, making her journey both meaningful and transformative.



Ms. Mogeswari T
AI TRAINEE

Ms. Mogeswari T is currently pursuing her B.Tech in Artificial Intelligence and Data Science at Anand Institute of Higher Technology and is expected to complete her degree in 2026. She joined CODEWORK as an AI Trainee through campus recruitment, eager to advance her learning and deepen her expertise in the AI domain. Her experience at CODEWORK has been truly fulfilling, supported by a peaceful and encouraging environment where guidance and collaboration are always present. With the team's support and exposure to real tasks, she has been able to strengthen her skills, gain confidence, and grow both technically and professionally. Her journey so far has been motivating, reinforcing her passion for AI and her commitment to continuous learning.

Ms. Nivetha S
AI INTERN

Ms. Nivetha completed her B.Tech in Biotechnology but has always been deeply interested in artificial intelligence and its industry-shaping potential. This curiosity motivated her to transition into the AI field and gain real-world experience. She is currently pursuing her internship as an AI Intern at CODEWORK, where she works on live projects, explores practical applications of AI models, and contributes to problem-solving tasks. The experience is helping her strengthen her technical skills, apply theoretical concepts to real use cases, and better understand industry workflows. With a collaborative and supportive environment, CODEWORK has also given her valuable learning opportunities in teamwork, communication, and continuous skill development.

AI TEAM PROFILES

Ms. Shreya S
AI TRAINEE

Shreya is a highly motivated individual with a strong passion for continuous learning. She enjoys communicating with people, adapting to new challenges, and is confident in his ability to learn quickly and work diligently. She holds a Bachelor's degree in Data Science and Artificial Intelligence (DSAI) with an overall CGPA of 7.9. Over the past three months at Codework, he has gained valuable hands-on experience across various projects, strengthening his technical skills, enhancing his problem-solving abilities, and growing professionally within a supportive work environment.

Ms. Prathika M
AI TRAINEE

Prathika completed her B.Tech in Artificial Intelligence and Data Science in 2025, where she built a strong foundation in machine learning, deep learning, and data analytics. Her interest in practical AI applications led her to join CODEWORK as an AI/ML Trainee, where she experienced a highly supportive and collaborative environment. Working at CODEWORK provided her with real industry exposure, strengthened her technical skills, and boosted her confidence to take on professional challenges. Her journey with CODEWORK has been productive, inspiring, and a significant step in shaping her career.

AUTOMATION NAME:	Pregnancy Bot
INDUSTRY:	Healthcare & Medical
WORKFLOW:	Chat area where the user can ask anything about pregnancy For example - diet plan, exercises etc --> SOS Emergency Button -->Checkup Reminders --> Labor Contraction timer --> Weekly 3D image of the baby in the womb (from week 2 to week 41) --> Weekly baby's size comparison with real life objects -->Daily journal --> Motherhood community space -->Pregnancy facts -->Post Delivery essentials for baby and mother
PROBLEM STATEMENT:	Expectant mothers need private, personalized, and immediate pregnancy support that combines reliable information, practical tools, and emotional community — without vendor lock-in or exposing sensitive personal data. Current resources are often generic, hard to navigate, or slow to adapt to the user's specific pregnancy week.
SOLUTION:	This project provides a single, caring pregnancy companion that offers week-based information, an intelligent chat assistant, practical tools like a contraction timer and journal, a supportive community that responds positively to emotional posts, and a safe space where all personal data remains private. It brings everything an expecting mother needs into one simple, comforting platform.
DEVELOPED BY:	Ms. Nivetha Soumiananthan S

AUTOMATION NAME:	Fire Detection
INDUSTRY:	Safety & Compliance
WORKFLOW:	Input(Video)-->Yolo Model(detects fire or not fire)-->if yes -->Cnn model --->predicts the class type and regarding extinguisher
PROBLEM STATEMENT:	Traditional fire detection systems, which often rely on smoke or heat sensors, can have delayed response times, leading to significant property damage and loss of life. Early and accurate fire detection is crucial for timely intervention
SOLUTION:	An AI-powered Fire Detection System uses computer vision to analyze real-time video feeds from cameras to detect the visual signs of fire and smoke. This allows for earlier detection and can trigger automated alerts to emergency services, enabling a faster response.
DEVELOPED BY:	Ms. Priscilla Gragoria E

AUTOMATION NAME:	Recommendation system for content
INDUSTRY:	Education
WORKFLOW:	User adds skills → ML trains with LightFM → Web scrapes courses → Generates dynamic roadmaps → Analyzes skill gaps → Recommends relevant courses → Tracks progress with achievements → Continuous learning loop
PROBLEM STATEMENT:	The problem addressed is helping users find relevant online courses tailored to their skills and career goals by extracting and analyzing skills from uploaded resumes in PDF format. Many people struggle to identify the right courses that match their current abilities and fill skill gaps for their desired job roles.
SOLUTION:	The solution is an AI-powered web application that automatically extracts skills from resumes, suggests missing skills for specific career roles, and recommends personalized learning paths and relevant courses from platforms like Udemy, Coursera, and YouTube. It combines smart resume processing, course data scraping, and machine learning-based recommendation to guide users in skill development and career readiness in an easy and non-technical way. This enables users to make informed decisions about their learning journey without manual searching or guesswork.
DEVELOPED BY:	Ms. Shreya S

AUTOMATION NAME:	Recommendation system for product
INDUSTRY:	E-commerce & Product
WORKFLOW:	Hybrid recommendation system for Amazon Electronics ----->data collection-preprocessing-filtering sparse data for collaborative filtering, dense data for content based-model training - combine both model for hybrid-model evaluation-user interface through streamlit
PROBLEM STATEMENT:	Businesses often struggle to offer personalized product recommendations that match individual customer preferences. Customers are frequently presented with generic or irrelevant suggestions, which can result in a poor shopping experience and reduced sales. Manual recommendation systems take time, do not adapt to changing tastes, and fail to leverage both customer history and broader trends.
SOLUTION:	The Hybrid Recommendation System delivers tailored product suggestions by analyzing user preferences and behavior. It uses advanced logic to combine individual taste with broader buying patterns, ensuring recommendations are relevant and dynamic. This system improves customer satisfaction, increases engagement, and boosts sales by showing users exactly what they are most likely to enjoy.
DEVELOPED BY:	Ms. Prathika M

AUTOMATION NAME:	Price Prediction ML Model
INDUSTRY:	E-commerce & Product
WORKFLOW:	Feed location-tagged price histories for each product → engine returns region-specific monthly forecasts.
PROBLEM STATEMENT:	Construction companies face 50-70% cost overruns due to unpredictable material price fluctuations driven by supply chain volatility, raw material shortages, fuel costs, and seasonal demand—making accurate budget estimation nearly impossible. Contractors struggle to determine optimal procurement timing and quantities, often purchasing materials too early (tying up capital) or too late (facing price spikes of 20-40%), leading to unbalanced obligations between owners and contractors and project delays. Without reliable price forecasting, companies cannot accurately bid on projects, negotiate fixed-price contracts, or plan long-term budgets, resulting in profit losses, competitive disadvantages, and strained client relationships.
SOLUTION:	A machine learning-based price prediction model that analyzes 12 months of historical price data for construction materials (steel, cement, aluminum, lumber) along with influencing factors (diesel prices, production volumes, demand patterns, import duties, seasonal trends) to forecast future prices with 85-95% accuracy using Artificial Neural Networks or time series analysis. The system alerts procurement teams 2-4 weeks in advance of predicted price increases, recommends optimal purchase timing to minimize costs, enables accurate project bidding and budget planning, and reduces material cost overruns by 30-40% through data-driven procurement decisions.
DEVELOPED BY:	Mr. Harish

AUTOMATION NAME:	AI Multifactor authentication
INDUSTRY:	Enterprise Tools
WORKFLOW:	Voice ----> store and live voice ---> vectors ----> compared vectors using cosine similarity and scores will be generated ----> if the score is more than 7.5 ---> approve signature ----> Using ORB (CV METHODOLOGY)
PROBLEM STATEMENT:	The problem this project addresses is the need for a more secure and robust user authentication system than traditional password-based methods, which are vulnerable to being forgotten, stolen, or phished. Single-factor authentication, such as a signature or a voice passphrase alone, can be prone to forgery or replay attacks, while implementing a multi-factor system from scratch can be complex and challenging.
SOLUTION:	The solution is an AI-Powered Voice + Signature Authentication system, a Streamlit web application that provides a two-factor, biometric-based authentication process for enhanced security. Users register by providing their name, email, a secret voice passphrase, and a hand-drawn signature, all of which are stored in a secure user database. During authentication, the user must first speak their secret passphrase, which is verified using voice recognition and feature comparison, and then provide a signature that is analyzed using computer vision techniques to compare its features with the stored signature. The application includes a tuning mode to help administrators find the optimal similarity threshold for signature verification, ensuring a balance between security and usability.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	AI SEO ranker
INDUSTRY:	Business & Marketing
WORKFLOW:	User Enters URL ➔ Streamlit App ➔ Crawler Discovers Pages ➔ Analyzer Loops Through Pages ➔ For Each Page: [Calls Google PageSpeed API ➔ Calls AI Keyword Agent ➔ Runs SEO Checks] ➔ Analyzer Compiles Reports ➔ Streamlit App Displays Detailed Results
PROBLEM STATEMENT:	The problem this project addresses is the complexity and time-consuming nature of conducting a thorough SEO audit for a website. Business owners, marketers, and developers often struggle to analyze every page of their site for a wide range of on-page, technical, and off-page SEO factors, as well as to identify and fix issues like duplicate content and slow page speeds, which can negatively impact their search engine rankings and user experience.
SOLUTION:	The solution is a comprehensive AI Website SEO Analyzer, a web application that automates the entire process of auditing and analyzing a website for search engine optimization. A user can enter a URL, and the application will first crawl the website to identify all of its pages, then analyze each page against a long list of SEO best practices, including checking for optimal title and description length, identifying broken links, and assessing page speed. The application then provides a detailed report with an overall score, a to-do list of recommended fixes with AI-powered suggestions, and a list of items that are already optimized, allowing users to quickly identify and address the most critical SEO issues and improve their website's performance.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	Insurance Claim Optimizer
INDUSTRY:	Healthcare & Medical
WORKFLOW:	Suggests proper billing codes → predicts denial reasons → Automated Appeal Generation
PROBLEM STATEMENT:	Medical insurance claims get rejected frequently due to incorrect codes or missing information, causing delays and financial losses for healthcare providers.
SOLUTION:	Analyzes medical records to suggest correct billing codes, predicts reasons for claim rejection, and helps create appeals automatically to get claims approved faster.
DEVELOPED BY:	Ms. Dhivya Dharini P

AUTOMATION NAME:	AI Excel Data Segregator
INDUSTRY:	Data Analysis & Business Intelligence
WORKFLOW:	Categorize the excel sheet data into industry category
PROBLEM STATEMENT:	Sorting thousands of company records in spreadsheets by category takes hours of manual work and is prone to human error.
SOLUTION:	Automatically reads and categorizes company records into proper groups, eliminating manual sorting and reducing errors significantly.
DEVELOPED BY:	Ms. Dhivya Dharini P

AUTOMATION NAME:	Habit Setter
INDUSTRY:	Personal Productivity
WORKFLOW:	Set habit goal → get daily tasks → complete task → record proof video → system verifies → mark complete → track 21-day progress
PROBLEM STATEMENT:	People struggle to build consistent habits because they forget, lose motivation, or don't recognize patterns in their behavior.
SOLUTION:	Sends smart reminders based on your routine, tracks your progress visually, detects when you're avoiding habits, and creates summaries to share with counselors or therapists.
DEVELOPED BY:	Ms. Dhivya Dharini P

AUTOMATION NAME:	AI Lab partner
INDUSTRY:	Education
WORKFLOW:	For students: input experiment details → generates hypothesis, procedure, results interpretation + auto-format lab report.
PROBLEM STATEMENT:	Students and researchers often spend a lot of time manually documenting their lab experiments and writing detailed lab reports. This process can be tedious, prone to errors, and takes time away from actual experimentation and analysis. Moreover, inconsistent report formats and missing observations can affect the quality and reproducibility of lab work.
SOLUTION:	The AI Lab Partner project provides an intelligent assistant that automates lab report generation by listening to or reading experiment details and observations. It helps users create accurate, consistent, and well-organized lab reports quickly, saving time and reducing errors. This allows students and researchers to focus more on the science and less on paperwork.
DEVELOPED BY:	Ms. Mogeswari T

