Problem statement ID → SDRE- 1

1. EV Route & Charging Optimization

Problem Statement:

Develop a web application that provides the most efficient routes for electric vehicle (EV) drivers by considering real-time traffic conditions, charging station locations, availability, and charging speeds. The system should dynamically update routes, ensuring seamless travel and optimized energy consumption.

Key Requirements:

- Real-time traffic analysis for route optimization.
- Charging station locator with availability and charging speed data.
- Dynamic rerouting based on updated conditions.
- User-friendly interface for seamless navigation.

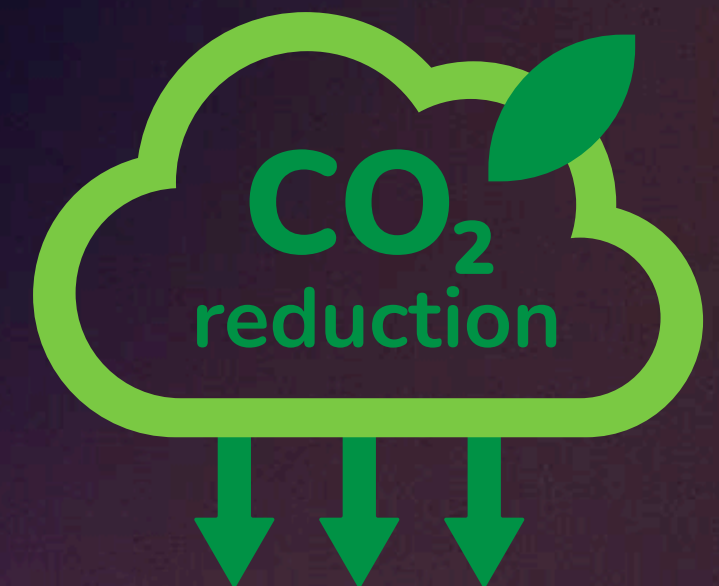# Problem statement ID → SDRE- 2

2. Carbon Footprint Tracker

Problem Statement:

Create a web-based platform that enables individuals to track, measure, and analyze their carbon footprint based on daily activities, such as transportation, energy consumption, and shopping habits. The application should provide actionable insights and encourage sustainable behaviors through gamification and personalized recommendations.

Key Requirements:

- Carbon footprint calculator based on user activity input.
- Personalized recommendations for reducing emissions.
- Gamification elements (challenges, rewards, leaderboards).
- Data visualization for progress tracking.

Problem statement ID → SDRE- 3

3. Community-Based Food Donation Platform

Problem Statement:

Develop a platform that connects individuals, restaurants, and grocery stores with surplus food to local charities and community organizations. The system should facilitate food pickups, track donations, and ensure compliance with food safety standards.

Key Requirements:

- Donor and recipient registration system.
- Real-time food availability tracking and request management.
- Logistics coordination for pickup and delivery.
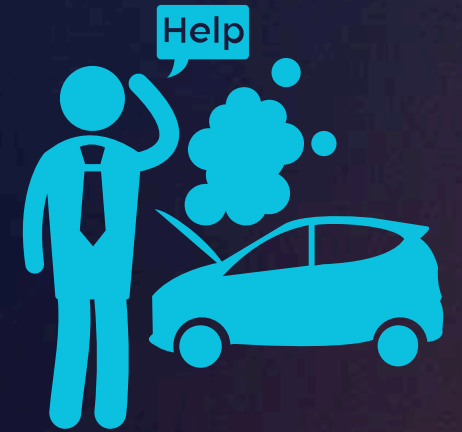- Compliance checks for food safety and quality.

Problem statement ID → SDRE- 4

4. EV Subscription & Roadside Assistance Platform

Problem Statement:

Design a platform that integrates electric vehicle (EV) subscription services with real-time roadside assistance. The system should allow users to subscribe to EVs on a flexible basis (monthly/yearly) while offering services like charging assistance, maintenance support, and emergency roadside help.

Key Requirements:

- EV subscription model with flexible plans.
- Roadside assistance for charging and technical issues.
- Real-time user support and emergency response system.
- Integrated maintenance and service tracking.

Problem statement ID → SDRE- 5

5. Sustainable Waste Management System

Problem Statement:

Develop a digital platform that helps individuals and businesses track, sort, and recycle waste efficiently. The system should provide guidelines for proper disposal, recommend recycling alternatives, and incorporate an incentive-based reward system for sustainable waste management.

