Gen AI Exchange Hackathon

Google Cloud   H2S

Team Name : AI Coders

Team Leader Name : Deshmukh Pranathi

Problem Statement : Personalized Career and Skills Advisor

Brief about the prototype:

The prototype is a web and mobile application that provides personalized career and skill guidance for students in India.

Key Capabilities

User Profiling and Assessment, Students log in using Firebase and complete quick assessments or upload their resumes or LinkedIn data.

AI-Driven Recommendations, Google Vertex AI and PaLM 2 analyze interests and skills to suggest tailored career paths. They provide real-time demand, salary insights, and future trends using BigQuery.

Skill Gap and Learning Roadmap, The application highlights missing skills and offers curated courses, such as Google Career Certificates, Coursera, and NPTEL.

Interactive Tools

Career Path Simulator, Users can experience a "day in the life" of different careers.

Skill-to-Project Engine, This matches users with projects, hackathons, or internships.

Google Integrations include a Dialogflow CX chatbot for questions and answers, the Google Translate API for multilingual support, the Google Maps API for nearby opportunities, and the YouTube Data API for learning videos.

- ## How different is it from any of the other existing solutions?

The app offers a completely personalized career plan using Google Generative AI. It updates guidance with real-time job market data. It provides a clear roadmap for skill gaps along with courses and projects. The app features an immersive career simulator that matches projects to users. It also supports multiple languages with smooth Google service integrations, making it flexible and prepared for the future compared to static, test-based platforms.

- ## How will it be able to solve the problem?

The app addresses the issue by using Google Generative AI to provide each student with a personalized career roadmap in real-time. It matches their skills and interests with live job-market trends, points out skill gaps, recommends courses and projects, and includes a career simulator for exploring roles before making a choice. This approach ensures that guidance remains current and practical.

- ## USP of the proposed solution

A unique AI-driven platform delivers real-time, personalized career guidance. It highlights skill gaps and provides an actionable learning roadmap. Additionally, it offers an immersive career simulator. All of this is powered by Google Cloud services for up-to-date, future-ready counseling.
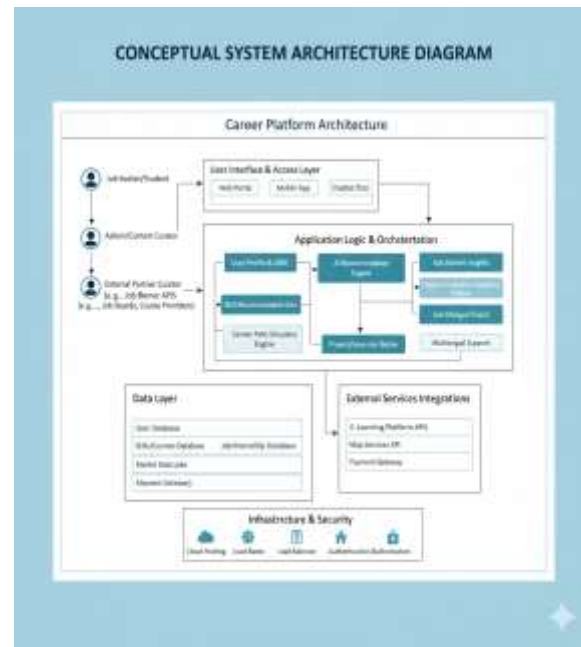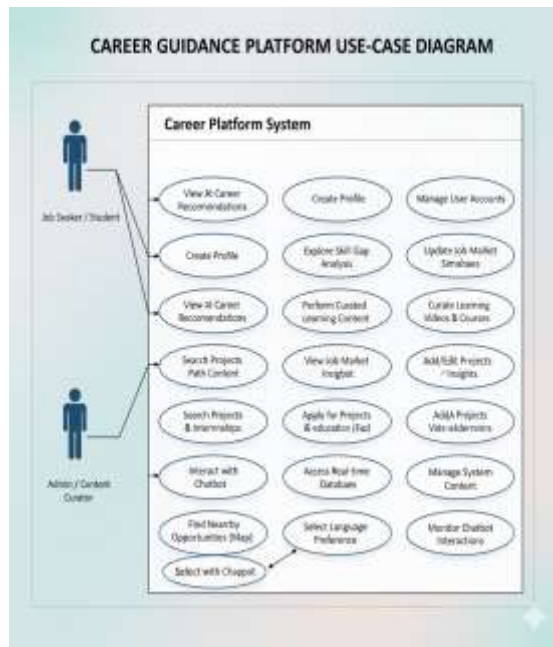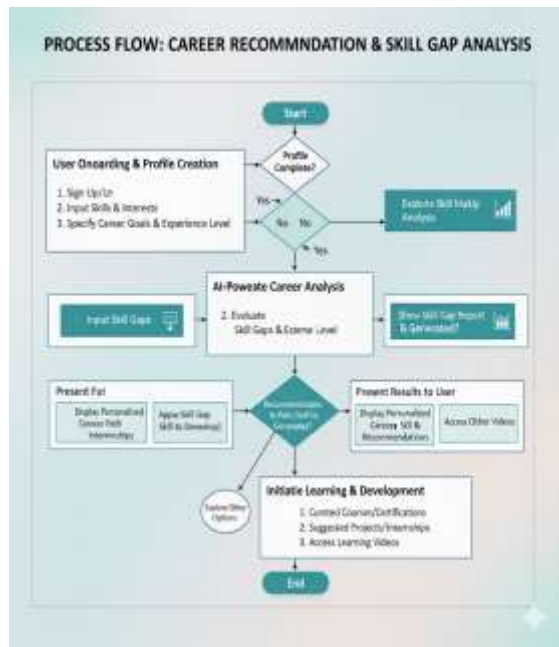
List of features offered by the solution:

