Project Design Phase-II
Data Flow Diagram & User Stories

Date	28 June 2025
Team ID	LTVIP2025TMID51574
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.

The Data Flow Diagram (DFD) for this project outlines how housing data flows through the system, is processed in Tableau, and results in meaningful insights for end users like analysts and stakeholders.

Entities:

- Data Source: Housing Sales CSV file (raw dataset)
- Data Preprocessing (optional in Excel or Tableau Prep): Remove nulls, format dates, drop unnecessary columns
- Processing Tool: Tableau Desktop / Tableau Public
- Output: Dashboards & Visualizations
- Users: Real Estate Analysts, Marketing Teams, Executives

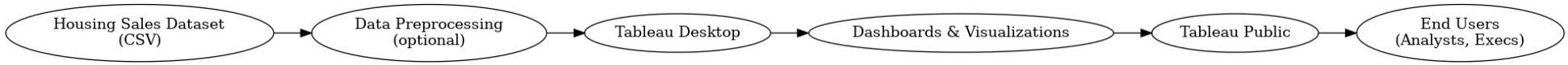
Flow Summary:

1. Raw dataset is imported into Tableau.
2. Columns like price, age, renovation status, etc. are processed.
3. Multiple visualizations (bar chart, pie chart, donut, etc.) are created.

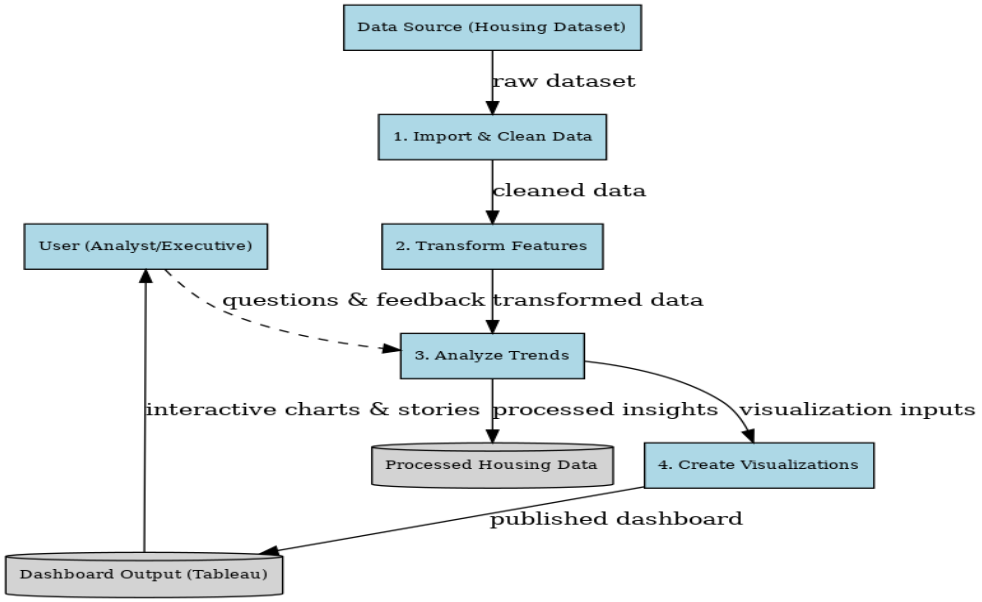
4. Dashboards are compiled and published to Tableau Public.
5. Users access dashboards for strategic decisions.

Flow And Data Flow Diagram:

Example: Flow



Example: DFD Level 0 (Industry Standard)



User Stories

📋 User Stories Table (For Tableau Dashboard Project):

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Analyst (Dashboard User)	View Sales Overview	USN-1	As an analyst, I want to view the average sale price and total house area so I can understand market size.	I can see KPIs like Avg Price and Total Basement Area in a single overview chart.	High	Sprint-1
Analyst (Dashboard User)	View Sales Overview	USN-1	As an analyst, I want to view the average sale price and total house area so I can understand market size.	I can see KPIs like Avg Price and Total Basement Area in a single overview chart.	High	Sprint-1
Analyst (Dashboard User)	Renovation Insights	USN-2	As an analyst, I want to compare total sales based on years since renovation to understand value impact.	I can view a histogram of sales vs. renovation years.	High	Sprint-1
Analyst (Dashboard User)	House Feature Distribution	USN-3	As an analyst, I want to explore house age grouped by number of bathrooms and floors.	I can view a grouped bar chart showing house age by floors, bathrooms, and bedrooms.	Medium	Sprint-2
Marketing Executive	Understand Buyer Trends	USN-4	As a marketing exec, I want to visualize renovation trends to target potential customers.	I can use the pie chart to see what percent of houses are old, renovated, or new.	Medium	Sprint-2
Admin (Dashboard Publisher)	Publish Dashboard	USN-5	As an admin, I want to upload dashboards to Tableau Public for stakeholder access.	I can publish the workbook and share the Tableau Public link.	High	Sprint-1

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Analyst (Dashboard User)	Filter Data by Year	USN-6	As an analyst, I want to filter dashboards by year or house age.	I can use filter controls to dynamically adjust views.	High	Sprint-1
Executive	Export Visual Reports	USN-7	As an executive, I want to download and share charts with my team.	I can export visuals as images or PDFs from Tableau.	Medium	Sprint-2
Analyst (Dashboard User)	House Feature Distribution	USN-3	As an analyst, I want to explore house age grouped by number of bathrooms and floors.	I can view a grouped bar chart showing house age by floors, bathrooms, and bedrooms.	Medium	Sprint-2
Marketing Executive	Understand Buyer Trends	USN-4	As a marketing exec, I want to visualize renovation trends to target potential customers.	I can use the pie chart to see what percent of houses are old, renovated, or new.	Medium	Sprint-2