



## HEALTH TECH

Statement ID	Problem Statement
HT1	<p>In today's fast-paced world, managing health appointments efficiently is crucial. Imagine a platform that allows patients to seamlessly connect with doctors, book appointments, and keep track of their health consultations—all in one place.</p> <p><b>Example Features:</b></p> <ul style="list-style-type: none"><li>• <b>Doctor Search:</b> Patients should be able to search for doctors by specialty (e.g., cardiology, dermatology), location, and availability.</li><li>• <b>Appointment Booking:</b> Once a suitable doctor is found, the patient should be able to book an appointment based on the doctor's available slots.</li><li>• <b>Appointment Management:</b> Both doctors and patients should be able to view and manage upcoming and past appointments, including cancellations or rescheduling.</li><li>• <b>User Profiles:</b> Patients can create and manage profiles with their basic health information, while doctors can have profiles displaying their qualifications, specialties, and schedules.</li><li>• <b>Notifications:</b> The system should notify patients and doctors about upcoming appointments via email.</li><li>• <b>Admin Panel:</b> An admin panel should allow platform administrators to manage users (both doctors and patients), monitor system usage, and ensure smooth operation.</li></ul>
HT2	<p>Maintaining a healthy diet is key to overall well-being, but creating personalized meal plans can be challenging. Your task is to develop a Nutrition and Diet Planning App that helps users create tailored meal plans based on their dietary restrictions, preferences, and health goals.</p> <p><b>Example Features:</b></p>

	<ul style="list-style-type: none"> <li>● <b>Personalized Meal Plans:</b> Users can input their dietary restrictions (e.g., vegan, gluten-free), food preferences, and health goals (e.g., weight loss, muscle gain) to receive customized meal plans.</li> <li>● <b>Recipe Suggestions:</b> The app should provide daily recipe suggestions based on the user's meal plan and dietary needs.</li> <li>● <b>Caloric Tracking:</b> Users can track their daily caloric intake and monitor macronutrient breakdowns (carbs, proteins, fats).</li> <li>● <b>User Profiles:</b> Each user can create a profile to store their health data, preferences, and progress.</li> </ul> <p>This app aims to simplify nutrition management, promoting healthier eating habits tailored to individual needs.</p>
<b>HT3</b>	<p>Building and maintaining healthy habits can significantly improve overall well-being. Your challenge is to design an app that helps users develop and sustain healthy habits, such as regular exercise, proper hydration, and consistent sleep patterns.</p> <p><b>Example Features:</b></p> <ul style="list-style-type: none"> <li>● <b>Habit Tracking:</b> Users can set and track daily or weekly goals for healthy habits like exercise, hydration, and sleep.</li> <li>● <b>Reminders &amp; Notifications:</b> The app should send reminders to help users stay consistent with their habits.</li> <li>● <b>Progress Monitoring:</b> Users can view their progress over time with habit completion rates and streaks.</li> <li>● <b>User Profiles:</b> Each user can create a profile to set goals, monitor achievements, and track habit history.</li> </ul> <p>This app aims to motivate users to build long-term healthy routines and improve their lifestyle step by step.</p>
<b>HT4</b>	<p>Managing healthcare can be complex, especially when patients have to handle multiple tasks such as booking appointments, tracking vital signs, and following medical advice. Your challenge is to develop an AI Healthcare Assistant that simplifies this process by providing personalized healthcare management for patients.</p>

