

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

Date	31 January 2026
Team ID	LTVIP2026TMIDS28502
Project Name	Visualizing Housing Market Trends: An Analysis of Sale Prices and Features using Tableau
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

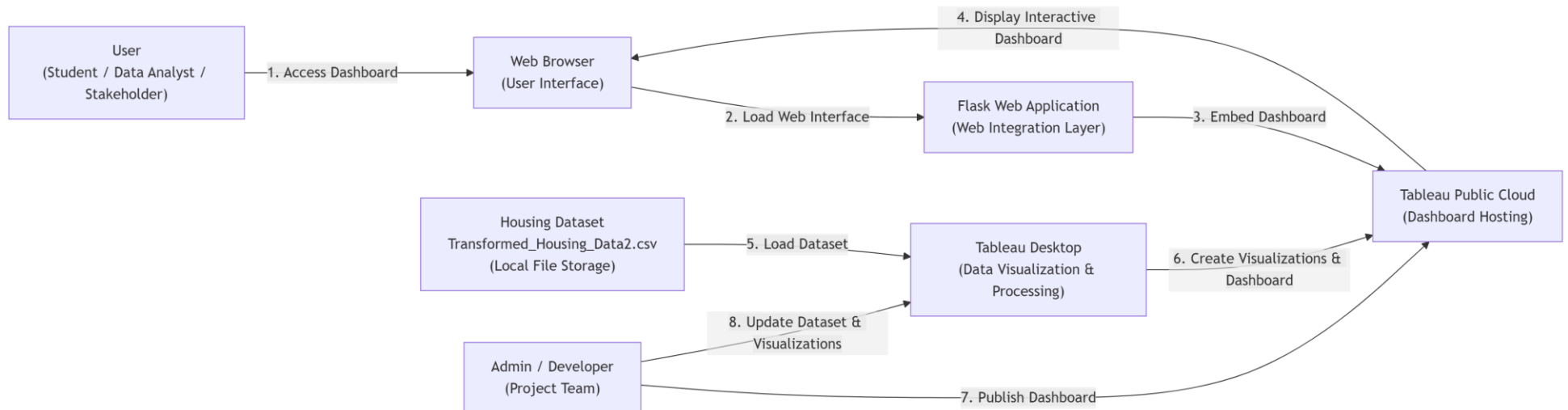


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
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1	User Interface	Web interface used to view and interact with Tableau dashboards and visualizations	HTML, CSS, Web Browser
2	Application Logic-1	Logic for loading and visualizing housing dataset	Tableau Desktop
3	Application Logic-2	Logic for dashboard publishing and hosting	Tableau Public
4	Application Logic-3	Logic for embedding dashboard into web application	Python Flask Framework
5	Database	Housing dataset stored in CSV format	CSV File (Transformed_Housing_Data2.csv)
6	Cloud Database	Cloud-based visualization hosting platform	Tableau Public Cloud
7	File Storage	Storage of housing dataset and project files	Local File System
8	External API-1	Visualization rendering and dashboard hosting service	Tableau Public Service
9	External API-2	Web browser rendering for dashboard access	Web Browser Engine
10	Visualization Engine	Data analysis and visualization processing	Tableau Visualization Engine
11	Infrastructure (Server / Cloud)	Application deployment and dashboard access	Local System, Tableau Public Cloud, Flask Local Server

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	Framework used for web integration and dashboard embedding	Python Flask
2	Security Implementations	Secure access to dashboard via Tableau Public and controlled dataset usage	Tableau Public Access Control, Local File Security
3	Scalable Architecture	Architecture supports addition of new datasets, dashboards, and visualizations	Tableau Public Cloud, Modular Dashboard Design

4	Availability	Dashboard is available online and accessible anytime through web browser	Tableau Public Cloud Hosting
5	Performance	Fast loading and interactive visualization performance with optimized dashboard design	Tableau Visualization Engine, Web Browser Rendering