**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 28 June 2025 |
| Team ID | LTVIP2025TMID50749 |
| 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.

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| FR  No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
| FR-1 | Data Import | - Import data from CSV- Live database integration (e.g., MySQL, if applicable) |
| FR-2 | Data Cleaning & Transformation | - Clean missing values- Add calculated fields (e.g., TotalAreaSqft, SalePriceBin) |
| FR-3 | Data Visualization | - Create Tableau worksheets- Build multiple interactive dashboards |
| FR-4 | User Interaction | - Filter by location, price range, features (e.g., bedrooms, condition, renovation)- Comparative charts (bar, scatter, etc.) |
| FR-5 | User Access | - Role-based views (Homebuyer, Investor, Agent, Analyst)- Download/export insights (PDF/image) |
| FR-6 | Feedback Loop | - Stakeholder review & feedback- Implement iterative revision cycles |

# Non-functional Requirements:

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

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| NFR  No. | Non-Functional Requirement | Description |
| NFR-1 | Usability | Intuitive UI with clear filters, legends, and navigation for all users |
| NFR-2 | Security | Role-based access control; secure database connection |
| NFR-3 | Reliability | Handles malformed data smoothly; ensures visualization and calculation accuracy |
| NFR-4 | Performance | Fast loading and responsive visualizations, even with large datasets |

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| NFR  No. | Non-Functional Requirement | Description |
| NFR-5 | Availability | Accessible on desktops, tablets, mobiles; minimal downtime |
| NFR-6 | Scalability | Supports future data growth and feature expansions |