- AI-driven personalized career recommendations based on skills and interests

- Skill gap analysis with selected courses, certifications, and projects

- Career Path Simulator to experience a day in the life of various roles

- Project and Internship Matching Engine for real-world experience

- Real-time job market insights, including demand, salaries, and trends

- Interactive chatbot for immediate career guidance

- Multilingual support for broader accessibility

- Nearby opportunities displayed on maps for internships and colleges

- Selected learning videos for skill development

FEATURES OF THE SOLUTION

Process flow diagram or Use-case diagram

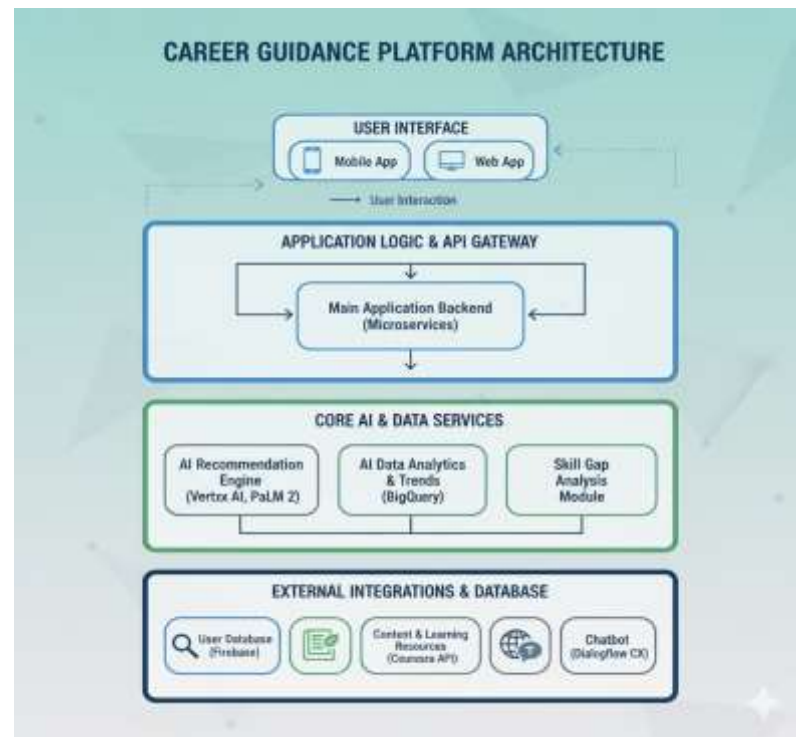Add a flow diagram or a use case diagram or an architecture diagram.

