Project Design Phase-II
Data Flow Diagram & User Stories

Date	28 June 2025
Team ID	LTVIP2025MID48455
Project Name	Visualising housing market trends: An analysis of sales prices and features using tableau
Maximum Marks	4 Marks

Data Flow Diagrams:

1. Raw Dataset

- Input Sources:

    o CSV files, Excel sheets, and SQL databases

- Contents:

    o Raw housing data including property features (size, location, bedrooms, etc.), sales prices, dates, and possibly geographic data.

2. Data Cleaning & Preprocessing

- Tools Used:

    o Python (for scripting, handling missing values, formatting)

    o Excel (for quick cleaning and formatting)

    o Tableau Prep (for joining, filtering, reshaping datasets)

- Processes Include:

    o Handling missing or duplicate values

    o Formatting and standardizing fields (e.g., date formats, price scales)

- o Filtering irrelevant or noisy data

- o Merging datasets (e.g., combining sales records with geographic info)

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3. Processed Dataset

- State:

  - o Cleaned and structured data that is ready for analysis

- Characteristics:

  - o Consistent, reliable, and organized

  - o Contains meaningful attributes like average price per area, property type breakdown, and time-based trends
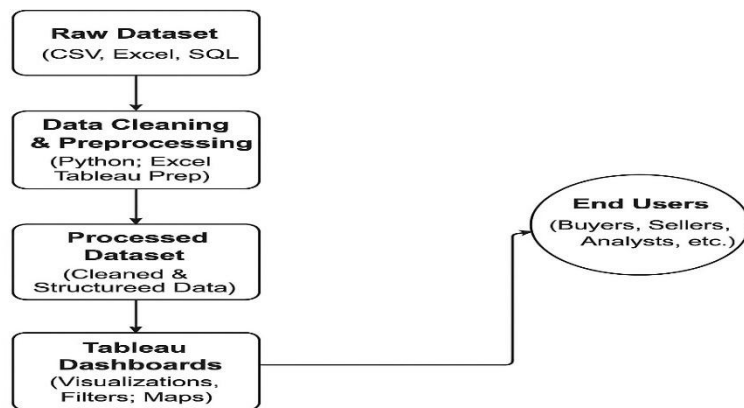
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4. Tableau Dashboards

- Contents:

  - o Visualizations: Bar charts, line graphs, heat maps, and interactive filters

  - o Filters: Location, price range, time frame, property type

  - o Maps: Geospatial distribution of housing prices or sales density

- Purpose:

  - o Transform cleaned data into interactive insights
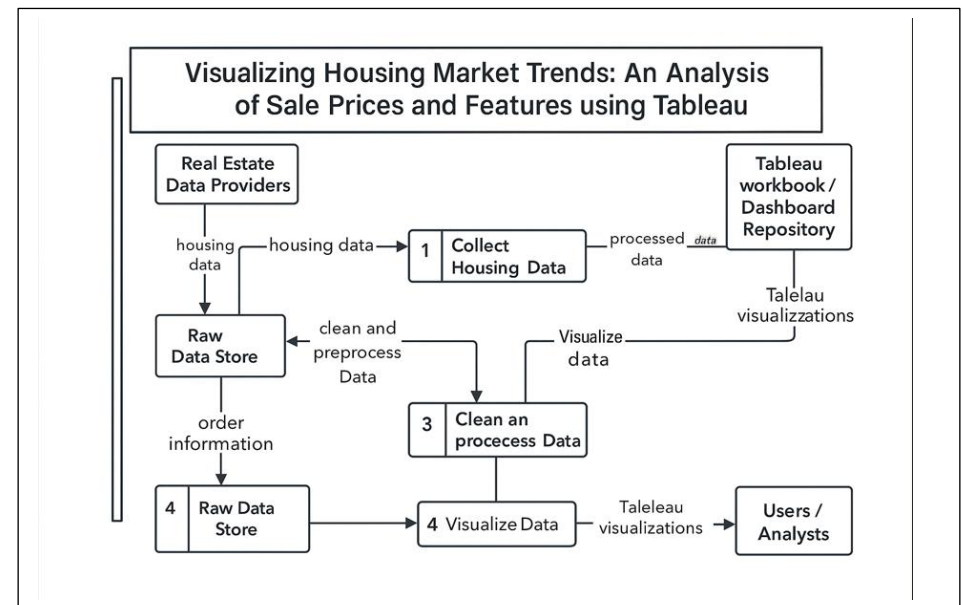
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5. End Users

- Types of Users:

  - o Buyers: Understand price trends and find best locations

- o Sellers: Analyze when and where to sell for maximum profit
- o Real Estate Analysts: Spot market trends, perform comparative analysis
- o Policy Makers or Investors: Explore housing market dynamics for decision-making
- Interaction:
  - o Directly interact with the Tableau Dashboards to explore customized insights

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Example: (Simplified)

Example: DFD

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
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail	I can register & access the dashboard with Gmail Login	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password	I can access dashboard after logging in	High	Sprint-1
	Dashboard	USN-6	As a user, I can view real-time housing trends and charts on dashboard	I can see visualizations for price trends, area stats, etc.	High	Sprint-2
Customer (Web user)	Login/Registration	USN-7	As a web user, I can register and log in using the same credentials as mobile	Cross-platform access is functional	High	Sprint-1
	Dashboard	USN-8	As a web user, I can analyze trends with more detailed charts	Extra web-based features like exporting reports work as expected	Medium	Sprint-3
Customer Care Executive	User Management	USN-9	As a CCE, I can search and view user account and activity details	I can view user data from support dashboard	Medium	Sprint-2
	Ticket Handling	USN-10	As a CCE, I can raise and respond to support tickets for customers	I can log and close support issues	Medium	
Administrator	Admin Dashboard	USN-11	As an admin, I can monitor user statistics, data usage, and system performance	Admin can see user growth and dashboard usage	High	Sprint-2
	Role Management	USN-12	As an admin, I can assign roles and manage user permissions	Only admins can access role management panel	Medium	Sprint-3
	Dataset Upload	USN-13	As an admin, I can upload updated housing datasets	The system reflects new data in dashboards after upload	High	Sprint-2