Department of CSE(AI&ML)

HACKCELERATE - 2025

Problem Statements

PS#	Project Title	Problem statement
TIER-1		
PS1	**Late Coming Log Analysis System**	Develop a system that records, tracks, and analyzes late-coming data of students or staff in an organized and automated manner. The system should capture daily attendance logs, identify late entries, and generate meaningful analytics—such as frequency patterns, monthly summaries, and department-wise statistics. By eliminating manual tracking, the system improves accuracy, provides timely insights to administrators, and supports decision-making through data-driven reports.
PS2	**Admission Seat Allocation Based on Merit**	Develop a system that automates the admission process by allocating seats to students based on their merit and preferences. The system should collect application data, verify eligibility, and assign seats according to predefined merit criteria and reservation rules. It should generate real-time allocation lists, manage waiting lists, and allow administrators to track seat availability. By automating the allocation process, it ensures fairness, reduces manual errors, saves time, and improves transparency in admissions management.
PS3	**Student Counselling Application**	Develop a system that helps students share their concerns and get timely advice from counsellors through an online platform. The application should let students fill feedback forms, receive guidance tips, and access useful resources. It aims to make counselling more comfortable, confidential, and supportive for students' overall growth and well-being.
PS4	**Profile Summarizer Tool**	Develop a system that automatically collects, analyzes, and summarizes individual profiles such as student, faculty, or staff data into clear and concise summaries. The tool should extract key details from uploaded documents, resumes, or entered information, and generate a well-structured profile summary with minimal manual effort.
PS5	**Exam Room Allotment & Notification System**	Develop a system automates the process of assigning students and invigilators to exam halls efficiently. It enables administrators to input exam schedules, student details, and room capacities for automatic and conflict-free allocation. The system provides real-time notifications to students and invigilators about their exam details and

		includes an admin dashboard for easy management. It also generates reports on room usage and invigilation duties while ensuring accuracy, transparency, and security.
PS6	**Event Feedback Collection system**	Develop an application that allows students to easily submit feedback for campus events in a structured and organized way. The system should enable organizers to view responses, analyze ratings, and gather insights to improve future events. This will simplify feedback collection, support better decision-making, and enhance the overall event experience on campus.
TIER - 2		
PS1	**Seminar Hall/ Auditorium Booking System**	Develop an application for booking seminar halls and auditoriums within a college. The system should allow students, faculty, and staff to check real-time availability of seminar rooms, lecture halls, and auditoriums, book the spaces for specific dates and times, and manage their reservations easily.
PS2	**Budget Indent and Automation System**	Develop a system that allows departments to create, submit, and track their yearly budget requests in an organized and automated manner. The system should record budget indents, monitor approval stages, and generate analytical reports such as department-wise summaries, yearly allocations, and expense comparisons. By automating the budget process, it reduces manual work, minimizes errors, improves transparency, and helps administrators make data-driven financial decisions efficiently.
PS3	**Alumni Network Management Portal**	The Alumni Network Management Portal is a web-based platform designed to establish and maintain a strong, interactive connection between an institution and its alumni community. The system enables efficient communication, collaboration, and data management among alumni, students, and administrators. The portal provides a centralized space for alumni to register, update their profiles, share professional updates, participate in events, and network with peers.
PS4	**College Annual Report Generation System**	Develop a system that allows departments to submit their yearly data in an organized way and enables admins to automatically generate the college's annual report. The system should reduce manual work, improve accuracy, and make report creation faster and more efficient across the campus.
PS5	**Student-Staff Data Management System with Chatbot Interface**	It is a web application that securely manages academic and administrative data. It allows easy access to student and staff records, assignment details, and automated query handling through chatbots, improving efficiency and communication within the institution.

PS6	**Hostel Gate Pass Management System**	Develop a smart digital system that allows hostel students to apply for gate passes online and enables wardens to monitor and approve requests efficiently. When a student applies, a notification is sent to the parents for approval before the warden grants the pass. This ensures safety, transparency, and parental involvement. The system maintains real-time records of student movements, minimizes paperwork, and enhances hostel security and management efficiency.
TIER- 3		
PS1	**Student Attendance System Using Face Recognition**	Develop an AI-powered Student Attendance System using Face Recognition that automatically detects and recognize student face from live camera or image, mark attendance in real-time, and store it securely in a database. The system should prevent proxy attendance, ensure high accuracy, and provide a simple dashboard for faculty to view attendance records.
PS2	**Faculty Bulk Biometric Management System**	Develop a system that allows administrators to register, update, and manage faculty biometric data in bulk. The system should automate attendance tracking, ensure secure data storage, and provide real-time insights and reports. It aims to minimize manual work, reduce errors, and streamline biometric management across the institution.
PS3	**Auto Database/ Excel File Summarizer**	Develop a tool that automatically analyzes Excel or database files and generates key insights, summaries. The system should help users quickly understand large datasets without manual analysis.
PS4	**Document Summarizer Using AI/ML**	Develop a system that automatically summarizes large volumes of text—such as articles, research papers, reports, and web content—using Artificial Intelligence and Machine Learning techniques. The system reads and analyzes lengthy documents, identifies key ideas, and generates concise summaries while preserving the essential meaning. By reducing the time required to read long text, this solution helps students, researchers, and professionals quickly grasp important information.
PS5	**College Bus Tracking System**	Develop a system that allows real-time tracking of college buses for students, parents, and administrators. The system should display bus location, estimated arrival time, and route information. It aims to improve student safety, reduce waiting time, and enhance communication between the transport department and passengers.

PS6	**Teacher Appraisal & Evaluation System for Schools**	Develop an application that streamlines the process of evaluating teachers based on multiple performance criteria such as teaching effectiveness, classroom management, student engagement, and feedback. The system should allow students, peers, and administrators to provide structured evaluations through digital forms. It should generate comprehensive reports, visualize performance trends, and identify areas for professional growth. This will make the appraisal process more transparent, data-driven, and efficient, ultimately contributing to continuous improvement in teaching quality and academic outcomes.