Project Design Phase
Solution Architecture

Date	27 June2025
Team ID	LTVIP2025TMID49022
Project Name	Visualizing Housing Market Trends: An Analysis of Sale Prices and Features using Tableau
Maximum Marks	4 Marks

Solution Architecture:

To analyze housing market trends by visualizing sale prices and property features (e.g., location, square footage, bedrooms) using Tableau, enabling stakeholders to derive actionable insights for decision-making.

Solution Architecture Goals

1. **Business Problem Alignment:**

   o Address the need for a clear, data-driven understanding of housing market dynamics.

   o Enable real estate agents, investors, and policymakers to identify trends, outliers, and correlations.

2. **Stakeholder Communication:**

   o Describe the structure and behavior of the Tableau dashboard to non-technical stakeholders.

   o Highlight key metrics (e.g., median sale price, price/sqft, regional comparisons).

3. **Features and Phases:**

   o **Phase 1:** Data collection and cleaning (e.g., CSV/Excel files, APIs).

   o **Phase 2:** Dashboard design (interactive maps, scatter plots, time-series graphs).

   o **Phase 3:** Deployment (Tableau Public/Server) and user feedback.

4. **Specifications:**

   o Data sources: Public datasets (e.g., Zillow, Kaggle).

   o Tools: Tableau Desktop for visualization, Python/Pandas for data preprocessing (optional).

   o Output: Interactive dashboard with filters (e.g., by year, zip code).

Example - Solution Architecture Diagram: