

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

Date	24 <sup>th</sup> July 2025
Team ID	PNT2025TMID10260
Project Name	VISUALIZING HOUSING MARKET TRENDS
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 Import and Processing	Import housing dataset into Tableau
		Data transformation and cleaning
		Validate data quality and completeness
FR-2	Interactive Dashboard Creation	Create overall data overview dashboard
		Develop sales by renovation years histogram
		Build house age distribution pie chart
		Design grouped bar chart for house features
FR-3	Data Visualization and Analytics	Generate average sales price calculations
		Calculate total area metrics
		Analyze renovation impact on pricing
		Create age-based distribution analytics
FR-4	Reporting and Export Functionality	Export visualizations as images/PDFs
		Generate summary reports
		Create stakeholder presentation materials

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Dashboard should be intuitive and easy to navigate for real estate analysts, marketing teams, and executives with minimal training required
NFR-2	<b>Security</b>	Ensure data privacy and secure access to housing market data with appropriate user authentication and authorization controls
NFR-3	<b>Reliability</b>	System should provide consistent and accurate visualizations with 99.5% uptime and reliable data processing capabilities
NFR-4	<b>Performance</b>	Dashboard should load within 3 seconds and handle interactive filtering smoothly even with large datasets containing thousands of housing records
NFR-5	<b>Availability</b>	Tableau dashboard should be accessible 24/7 to stakeholders across different time zones with minimal scheduled maintenance downtime
NFR-6	<b>Scalability</b>	Solution should accommodate growing datasets and additional visualization requirements as ABC Company expands its housing market analysis