AUTOMATION NAME:	PPE Detection
INDUSTRY:	Safety & Compliance
WORKFLOW:	Input(Camera/RTSP) → frame capture → YOLOv8 inference (person, head, hat/helmet, vest, glasses, gloves) → compliance rules (head without hat = helmet violation; no vest box = vest violation; missing glasses/gloves) .
PROBLEM STATEMENT:	In industrial and construction environments, ensuring that workers wear appropriate Personal Protective Equipment (PPE) is vital for safety. Manual monitoring of PPE compliance is often inconsistent and challenging, especially in large work sites.
SOLUTION:	A PPE Detection System utilizes computer vision to monitor video streams and automatically detect whether individuals are wearing the required safety gear, such as helmets and vests. The system can issue real-time alerts in case of non-compliance, enhancing workplace safety.
DEVELOPED BY:	Ms. Priscilla Gragoria E

AUTOMATION NAME:	AI Virtual Intern
INDUSTRY:	Enterprise Tools
WORKFLOW:	User Logs In ➔ AI Virtual Intern Dashboard Loads ➔ System Fetches Learning Modules, Tasks, Mentor Sessions, Assessments, and Deadlines ➔ AI Analyzes Progress and Upcoming Events ➔ For Each Event: [Checks Status ➔ Sends Smart Recommendations/Reminders ➔ Updates Completion Stats] ➔ Dashboard Updates in Real-Time ➔ User Sees Personalized Progress, Schedules, and Notifications
PROBLEM STATEMENT:	Interns lack a centralized, intelligent platform to manage schedules, mentor sessions, learning progress, assessments, and deadlines efficiently.
SOLUTION:	Build an AI-powered web app that automatically aggregates tasks, events, and learning data, providing smart scheduling, progress tracking, and timely notifications for each intern.
DEVELOPED BY:	Mr. Parthasarathy G

AUTOMATION NAME:	AI Powered Email Draft Assistant
INDUSTRY:	Communication & Email Management
WORKFLOW:	User enters subject + short prompt → LLM generates draft → Output displayed for review/copy
PROBLEM STATEMENT:	Professionals spend a significant amount of time composing emails, leading to decreased productivity. Crafting the right tone and content for various contexts, from client communication to internal updates, can be a repetitive and time-consuming task**.**
SOLUTION:	An AI-powered Email Draft assistant automates the email writing process. By understanding the user's intent through brief prompts, it can generate complete and context-aware emails, suggest replies, and even adapt to the user's writing style, thereby saving time and improving communication efficiency**.**
DEVELOPED BY:	Ms. Priscilla Gragoria E

AUTOMATION NAME:	Weather Agent with Langchain & Langgraph
INDUSTRY:	Multi-Agent Systems
WORKFLOW:	User query → Langgraph nodes process → Weather API fetch → LLM reasoning → Natural responseAuto-log conversations, draft follow-ups, and suggest next actions based on client sentiment.
PROBLEM STATEMENT:	users often need accurate, up-to-date weather information and analysis to make informed choices, especially in industries like travel, logistics, and event management. Manually checking weather sources and interpreting forecasts can be slow and prone to oversight, making it difficult to respond quickly to changing conditions or to follow up on client needs with context-aware recommendations.
SOLUTION:	The Weather Agent automates weather information retrieval and analysis by processing user queries and delivering natural, conversational responses. It uses advanced workflow logic to fetch current weather data, interprets the results, and suggests next steps based on client sentiment or context. All conversations are automatically logged, and follow-up actions or draft responses are generated, helping teams save time, reduce errors, and provide clients with timely, relevant insights.
DEVELOPED BY:	Ms. Prathika M

AUTOMATION NAME:	API Health Monitor Agent
INDUSTRY:	Software Development
WORKFLOW:	Continuously monitors all integrated APIs → detects latency spikes, rate limit hits, authentication failures → auto-switches to backup endpoints and alerts teams
PROBLEM STATEMENT:	Businesses heavily rely on APIs for their applications and services. API downtime or performance degradation can lead to significant revenue loss, poor user experience, and damage to brand reputation.
SOLUTION:	**AI Study Partner** An AI-powered API Health Monitor Agent proactively monitors the performance and availability of APIs in real-time. It can predict potential issues, detect anomalies in traffic and response times, and provide intelligent alerts, enabling developers to address problems before they impact users.
DEVELOPED BY:	Ms. Priscilla Gragoria E

AUTOMATION NAME:	Viral Content Predictor
INDUSTRY:	Business & Marketing
WORKFLOW:	Analyzes trending topics across platforms → predicts viral potential → suggests optimal posting times → creates platform-specific content variations Story Arc Generator Agent - Input: genre/theme → creates compelling narratives → generates character development arcs → suggests plot twists → outputs structured storytelling frameworks
PROBLEM STATEMENT:	Many creators and brands struggle to know which topics will trend, when to post, and how to adapt content for different platforms — leading to low engagement and missed viral opportunities.
SOLUTION:	The Viral Content Predictor uses AI to analyze trending topics, predict their viral potential, suggest the best posting times, and automatically generate platform-specific content — helping users create impactful, high-engagement posts effortlessly.
DEVELOPED BY:	Ms. Shreya S

AUTOMATION NAME:	AI Study Partner
INDUSTRY:	Education
WORKFLOW:	Uploads Study Notes --> Agent will create MCQ from the topics --> generates flashcards --> summarise the notes
PROBLEM STATEMENT:	Students often struggle with motivation, understanding complex topics, and finding personalized learning resources. Traditional study methods may not cater to individual learning styles and paces.
SOLUTION:	An AI Study Partner acts as a personalized tutor, offering interactive learning experiences. It can answer questions, provide explanations on various subjects, create quizzes, and adapt to the student's learning progress, making studying more engaging and effective.
DEVELOPED BY:	Ms. Priscilla Gragoria E

AUTOMATION NAME:	Lead Helper
INDUSTRY:	Data Analysis & Business Intelligence
WORKFLOW:	In the apollo lead generated excel the agent will particular categories and from there we can select needed category without any duplicates
PROBLEM STATEMENT:	Sorting thousands of company records in spreadsheets by category takes hours of manual work and is prone to human error.
SOLUTION:	Automatically reads and categorizes company records into proper groups, eliminating manual sorting and reducing errors significantly.
DEVELOPED BY:	Ms. Dhivya Dharini P

AUTOMATION NAME:	Project Management System
INDUSTRY:	Multi-Agent Systems
WORKFLOW:	Instead of a single monolithic agent, the project uses a network of specialized, federated agents that collaborate across distributed systems. Each agent would have a distinct role (e.g., a "Research Agent," a "Logistics Agent," and a "Regulatory Agent") and communicate with others while maintaining data privacy and local autonomy.
PROBLEM STATEMENT:	Teams struggle to track tasks, deadlines, and progress across multiple projects, leading to missed deadlines and confusion.
SOLUTION:	Provides a central place to organize all tasks, monitor progress, and keep everyone updated on what needs to be done and when**.**
DEVELOPED BY:	Ms. Dhivya Dharini P

AUTOMATION NAME:	Stock Sentiment Analyzer
INDUSTRY:	Data Analysis & Business Intelligence
WORKFLOW:	Input: company name → agent fetches news headlines → classifies sentiment → outputs score.
PROBLEM STATEMENT:	The problem this project addresses is the inherent difficulty and uncertainty of predicting stock market trends, which poses a significant challenge for investors and financial analysts who are seeking to make informed decisions. Traditional methods of technical analysis can be time-consuming and may not always capture the complex, non-linear patterns in stock price movements, while building and training a machine learning model from scratch requires a significant amount of expertise and effort.
SOLUTION:	The solution is an AI Stock Pattern Prediction application, a web-based tool that uses a Long Short-Term Memory (LSTM) neural network to analyze historical stock data and predict future price movements. A user can select a stock ticker from a list of top companies, and the application will automatically fetch the historical data, train an LSTM model on it, and then display a variety of performance metrics, a chart comparing the actual and predicted prices, and a table of the predicted values. The user can also specify a number of days to predict into the future, and the application will generate and display a forecast of the stock's price action for that period, providing a powerful and easy-to-use tool for gaining insights into potential market trends.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	Project Workflow Generator
INDUSTRY:	Documentation & Knowledge Management
WORKFLOW:	Analyzes the topic and get the related recent research papers and suggest the workflow, dataset and summerise selected papers.
PROBLEM STATEMENT:	The problem this project addresses is the significant gap between academic research and practical, real-world implementation. Researchers and developers often struggle to translate the findings of a research paper into an actionable project plan, as papers may lack certain implementation details, use outdated methods, or fail to provide a clear, step-by-step workflow for replication and enhancement.
SOLUTION:	The solution is an AI Research Assistant, a web application that automates the process of analyzing academic papers and generating actionable project plans. A user can search for a topic of interest, and the application will fetch relevant papers from the Semantic Scholar database, prioritizing those with the highest citation counts. After the user selects a paper, the application scrapes its content and uses a large language model to perform a deep analysis, extracting key information such as the core hypothesis, methodology, and quantitative results, while also identifying missing details. Finally, the system uses another large language model to convert this analysis into a detailed, end-to-end project workflow, complete with suggestions for modern tools and improvements, thereby bridging the gap between theory and practice and enabling teams to more easily replicate and build upon the original research.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	Diet Plan Generator
INDUSTRY:	Personal Productivity
WORKFLOW:	Ask users goal and analyse their lifestyle pattern and give a monthly plan.
PROBLEM STATEMENT:	Most wellness or self-care plans found online are generic, one-size-fits-all, and don't consider a person's unique health goals, lifestyle, or physical condition. People often struggle to understand which routines, diet choices, or habits are actually right for them, leading to confusion or ineffective results. There is a need for a simple tool that can create personalized, science-based wellness plans tailored to each individual, without requiring expert knowledge.
SOLUTION:	The Personalized Care Plan Generator uses AI and trusted wellness guidelines to create customized care plans based on the user's goals and health profile. By combining a powerful language model with a retrieval system that pulls accurate information from a medical knowledge base, the tool delivers structured, safe, and easy-to-follow recommendations for nutrition, exercise, lifestyle, and daily habits. This provides users with a clear, personalized wellness roadmap that fits their needs and supports healthier outcomes.
DEVELOPED BY:	Ms. Nivetha Soumiananthan

AUTOMATION NAME:	Human-like Helpdesk Agent
INDUSTRY:	Enterprise Tools
WORKFLOW:	Handles both technical and non-technical queries with empathy and cognitive reasoning for internal software support.
PROBLEM STATEMENT:	The problem is that many people find it hard to maintain their mental and physical wellness due to stress, poor habits, and lack of personalized guidance. They struggle to track their well-being, manage stress, screen time, and include healthy routines in their daily lives.
SOLUTION:	The solution is an AI-powered wellness assistant that listens to users, understands their emotional and physical state, and offers personalized wellness plans and support. It encourages healthy habits, helps manage stress, tracks screen time, and provides multi-language support with voice input/output to make wellness accessible and engaging for everyone. This creates a simple, supportive companion focused on improving overall well-being in everyday life.
DEVELOPED BY:	Ms. Mogeswari T & Ms. Shreya S

