Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	01 February 2026
Team ID	LTVIP2026TMIDS38402
Project Name	Visualizing Housing Market Trends: An Analysis of Sale Prices and Features using Tableau
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Data Collection & Extraction	Collect housing dataset from database / CSV file Connect dataset to Tableau Verify data loading
FR-2	Data Preparation	Clean missing values Create calculated fields (House Age, Years Since Renovation) Format data types correctly
FR-3	Data Visualization	Create charts for price vs bedrooms, bathrooms, floors Create age distribution charts Create renovation impact charts
FR-4	Dashboard Development	Design 4 scenario dashboards Add filters (bedrooms, bathrooms, renovation years) Make dashboard interactive
FR-5	Story Creation	Create Story with multiple scenes Add scenario-wise explanation Arrange charts logically
FR-6	Web Integration	Embed Tableau dashboard into Flask web application Ensure dashboard loads in browser

Non-functional Requirements:

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The dashboard should be user-friendly, easy to navigate, and visually clear so users can understand housing trends without technical knowledge.
NFR-2	**Security**	The dataset and dashboard access should be protected. Only authorized users should access the web application. Data should not be modified by unauthorized users.
NFR-3	**Reliability**	The system should provide accurate visualizations and consistent results without errors during analysis and filtering
NFR-4	**Performance**	The dashboard should load quickly even with large housing datasets. Filters and calculations should respond without delay.
NFR-5	**Availability**	The web application and dashboards should be accessible anytime when hosted on the server.
NFR-6	**Scalability**	The system should support additional data (future housing data) without affecting performance or requiring major redesign.