Project Design Phase
Proposed Solution Template

Date	28 January 2026
Team ID	LTVIP2026TMIDS66669
Project Name	Visualization of Housing Market Trends
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Real estate companies and property investors struggle to extract actionable insights from raw housing transaction data. Existing reports are static and fail to visually communicate the impact of renovation history, house age, and structural features on sale prices, leading to poorly informed pricing and investment decisions.
2.	Idea / Solution description	A Tableau-based interactive visualization solution with four unique dashboards covering Overall Data Overview, Total Sales by Years Since Renovation, Distribution of House Age by Renovation Status, and House Age Distribution by Bathrooms, Bedrooms and Floors — embedded in a Flask web application for broad accessibility.
3.	Novelty / Uniqueness	Combines multi-dimensional Tableau visualizations (KPI cards, histogram, pie chart, grouped bar chart) with a 3-scene narrative Tableau Story and dynamic Top-N filters for Sale Price and House Age. The Flask embedding makes dashboards accessible without requiring Tableau Desktop installation.
4.	Social Impact / Customer Satisfaction	Empowers buyers, sellers, and urban planners with transparent housing market data. Reduces information asymmetry in real estate, enables evidence-based renovation investment decisions, and supports fair pricing for both buyers and sellers.
5.	Business Model (Revenue Model)	Can be offered as a SaaS (Software as a Service) to real estate agencies, property management firms, and investment platforms via a subscription model. Can also be integrated into existing property listing platforms via embedded dashboard APIs.

| 6. | Scalability of the Solution | The modular Tableau workbook design allows adding new data sources (geographic location, school ratings, proximity to amenities) or expanding to new city/region datasets by reconnecting Tableau to updated CSV files. The Flask app can be deployed on cloud platforms (AWS, Azure) to support enterprise-scale user access. |