

Project Design Phase-II

Data Flow Diagram & User Stories

Date	29 June 2025
Team ID	LTVIP2025TMID50072
Project Name	Visualizing Housing Market Trends: An Analysis of Sale Prices and Features using Tableau
Maximum Marks	4 Marks

Data Flow Diagrams:

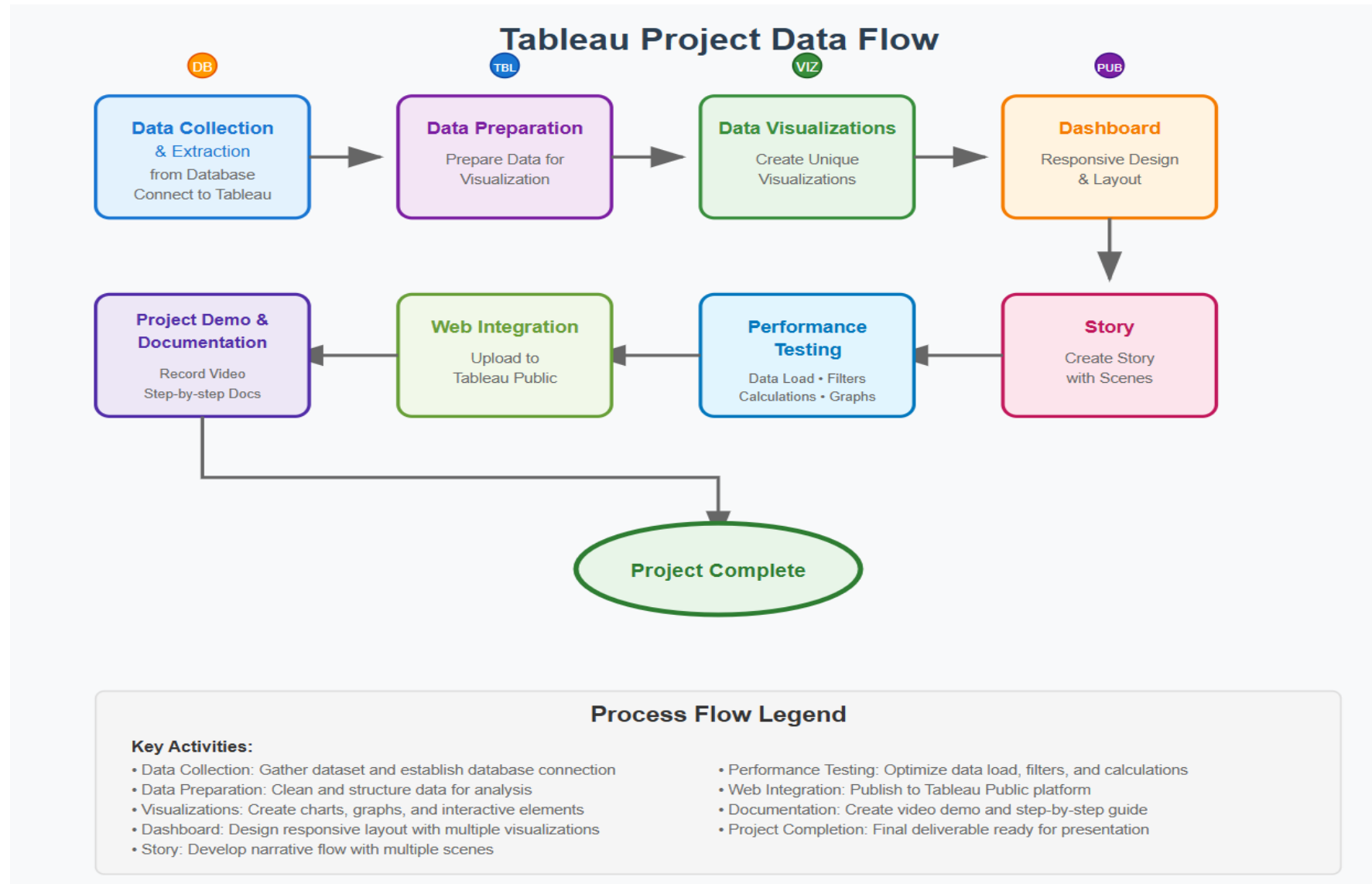
A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Flow Integration & Dependencies