Key Requirements:

- Waste categorization and tracking system.
- Recycling and disposal guidelines based on local regulations.
- Reward system for eco-friendly waste management practices.
- Data visualization for sustainability tracking.

Problem statement ID → AFGI 1

1. Agricultural Product Marketplace

Problem Statement:
Develop a digital platform that directly connects farmers with buyers, eliminating intermediaries and streamlining the agricultural supply chain. The platform should ensure fair pricing for farmers, improve market access, and reduce the time and costs associated with distribution.

Key Requirements:

- User registration for farmers and buyers.
- Price transparency and fair pricing algorithms.
- Real-time product listings and transaction management.
- Integrated payment and logistics systems.
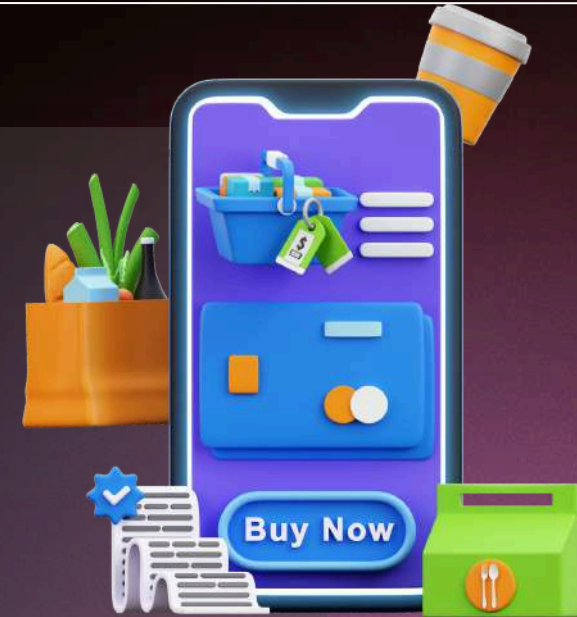
Problem statement ID → AFGI 2

2. AI-Powered Pest & Disease Detection

Problem Statement:
 Create an AI-driven solution that can detect pests and crop diseases at an early stage through image recognition or sensor data. This will enable farmers to take preventive action and reduce the risk of yield loss, optimizing crop health and minimizing the use of pesticides.

Key Requirements:

- Image recognition or sensor-based pest and disease detection.
- Early warning system for farmers to take timely action.
- Data collection and analysis for continuous model improvement.
- Integration with mobile platforms for accessibility.

Problem statement ID → AFGI 3

3. Waste Reduction & Circular Economy

Problem Statement:

Design a software-based solution to minimize agricultural waste by converting agricultural by-products (e.g., crop residues, food scraps) into valuable resources like compost, bioenergy, or animal feed. The solution should promote sustainability by supporting circular economy principles, reducing environmental impact, and increasing resource efficiency.

Key Requirements:
- Platform for tracking and managing agricultural by-products.
- Conversion methods for by-products (e.g., composting, bioenergy).
- Resource marketplace for selling converted products.
- Integration with farm management systems for waste data.

Problem statement ID → AFGI 4

4. Digital Crop Monitoring System for Food Security

Problem Statement:

Create a real-time crop monitoring software that provides insights on crop growth, soil health, and climate risks to ensure stable and secure food production.

Key Requirements:
- AI-driven analysis for crop growth and soil health monitoring.
- Integration with climate data to assess risks and predict disruptions.
- Early warning system for disease outbreaks and pest infestations.
- Real-time data visualization for farmers and policymakers.

Problem statement ID → AFGI 5

5. Urban Farming Management Software

Problem Statement:

Create a software solution that enables individuals and communities to efficiently manage small-scale urban farms by optimizing resources like water, space, and nutrients.

Key Requirements:
- AI-driven recommendations for resource-efficient farming.
- Smart monitoring of soil, water usage, and plant health.
- Integration with vertical farming and hydroponic systems.
- User-friendly dashboard for real-time tracking and analytics

Problem statement ID → MHB 1

1. Patient Appointment Scheduling System

Problem Statement:

Design a user-friendly online platform that allows patients to book, reschedule, or cancel appointments with healthcare providers. The system should send automated reminders to both patients and healthcare professionals and offer seamless integration with existing hospital management software for better coordination.

Key Requirements:

- Appointment booking, rescheduling, and cancellation functionality.
- Automated reminders and notifications for patients and healthcare providers.
- Integration with hospital management systems and calendars.
- User-friendly interface for both patients and healthcare professionals.