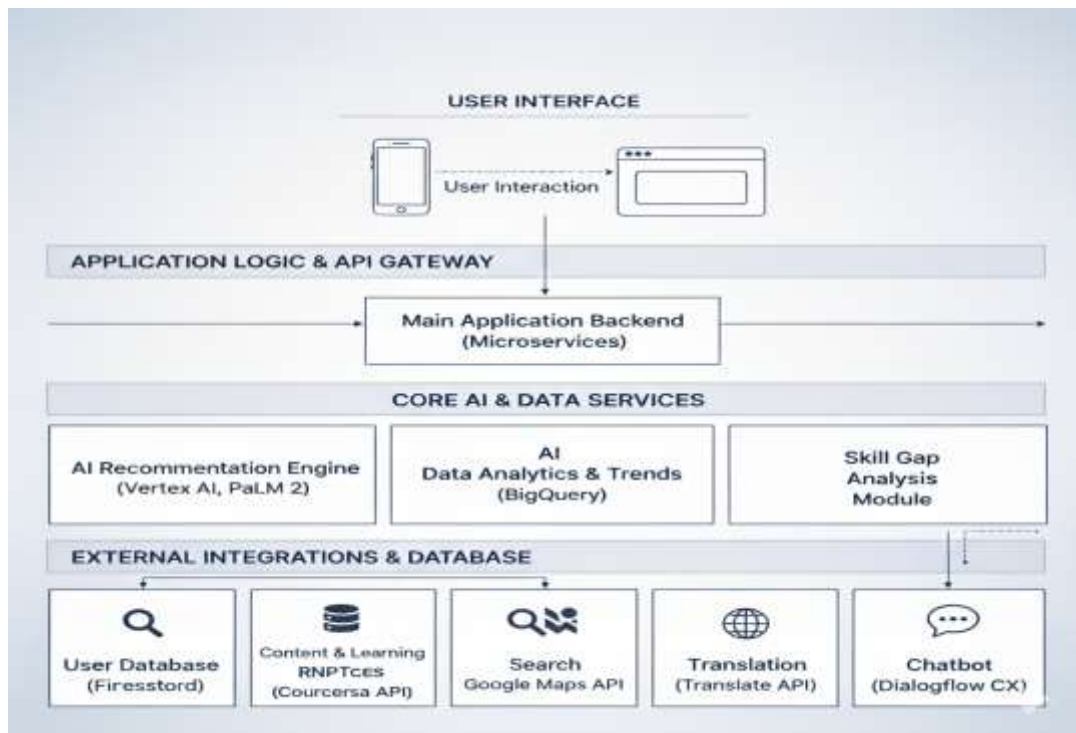## Wireframes/Mock diagrams of the proposed solution (optional)

A basic AI-generated model shows how our Personalized

Career Advisor could analyze skills, suggest careers,

highlight skill gaps, and provide courses or projects.

