Project design Phase-II
Technology Stack(Architecture & Stack)

Date	30 January 2026
Team ID	LTVIP2026TMIDS91241
Project Name	HeartDisease Analysis
Maximum Marks	4 Marks

Technical Architecture:

Visualization tool for Heart disease Analysis in 2019 and 2020s

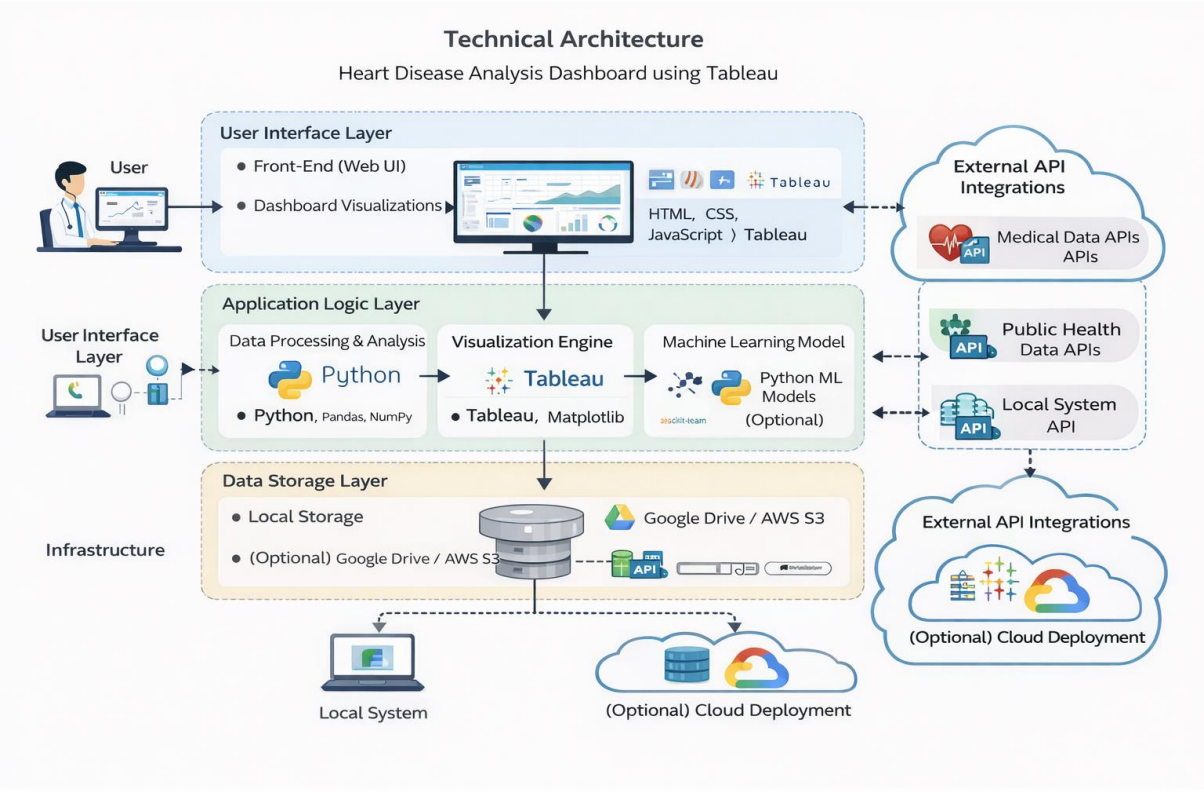

Table 1: System Components

S.No	Component	Description	Technology
1	User Interface	Interface through which users interact with the system to view dashboards and insights	HTML, CSS, JavaScript, Bootstrap
2	Application Logic-1	Handles user authentication, navigation, and routing	Python (Flask)
3	Application Logic-2	Processes data and generates analytical insights	Python (Pandas, NumPy)
4	Application Logic-3	Handles visualization embedding and story flow	Tableau Public Integration
5	Database	Stores heart disease dataset and user details	CSV / SQLite
6	Cloud Database	Stores dashboards and stories online	Tableau Public
7	File Storage	Stores reports and static files	Local File System
8	External API-1	Used for embedding interactive dashboards	Tableau Embed API
9	External API-2	Used for animations and UI effects	AOS (Animate on Scroll)
10	Machine Learning Model	Predicts heart disease risk based on patient features	Scikit-learn (Random Forest / Logistic Regression)
11	Infrastructure (Server / Cloud)	Hosts the application and dashboards	Local System / Tableau Cloud

Table 2: Application Characteristics

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	Frameworks used to develop the application	Flask, Bootstrap, Pandas
2	Security Implementations	Protects user data and access	Login authentication, session management
3	Scalable Architecture	Supports multiple users and future expansion	3-Tier Architecture (UI, Logic, Data)
4	Availability	Application accessible anytime via web	Tableau Public, Web Browser
5	Performance	Fast loading of dashboards and reports	Optimized queries, caching