

## Project Design Phase-II

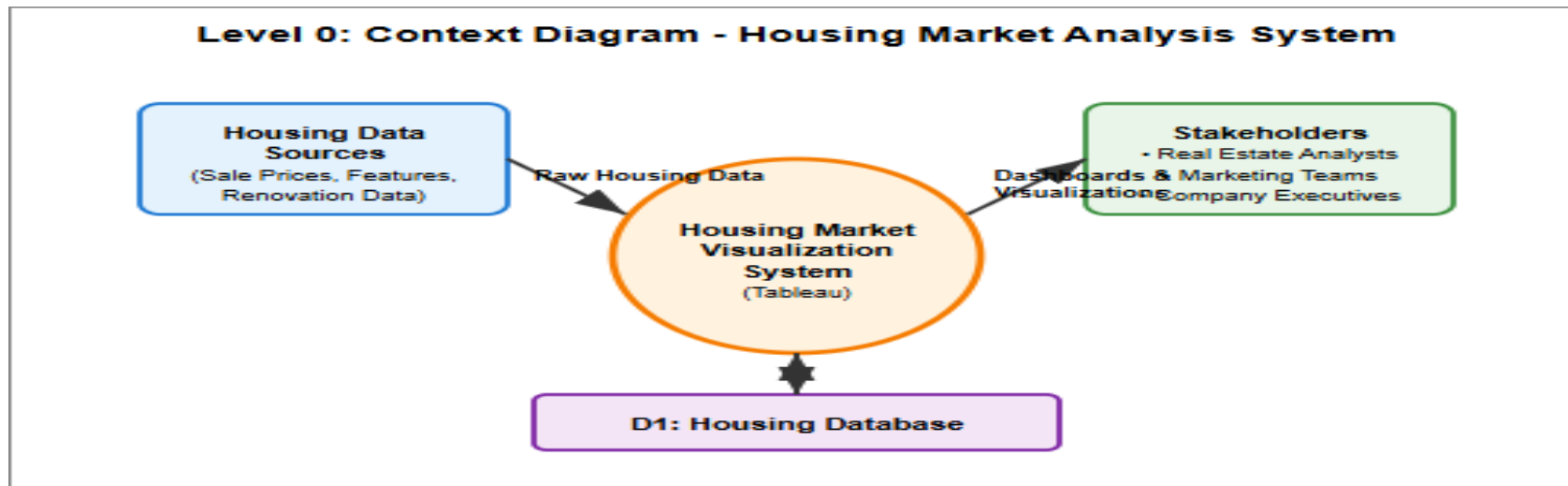
### Data Flow Diagram & User Stories

Date	25 <sup>th</sup> July 2025
Team ID	PNT2025TMID14588
Project Name	VISUALIZING HOUSING MARKET TRENDS
Maximum Marks	4 Marks

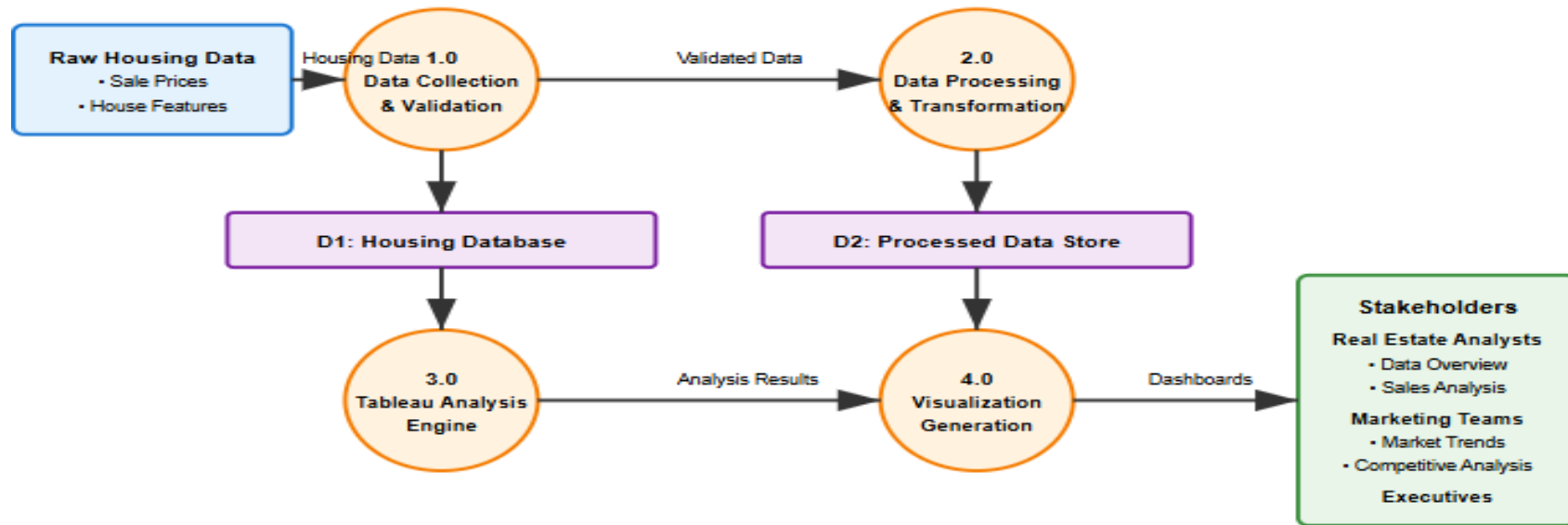
#### Data Flow Diagrams:

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.

Example: [\(Simplified\)](#)



## Level 1: Detailed Data Flow Diagram - Housing Market Analysis



### Scenarios Supported:

1. Overall Data Overview - Summary statistics and key metrics
  2. Total Sales by Years Since Renovation - Histogram analysis
  3. House Age Distribution by Renovation Status - Pie chart visualization
  4. House Age by Bathrooms, Bedrooms, Floors - Grouped bar charts
- Data Flows: Raw Data → Validation → Processing → Analysis → Visualization → Stakeholders

## User Stories:

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Real Estate Analyst	Data Overview	USN-1	As a real estate analyst, I want to view the overall housing data summary to understand dataset scale and key metrics	I can view dataset summary with count, average price, and total area	High	Sprint-1
Real Estate Analyst	Sales Analysis	USN-2	As a real estate analyst, I want to analyze total sales by years since renovation to understand renovation impact on pricing	I can analyze correlation between renovation timing and sales prices	High	Sprint-1
Real Estate Analyst	Age Distribution	USN-3	As a real estate analyst, I want to view house age distribution by renovation status to assess inventory characteristics	I can view pie chart showing age groups and renovation status	Medium	Sprint-1
Real Estate Analyst	Feature Analysis	USN-4	As a real estate analyst, I want to analyze house age distribution by bathrooms, bedrooms, and floors to identify market patterns	I can analyze house features vs age patterns in grouped bar charts	Medium	Sprint-2
Marketing Team	Market Trends	USN-5	As a marketing team member, I want to access housing market trend visualizations to inform pricing strategies	I can access visualizations showing market trends for strategic planning	High	Sprint-1
Marketing Team	Competitive Analysis	USN-6	As a marketing team member, I want to understand buyer preferences for renovated vs non-renovated properties	I can view comparative analysis of renovated vs non-renovated properties	Medium	Sprint-2
Company Executive	Executive Dashboard	USN-7	As a company executive, I want to access high-level market insights dashboard to make strategic decisions	I can access executive dashboard with key insights and KPIs	High	Sprint-1
Data Administrator	System Maintenance	USN-9	As a data administrator, I want to monitor data processing and system performance	I can monitor system performance and data integrity	Low	Sprint-2