

Project Design Phase
Problem – Solution Fit Template

Date	10 March 2025
Team ID	SWTID1741158432151087
Project Name	Crypto currency
Maximum Marks	2 Marks
Team Leader	A. Muthu Rafina
Team member 1	L. Leelavathi
Team member 2	S. Lekha
Team member 3	C. Madhumitha
Team member 4	S. Malini

Problem – Solution Fit Overview:

The Problem-Solution Fit ensures that the identified problem aligns with the needs of users and that the proposed solution effectively addresses it. This concept helps developers, marketers, and business strategists validate the necessity and effectiveness of their solution before further development.

Purpose:

- Address the lack of a structured and real-time cryptocurrency tracking platform for users who seek updated market data, trends, and insights.
- Provide an intuitive and engaging experience for users to monitor cryptocurrency prices, market capitalization, and historical data without manual research.
- Offer seamless navigation and real-time data retrieval from a trusted cryptocurrency API to enhance user experience.
- Improve accessibility and engagement through an interactive UI, responsive design, and well-structured data flow.

Problem Statement:

Many cryptocurrency investors and enthusiasts struggle to find accurate, real-time, and well-organized market data. Existing platforms either require paid memberships, have cluttered interfaces, or provide outdated information, leading to poor decision-making in trading and investments.

Solution:

- A React.js-based Cryptocurrency Tracking Web Application that provides users with an easy-to-navigate interface to explore market trends, price changes, and coin details.
- Integration with a cryptocurrency API ensures users get up-to-date and detailed information on various digital assets.
- Axios-powered API requests ensure smooth data retrieval with minimal delays.
- Categorization, filtering, and search functionalities improve accessibility and user engagement.
- A scalable and responsive UI design ensures seamless experience across different devices, catering to both beginner and experienced traders.

Project Design Phase
Proposed Solution Template

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Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Many users struggle to find real-time, structured, and reliable cryptocurrency market data. Existing platforms either require paid memberships, lack intuitive interfaces, or fail to provide accurate real-time insights, making investment decisions challenging.
2.	Idea / Solution description	Many users struggle to find real-time, structured, and reliable cryptocurrency market data. Existing platforms either require paid memberships, lack intuitive interfaces, or fail to provide accurate real-time insights, making investment decisions challenging.
3.	Novelty / Uniqueness	Free, structured, and real-time access to categorized cryptocurrency data with an intuitive and user-friendly interface. Advanced filtering and personalized watchlists enhance user experience.
4.	Social Impact / Customer Satisfaction	Provides accessibility to real-time financial data, empowering users to make informed investment decisions. Reduces reliance on paid platforms, promoting financial inclusivity and transparency in the crypto space.

Project Design Phase
Solution Architecture

Date	10 March 2025
Team ID	SWTID1741158432151087
Project Name	Crypto currency
Maximum Marks	4 Marks
Team Leader	A. Muthu Rafina
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Solution Architecture:

The solution architecture for the Cryptocurrency Tracking Application ensures a scalable, efficient, and user-friendly platform for tracking real-time cryptocurrency market data, trends, and analytics.

Goals of the Solution Architecture:

Identify the Best Tech Solution:

- Utilize modern front-end frameworks (React.js) and APIs (RapidAPI, CoinGecko) to provide a seamless and interactive crypto market tracking experience.

Define Structure & Characteristics:

- Ensure a modular, scalable, and maintainable software architecture that supports future feature enhancements like AI-based price predictions and DeFi analytics.

Outline Features & Development Phases:

- Clearly define project milestones, including UI/UX design, API integration, database structuring, and deployment strategy.

Establish Specifications for Development & Delivery:

- Provide well-defined guidelines for system architecture, API integrations, data flow, and real-time data handling.
- Implement a high-performance backend to support large-scale user requests without delays.