Problem statement ID → MHB 2

2. Medical Research Data Management System

Problem Statement:

Create a platform for managing and analyzing large-scale medical research data, such as clinical trial results, patient outcomes, and genomic data. The system should provide secure collaboration tools for researchers, ensuring easy sharing and access to data for improved scientific progress.

Key Requirements:
- Secure storage and management of diverse medical research data types.
- Collaboration features for multiple researchers to access and analyze data.
- Data analysis tools to extract meaningful insights from large datasets.
- User permissions and access controls for data security.

Problem statement ID → MHB 3

3. Bioinformatics Data Visualization Tool

Problem Statement:

Develop a software tool for bioinformaticians to visualize and analyze complex biological data, such as genetic sequences or protein structures, in a user-friendly interface. The tool should allow for customizable reports, data filtering, and easy sharing of insights.

Key Requirements:

- Visualization capabilities for genetic sequences, protein structures, and other bioinformatics data.
- Customizable reports and data analysis features.
- Tools for easy sharing of visualized data and insights.
- User-friendly interface for researchers with different expertise levels.
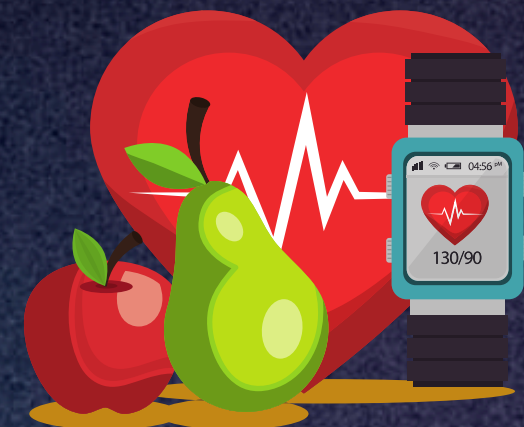
Problem statement ID → MHB 4

4. Nutrition & Diet Management

Problem Statement:

Create a software platform that enables users to track their dietary intake, monitor nutrition levels, and receive personalized meal recommendations based on their health conditions and goals. The app should also allow for progress tracking and provide insights into the nutritional value of foods.

Key Requirements:
- Dietary intake tracking and nutrition level monitoring.
- Personalized meal recommendations based on health conditions.
- Progress tracking with data visualization.
- Integration with food databases for nutritional information
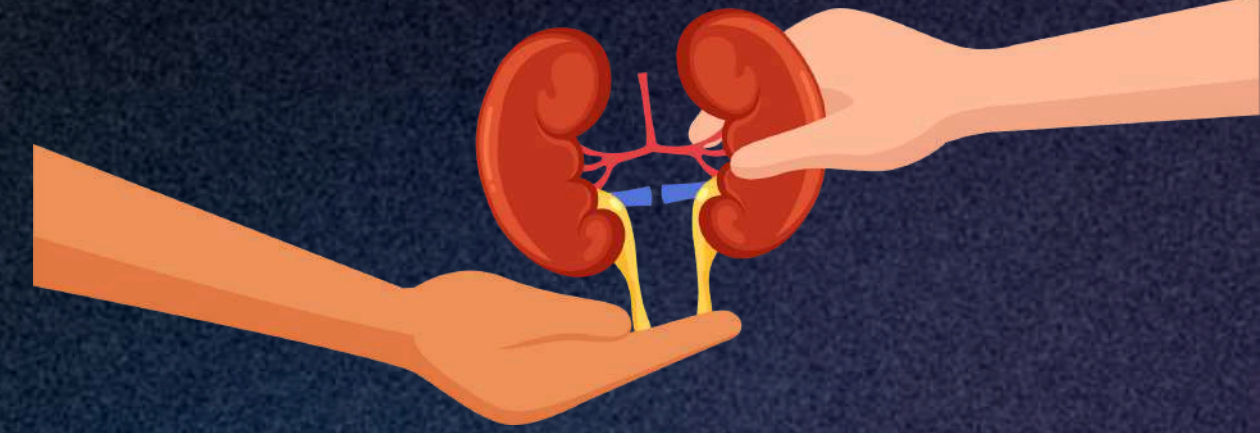
Problem statement ID → MHB 5

5. Real-Time Blood Bank & Organ Donation Registry

Problem Statement:

Design a system that allows hospitals and blood banks to track available blood supplies and efficiently match organ donors with recipients. The platform should enable real-time data updates and offer easy search and matching algorithms to optimize the donation process.