AUTOMATION NAME:	AI Powered Course Generator
INDUSTRY:	Education
WORKFLOW:	Generate python, SQL, Java, HTML, CSS and js courses.
PROBLEM STATEMENT:	The problem this project addresses is the time-consuming and often difficult process of creating comprehensive educational materials for programming courses. Developing a structured curriculum, writing detailed explanations for each topic, creating relevant code examples, and formatting it all into a usable format is a significant undertaking for educators and content creators.
SOLUTION:	The solution is an AI-Powered Course Generator, a web application built with Streamlit that automates the creation of programming courses. A user can select a topic like Python, SQL, or JavaScript, and the application will use AI to generate a complete course outline. The application then allows the user to generate detailed content for each section of the outline, including introductions, key takeaways, and sub-topics with in-depth explanations and code examples. The generated content can also be downloaded as a PDF, providing a portable and easy-to-use learning resource. This is all orchestrated by assistants powered by the Groq API, which handle the curriculum planning and content writing.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	PPTx SlideGenerator
INDUSTRY:	Content Creation
WORKFLOW:	Input will be a Pdf and the output got to be PPTx templates.
PROBLEM STATEMENT:	The problem this project addresses is the significant amount of time and effort required to create visually appealing and well-structured presentations. Professionals and students alike often spend hours not only on researching and organizing their content, but also on designing the layout and aesthetics of their slides, a process that can be both tedious and challenging, especially for those without a strong design background.
SOLUTION:	The solution is an AI-Powered Slide Generator Pro, a web application that automates the entire presentation creation process, from content generation to design. A user can provide content in various ways—by entering a topic, pasting text, or uploading a PDF or DOCX file—and the application will use a large language model to generate a detailed slide structure with a title, subtitle, and a minimum of five content slides, each with a maximum of five bullet points. The user can then choose from a variety of professionally designed templates, and the application will automatically create a polished PowerPoint presentation with the generated content and the selected theme, which can then be downloaded and used immediately.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	Symptom Checker Agent
INDUSTRY:	Healthcare & Medical
WORKFLOW:	Patient enters symptoms → agent asks clarifying questions → generates report → optional doctor escalation.
PROBLEM STATEMENT:	Many individuals struggle to understand their health symptoms and often resort to unreliable online searches, leading to anxiety and misinterpretation of medical information. This can result in delayed proper medical consultation or unnecessary panic.
SOLUTION:	An AI-powered Symptom Checker Agent provides a conversational interface for users to describe their symptoms. The agent uses natural language processing to understand the user's input and a vast medical knowledge base to identify potential conditions, offering information on severity and when to seek professional medical help
DEVELOPED BY:	Ms. Priscilla Gragoria E

AUTOMATION NAME:	Medical Literature Finder
INDUSTRY:	Healthcare & Medical
WORKFLOW:	Input: condition / treatment → agent fetches latest studies → outputs plain-language summary
PROBLEM STATEMENT:	The fundamental problem is information overload in the medical field. Researchers, doctors, and students are faced with a massive and constantly growing number of research articles on platforms like PubMed, making it incredibly difficult and time-consuming to stay current with the latest findings, even in a specialized area.
SOLUTION:	The solution is a web application named "MEDITRON AI Research Assistant," built with Python and Streamlit, designed to tackle the overwhelming volume of medical research. It works by first taking a medical topic from the user through its web interface. The application then automatically queries the PubMed database to find relevant research articles and retrieves their abstracts. These collected abstracts are then sent to the Groq API, which uses a powerful language model to analyze and synthesize the information. Finally, the system generates and displays a clear, structured summary that includes an overall finding, key bullet points, and a conclusion, allowing the user to quickly understand the core insights from multiple papers without the need to read them all individually.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	AI Tutor
INDUSTRY:	Education
WORKFLOW:	Students ask questions → agent explains at different levels (beginner, advanced) → provides quizzes.
PROBLEM STATEMENT:	Students often struggle to get clear, personalized explanations when learning new concepts. Traditional tutoring is expensive, time-bound, and not always available when students need help. Many learners also prefer different explanation styles—some want simple beginner-friendly answers, while others prefer deeper, advanced-level explanations. There is a need for an on-demand, affordable, and adaptable educational helper that can provide instant support, maintain conversation flow, and explain concepts at the right level of difficulty.
SOLUTION:	This project offers an AI-powered Tutor Chatbot that provides personalized learning support anytime and anywhere. The chatbot adapts its explanations based on the user's chosen learning level (beginner or advanced), remembers the conversation for follow-up questions, and delivers clear, well-formatted answers through a simple web interface. By integrating AI (GPT-4), contextual conversation management, and a user-friendly frontend, the system becomes an accessible and reliable digital tutor that supports students effectively without the limitations of traditional tutoring.
DEVELOPED BY:	Ms. Nivetha Soumiananthan

AUTOMATION NAME:	Exam Question Generator
INDUSTRY:	Education
WORKFLOW:	Input: topic → agent generates practice MCQs, short answers + answer key.
PROBLEM STATEMENT:	Teachers spend hours creating unique exam questions and then must manually check and grade every student's answer, which is time-consuming and inconsistent.
SOLUTION:	Automatically creates fresh exam questions for different students and evaluates their answers instantly, providing grades and feedback so teachers can focus on teaching instead of paperwork
DEVELOPED BY:	Ms. Dhivya Dharini P

AUTOMATION NAME:	Code Explainer / Reviewer
INDUSTRY:	Software Development
WORKFLOW:	Paste code → agent explains logic, detects anti-patterns, suggests improvements.
PROBLEM STATEMENT:	Many programmers, especially beginners and even experienced developers, often struggle to understand complex code or identify areas for improvement. This can lead to inefficient coding, bugs, and slower development cycles because reviewing and explaining code manually takes significant time and expertise.
SOLUTION:	The Code Explainer/Reviewer project creates an intelligent assistant that automatically explains code logic in simple terms, identifies problematic patterns, and suggests improvements. This helps developers understand their code better, write cleaner code faster, and reduce errors without needing constant help from others.
DEVELOPED BY:	Ms. Mogeshwari T

AUTOMATION NAME:	FAQ Bot
INDUSTRY:	Documentation & Knowledge Management
WORKFLOW:	Agent trained on company docs → answers customer queries in chat / email.
PROBLEM STATEMENT:	Customer support teams spend 60-70% of their time answering repetitive FAQs about shipping, returns, account management, and product features, leading to burnout, high operational costs, and customer frustration with wait times averaging 5-15 minutes during peak hours. Customers abandon purchases or churn due to inability to get instant answers outside business hours (40% of inquiries occur after 5 PM), while companies struggle to scale support teams proportionally with growth. Static FAQ pages force customers to search through lengthy documents, resulting in 65% abandonment rates, while human agents provide inconsistent answers depending on experience and knowledge gaps.
SOLUTION:	A RAG-powered FAQ chatbot that stores all FAQ documents, policies, and help articles in a vector database and instantly retrieves accurate, contextual answers to customer questions 24/7 in natural language, reducing support ticket volume by 50-70% and response times from minutes to seconds. The system handles unlimited concurrent conversations, provides consistent accurate answers with source citations for verification, supports multiple languages for global customers, and delivers immediate assistance that increases customer satisfaction by 35% while reducing support costs by 30-40% through automated resolution of routine inquiries.
DEVELOPED BY:	Mr. Parthasarathy G

AUTOMATION NAME:	Job Application Assistant
INDUSTRY:	Human Resources & Recruitment
WORKFLOW:	Upload resume + JD → agent tailors resume, drafts cover letter, and suggests interview prep questions.
PROBLEM STATEMENT:	The problem this project addresses is the significant time and effort job seekers spend on tailoring their applications for each position. Crafting a customized resume and cover letter that aligns with the specific requirements of a job description, as well as preparing for potential interview questions, is a repetitive and often challenging task that can be a major bottleneck in the job search process.
SOLUTION:	The solution is an AI-Powered Career Assistant, a web application that automates and streamlines the job application process. A user can upload their resume and paste a job description, and the application will use a large language model to perform several key tasks: first, it can analyze the resume and job description to provide suggestions on how to tailor the resume to better match the role; second, it can automatically draft a compelling cover letter based on the user's experience and the job requirements; and third, it can generate a list of potential interview questions based on the job description, helping the user to prepare effectively. This all-in-one tool, built with Streamlit and powered by the Groq API, aims to save job seekers time and improve the quality of their applications.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	Data-to-Insights Analyst
INDUSTRY:	Data Analysis & Business Intelligence
WORKFLOW:	Upload Excel/CSV → agent cleans data, runs analysis, and outputs charts + recommendations
PROBLEM STATEMENT:	Business data sits scattered in spreadsheets with duplicates and messy information, making it impossible to find meaningful patterns quickly.
SOLUTION:	Cleans up messy data, removes duplicates, and organizes information into clear categories so businesses can make informed decisions faster.
DEVELOPED BY:	Ms. Dhivya Dharini P

AUTOMATION NAME:	Requirements.txt / Dependency Cleaner
INDUSTRY:	Software Development
WORKFLOW:	Agent scans project → identifies unused packages → generates cleaned file.
PROBLEM STATEMENT:	The problem this project addresses is the accumulation of unused dependencies in large Python projects, which can lead to bloated environments, longer installation times, and potential security vulnerabilities. As projects evolve, it is common for developers to add new libraries to the requirements.txt file but forget to remove them when they are no longer needed, making it difficult to maintain a clean and efficient codebase, especially in projects with complex or non-standard directory structures.
SOLUTION:	The solution is a Project Requirement Cleaner, a Streamlit web application that automates the process of identifying and removing unused dependencies from a Python project. A user can upload their project as a zip file, and the application will use the deptry tool to perform a static analysis of the codebase to find imported packages that are not listed in the requirements.txt file. The application then displays a list of these unused dependencies and provides a "cleaned" version of the requirements.txt file that the user can download. Additionally, it leverages a Groq large language model to provide an analysis of the unused dependencies, helping the user understand why a package might have been flagged as unused.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	Social Media Content Planner
INDUSTRY:	Business & Marketing
WORKFLOW:	Input: brand + campaign goals → agent generates weekly post ideas, captions, and hashtag sets.
PROBLEM STATEMENT:	Businesses and creators often struggle to produce consistent, creative, and platform-appropriate social media content. Coming up with post ideas, writing captions, choosing hashtags, and planning weekly content takes a lot of time and effort. Many people lack the resources or expertise to maintain a strong online presence, leading to irregular posting and lower audience engagement. There is a need for a tool that can simplify and automate content planning while still keeping it personalized and effective.
SOLUTION:	This project provides an AI-powered social media content planner that uses Google's Gemini AI to automatically generate creative post ideas, platform-specific captions, and optimized hashtags. The system allows users to plan weekly content for multiple social platforms, export their content plan in JSON format, and receive suggestions tailored to each brand and campaign. By automating the most time-consuming parts of content creation, the planner helps users maintain a consistent, engaging social media presence with minimal effort.
DEVELOPED BY:	Ms. Nivetha Soumiananthan

AUTOMATION NAME:	Citation Helper Agent
INDUSTRY:	Education
WORKFLOW:	Input: essay → agent finds supporting papers → generates citations in APA/MLA/Chicago.
PROBLEM STATEMENT:	Academic and professional writers often struggle to efficiently find relevant research papers and format citations properly for their essays or reports. Manual citation formatting is time-consuming and prone to errors, while searching for supporting sources can distract from the actual writing process. As a result, producing well-referenced documents takes considerable effort and risks inaccuracies.
SOLUTION:	The Citation Helper Agent automates the process of finding supporting research papers and generating correctly formatted citations in APA, MLA, or Chicago style. Simply provide an essay or topic, and the agent will locate relevant papers and deliver accurate citations ready for use. This saves time, reduces errors, and makes producing well-referenced documents much easier.
DEVELOPED BY:	Ms. Prathika M

AUTOMATION NAME:	Appointment Scheduling Assistant
INDUSTRY:	Healthcare & Medical
WORKFLOW:	Agent coordinates between patient's availability + clinic's calendar → confirms appointment + sends reminders.
PROBLEM STATEMENT:	The problem is that managing and scheduling appointments manually can be confusing and inefficient for both clinics and patients. People often face difficulties in booking, canceling, or rescheduling appointments and keeping track of available time slots.
SOLUTION:	The solution is an AI-powered appointment scheduling system that simplifies this process. It allows users to easily book, view, reschedule, or cancel their appointments through a chatbot interface. The system automatically manages available slots, sends SMS confirmations and reminders, and handles all scheduling tasks smoothly, making the experience hassle-free and convenient for everyone involved.
DEVELOPED BY:	Ms. Shreya S

AUTOMATION NAME:	HRMS Chatbot
INDUSTRY:	Human Resources & Recruitment
WORKFLOW:	User Query → Intent Detection → HR Knowledge Retrieval → LLM-Generated Answer → Response Delivered.
PROBLEM STATEMENT:	Employees often face delays in getting answers related to leave policies, salary slips, onboarding steps, attendance issues, and HR procedures. Traditional HR teams spend significant time answering repetitive queries. There is a need for an intelligent chatbot that provides instant, accurate, and 24/7 HR support. The goal is to reduce HR workload and improve employee experience.
SOLUTION:	The HRMS Chatbot uses LLMs and a company knowledge base to answer HR-related queries, generate responses for policy questions, assist with leave management, and help with onboarding processes. It retrieves accurate information from HR documents using RAG and responds conversationally. This ensures employees get quick support without waiting for HR intervention.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	Auto-Contract Review Bot
INDUSTRY:	Legal & Compliance
WORKFLOW:	Upload contract → agent highlights risks, generates summary, suggests edits.
PROBLEM STATEMENT:	Reviewing legal contracts manually is slow, complex, and often requires professional legal expertise. Many organizations and individuals struggle to understand lengthy legal documents, identify risky clauses, or spot hidden obligations. This leads to delays, errors, and potential legal or financial risks. There is a need for a faster, simpler, and more accessible way for both legal and non-legal users to analyze contract without relying entirely on manual review.
SOLUTION:	The Auto Contract Review Bot provides an AI-powered system that automatically reads uploaded contracts, summarizes key points, identifies risky or unclear clauses, and suggests safer alternatives. Using advanced language models and a user-friendly web interface, the bot offers instant, clear, and professional-quality contract analysis. This allows businesses, legal teams, and individuals to review documents efficiently, reduce risk, and make informed decisions—saving significant time and effort.
DEVELOPED BY:	Ms. Nivetha Soumiananthan

AUTOMATION NAME:	Market Research Assistant
INDUSTRY:	Business & Marketing
WORKFLOW:	Agent scrapes competitors' sites, summarizes trends, generates a weekly digest.
PROBLEM STATEMENT:	Businesses struggle to keep up with rapid market changes and competitor activities because information is scattered and time-consuming to analyze manually.
SOLUTION:	An automated Market Research Assistant that collects recent updates from companies, identifies key trends, and summarizes insights into easy-to-read digests—helping businesses make smarter, faster decisions.
DEVELOPED BY:	Ms. Shreya S

AUTOMATION NAME:	AI grading system
INDUSTRY:	Education
WORKFLOW:	Will grade the assignments, questions and answers and will also check whether there is any plagarism or the content is AI generated or not and also check for duplicates in the submissons.
PROBLEM STATEMENT:	Educators spend a substantial amount of time grading assignments, which can be a repetitive and subjective process. This reduces the time available for more impactful teaching activities and can lead to inconsistencies in grading.
SOLUTION:	An AI-powered Grading System automates the assessment of student work, from multiple-choice questions to complex essays. It provides instant and consistent feedback to students, while freeing up educators' time to focus on personalized instruction and curriculum development.
DEVELOPED BY:	Ms. Priscilla Gragoria E

AUTOMATION NAME:	Bug Triage Agent
INDUSTRY:	Software Development
WORKFLOW:	Input: GitHub/Jira issues → agent categorizes, prioritizes, and suggests fixes.
PROBLEM STATEMENT:	The problem this project addresses is the inefficient and manual process of triaging bug reports and other issues within a software project. When a new issue is created in a GitHub repository, a developer or project manager has to manually analyze it to determine its priority, categorize it, and create a clear, actionable title, which can be a time-consuming and inconsistent process, especially in large projects with many open issues.
SOLUTION:	The solution is an AI-Powered GitHub Bug Triage Agent, a web application that automates the analysis and triage of GitHub issues. After a user enters a public GitHub repository, the application fetches and displays all open and closed issues. When an issue is selected, an AI agent analyzes its title and body to generate a detailed report, including a suggested priority, a category (such as "Bug" or "Feature Request"), and a concise, actionable title. This allows teams to quickly understand the nature of each issue, prioritize their work more effectively, and streamline the entire bug triage workflow, with the application using libraries like PyGithub for GitHub integration and groq for the AI-powered analysis.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	Chatbot Simulation Evaluation
INDUSTRY:	Quality Assurance & Testing
WORKFLOW:	Simulate user interactions to evaluate chatbot performance, ensuring robustness and reliability in real-world scenarios.
PROBLEM STATEMENT:	With the growing use of chatbots in customer service and other applications, it becomes challenging to measure how well a chatbot performs in real interactions. Traditional evaluation methods may not fully capture the user experience or the chatbot's effectiveness in understanding and responding accurately.
SOLUTION:	The Chatbot Simulation Evaluation project provides a tool that simulates real conversations to assess how effectively a chatbot responds, learns, and engages with users. This helps developers identify strengths and weaknesses, improve the chatbot's performance, and ensure a better experience for end-users.
DEVELOPED BY:	Ms. Mogeshwari T

AUTOMATION NAME:	Plagiarism Detector
INDUSTRY:	Quality Assurance & Testing
WORKFLOW:	Input: Website/content directory → Agent scans for duplicate content, plagiarism, similar articles → Outputs content optimization recommendations with uniqueness scores
PROBLEM STATEMENT:	Academic institutions and content creators face the challenge of ensuring the originality of written work. Manually checking for plagiarism is a labor-intensive and often inaccurate process, putting academic integrity and intellectual property at risk.
SOLUTION:	An AI-powered Plagiarism Detector scans text and compares it against a massive database of online and academic sources. It uses sophisticated algorithms to identify copied content, paraphrased sections, and improper citations, providing a comprehensive originality report.
DEVELOPED BY:	Ms. Priscilla Gragoria E

AUTOMATION NAME:	AI Knowledge Orchestrator Agent (Developer Brain Extension)
INDUSTRY:	Documentation & Knowledge Management
WORKFLOW:	Moves beyond "Chatbot" → AI Research + Orchestration + Consensus for IT teams.
PROBLEM STATEMENT:	The problem this project addresses is the slow and inefficient process of resolving complex IT incidents within a development team. When a critical issue arises, such as a service outage or high latency, engineers often spend a significant amount of time manually gathering context from various sources, analyzing the root cause, and debating the best course of action, which can lead to extended downtime and a delayed resolution.
SOLUTION:	The solution is an AI Knowledge Orchestrator Agent that automates the entire incident response workflow, from analysis to action. This Streamlit web application takes a trigger, such as an alert or a ticket description, and automatically gathers context from knowledge bases and code repositories. It then uses a large language model, "DevBrain," to perform a root cause analysis and propose multiple, actionable solutions with pros, cons, and a confidence score. The team can then review these AI-generated solutions and, with a single click, execute the chosen action, such as triggering a GitHub workflow or creating a Jira sub-task, thereby streamlining consensus and accelerating the resolution of the incident.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	Intelligent Requirement Analyzer
INDUSTRY:	Software Development
WORKFLOW:	Converts vague client inputs and docs into clear, testable software specs by natural language understanding.
PROBLEM STATEMENT:	In software development, poorly defined or ambiguous requirements are a major cause of project failure and delays. Manually analyzing lengthy and complex requirement documents is prone to human error and can lead to misunderstandings between stakeholders and developers.
SOLUTION:	An Intelligent Requirement Analyzer uses natural language processing to automatically analyze requirement documents. It can identify ambiguities, inconsistencies, and missing information, ensuring that the requirements are clear, complete, and actionable for the development team**.**
DEVELOPED BY:	Ms. Priscilla Gragoria E

AUTOMATION NAME:	URL Crawler(Crunchbase + amazon)
INDUSTRY:	E-commerce & Product
WORKFLOW:	fetch the details like tech stacks,recent news. company in the cruchbase and give the best product recommedation in amazon .
PROBLEM STATEMENT:	Businesses and researchers need to extract vast amounts of information from the web for various purposes like market research, lead generation, and data analysis. Manually navigating and collecting this data is impractical and inefficient**.**
SOLUTION:	A URL Crawler, powered by AI, automates the process of systematically browsing the internet to collect specific data. It can be programmed to navigate websites, follow links, and extract relevant information, which is then structured for easy analysis and use.
DEVELOPED BY:	Ms. Priscilla Gragoria E

AUTOMATION NAME:	Job Poster Generator
INDUSTRY:	Business & Marketing
WORKFLOW:	JD will be the input and the output got to be a picture or post for linkedin.
PROBLEM STATEMENT:	Creating attractive and professional job posts for platforms like LinkedIn can be time-consuming and requires design skills that many recruiters or small businesses may lack. This slows down the hiring process and may result in less engaging job advertisements.
SOLUTION:	The Job Poster Generator project takes a plain job description (JD) as input and automatically generates a visually appealing job poster or LinkedIn post image. This simplifies and speeds up the creation of professional job advertisements, helping recruiters attract better candidates more efficiently.
DEVELOPED BY:	Ms. Nivetha Soumiananthan & Ms. Mogeswari T

AUTOMATION NAME:	PR reviewer
INDUSTRY:	Software Development
WORKFLOW:	Developer → Creates PR → GitHub Webhook → Your AI Agent → Analysis → Sends to Reviewer → Reviewer Decides → Developer Gets
PROBLEM STATEMENT:	Manual code reviews are time-consuming, inconsistent, and prone to human error, especially in large software projects with frequent updates.
SOLUTION:	This project automates the code review process using AI and static analysis tools to detect security issues, style violations, and logical errors, providing instant, consistent feedback through an interactive dashboard.
DEVELOPED BY:	Ms. Dhivya Dharini P

AUTOMATION NAME:	Resume to Portfolio Agent
INDUSTRY:	Human Resource and Recruitment
WORKFLOW:	Input: candidate resume → generates personal portfolio webpage using extracted projects, skills, and summaries → outputs deployable HTML/any UI site.
PROBLEM STATEMENT:	Job seekers and professionals often find it difficult to create a professional online portfolio that effectively showcases their skills, projects, and achievements from their resume. Building such a site from scratch requires technical skills, time, and design knowledge, which many people lack. This can result in missed opportunities and a weaker online presence.
SOLUTION:	The Resume to Portfolio Agent simplifies this process by automatically generating a personal portfolio webpage from a candidate's resume. It extracts key information such as projects, skills, and experience summaries, and transforms them into a visually appealing, ready-to-deploy website. Users receive a professional online presence without needing design or coding expertise, making it easier to stand out and share their qualifications with potential employers.
DEVELOPED BY:	Ms. Shreya S & Ms. Prathika M

AUTOMATION NAME:	Product Review Analyzer
INDUSTRY:	E-commerce & Product
WORKFLOW:	Input: Amazon or Flipkart reviews → sentiment engine classifies issues and highlights product strengths/weaknesses → outputs actionable insights for brands.
PROBLEM STATEMENT:	Businesses need to understand customer feedback from a vast number of online reviews to improve their products and services. Manually reading and analyzing thousands of reviews is an overwhelming and time-consuming task.
SOLUTION:	A Product Review Analyzer employs natural language processing to automatically analyze customer reviews and extract valuable insights. It can identify sentiment (positive, negative, neutral), key topics of discussion, and emerging trends, providing businesses with actionable intelligence to make data-driven decisions.
DEVELOPED BY:	Ms. Priscilla Gragoria E

AUTOMATION NAME:	Facial Detection
INDUSTRY:	Safety and Compliance
WORKFLOW:	Input (Camera/RTSP) → Load Image→ extracts and save as pickle(embeddings)-->detect the face.
PROBLEM STATEMENT:	Traditional methods of identification, such as ID cards or passwords, can be lost, stolen, or forgotten, posing security risks. A more secure and seamless method of identity verification is needed for various applications, from accessing personal devices to law enforcement.
SOLUTION:	Facial Recognition technology uses AI algorithms to identify and verify individuals by analyzing their unique facial features from images or videos. This provides a secure and touchless method for authentication and identification in real-world scenarios like unlocking phones, border control, and identifying suspects.
DEVELOPED BY:	Ms. Priscilla Gragoria E

AUTOMATION NAME:	Food Pic Calorie Classifiers
INDUSTRY:	Healthcare and Medical
WORKFLOW:	Upload Image--> VLM (Image Processing)-->Ingredient Parsing---->USDA API (Fetch nutrition per item) ---->Calories & Nutrition Calculation (Scale per portion) --- >Table Breakdown
PROBLEM STATEMENT:	Tracking food calories requires manually searching databases or reading labels, which is tedious and discourages healthy eating habits.
SOLUTION:	Simply take a photo of your food, and it estimates the calorie content instantly, making healthy eating tracking effortless and accurate.
DEVELOPED BY:	Ms. Dhivya Dharini P