Sequential Dependencies:

1. **Data Collection** must be completed before **Data Preparation**
2. **Data Preparation** enables effective **Data Visualizations**
3. **Visualizations** form the foundation for **Dashboard Creation**
4. **Dashboards** provide content for **Story Development**
5. **Performance Testing** runs parallel to all development phases
6. **Web Integration** requires completed dashboards and stories
7. **Documentation** captures the entire development process

Data Flow Diagram :



User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Data Administrator	Performance Optimization	USN-1	As a Data Administrator, I want to ensure optimal dashboard performance with efficient data loading and filtering, so that all users have a smooth experience regardless of data volume.	I'll create a Dashboard load time under 10 seconds Filter response time under 3 seconds	HIGH	Sprint-1
Data Administrator	Data Integration and Overview Dashboard	USN-2	As a Data Administrator, I want to establish a comprehensive data overview dashboard that displays key dataset metrics, so that I can validate data quality and provide stakeholders with foundational dataset understanding.	I'll Display total count of housing data records. Provide data quality indicators (completeness, accuracy metrics)	High	Sprint-1
Real Estate Analyst	Dataset Summary Visualization	USN-3	As a Real Estate Analyst, I want to view a comprehensive dataset overview with key housing metrics, so that I can quickly understand the scope and scale of available data for analysis.	I create Interactive summary cards showing dataset scale and export capability for summary statistics	High	Sprint-3
Marketing Team	Renovation Impact Insights	USN-4	As a Marketing Team member, I want to understand how recent renovations affect house prices, so that I can develop targeted marketing strategies for renovated properties.	I can create clear visualization of price premiums for recently renovated homes	Medium	Sprint-2
Company Executive	Strategic Housing Inventory Insights	USN-5	As a Company Executive, I want to understand the overall age profile of our housing inventory, so that I can make strategic decisions about renovation investments and market positioning.	I can create executive summary view with key percentages and comparison benchmarks with market standards	High	Sprint-1
Real Estate Analyst	Multi-dimensional House Feature Analysis	USN-6	As a Real Estate Analyst, I want to analyse house age distribution by number of bathrooms, bedrooms, and floors using grouped bar charts, so that I can identify patterns in housing characteristics and buyer preferences over time.	I can create grouped bar chart with multiple dimension breakdowns and Colour coding for different age groups	High	Sprint-3

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
All Users	Integrated Dashboard Experience	USN-7	As any system user, I want to access all housing market visualizations through a unified, responsive dashboard, so that I can efficiently navigate between different analyses and maintain context.	I construct a Single dashboard integrating all four scenarios. Global filters affecting all visualizations	High	Sprint-3
Marketing Team	Feature-based Market Segmentation	USN-8	As a Marketing Team member, I want to understand how house features (bathrooms, bedrooms, floors) correlate with house age, so that I can create targeted marketing campaigns for different property segments.	I'll perform segmentation insights for marketing purposes and trend identification for feature preferences	Medium	Sprint-3
Real Estate Analyst	Renovation vs Sales Price Analysis	USN-9	As a Real Estate Analyst, I want to analyse total sales distribution by years since renovation using histogram visualization, so that I can identify the correlation between renovation timing and property values.	I'll create Interactive histogram showing sales by years since renovation. Configurable price bins for detailed analysis. Hover tooltips displaying exact values and percentages	High	Sprint-2
Data Administrator	System Administration & Data Governance	USN-10	As a Data Administrator, I want to have comprehensive system administration capabilities including user management, data governance, security controls, and system monitoring, so that I can ensure data integrity, system security, and optimal performance for all users.	I can create, modify, and deactivate user accounts with role-based access control. Implement data lineage tracking, data quality monitoring, and audit trails	High	Sprint-1