	<p><b>Example Features:</b></p> <ul style="list-style-type: none"><li>● <b>Personalized Advice:</b> The AI should offer tailored health advice based on individual patient needs and medical history.</li><li>● <b>Appointment Scheduling:</b> The assistant should help patients schedule and manage doctor appointments.</li><li>● <b>Vitals Monitoring:</b> The system should track and monitor key vitals, such as heart rate, blood pressure, and more.</li><li>● <b>Learning from Interactions:</b> The AI should learn from patient interactions over time to provide increasingly personalized and accurate support.</li></ul> <p>This AI assistant aims to make healthcare management more accessible and efficient for patients.</p>
<b>HT5</b>	<p>In the rapidly evolving healthcare landscape, securing and managing patient data is critical. Your challenge is to develop a <b>Blockchain-based Healthcare Data Management System</b> that ensures secure and patient-centric control of health records, allowing patients to manage who can access their data.</p> <p><b>Example Features:</b></p> <ul style="list-style-type: none"><li>● <b>Blockchain Security:</b> Use blockchain to securely store patient health records, ensuring that data cannot be tampered with.</li><li>● <b>Patient-Controlled Access:</b> Patients should have the ability to grant or revoke access to their health records for specific healthcare providers.</li><li>● <b>Basic Interoperability:</b> Allow healthcare providers to access patient data from the system using permissions, ensuring basic compatibility with existing health record formats.</li><li>● <b>Audit Logs:</b> Track all access to patient data in a transparent, unchangeable log to ensure data access accountability.</li></ul> <p>This system aims to provide secure, patient-controlled healthcare data management in a simplified, easy-to-use platform.</p>

## FINTECH

Statement ID	Problem Statement
FT1	<p>Managing personal finances can be overwhelming without proper tools. Your challenge is to build a <b>Personal Finance Tracker</b> that helps users gain insight into where their money goes each month by allowing them to input and categorize income and expenses.</p> <p><b>Example Features:</b></p> <ol style="list-style-type: none"><li>1. <b>Manual Income/Expense Input:</b> Users can manually input their income and expenses for tracking purposes.</li><li>2. <b>Categorization:</b> Transactions can be categorized into predefined or custom categories to help users organize their spending.</li><li>3. <b>Budget Visualization:</b> Provide basic visualizations showing users how much they've spent, saved, and in which categories.</li><li>4. <b>Expense Forecasting:</b> Suggest potential future expenses based on previous spending patterns to help users plan ahead.</li><li>5. <b>Exportable Reports:</b> Users can export detailed spending reports in PDF or CSV formats for further analysis.</li></ol> <p>This tool aims to simplify financial management by providing clear insights and helping users make informed decisions about their spending habits.</p>
FT2	<p>Understanding how financial habits impact credit scores can empower users to make better financial decisions. Your challenge is to develop a <b>Credit Score Prediction and Improvement Tool</b> that helps users see how their financial data affects their credit score and offers simple ways to improve it.</p> <p><b>Example Features:</b></p> <ol style="list-style-type: none"><li>1. <b>Financial Input:</b> A form where users can input relevant financial data, such as income, debts, and current credit utilization.</li></ol>

	<ol style="list-style-type: none"> <li>2. <b>Credit Score Prediction:</b> A model that predicts a user's credit score based on their financial data.</li> <li>3. <b>Improvement Suggestions:</b> Provide personalized, actionable suggestions to help users improve their credit score and creditworthiness.</li> <li>4. <b>Credit Utilization Tracker:</b> Track the user's credit utilization ratio over time and show its impact on their credit score.</li> <li>5. <b>Credit Score Simulation:</b> Allow users to simulate how changes in financial habits, like paying off debt or increasing income, will affect their credit score.</li> </ol> <p>This tool aims to give users insights into their financial health and guide them in building and maintaining a strong credit score.</p>
<b>FT3</b>	<p>Splitting bills among friends can often be complicated and lead to confusion. Your challenge is to build a <b>bill-splitting app</b> that simplifies the process of sharing expenses and ensures everyone knows what they owe.</p> <p><b>Example Features:</b></p> <ol style="list-style-type: none"> <li>1. <b>Expense Input:</b> Allow users to quickly add expenses and assign them to individuals involved in the transaction.</li> <li>2. <b>Bill Calculation:</b> Automatically calculate the amount each person owes based on the entered expenses, whether split evenly or by percentage.</li> <li>3. <b>AI Expense Suggestions :</b> Use an AI algorithm to suggest how to split expenses based on common patterns, such as evenly dividing costs or splitting proportionally based on participation.</li> <li>4. <b>Payment Reminders:</b> Implement reminders to notify users when payments are due or if someone hasn't settled their share, making it easy to track outstanding balances.</li> </ol> <p>This app aims to reduce the hassle of splitting expenses and ensure seamless payments between friends or groups.</p>

## FT4

Managing personal finances requires more than just tracking expenses—users need effective budgeting tools to help them plan and optimize their spending. Your challenge is to develop a **Budget Planning Tool** that enables users to create and manage monthly budgets while providing insights into their financial habits.

