Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	31 January 3035
Team ID	LTVIP2025TMID60627
Project Name	**Visualizing Housing Market Trends**
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

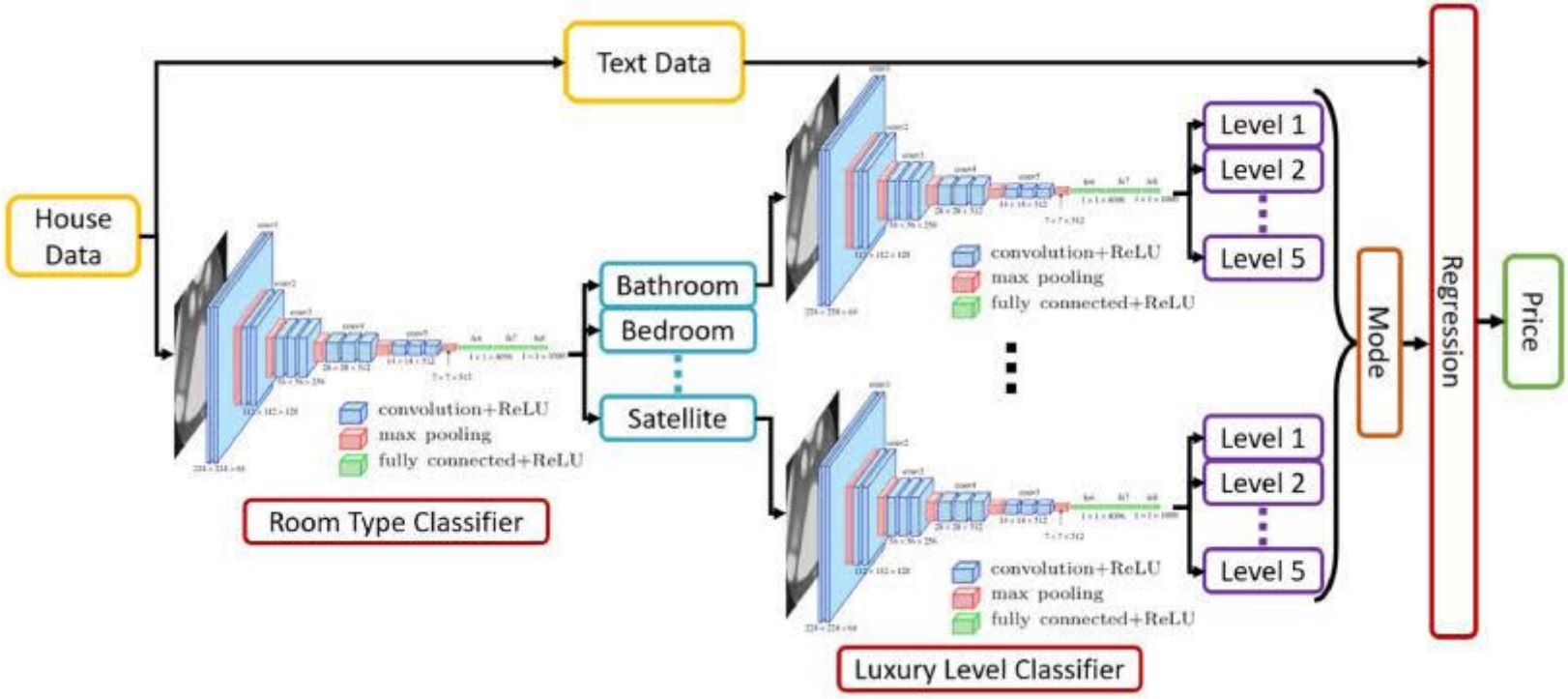

Table-1 : Components & Technologies:

Component	Technology / Tool	Description
1. Data Source	Transformed Housing Dataset	Cleaned CSV/Excel file containing housing attributes and sales data
2. Data Preparation	Microsoft Excel / Python	Used for initial data formatting, cleaning, and fixing issues
3. Data Analysis	Python (Pandas, NumPy)	Performed EDA (Exploratory Data Analysis) and data transformation
4. Data Visualization	Tableau	Built interactive dashboards and visual stories
5. Charts and Visuals	Tableau Worksheets	Created bar charts, pie charts, maps, lollipop, butterfly, and funnel charts
6. Dashboard Design	Tableau Stories/Dashboards	Organized multiple visualizations into dashboards and storytelling formats
7. Data Storage	Local File System / Tableau	Saved data locally and published visuals to Tableau Public
8. Sharing & Publishing	Tableau Public	Hosted and shared the final dashboards online
9. Documentation	Google Docs / Word	Prepared project reports, ideation templates, and summary documents
10. Video Recording & Posting	Loom / Screen Recorder / LinkedIn	Recorded demo walkthroughs and posted on LinkedIn for visibility

Table-2: Application Characteristics:

Characteristic	Description	Technology Used
Interactivity	Users can filter and explore data dynamically	Tableau
Visual Clarity	Uses clean charts (bar, pie, map) to present insights clearly	Tableau

Data Cleaning	**Raw housing data cleaned, renamed, and structured for analysis**	**Excel, Python (Pandas)**
Insight Generation	**Visuals help identify patterns in renovation impact, sales trends, and features**	**Python, Tableau**
Accessibility & Sharing	**Dashboards are accessible online and can be shared with stakeholders**	**Tableau Public, LinkedIn**

References:

https://c4model.com/

https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/

https://www.ibm.com/cloud/architecture

https://aws.amazon.com/architecture

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d