This demonstrates the MVP of the final solution. There

Are more add ups in the link provided, This is only a

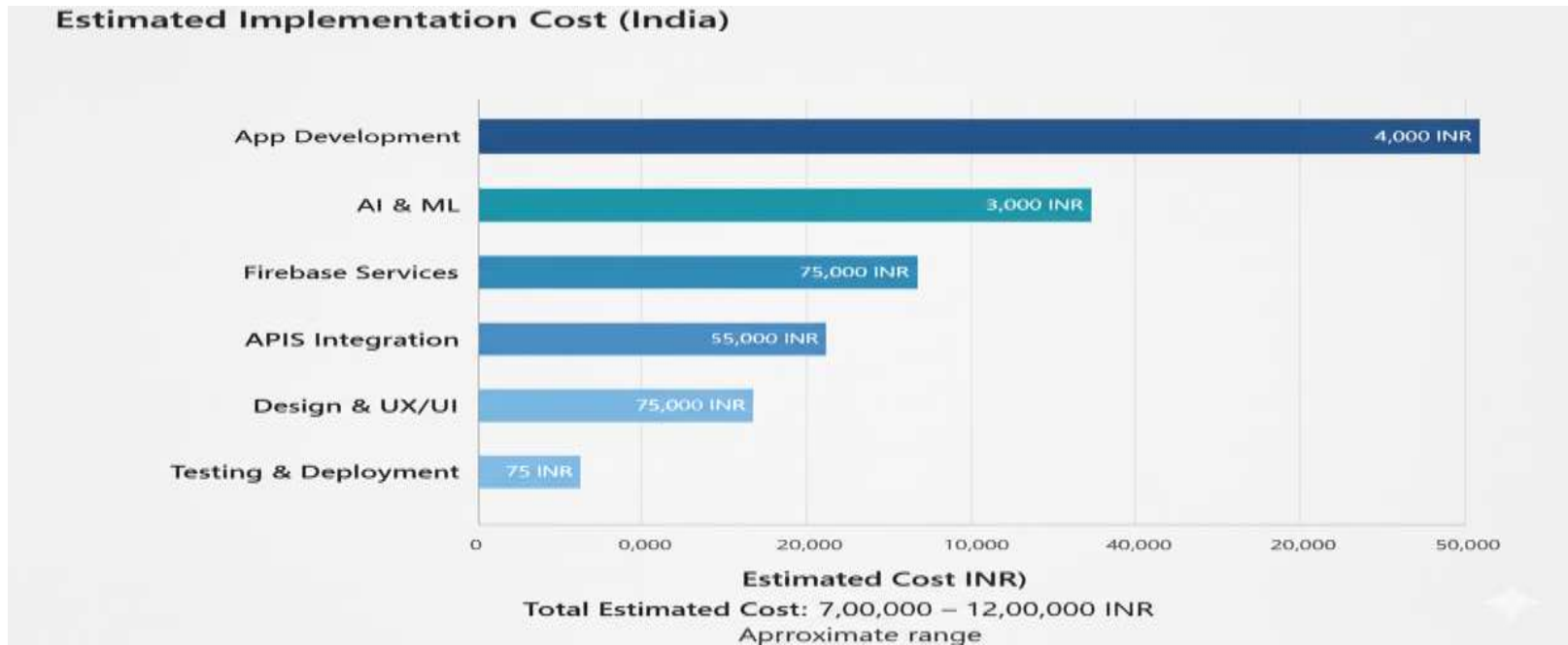Sample of the solution.

Link: https://personalized-career-njif.bolt.host

Architecture diagram of the proposed solution

Technologies to be used in the solution:

- Google Cloud Vertex AI & PaLM 2, AI-driven career recommendations and NLP analysis

- Firebase, user authentication, progress tracking, and real-time updates

- BigQuery, real-time job market insights, demand, and salary trends

- Dialogflow CX, interactive career guidance chatbot

- Google Translate API, multilingual support for diverse students

- Google Maps API, nearby internships, colleges, and opportunities

- YouTube Data API, curated skill-learning videos

- Frontend: Flutter / React, cross-platform web and mobile application

Estimated implementation cost (optional):

Estimated Implementation Cost (India)

Category	Cost
App Development	4,000 INR
AI & ML	3,000 INR
Firebase Services	75,000 INR
APIS Integration	55,000 INR
Design & UX/UI	75,000 INR
Testing & Deployment	75 INR

Estimated Cost INR)

Total Estimated Cost: 7,00,000 – 12,00,000 INR
Aprroximate range

Add as per the requirements for the hackathon:

User: Onboarding, authentication, assessments (Firebase)

AI & Recommendations: Personalized career paths, skill-gap roadmap (Vertex AI + PaLM 2)

Interactive Tools: Career simulator, project/internship matching, chatbot guidance (Dialogflow CX)

Data & Insights: Real-time job market trends (BigQuery + APIs), curated learning videos, multilingual support, nearby opportunities (Maps API)

Tech & UX: Cross-platform app (Flutter/React), scalable backend, secure data, responsive UI