### Key Example Features:

1. **Budget Setup:** Users can create monthly budgets for various spending categories like groceries, entertainment, and transportation.
2. **Spending Tracking:** Track spending in real-time and compare it against set budget categories.
3. **Feedback:** Provide feedback to users, alerting them if they are over or under their budget in specific categories.
4. **AI-Spending Insights:** Use AI to analyze user spending patterns and offer personalized insights. The AI can detect unusual spending behaviors, recommend budget adjustments, and highlight areas where users can cut back or save more.
5. **Recurring Expenses Management:** Track and manage recurring expenses, such as bills or subscriptions. The system can send reminders and offer predictions for future expenses based on historical data.
6. **Visual Reports:** Provide visual reports like pie charts and line graphs, helping users easily understand their spending habits and make adjustments accordingly.

This tool aims to give users a comprehensive view of their financial health, with AI-driven insights to help them make smarter budgeting decisions and stay on top of their expenses.

## ED-TECH

Statement ID	Problem Statement
ET1	<p>With the growing demand for accessible education, there's a need for a comprehensive platform that supports both instructors and students. Your challenge is to create an <b>Online Learning Platform</b> that enables instructors to upload courses, track student progress, and engage learners through interactive Example Features.</p> <p><b>Example Features:</b></p> <ol style="list-style-type: none"><li>1. <b>Course Upload:</b> Instructors can easily upload and manage their courses, including videos, readings, and assignments.</li><li>2. <b>Progress Tracking:</b> The platform should allow instructors to monitor student progress and engagement throughout the course.</li><li>3. <b>Quizzes and Certificates:</b> Instructors can create quizzes to assess student understanding and issue certificates upon course completion.</li><li>4. <b>Discussion Boards:</b> Students can participate in discussion boards to engage with peers and instructors.</li><li>5. <b>Messaging System:</b> A messaging feature should facilitate communication between students and instructors for questions and support.</li></ol> <p>This platform aims to enhance the online learning experience by providing a user-friendly environment for both instructors and students.</p>
ET2	<p>As students face increasing academic demands, having efficient study aids is essential for effective learning. Your challenge is to build an <b>AI Study Material Generator</b> that creates personalized study materials, such as summaries and practice quizzes, from textbooks or lecture notes uploaded by students.</p> <p><b>Key Example Features:</b></p> <ol style="list-style-type: none"><li>1. <b>Material Generation:</b> The AI should generate concise summaries and relevant practice quizzes based on the content of uploaded textbooks or notes.</li></ol>

	<ol style="list-style-type: none"> <li>2. <b>Personalized Suggestions:</b> The system should analyze user preferences and study habits to provide tailored study materials that enhance learning.</li> <li>3. <b>User Uploads:</b> Students can easily upload their own materials for the AI to process and generate study aids.</li> <li>4. <b>Progress Tracking:</b> The platform should allow students to track their study progress and performance on quizzes.</li> </ol> <p>This AI-driven system aims to streamline the study process, making learning more efficient and personalized for students.</p>
ET3	<p>In the modern educational landscape, collaboration among students is essential for successful project work. Your challenge is to develop a <b>Collaborative Student Project Platform</b> that enables students to work together effectively, incorporating AI features to enhance the collaborative experience.</p> <p><b>Example Features:</b></p> <ul style="list-style-type: none"> <li>● <b>Document Sharing:</b> Students can upload and share documents, presentations, and other project materials easily.</li> <li>● <b>Real-Time Collaboration:</b> Enable simultaneous editing of documents and project files, allowing multiple users to contribute in real time.</li> <li>● <b>Peer Feedback Mechanisms:</b> Implement tools for students to provide and receive feedback on each other's work, fostering a constructive review process.</li> <li>● <b>AI Assistance:</b> Integrate AI features that: <ul style="list-style-type: none"> <li>○ Suggest resources or relevant articles based on project content.</li> <li>○ Analyze contributions to provide insights on individual engagement and participation.</li> <li>○ Offer smart summaries of discussions or project documents to streamline communication.</li> </ul> </li> </ul> <p>This platform aims to create a dynamic and supportive environment for students, enhancing collaboration and learning through effective tools and AI-driven insights.</p>



## ET4

Managing homework submissions and grading can be challenging for both students and teachers. Your task is to build a **web or mobile app** that streamlines this process, allowing students to submit assignments and teachers to review and grade them efficiently.