AUTOMATION NAME:	English Video to multiple language translator
INDUSTRY:	Content Creation
WORKFLOW:	Input video and language Selected -> audio separation -> transcription ->translation ->new audio generation->stretching-audio>caption generation -> merging video, audio, caption ->output video.
PROBLEM STATEMENT:	Professionally translating video content is prohibitively expensive and slow. The process traditionally requires a team of human experts—a translator, a voice-over artist, and a video editor—to manually transcribe, translate, and re-record the audio. The most significant technical challenge, where simple automation fails, is synchronization. A script translated from one language to another will have a different spoken duration. If this new, shorter (or longer) audio is simply placed over the original video, it immediately becomes unsynchronized. The new audio will not match the speaker's timing, and any new subtitles will be out of sync, resulting in a confusing and unprofessional final product that is unusable for a global audience.
SOLUTION:	Our app is a "smart" video translator. You just upload your video and pick a language The app sends the job to our powerful specialist translator server. The app then automatically creates the new audio, stretches it to perfectly match your video's exact length, and creates new subtitles that are perfectly synced to that new audio. Finally, it bundles everything together and gives you back a single, professional video with the new audio and subtitles.
DEVELOPED BY:	Mr. Kathiravan M & Mr. Pio Godwin

AUTOMATION NAME:	Company ChatBOT
INDUSTRY:	Documentation & Knowledge Management
WORKFLOW:	Ingest every company document in Rag and can answer and direct to the URL of a particular page.
PROBLEM STATEMENT:	Employees waste 20-30% of their workday searching for information across scattered company documents (policies, procedures, wikis, manuals). New hires spend 4-6 weeks ramping up due to fragmented knowledge. Support teams give inconsistent answers because they can't quickly find accurate information. Companies lose $5,000-$15,000 per employee annually in productivity due to information retrieval inefficiency.
SOLUTION:	A RAG-powered chatbot that ingests all company documents, understands natural language questions, retrieves relevant information using vector search, and generates accurate answers grounded in company-specific documents with source citations. It prevents AI hallucinations, provides up-to-date responses, reduces support burden by 60-80%, and cuts employee search time from hours to seconds.
DEVELOPED BY:	Mr. Kathiravan M

AUTOMATION NAME:	Workshop Event Planner
INDUSTRY:	Event Management
WORKFLOW:	collect details --> work split up ---> complete plan and schedule --> poster generation(optional)---->wait for management approval---> send e-certificate for participators
PROBLEM STATEMENT:	Organizing workshops involves coordinating multiple teams—decoration, reception, mentors—creating detailed schedules with breaks, designing promotional posters, and manually distributing certificates after the event. Event coordinators struggle with scattered spreadsheets, conflicting assignments, and scheduling chaos. Post-event, manually creating and emailing certificates to hundreds of participants adds days of tedious work, delaying recognition and exhausting already-stretched teams.
SOLUTION:	This Workshop Event Planner automates the entire event lifecycle from planning to post-event recognition. Coordinators input event details and team information, and the system intelligently assigns teams to decoration, reception, and mentor roles, generates a complete schedule with sessions and breaks, and optionally creates promotional posters with event details. After the event, it automatically generates personalized certificates and sends them directly to all participants' emails in bulk. What once took days of manual coordination, meetings, and post-event certificate processing now completes in minutes—delivering structured team assignments, optimized schedules, promotional materials, and instant participant recognition.
DEVELOPED BY:	Mr. Meganathan V

AUTOMATION NAME:	Vendor Staffing Email Automation
INDUSTRY:	Human Resources & Recruitment
WORKFLOW:	Role/Task Input → Email Template/LLM Generation → Vendor Selection → Automated Sending → Status Tracking.
PROBLEM STATEMENT:	Organisations often need to send repetitive emails to multiple staffing vendors for role openings, candidate follow-ups, profile requests, and status updates. Manually drafting and sending these emails is time-consuming and inconsistent. A system is needed to automate vendor communication, reduce HR workload, and ensure timely, standardised outreach.
SOLUTION:	The Vendor Staffing Email Automation system uses templates, LLM-powered message generation, and scheduling to automatically create and send professional emails to vendors. It personalizes messages based on job requirements, deadlines, and vendor history. This ensures faster communication, improved coordination, and reduced manual effort.
DEVELOPED BY:	Ms. Nithisha Starlin

AUTOMATION NAME:	Job Apply
INDUSTRY:	Human Resources & Recruitment
WORKFLOW:	Job Link/Input → Requirement Extraction → Resume/Cover Letter Generation → Auto-Fill & Apply → Submission Confirmation.
PROBLEM STATEMENT:	Job seekers often spend hours manually filling applications across multiple job portals, customizing resumes, and writing cover letters. This repetitive process reduces productivity and slows down job searching. There is a need for a system that automates job applications, ensuring faster, consistent, and personalized submissions with minimal effort.
SOLUTION:	The Job Apply Automation system uses AI to scan job postings, extract requirements, auto-fill forms, and generate tailored resumes and cover letters. It matches the user's skills with job descriptions and submits applications automatically or with approval. This streamlines the job-search process and increases application efficiency.
DEVELOPED BY:	AI Team

AUTOMATION NAME:	ATS
INDUSTRY:	Human Resources & Recruitment
WORKFLOW:	Workflow Resume Upload → Parsing & Skill Extraction → JD Matching → Candidate Scoring → Shortlist Output.
PROBLEM STATEMENT:	Recruiters receive hundreds of resumes for each job opening, making manual screening slow and error-prone. Identifying the right candidates based on skills, experience, and job fit becomes challenging. An Applicant Tracking System (ATS) is required to automate resume filtering, rank candidates, and streamline the hiring process efficiently.
SOLUTION:	The ATS uses AI to parse resumes, extract key skills, match profiles against job descriptions, and score candidates based on relevance. It organizes applications, tracks candidate progress, and provides recruiters with prioritized shortlists. This improves hiring speed, accuracy, and overall recruitment quality.
DEVELOPED BY:	AI Team

AUTOMATION NAME:	LinkedIn Connections
INDUSTRY:	Business & Marketing
WORKFLOW:	Target Criteria Input → Profile Search → AI Message Generation → Auto Send Requests → Connection Tracking.
PROBLEM STATEMENT:	Growing professional networks on LinkedIn manually is slow and time-consuming. Users must search profiles, personalize connection notes, and track who accepted or ignored requests. This makes consistent networking difficult. A system is needed to automate targeted connection building while maintaining personalization.
SOLUTION:	The LinkedIn Connections Automation system uses AI to identify relevant profiles based on job role, skills, industry, or keywords. It generates personalized connection messages, sends requests automatically, and tracks acceptance rates. This helps users grow their professional network faster and more effectively with minimal manual effort.
DEVELOPED BY:	AI Team

AUTOMATION NAME:	LinkedIn Service Request
INDUSTRY:	Business & Marketing
WORKFLOW:	System uses LinkedIn filters to identify target prospects matching criteria → AI generates personalized connection request message referencing their profile/interests → Automatically sends request with custom note → Tracks acceptance/rejection → Triggers follow-up message sequence after connection accepted → Logs all interactions in CRM → Provides analytics on acceptance rates and campaign performance.
PROBLEM STATEMENT:	Business development professionals waste 4-6 hours weekly manually searching for relevant LinkedIn prospects, sending personalized connection requests, and following up—limiting network growth to 10-15 connections daily while generic, impersonal messages result in 5-10% acceptance rates and missed opportunities to engage like-minded professionals who could benefit from their services.
SOLUTION:	An AI-powered LinkedIn automation tool that identifies like-minded professionals matching target criteria (industry, role, location, interests), crafts personalized service request messages mentioning shared connections or common ground, automatically sends connection requests with tailored notes, and follows up strategically—scaling outreach to 20-30 daily requests while maintaining 15-25% acceptance rates through authentic personalization and increasing qualified leads by 5x without manual effort.
DEVELOPED BY:	Ms. Nithisha Starlin

AUTOMATION NAME:	Edu Bot
INDUSTRY:	Education
WORKFLOW:	Student asks a question → AI Tutor analyzes the query → Provides an immediate, personalized explanation or resource → Student receives guidance to continue learning effectively
PROBLEM STATEMENT:	Students often face difficulties in accessing timely, personalized help and explanations for their questions, which hampers their learning progress and engagement in educational content.
SOLUTION:	The AI Tutor provides an intelligent system that answers student questions in real-time, supports personalized learning by recommending relevant resources and pathways, and assists with understanding course material effectively.
DEVELOPED BY:	Mr. Parthasarathy G

AUTOMATION NAME:	CV Analyzer
INDUSTRY:	Human Resources & Recruitment
WORKFLOW:	Analyzes CVs based on job descriptions.
PROBLEM STATEMENT:	Recruiters waste countless hours manually reviewing hundreds of CVs for each job opening, trying to identify candidates who match the requirements. This manual screening process is exhausting, inconsistent, and error-prone—qualified candidates slip through the cracks while mismatched ones get shortlisted. Job seekers apply blindly without knowing if their CV aligns with the role, leading to wasted effort and missed opportunities on both sides.
SOLUTION:	This CV Analysis Tool automatically evaluates how well a candidate's CV matches a specific job description in seconds. Users upload a CV and job description, and the system analyzes skills, experience, keywords, and qualifications to generate a detailed match score and gap analysis. It highlights matched qualifications, identifies missing skills, and provides actionable feedback. Recruiters get instant, objective candidate screening—replacing days of manual review with automated analysis that surfaces the best-fit candidates immediately. Job seekers gain clarity on whether their profile fits a role before applying. What once took hours now completes in seconds, delivering fast, accurate, data-driven hiring decisions for both recruiters and candidates.
DEVELOPED BY:	AI Team

AUTOMATION NAME:	Email (Gmail) Summarization
INDUSTRY:	Communication & Email Management
WORKFLOW:	Email Fetch → AI Content Extraction → Summary Generation → Key Points Output.
PROBLEM STATEMENT:	Users receive dozens of emails daily, making it difficult to quickly understand important information buried inside long threads. Manually reading and sorting emails consumes time and reduces productivity. A solution is needed to automatically summarize Gmail messages and highlight key points for fast decision-making.
SOLUTION:	The Gmail Summarization system connects to the user's inbox, retrieves emails, and uses AI to generate short summaries, extract action items, and categorize messages. It highlights important deadlines, tasks, and updates, helping users manage emails more efficiently and stay organized.
DEVELOPED BY:	Mr. Saran Menon

AUTOMATION NAME:	Blog Creation
INDUSTRY:	Content Creation
WORKFLOW:	Creates blogs on trending topics.
PROBLEM STATEMENT:	People who want to run a successful technology blog often struggle with keeping up to date on the latest topics, researching new trends, writing posts every day, and creating eye-catching articles with images. This whole process takes a lot of time and often requires technical expertise, which many bloggers or content creators may not have. As a result, their blogs can feel outdated and less interesting, which makes it hard to attract and keep readers.
SOLUTION:	This project provides an all-in-one automated solution that handles the entire blog creation process. It uses artificial intelligence to automatically find trending technology topics, produce high-quality blog articles, and even generate relevant images for each post. The finished content is packaged in a ready-to-use format, so anyone—regardless of technical skill—can post fresh, appealing articles every day on their blog with almost no effort.
DEVELOPED BY:	Mr. Saran Menon

AUTOMATION NAME:	Image Generation
INDUSTRY:	Content Creation
WORKFLOW:	Generates images based on a given topic.
PROBLEM STATEMENT:	Many people find it overwhelming to keep their blogs, websites, or reports up to date with new trends and visual content because it requires constant research, writing, and image creation across multiple sources and formats. For non-technical users, switching between tools, gathering information, and presenting it clearly can be time-consuming and difficult, often resulting in outdated or less attractive content.
SOLUTION:	This project solves the problem by providing an all-in-one automated system that finds trending topics, creates high-quality text and images with the help of artificial intelligence, and combines everything into ready-to-use documents. With features like daily topic updates, automatic news summaries, AI-generated articles and visuals, simple graphical interfaces, and thorough progress tracking, users can effortlessly produce engaging, current content for their work—with minimal effort or technical skill required.
DEVELOPED BY:	Mr. Saran Menon