Key Requirements:

- Real-time tracking of blood supplies and organ donations.
- Efficient matching system for blood and organ donors to recipients.
- User-friendly interface for hospitals and blood banks.
- Integration with existing healthcare and hospital systems.
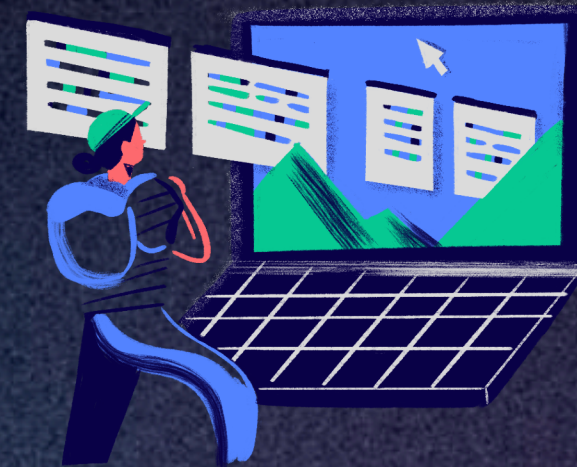
Problem statement ID → SEFB 1

1. Financial Literacy Mobile App

Problem Statement:
Design a mobile app that provides students and young professionals with the resources and tools to learn about personal finance. The app should offer features like budgeting tools, savings plans, and educational content on basic investment strategies, all tailored to improve financial literacy and promote sound financial habits.

Key Requirements:
- User-friendly interface tailored for students and young professionals.
- Budgeting tools for income and expense tracking.
- Personalized savings plans and investment education.
- Push notifications for financial tips and reminders

Problem statement ID → SEFB 2

2. Business Performance Analytics Tool

Problem Statement:
 Create a software tool that helps small businesses track key performance indicators (KPIs) and metrics such as sales, expenses, and customer data. The tool should provide actionable insights, helping business owners improve operations, optimize performance, and drive growth.

Key Requirements:
- Integration with existing business data (sales, expenses, customer interactions).
- Real-time data analytics and performance tracking.
- Actionable insights and recommendations for improving business operations.
- Visual dashboards and reports to easily interpret key metrics.

Problem statement ID → SEFB 3

3. FinTech: SME Financial Management & Credit Access

Problem Statement:
Create a financial management platform for SMEs and startups, helping them track cash flow, manage expenses, and access credit or funding opportunities to support business growth.

Key Requirements:
- Smart bookkeeping and automated financial tracking.
- Business credit score monitoring and funding recommendations.
- Integration with banks, lenders, and alternative funding sources.
- Compliance and tax advisory tools for small businesses.

Problem statement ID → SEFB 4

4. The Ultimate Startup Ecosystem Platform

Problem Statement:

Build an all-in-one platform for startups to connect, collaborate, and grow. The platform should facilitate networking, knowledge exchange, and business scaling by providing directories, investment opportunities, and startup-focused resources.

Key Requirements:

- Founder-investor and peer-to-peer networking.
- Business development and funding assistance.
- Access to startup accelerators and incubators.
- Collaboration tools for team management and operations

Problem statement ID → SEFB 5

5. Startup & Business Education Hub

Problem Statement:
Create an online learning platform dedicated to startup founders and entrepreneurs, offering courses, mentorship, and real-world case studies to help them develop business acumen and successfully launch their ventures.

Key Requirements:
- Entrepreneurship-focused courses and learning paths.
- Live mentorship sessions with industry experts.
- Business model development and startup case studies.
- Funding, market research, and GTM strategy guides.

Open Innovation, Student Startups & Entrepreneurial Ecosystems

Problem Statement for Innovative Startup Ideas

We invite students to submit innovative problem statements or startup ideas in any field (product, service, tech solution) with real-world impact. Selected ideas will have the opportunity to be incubated under KL-ACIC (KL University Accelerator) & KL TIF (Technology Incubation Foundation), helping turn your idea into a viable startup.

What's at Stake?

- Incubation & Support: Gain access to expert guidance, funding, and development resources.
- Pitch to Experts: Present your idea to a panel of experts, opening doors to mentorship and funding.

Open Innovation, Student Startups & Entrepreneurial Ecosystems

Selection Criteria:

- Innovation & Uniqueness: Original and creative solutions.
- Impact Potential: A solution that addresses a real-world problem.
- Feasibility & Scalability: Practical and capable of growth.

Pitching Process:

- The Problem: What are you solving and who's your target audience?
- The Solution: How does your idea solve the problem uniquely?
- Business Model & Impact: How will it sustain and scale?

All the best

See you on 11th April