Proposed Solution Template

Date	03 feb 2026
Team ID	LTVIP2026TMIDS77693
Project Name	Heart Disease Analysis
Maximum Marks	2 Marks

Proposed Solution Template

1. Problem Statement (Problem to be solved)

Heart disease is one of the leading causes of death worldwide. Healthcare professionals and policymakers face difficulty in analyzing large volumes of heart disease data to identify key risk factors such as age, obesity, smoking, diabetes, and lifestyle habits. Traditional analysis methods are time-consuming and lack interactive insights. Therefore, there is a need for a visual and data-driven solution that helps identify patterns, high-risk groups, and preventive strategies effectively.

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2. Idea / Solution Description

The proposed solution is to develop an interactive data visualization system using Tableau integrated with a MySQL database and Flask web application.

The system will:

- Store heart disease dataset in MySQL.
- Perform SQL operations for structured analysis.
- Connect Tableau to the database.
- Create 8–10 interactive visualizations.
- Develop a responsive dashboard.
- Embed dashboard into a Flask web application for browser access.

This solution transforms raw data into meaningful insights for doctors, policymakers, and individuals.

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3. Novelty / Uniqueness

- Combines SQL + Tableau + Flask integration.
- Provides interactive and responsive dashboards.
- Enables web-based access to healthcare analytics.
- Focuses on preventive healthcare through visual storytelling.
- Includes storyboard presentation of insights.

Unlike static reports, this system allows dynamic filtering and real-time exploration.

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4. Social Impact / Customer Satisfaction

Social Impact:

- Promotes awareness about heart disease risk factors.
- Helps early identification of high-risk groups.
- Supports preventive healthcare measures.

Customer Satisfaction:

- Doctors get quick visual insights.
- Policymakers receive data-backed recommendations.
- Individuals understand their health risks easily.

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5. Business Model (Revenue Model)

Possible revenue models include:

- Subscription-based dashboard access for hospitals.
- Government health department analytics solutions.
- Healthcare consultancy data reporting services.
- Premium analytics services for research institutions.

Future expansion can include AI-based risk prediction as a paid feature.

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6. Scalability of the Solution

- Can handle larger datasets.
- Can integrate additional health parameters.
- Can add machine learning models in future.
- Can deploy on cloud platforms.
- Can be expanded for other diseases like diabetes, cancer, etc.