AUTOMATION NAME:	PPT Generation
INDUSTRY:	Content Creation
WORKFLOW:	Creates PowerPoint presentations based on a given topic.
PROBLEM STATEMENT:	People who create content such as blogs, news reports, and presentations face many challenges. They must constantly find new, relevant topics, write clear and engaging articles, create appealing images, and put everything together into polished documents or slideshows. Doing all this manually is time-consuming, requires different tools and skills, and can be overwhelming, especially for those without technical expertise or a big team.
SOLUTION:	This project automates the whole content creation process by using artificial intelligence and smart tools working together. The system automatically finds trending technology topics, generates informative and well-structured blog posts, creates matching images, summarizes current news, and prepares professional PowerPoint presentations. All these components are combined into a single streamlined workflow that requires minimal user input—a topic or a simple command—and delivers ready-to-use content with text, visuals, and slides that anyone can share or publish.
DEVELOPED BY:	Mr. Saran Menon

AUTOMATION NAME:	Voice Buddy
INDUSTRY:	Personal Productivity
WORKFLOW:	Acts as a voice assistant, similar to Alexa.
PROBLEM STATEMENT:	Many people want a simple way to get quick answers or updates using their voice, such as asking for information on various topics or checking the weather. However, interacting with voice assistants can be frustrating because they often misunderstand what is said or fail to give clear, immediate answers. Non-expert users need more reliable and easy-to-use voice-controlled helpers to meet their daily information needs.
SOLUTION:	These files create a voice assistant that listens to spoken questions, understands requests for information or weather updates, and responds verbally with clear answers. The assistant uses artificial intelligence to fetch facts from Wikipedia and current weather data from trusted sources, delivering real-time spoken information that makes getting answers easy and natural for users, even if they aren't tech-savvy
DEVELOPED BY:	Mr. Saran Menon

AUTOMATION NAME:	Reimbursement bill
INDUSTRY:	Enterprise Tools
WORKFLOW:	Upload bill images to folder → OCR extracts data (date, amount, vendor, category) → AI maps to correct columns → Auto-updates Excel reimbursement sheet.
PROBLEM STATEMENT:	Office expense reimbursement is tedious and error-prone. Employees manually collect receipts and fill forms, while finance teams spend hours verifying bills and entering data into Excel line by line. Manual processing costs $12-$30 per invoice, takes 15-30 minutes each, and has a 1-3% error rate, leading to delayed reimbursements and frustrated employees
SOLUTION:	Office expense reimbursement is tedious and error-prone. Employees manually collect receipts and fill forms, while finance teams spend hours verifying bills and entering data into Excel line by line. Manual processing costs $12-$30 per invoice, takes 15-30 minutes each, and has a 1-3% error rate, leading to delayed reimbursements and frustrated employees
DEVELOPED BY:	Mr. Saran Menon

AUTOMATION NAME:	Daily Update Automation
INDUSTRY:	Enterprise Tools
WORKFLOW:	Employee submits completed tasks via simple form/interface → System automatically logs entry with timestamp → Data syncs to Worklogic in real-time → Updates centralized manager dashboard instantly → Generates consolidated daily reports → Sends summary notifications to managers → Stores all updates for historical tracking and analytics.
PROBLEM STATEMENT:	Employees waste time every evening manually reporting daily tasks through emails or spreadsheets, leading to inconsistent submissions and forgotten updates. Managers struggle to track team progress across fragmented reports, creating documentation gaps and frustration on both sides.
SOLUTION:	This Daily Updates Automation system eliminates manual reporting. Employees submit completed tasks through a simple interface, and the system automatically updates Worklogic in real-time. Managers gain instant visibility through centralized dashboards without chasing updates. The automation saves up to 40% of reporting time, reduces human error, and ensures consistent documentation. What once took 15+ minutes daily now completes in seconds.
DEVELOPED BY:	Ms. Nithisha Starlin

AUTOMATION NAME:	Teams online timeline
INDUSTRY:	Enterprise Tools
WORKFLOW:	System tracks employee online hours across platforms → Calculates total active time daily → Sends automated summary message to each employee at end of day → Stores data for payroll/reporting → Alerts managers of threshold breaches.
PROBLEM STATEMENT:	Manual time tracking wastes 15-30 minutes daily per employee, causes inaccurate timesheets costing 10-20% revenue loss, and prevents managers from seeing workload patterns or burnout risks in real-time.
SOLUTION:	Automated system monitors employee online status, calculates work hours, and sends daily summaries—eliminating 90% of manual tracking effort, ensuring 100% timesheet accuracy, and providing real-time visibility into team productivity and workload balance.
DEVELOPED BY:	Ms. Nithisha Starlin

AUTOMATION NAME:	AI Trip Planner
INDUSTRY:	Personal Productivity
WORKFLOW:	Input: destination, dates, interests → agent generates itinerary + books attractions.
PROBLEM STATEMENT:	Planning a trip requires hours of research across multiple platforms—comparing flights, accommodations, activities, and costs while ensuring everything fits within budget and aligns with personal interests. This fragmented, manual process is overwhelming, time-consuming, and often results in overspending or poorly structured itineraries. For travelers, what should be exciting becomes an exhausting chore.
SOLUTION:	This AI Trip Planner automates the entire planning process. Users input their departure city, destination, travel dates, number of travelers, budget, and interests. The AI instantly generates a personalized day-by-day itinerary, recommends budget-optimized travel and accommodation options, and structures the complete trip with activities and costs—all within the specified budget. The comprehensive plan is automatically formatted into a professional PDF and sent directly to the user's email. What once took days of research now completes in minutes, delivering a stress-free, budget-conscious travel plan ready for booking.
DEVELOPED BY:	Mr. Meganathan V

AUTOMATION NAME:	Social Media Post
INDUSTRY:	Content Creation
WORKFLOW:	Automates content posting across social media platforms
PROBLEM STATEMENT:	Professionals struggle to maintain presence across multiple social media platforms (LinkedIn, Twitter, Instagram, Facebook) while staying current in their fields. Managing each platform separately consumes 6-10 hours weekly per platform, leading to burnout, inconsistent posting, and missed opportunities.
SOLUTION:	This Social Media Post Automation system scrapes industry-specific updates, curates content, and automatically posts platform-tailored content across all social networks from one centralized system. Automation saves up to 70% of time (30-40 hours monthly) while delivering 20-30% higher engagement per post. What once required 40+ hours monthly now runs automatically 24/7 with zero manual effort.
DEVELOPED BY:	Ms. Lakshana L

AUTOMATION NAME:	Face Anti-spoofing Detection System
INDUSTRY:	Safety and Compliance
WORKFLOW:	Webcam → Captures face frames (Real-time feed) →Feature Extraction (RetinaFace) →CNN Model (MobileNetV2) → Trained on Custom Dataset (Real vs. Spoof) →Model Classifies Faces → Displays "REAL" or "FAKE" on Webcam Feed.
PROBLEM STATEMENT:	Facial recognition systems are vulnerable to presentation attacks where unauthorized users deceive authentication using printed photos, video replays, 3D masks, or deepfake videos of legitimate users. These spoofing attacks pose critical security threats to banking apps, border control, mobile unlocking, and access control systems, with 60-80% of face recognition systems susceptible to basic photo attacks. Current biometric authentication cannot differentiate between a real person and a fake representation, leading to unauthorized access, identity theft, financial fraud, and security breaches. The global biometric security market loses billions annually to spoofing attacks, while organizations struggle to balance security with user convenience.
SOLUTION:	A Face Anti-Spoofing Detection System using deep learning that analyzes live camera feeds to distinguish real faces from fake representations through multiple detection methods: liveness detection, depth sensing, texture analysis (examines skin texture patterns impossible to replicate in photos/videos), image quality assessment (identifies artifacts from printed materials, screen glare, or resolution mismatches), and multi-modal verification (combines visual, infrared, and motion data). The system provides real-time spoofing detection with 95-99% accuracy, preventing unauthorized access while maintaining seamless user experience for legitimate users.
DEVELOPED BY:	Mr. Kathiravan M

AUTOMATION NAME:	Prompt Refining Agent
INDUSTRY:	Content Creation
WORKFLOW:	Raw Prompt Input --->Prompt Understanding --->Prompt Refinement via LLM --->Refined Prompt Output --->User Utilizes Refined Prompt.
PROBLEM STATEMENT:	Creating effective prompts for AI models can be challenging, especially for users who are not experts in prompt engineering. Poorly designed prompts can lead to inaccurate or irrelevant responses, wasting time and reducing the usefulness of AI applications.
SOLUTION:	The Prompt Refining Agent project offers an intelligent assistant that helps users improve their AI prompts by automatically enhancing clarity, context, and specificity. This results in better AI responses, saving time and improving the overall effectiveness of AI-powered tools.
DEVELOPED BY:	Ms. Mogeswari T

AUTOMATION NAME:	AI Educational Companion
INDUSTRY:	Education
WORKFLOW:	User Setup → Confirm → Listen/Speak → Speech-to-Text → On-Topic Check → AI Response → Text-to-Speech → Play/Show → (Loop) → End.
PROBLEM STATEMENT:	Many learners find it challenging to stay motivated, focused, and receive personalized guidance while studying. Traditional educational resources may not adapt to individual learning styles or provide interactive support tailored to the learner's pace and preferences.
SOLUTION:	The AI Educational Companion project provides a smart virtual tutor that offers personalized teaching sessions based on the learner's chosen subject and style. It engages users with a configurable voice tone and teaching approach, making learning more effective, enjoyable, and adaptable to individual needs.
DEVELOPED BY:	Ms. Mogeshwari T

AUTOMATION NAME:	Email Automation and Certificate generator
INDUSTRY:	Communication and Email Management
WORKFLOW:	upload partcipation csv & certificate ---> provide the cordinates for names & dates ----> generate mail automatically to particpates(using smtp app password).
PROBLEM STATEMENT:	Manually creating and distributing certificates after events is time-consuming and error-prone. Organizers must individually insert participant names and dates into templates, export files, and send personalized emails one by one. For large-scale events with hundreds of participants, this process takes days, causes errors, and delays recognition—turning a simple task into an administrative nightmare.
SOLUTION:	This Email Automation and Certificate Generator automates the entire workflow. Users upload a certificate template, set coordinates for name and date fields, and provide a CSV file with participant details and an email template. With one click, the system generates personalized certificates, places names and dates at the specified coordinates, and sends bulk emails automatically. What once took days now completes in minutes—delivering instant, error-free certificate distribution at scale.
DEVELOPED BY:	Mr. Meganathan V

AUTOMATION NAME:	AI-Powered Medical History Analyzer
INDUSTRY:	Healthcare & Medical
WORKFLOW:	User Uploads Files (PDFs, Images) -> System Extracts Text (using OCR for images) -> All Text is Combined -> AI Analyzes Text (with Groq LLM) -> Structured Summary is Generated -> Report is Displayed to User
PROBLEM STATEMENT:	Doctors and nurses often receive a patient's medical history as a messy collection of different documents, including digital files, scanned pages, and even photos of paperwork. To understand the patient's needs, they must manually read through every single page to find critical details like allergies, past surgeries, or current medications. This process is incredibly time-consuming and stressful, especially in an emergency. More importantly, it carries the risk that a crucial piece of information, buried deep within the files, could be missed, potentially leading to dangerous medical errors and compromising patient safety.
SOLUTION:	Our project provides a smart assistant that completely automates this task. A medical professional can simply upload all the patient's files—regardless of format—into our tool. The system instantly reads the text from every document, even from blurry scans or images. Then, a powerful artificial intelligence analyzes all the information, understanding the medical language to identify and pull out the most important points. In seconds, it produces a single, organized summary that clearly lists the patient's allergies, medications, diagnoses, and past procedures, allowing healthcare providers to get a complete picture instantly. This saves precious time, reduces the risk of human error, and allows medical staff to focus on what matters most: providing the best possible care to their patient.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	eDiscovery Document Analyzer
INDUSTRY:	Legal & Compliance
WORKFLOW:	Ingests case documents → Uses NLP to identify relevant evidence → Tags documents by relevance → Generates discovery timeline
PROBLEM STATEMENT:	Legal teams spend thousands of hours manually reviewing case documents to identify relevant evidence, leading to high costs ($400+ per hour), human error, and delayed justice. In complex litigation with millions of documents, manual review is impractical and can miss critical evidence.
SOLUTION:	An AI-powered NLP system that automatically ingests case documents, analyzes content using semantic understanding, tags documents by relevance score, identifies key evidence, and generates discovery timelines showing when critical events occurred. This reduces review time by 70%, cuts costs significantly, and ensures no relevant evidence is overlooked.
DEVELOPED BY:	Ms. Shreya S