### Key Example Features:

1. **Assignment Submission:** Students can upload and submit homework assignments with file attachments (e.g., PDFs, Word docs, images).
2. **Teacher Review & Grading:** Teachers can review submissions, assign grades, and provide feedback directly within the platform.
3. **Comments and Feedback:** Both teachers and students can exchange comments to clarify assignments or discuss improvements.
4. **Grade Tracking:** The app should maintain a gradebook where students can view their grades and teachers can track the performance of individual students or entire classes.
5. **Notifications:** Automatic notifications should alert students about upcoming deadlines, submission confirmations, and feedback from teachers.

This app aims to simplify assignment submission and grading for both students and teachers, making it a powerful tool for classroom management.

## E-commerce

Statement ID	Problem Statement
EC1	<p>E-commerce is booming, and providing a seamless shopping experience is key to success. Your challenge is to build a fully functional <b>E-commerce Website</b> that allows users to browse products, add them to a shopping cart, and make secure payments.</p> <p><b>Example Features:</b></p> <ul style="list-style-type: none"><li>● <b>Product Browsing:</b> Users should be able to browse products by categories and view product details (price, description, images).</li><li>● <b>Secure Checkout:</b> Implement a simple checkout process where users can enter shipping information and make payments using a secure payment gateway (e.g., Stripe or PayPal).</li><li>● <b>User Profiles:</b> Allow users to create accounts to save their order history, shipping details, and payment preferences.</li><li>● <b>Order Confirmation:</b> Once a payment is completed, send a confirmation email to the user with the order details and receipt.</li></ul> <p>This project aims to provide users with a smooth and secure online shopping experience, covering all essential e-commerce functionalities.</p>
EC2	<p>Mobile shopping experiences need to be fast and seamless for users. Your challenge is to develop a <b>Mobile Shopping Assistant App</b> that helps users find the best deals, compare products, and manage their shopping lists in one place.</p> <p><b>Features:</b></p> <ul style="list-style-type: none"><li>● <b>Price Comparison:</b> Users can compare prices for a product across different e-commerce platforms in real time.</li><li>● <b>Deal Alerts:</b> Set up alerts for price drops or special deals on selected products.</li><li>● <b>Shopping List Management:</b> Users can create, manage, and share shopping lists with friends or family.</li><li>● <b>Offline Mode:</b> Users can add items to their cart and shopping list even when they are offline, and sync data when they go online.</li></ul> <p>This app will enhance the shopping experience, providing users with an efficient way to manage purchases and save money.</p>

<p><b>EC3</b></p>	<p>E-commerce platforms often struggle to deliver personalized shopping experiences. Your challenge is to build an <b>AI-powered Product Recommendation System</b> that delivers personalized suggestions based on user behavior, preferences, and previous purchases.</p> <p><b>Example Features:</b></p> <ul style="list-style-type: none"> <li>● <b>User Behavior Analysis:</b> Use machine learning to analyze user activity (searches, clicks, and purchases) to tailor product recommendations.</li> <li>● <b>Collaborative Filtering:</b> Recommend products based on the preferences of similar users, using collaborative filtering techniques.</li> <li>● <b>Dynamic Recommendations:</b> Continuously update recommendations as users browse or interact with the platform.</li> <li>● <b>Explainability:</b> Provide reasons behind recommendations (e.g., "You bought X, so we think you'll like Y").</li> </ul> <p>This system will enhance the shopping experience by providing users with accurate, personalized product suggestions, increasing engagement and sales.</p>
<p><b>EC4</b></p>	<p>With increasing concerns around data security and transaction transparency, there is a need for decentralized solutions. Your challenge is to develop a <b>Blockchain-based E-commerce Platform</b> where users can buy and sell products without relying on a central authority.</p> <p><b>Features:</b></p> <ul style="list-style-type: none"> <li>● <b>Blockchain-Powered Transactions:</b> Use blockchain to enable secure, transparent transactions between buyers and sellers, ensuring data integrity and trust.</li> <li>● <b>Smart Contracts:</b> Automate transactions using smart contracts to handle payment releases, refunds, and dispute resolutions.</li> <li>● <b>Decentralized Product Reviews:</b> Implement a decentralized system where reviews cannot be manipulated or altered, giving customers authentic feedback.</li> <li>● <b>User Control Over Data:</b> Allow users to maintain full control over their personal data, granting and revoking access to their information as needed.</li> </ul> <p>This platform will introduce a trustless e-commerce experience, reducing reliance on central authorities while enhancing security and transparency.</p>

