

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

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| Date | 15 FEB 2026 |
| Team ID | LTVIP2026TMIDS47436 |
| 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 | Usability | Dashboard should be intuitive and easy to navigate for real estate analysts, marketing teams, and executives with minimal training required |
| NFR-2 | Security | Ensure data privacy and secure access to housing market data with appropriate user authentication and authorization controls |
| NFR-3 | Reliability | System should provide consistent and accurate visualizations with 99.5% uptime and reliable data processing capabilities |
| NFR-4 | Performance | Dashboard should load within 3 seconds and handle interactive filtering smoothly even with large datasets containing thousands of housing records |
| NFR-5 | Availability | Tableau dashboard should be accessible 24/7 to stakeholders across different time zones with minimal scheduled maintenance downtime |
| NFR-6 | Scalability | Solution should accommodate growing datasets and additional visualization requirements as ABC Company expands its housing market analysis |