AUTOMATION NAME:	Financial Report Generator
INDUSTRY:	Data Analysis & Business Intelligence
WORKFLOW:	Pulls data from multiple sources → Generates P&L, balance sheet, cash flow → Creates visualizations → Drafts narrative insights
PROBLEM STATEMENT:	Problem Statement: Finance teams waste 20-40 hours monthly compiling reports from disparate sources (ERP, CRM, spreadsheets), creating visualizations, and drafting narrative insights. Manual processes lead to errors, inconsistent formatting, and delayed decision-making for executives.
SOLUTION:	An automated system that pulls data from multiple sources in real-time, generates P&L statements, balance sheets, and cash flow reports with consistent formatting, creates interactive visualizations highlighting trends, and drafts narrative insights explaining variances and anomalies. This reduces report generation time from days to minutes while improving accuracy.
DEVELOPED BY:	Ms. Nivetha Soumianathan

AUTOMATION NAME:	Customer Churn Predictor
INDUSTRY:	Business & Marketing
WORKFLOW:	Analyzes usage patterns, support history, engagement → Predicts churn risk → Triggers retention campaigns → Generates win-back strategies
PROBLEM STATEMENT:	Companies lose 10-30% of customers annually due to inability to identify at-risk customers before they leave. Reactive approaches fail because by the time churn signals are obvious, it's too late to intervene. Lost customers cost 5-25x more to replace than retain.
SOLUTION:	A predictive ML system that continuously analyses usage patterns, support ticket history, engagement metrics, and behavioural signals to predict churn risk 30-90 days in advance. It assigns risk scores, automatically triggers personalized retention campaigns, and generates win-back strategies tailored to each customer's pain points, increasing retention rates by 15-35%.
DEVELOPED BY:	Mr. Pio Godwin M

AUTOMATION NAME:	Visual Search Agent
INDUSTRY:	E-commerce & Product
WORKFLOW:	Customer uploads product image → Identifies similar products in catalog → Ranks by similarity → Generates purchase recommendations
PROBLEM STATEMENT:	62% of millennial and Gen Z customers want visual search capabilities, but traditional text-based search fails when customers can't describe what they're looking for. "A blue dress like the one I saw yesterday" returns poor results, leading to abandoned sessions and lost sales.
SOLUTION:	An AI-powered visual search system where customers upload product images (from anywhere), and the agent uses computer vision to identify similar products in the catalog, ranks results by visual similarity, considers color/style/pattern preferences, and generates personalized purchase recommendations. This increases conversion rates by 30% and average order value by 20%.
DEVELOPED BY:	Ms. Nivetha Soumianathan

AUTOMATION NAME:	Crop Health Monitor
INDUSTRY:	Safety & Compliance
WORKFLOW:	Analyzes drone/satellite imagery → Detects disease, pest infestation, nutrient deficiency → Maps affected areas → Recommends treatments
PROBLEM STATEMENT:	Farmers lose 20-40% of crop yield to undetected diseases, pest infestations, and nutrient deficiencies. Manual field inspection is time-consuming, covers limited area, and detects problems too late. By the time visible damage appears, significant yield loss has already occurred.
SOLUTION:	A drone and satellite imagery analysis system that uses computer vision to detect early signs of crop stress invisible to human eye, identifies specific diseases and pest infestations, maps affected areas with GPS coordinates, and recommends targeted treatments. This enables precision agriculture, reduces pesticide use by 30%, increases yield by 15-25%, and prevents crop loss.
DEVELOPED BY:	Mr. Meganathan V

AUTOMATION NAME:	Skill Gap Predictor
INDUSTRY:	Human Resource & Recruitment
WORKFLOW:	. Analyzes job market trends, emerging technologies → Maps against employee skills → Predicts future skill gaps → Generates upskilling roadmaps → Recommends courses/mentors → Tracks ROI
PROBLEM STATEMENT:	87% of companies face skill gaps but discover them reactively when projects fail or talent leaves. By the time gaps are identified, competitors have hired needed talent and reskilling takes 6-12 months. Companies waste $1M+ annually on wrong training investments
SOLUTION:	A forward-looking AI system that analyzes emerging technology trends, job market demands, and competitor hiring patterns, maps this against current employee skills, predicts future skill gaps 12-24 months ahead, generates personalized upskilling roadmaps, recommends specific courses and mentors, and tracks ROI of training investments. This enables proactive workforce planning and maintains competitive advantage.
DEVELOPED BY:	Ms. Nivetha Soumianathan

AUTOMATION NAME:	Debate Sparring Partner
INDUSTRY:	Education
WORKFLOW:	Engages in real-time debates on any topic → Uses rhetorical techniques → Identifies logical fallacies → Adapts argumentation style → Provides feedback on reasoning → Teaches critical thinking
PROBLEM STATEMENT:	Critical thinking and argumentation skills are declining, yet these are essential for leadership, negotiation, and decision-making. Traditional debate practice requires human partners with availability constraints, limited topic expertise, and inconsistent feedback quality.
SOLUTION:	An AI debate partner that engages in real-time debates on any topic with adjustable difficulty levels, employs advanced rhetorical techniques, identifies logical fallacies in arguments, adapts argumentation style to challenge weak points, provides detailed feedback on reasoning quality, and teaches critical thinking through practice. This enables on-demand debate practice and accelerated skill development.
DEVELOPED BY:	Mr. Saran Menon

AUTOMATION NAME:	F1 Race Prediction System
INDUSTRY:	Data Analysis & Business Intelligence
WORKFLOW:	Data collection via FastF1 API (historical race data, qualifying results, practice sessions, weather, driver/team stats) → Feature engineering (lap times, sector times, pit strategies, tire compounds, circuit characteristics) → ML model training (Random Forest/Gradient Boosting/Neural Network) → Predicts race winner, podium positions, full grid finishing order → Generates confidence scores → Model evaluation (MAE, accuracy metrics) → Real-time predictions update during race weekend → Displays feature importance and prediction explanations → Continuous model retraining after each race
PROBLEM STATEMENT:	F1 fans, betting platforms, and teams need accurate race predictions, but outcomes depend on 100+ variables (driver skill, car performance, weather, tire strategy, pit stops). Manual analysis is limited and gut-feel predictions are inaccurate, leading to poor betting decisions and suboptimal race strategies.
SOLUTION:	A comprehensive ML system that collects historical race data via FastF1 API, performs feature engineering on lap times, sector performance, weather conditions, and pit strategies, trains ensemble models (Random Forest/Gradient Boosting/Neural Networks) on years of data, predicts race winners, podium positions, and full grid order with confidence scores, updates predictions in real-time during race weekend, displays feature importance showing what drives outcomes, and continuously retrains after each race. This achieves 75-85% prediction accuracy and provides data-driven insights for fans, bettors, and teams.
DEVELOPED BY:	Mr. Meganathan V

AUTOMATION NAME:	Customer Testimonial Transformer
INDUSTRY:	Business & Marketing
WORKFLOW:	Takes single customer testimonial → Reformats for LinkedIn post, case study, sales deck, website, email campaign → Extracts key quotes → Generates multiple variations
PROBLEM STATEMENT:	Marketing teams receive valuable customer testimonials but waste 3-5 hours manually reformatting each testimonial for different channels (LinkedIn, website, sales decks, email campaigns). A single testimonial could generate 10+ content pieces, but manual adaptation is time-consuming, inconsistent in messaging, and often results in underutilization of powerful customer stories.
SOLUTION:	An AI agent that ingests a single customer testimonial and automatically generates platform-optimized variations: punchy LinkedIn posts with relevant hashtags, detailed case study formats with metrics highlighted, sales deck slides with visual emphasis, website testimonial cards, email campaign snippets, and pull quotes for different contexts. Each variation maintains brand voice while adapting tone, length, and format to platform requirements.
DEVELOPED BY:	Ms. Shreya S

AUTOMATION NAME:	Senior Care Coordination Agent
INDUSTRY:	Healthcare & Medical
WORKFLOW:	Manages medications across multiple providers → Tracks doctor appointments → Coordinates family caregivers → Sends health updates → Detects concerning patterns → Alerts family members
PROBLEM STATEMENT:	54 million Americans care for aging family members, juggling medications from multiple doctors, tracking dozens of appointments, coordinating with siblings and caregivers, and monitoring health changes. Missed medications and appointments lead to $290 billion annually in preventable hospitalizations. Families use spreadsheets, sticky notes, and group chats—a recipe for dangerous oversights.
SOLUTION:	A centralized AI agent that manages medication schedules across multiple prescribers, sends reminders to seniors and caregivers, tracks doctor appointments and coordinates transportation, facilitates communication among family caregivers, monitors patterns that indicate health decline (medication non-compliance, missed appointments), and automatically alerts family members when concerning patterns emerge or urgent situations develop.
DEVELOPED BY:	Mr. Kathiravan M

AUTOMATION NAME:	Dyslexia-Friendly Content Adapter
INDUSTRY:	Education
WORKFLOW:	Converts any text into dyslexia-friendly formats → Adjusts fonts, spacing, colors → Creates audio versions → Provides comprehension checks → Tracks reading progress
PROBLEM STATEMENT:	20% of the population has dyslexia, struggling with standard text formats that make reading exhausting and comprehension difficult. Students spend 2-3x longer on reading assignments, professionals avoid text-heavy tasks, and accessible content creation is manual and expensive. No automated tool transforms standard content into dyslexia-friendly formats at scale.
SOLUTION:	An AI system that converts any text (PDFs, websites, documents) into dyslexia-optimized formats using OpenDyslexic fonts, increased letter spacing, optimal line length, high-contrast color schemes, and text chunking. Generates synchronized audio narration, provides built-in comprehension checks to ensure understanding, tracks reading speed and progress over time, and adapts formatting based on individual preferences and performance patterns.
DEVELOPED BY:	Ms. Prathika M

AUTOMATION NAME:	Certification Exam Study Companion
INDUSTRY:	Education
WORKFLOW:	Analyzes certification exam patterns (AWS, CPA, Bar exam) → Creates personalized study plans → Generates practice questions → Identifies weak areas → Predicts exam readiness
PROBLEM STATEMENT:	Professionals spend $5,000-15,000 and 200-400 hours preparing for certifications (AWS, CPA, Bar exam, PMP) using generic study materials that don't adapt to individual weaknesses. 40-50% fail on first attempt due to inefficient studying, poor time allocation, and inability to identify knowledge gaps. Existing prep courses are expensive, one-size-fits-all, and lack personalized intelligence.
SOLUTION:	An AI agent that analyzes historical exam patterns and question types, creates personalized study plans based on available time and baseline knowledge, generates unlimited practice questions matching actual exam difficulty and format, continuously identifies weak subject areas through performance analysis, predicts exam readiness with confidence scores, adapts study focus in real-time based on practice test results, and provides targeted remediation for struggling topics.
DEVELOPED BY:	Mr. Parthasarathy G

AUTOMATION NAME:	PDF to Salesforce Migration Bot
INDUSTRY:	Software Development (as it involves system integration and data migration) or Data Analysis & Business Intelligence (as secondary option)
WORKFLOW:	Extracts data from PDFs (contracts, invoices, orders) → Maps to Salesforce fields → Validates data quality → Handles duplicates → Updates records automatically
PROBLEM STATEMENT:	Companies have thousands of PDFs (contracts, invoices, purchase orders, signed agreements) containing critical data that lives outside their CRM. Sales and operations teams manually transcribe PDF data into Salesforce, spending 10-20 hours per week on data entry, introducing 15-20% error rates, and creating gaps where important customer information is trapped in documents instead of actionable CRM records.
SOLUTION:	An AI agent that extracts structured data from any PDF format (scanned or digital), intelligently maps extracted fields to correct Salesforce objects and custom fields, validates data quality and flags anomalies before import, detects and handles duplicate records automatically, updates existing records or creates new ones based on business rules, and maintains audit trail of all migrations for compliance. Handles complex layouts, handwriting, and multi-language documents.
DEVELOPED BY:	Mr. Meganathan V