## Logistics

<b>L1</b>	<p>Managing delivery updates is a challenge for logistics companies, especially those handling multiple packages. Your task is to develop a <b>Delivery Status Management Portal</b> that allows customers and logistics managers to easily track and update the status of ongoing deliveries.</p> <p><b>Example Features:</b></p> <ul style="list-style-type: none"><li>● <b>Delivery Status Update:</b> A simple interface for logistics managers to manually update the delivery status of packages (e.g., "Dispatched," "In Transit," "Delivered").</li><li>● <b>Customer Delivery Tracking:</b> Customers can enter their order ID or tracking number to check the latest status of their delivery.</li><li>● <b>Delivery History:</b> Show customers a history of updates for their order, including timestamps for each status change.</li><li>● <b>Admin Panel:</b> Provide a basic admin panel where logistics managers can view and manage all deliveries, update statuses, and view pending or completed deliveries.</li></ul> <p>This tool will help logistics companies keep their customers informed while allowing managers to efficiently update and track deliveries in one place.</p>
<b>L2</b>	<p>Your challenge is to develop a <b>Delivery Tracking App</b> where users can input their package's tracking number to check its status and delivery history.</p> <p><b>Example Features:</b></p> <ul style="list-style-type: none"><li>● <b>Basic Package Tracking:</b> Allow users to input a tracking number and receive status updates from the logistics provider (manually updated or via API if available).</li><li>● <b>Notification System:</b> Provide users with notifications when the status of their delivery is updated (e.g., "out for delivery," "delivered").</li><li>● <b>Delivery History:</b> Show a simple log of previous updates to the delivery status.</li><li>● <b>Driver Rating System:</b> After delivery, users can rate their delivery experience.</li></ul> <p>This app will help users easily track their deliveries without requiring real-time GPS data.</p>
<b>L3</b>	<p>Develop a machine-learning model that predicts delivery times based on historical</p>

	<p>data. Your challenge is to create a <b>Delivery Time Estimation Tool</b> that predicts how long a delivery will take based on past deliveries.</p> <p><b>Example Features:</b></p> <ul style="list-style-type: none"> <li>● <b>Historical Data Input:</b> The system should allow businesses to upload data on past deliveries, including delivery locations and times.</li> <li>● <b>Delivery Time Prediction:</b> Use simple machine learning algorithms to estimate how long future deliveries might take based on the data.</li> <li>● <b>Basic Adjustments:</b> Allow users to adjust the prediction based on factors like package size or distance.</li> <li>● <b>Performance Tracking:</b> Display the accuracy of the prediction over time as new delivery data is added.</li> </ul> <p>This tool will help logistics providers give more accurate delivery time estimates, improving customer satisfaction.</p>
L4	<p>Blockchain can help ensure transparency in the shipment process by securely recording each step in the delivery chain. Your challenge is to develop a <b>Simplified Blockchain-Based Shipment Verification System</b> that uses blockchain to verify when shipments change hands between parties.</p> <p><b>Example Features:</b></p> <ul style="list-style-type: none"> <li>● <b>Shipment Handoff Verification:</b> Use blockchain to securely record when a shipment is passed from one party (e.g., warehouse, delivery driver) to another.</li> <li>● <b>Immutable Record:</b> Ensure that each handoff is recorded on an immutable ledger, preventing tampering.</li> <li>● <b>Basic Shipment Audit:</b> Allow businesses to audit past shipments to verify the integrity of the handoff process.</li> <li>● <b>Simple Interface:</b> Provide an easy-to-use interface for viewing shipment records and verifying authenticity.</li> </ul> <p>This system will help logistics companies ensure transparency and reduce disputes about deliveries.</p>