

Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	28 June 2025
Team ID	LTVIP2025TMID51430
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:

Component	Description	Technology
Data Source	Collects housing market data from various sources	SQL, APIs
Data Processing	Cleans and transforms data for analysis	Python, Pandas
Data Storage	Stores processed data for easy access	SQL Database
Visualization	Creates interactive dashboards for data presentation	Tableau
Reporting	Generates reports for stakeholders	Tableau, Power BI
User Interface	Front-end for user interaction with data	JavaScript, React
Analytics	Performs statistical analysis on housing trends	R, Python
Deployment	Hosts the application for end-users	AWS, Azure

Table-2: Application Characteristics

Characteristics	Description	Technology
Scalability	Ability to handle increasing amounts of data and users	Cloud Services (AWS, Azure)
Performance	Ensures fast data processing and response times	In-memory Databases (Redis)
Usability	User-friendly interface for easy navigation	React, Angular
Security	Protects user data and application integrity	HTTPS, OAuth, JWT
Interoperability	Ability to integrate with other systems and APIs	RESTful APIs, GraphQL

Example: Architectural diagram creation guide