AUTOMATION NAME:	RFQ Response Generator
INDUSTRY:	Business & Marketing or Data Analysis & Business Intelligence
WORKFLOW:	Receives Request for Quote → Extracts requirements → Checks inventory/capacity → Calculates pricing with margins → Generates professional proposals → Tracks response rates → Follows up automatically
PROBLEM STATEMENT:	Manufacturing and B2B companies receive 50-200 Requests for Quote monthly, with each RFQ requiring 4-8 hours to analyze requirements, check production capacity, calculate costs with margins, and write professional proposals. Teams spend 40-60% of their time on repetitive quote generation instead of high-value activities, resulting in slow response times (3-7 days), missed opportunities, and inconsistent pricing that erodes margins.
SOLUTION:	An autonomous agent that receives RFQs via email or portal, extracts all technical requirements and specifications using NLP, checks real-time inventory levels and production capacity, calculates accurate pricing including materials, labor, overhead, and target margins, generates professionally formatted proposals with terms and conditions, tracks which quotes convert to orders, automatically follows up with prospects at optimal intervals, and learns from win/loss patterns to optimize future quotes.
DEVELOPED BY:	Ms. Shreya S

AUTOMATION NAME:	Internal Knowledge Decay Detector
INDUSTRY:	Documentation & Knowledge Management
WORKFLOW:	Scans company wikis, docs, Notion → Identifies outdated information → Flags broken processes → Suggests owners to update → Tracks documentation health score
PROBLEM STATEMENT:	Companies lose millions when documentation becomes outdated—employees follow deprecated processes, reference old vendor contacts, use retired tools, and make decisions based on obsolete information. Knowledge decay happens silently: 30% of documentation is outdated within 6 months, 50% within a year. No existing tool proactively detects when information has expired or processes have changed, leading to costly mistakes and inefficiencies.
SOLUTION:	An AI agent that continuously scans company wikis, Confluence, Notion, Google Docs, and internal knowledge bases, identifies outdated information by cross-referencing with current systems and practices, flags broken processes that reference retired tools or departed employees, detects contradictions between different documentation sources, suggests specific document owners who should review and update content, tracks documentation health score across the organization, and alerts teams before outdated information causes problems.
DEVELOPED BY:	Ms. Harinivashini S

AUTOMATION NAME:	Humanized Voice News Agent
INDUSTRY:	Communication & Email Management
WORKFLOW:	User sets interests and preferences → AI aggregates news from 1000+ sources → Filters by relevance and credibility → Synthesizes information into conversational script → Analyzes story sentiment to assign appropriate emotional tone → Generates humanized audio using neural voice with natural cadence and inflection → Delivers personalized 5-15 minute briefing via podcast/app/smart speaker → Tracks listening behavior → Learns preferences → Continuously refines content curation and delivery style
PROBLEM STATEMENT:	Busy professionals, commuters, and multitaskers want to stay informed but lack time to read news. Traditional text-based news requires visual attention, podcast discovery is time-consuming, and generic news broadcasts don't align with individual interests. People spend 45-90 minutes daily consuming news, but 68% report feeling overwhelmed by information overload and irrelevant content. Current solutions are either too generic (radio news) or too fragmented (multiple news apps), and lack the personal touch of a human narrator who understands context and delivers stories with appropriate emotional tone.
SOLUTION:	An AI-powered agent that curates personalized news from multiple sources, transforms written articles into natural-sounding audio briefings, and delivers them in a humanized voice that adapts tone based on story context (serious for breaking news, upbeat for positive stories, measured for analysis). The system learns user preferences, generates custom 5-15 minute daily briefings, includes conversational transitions between topics, and delivers news as if narrated by a professional broadcaster with personality and emotional intelligence.
DEVELOPED BY:	Ms. Dhivya Dharini P

AUTOMATION NAME:	Glaucoma detection
INDUSTRY:	Healthcare
WORKFLOW:	Data Aggregation → Image Preprocessing & Augmentation → CNN Model Training & Optimization → Performance Evaluation → Rapid, High-Accuracy Glaucoma Detection
PROBLEM STATEMENT:	Glaucoma, a leading cause of irreversible blindness, is often called the "silent thief of sight" because it can cause significant, permanent vision loss before any symptoms become noticeable. Early detection is crucial to prevent blindness, but current screening methods can be time-consuming, require specialized equipment, and are often not easily accessible, particularly in remote or underserved communities. This delay in diagnosis creates a critical problem where the disease progresses undetected, leading to preventable vision loss for many at-risk individuals.
SOLUTION:	This project introduces an intelligent screening assistant that can detect potential signs of glaucoma from an image of the back of the eye in just a few seconds. This near-instant analysis transforms glaucoma screening from a lengthy, clinic-based procedure into a rapid test that can be performed almost anywhere. Imagine this technology being used in local pharmacies, community health centers, and mobile eye-care vans. A person could have a quick eye scan and receive an immediate notification if they are at risk, prompting them to seek a full examination from an eye care specialist. This "early warning" system, powered by its high-speed analysis, makes widespread screening feasible and affordable. By catching the "silent thief" in its earliest stages within seconds, it provides a crucial time advantage, enabling doctors to intervene sooner and protect the precious sight of millions of people.
DEVELOPED BY:	Ms. Mogeswari T

AUTOMATION NAME:	AI-powered Lung diagnosis
INDUSTRY:	Healthcare
WORKFLOW:	Lung nodule diagnosis - Data collection & preprocessing ---> feature extraction---> model training --->continuous model improvement.
PROBLEM STATEMENT:	Lung cancer remains one of the deadliest diseases worldwide, often detected only in its late stages when treatment options are limited and survival rates are low. Small lung nodules—tiny growths within the lungs—can be the earliest indicators of cancer, but identifying and assessing them accurately is a major challenge. These nodules are often subtle, resembling benign tissue in early scans, and traditional diagnosis depends heavily on expert radiologists analyzing CT images frame by frame. This process is time-consuming, resource-intensive, and prone to human variability. In many regions, limited access to advanced imaging analysis delays timely intervention, leading to missed opportunities for early cancer detection and potentially avoidable loss of life.
SOLUTION:	This project proposes an intelligent diagnostic assistant that can automatically detect and evaluate potential lung nodules from CT or chest scan images within seconds. Using advanced deep learning and computer vision algorithms, the system identifies suspicious regions, classifies their likelihood of malignancy, and generates a risk score for clinical review. Such an AI-powered assistant enables rapid, accessible, and reliable pre-screening—supporting radiologists and healthcare providers in making faster, more accurate decisions. Imagine this deployed in local hospitals, mobile diagnostic units, or telemedicine platforms, where a scan could be analyzed instantly and patients at risk could be flagged for detailed follow-up. By turning early detection into an automated, near-real-time process, this solution strengthens the global fight against lung cancer—helping save lives through earlier, more equitable diagnosis.
DEVELOPED BY:	Ms. Shreya S

AUTOMATION NAME:	AI Vision-Language Model: Image-to-Recipe Generator
INDUSTRY:	Content Creation
WORKFLOW:	User uploads food image → Vision Transformer extracts visual features → CNN identifies dish type and visible ingredients → Attention-based decoder infers hidden ingredients → T5/GPT language model generates recipe title, ingredient list with quantities, and step-by-step cooking instructions → System customizes based on dietary preferences → Outputs complete recipe with prep time, cook time, nutritional info, and ingredient substitutions.
PROBLEM STATEMENT:	Home cooks frequently encounter situations where they see appetizing food in restaurants, social media, or cookbooks but lack the recipe to recreate it. Searching "recipe for [dish name]" requires knowing the dish name and returns generic recipes that may not match the specific version they saw. Additionally, 40% of home cooks struggle with meal planning, lack cooking confidence, and waste food because they don't know how to use available ingredients creatively. Existing recipe apps require users to manually search or input ingredients, creating friction between inspiration (seeing food) and action (cooking it). The visual-to-recipe gap leaves culinary knowledge inaccessible, particularly for visual learners who understand food better through images than text descriptions.
SOLUTION:	An AI-powered Vision-Language Model (VLM) that instantly generates complete recipes from food images. Users simply upload or capture a photo of any dish, and the system identifies the food, extracts visible and inferred ingredients, and generates step-by-step cooking instructions with prep time, cook time, serving size, and nutritional information. The system adapts recipes based on dietary preferences (vegan, gluten-free, low-carb), suggests ingredient substitutions, and can customize complexity levels (beginner to advanced). It bridges the gap between visual food inspiration and actionable cooking knowledge, making culinary expertise accessible to anyone with a smartphone camera.
DEVELOPED BY:	Ms. Dhivya Dharini P

AUTOMATION NAME:	Intelligent Feedback Orchestration Platform (Unified AI Agent)
INDUSTRY:	Data Analysis & Business Intelligence
WORKFLOW:	User provides feedback across any channel → Multi-agent system collects and unifies data → AI analyzes sentiment, intent, and urgency in real-time → Automatically categorizes and routes to responsible teams → Triggers intelligent workflows (create tickets, send alerts, draft responses) → Generates personalized acknowledgments and responses → Detects patterns and predicts emerging issues → Closes loop with customers when actions taken → Continuously learns and optimizes based on outcomes.
PROBLEM STATEMENT:	Organizations waste 60-80% of valuable customer feedback because it's fragmented across 15+ channels (surveys, reviews, support tickets, social media, emails, chat transcripts), manually analyzed (taking days or weeks), and never acted upon before customers churn. Marketing teams receive feedback that never reaches product teams. Support tickets reveal recurring issues that sales never learns about. Customer sentiment deteriorates while feedback sits in silos, waiting for manual review. Companies lose $1.6M annually per 1,000 employees due to poor feedback management, missed opportunities for improvement, and preventable customer churn. Current tools either collect feedback OR analyze it OR route it—but no single system does all three with intelligent orchestration that ensures every piece of feedback reaches the right team and triggers automated actions.
SOLUTION:	An Intelligent Feedback Orchestration Platform powered by multi-agent AI that unifies feedback collection across all channels, analyzes sentiment and intent in real-time, automatically categorizes and routes feedback to appropriate teams, triggers intelligent workflows based on urgency and context, closes the loop with personalized responses, and continuously learns to predict emerging issues before they escalate. The platform acts as a central nervous system for customer intelligence, transforming scattered feedback into orchestrated action across your entire organization.
DEVELOPED BY:	Ms. Priscilla Gragoria E

AUTOMATION NAME:	Adaptive Intelligence Vocabulary Mastery Agent
INDUSTRY:	Education
WORKFLOW:	Student logs in → AI assesses baseline proficiency → Generates adaptive quiz matching skill level and interests → Student answers questions → Agent adjusts difficulty in real-time based on performance → Provides instant contextual feedback and explanations → Tracks mastery and retention patterns → Schedules spaced repetition reviews → Generates personalized study path → Teachers access analytics dashboard showing individual and class progress → Agent continuously learns and optimizes based on student outcomes.
PROBLEM STATEMENT:	Traditional vocabulary learning is ineffective because one-size-fits-all quizzes don't adapt to individual skill levels—advanced learners waste time on basic words while struggling students face overwhelming difficulty, leading to 68% abandonment rates in language learning apps. Static quizzes provide no context for word usage, lack spaced repetition for long-term retention, and offer generic feedback that doesn't address specific weaknesses. Teachers spend 8-12 hours weekly creating differentiated vocabulary assessments for diverse classrooms, yet still can't personalize for each student's learning pace, interests, and memory patterns. Students forget 70% of vocabulary within 24 hours without adaptive reinforcement, and traditional assessments fail to measure real-world application—testing recognition rather than active usage. The result: wasted study time, frustrated learners, overburdened educators, and minimal vocabulary retention.
SOLUTION:	An Adaptive Intelligence Vocabulary Mastery Agent that dynamically personalizes vocabulary learning through AI-powered assessments that adjust difficulty in real-time based on student performance, uses spaced repetition algorithms to optimize long-term retention, provides contextual examples showing words used in sentences and real-world scenarios, generates instant feedback with explanations of correct answers and common mistakes, tracks individual learning patterns to identify knowledge gaps and strengths, creates personalized study paths tailored to each learner's interests and proficiency level, and continuously adapts based on performance—accelerating learning for advanced students while providing scaffolding for struggling learners. The agent transforms passive vocabulary testing into an engaging, game-like experience that builds lasting language mastery.
DEVELOPED BY:	Ms. Harinivashini S

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