

## Project Development Phase

### Model Performance Test

Date	24/06/25
Team ID	LTVIP2025TMID51669
Project Name	Visualizing housing market trends: an analysis of sale prices and features
Maximum Marks	

#### Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No	Parameter	Screenshot / Values
1.	Data Rendered	The dataset used contains housing sales data with fields such as Sale Price, Number of Bedrooms, Bathrooms, Flat Area, Lot Area, Basement Area, House Age, Condition, Renovation Status, Zipcode Group, and others. The data was provided in .csv format and includes derived and transformed columns suitable for advanced analytics and visualizations in Tableau.
2.	Data Preprocessing	<p>Before importing the data into Tableau, preprocessing was done using Python (Pandas). The following steps were performed:</p> <ul style="list-style-type: none"><li>• Removed null or missing values.</li><li>• Renamed columns for clarity (e.g., “No of Bedrooms” → “Bedrooms”).</li><li>• Created calculated fields like “TotalAreaSqft” (sum of flat, lot, and basement areas).</li><li>• Generated dummy variables for house conditions and renovation status.</li><li>• Transformed categorical fields to improve Tableau usability.</li></ul> <p>The final cleaned dataset was stored and imported into Tableau for visualization.</p>

3.	Utilization of Filters	<p>Multiple filters were implemented in Tableau to improve interactivity and user exploration. These include:</p> <ul style="list-style-type: none"> <li>• Number of Bedrooms</li> <li>• Number of Bathrooms</li> <li>• House Condition</li> <li>• Renovation Status (Yes/No)</li> <li>• Zipcode Group</li> <li>• Sale Price Bins</li> </ul> <p>These filters allow users to drill down and compare trends across different property types and regions.</p>
4	Calculated Fields Used	<p>Several calculated fields were created in Tableau to enhance analysis and interactivity:</p> <ul style="list-style-type: none"> <li>• TotalAreaSqft → [FlatAreaSqft] + [LotAreaSqft] + [BasementAreaSqft]</li> <li>• SalePriceBin → Binning Sale Price into ₹100,000 intervals</li> <li>• Condition_Excellent, Condition_Good, etc. → Dummy fields (0/1)</li> <li>• Ever_Renovated_Yes → Dummy field to identify renovated homes</li> <li>• AvgPrice → AVG([SalePrice]) for grouped insights</li> <li>• HouseAge → Difference between year built and sale date if available (or derived field if pre-calculated)</li> </ul> <p>These fields enable comparisons across pricing, condition, and space utilization.</p>

Sheet 1



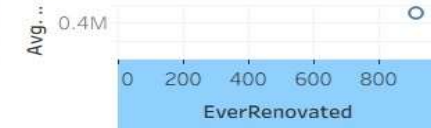
Sheet 2



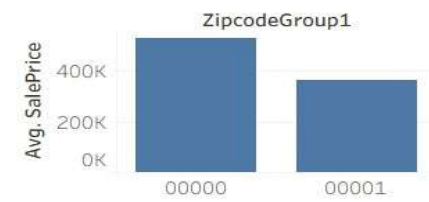
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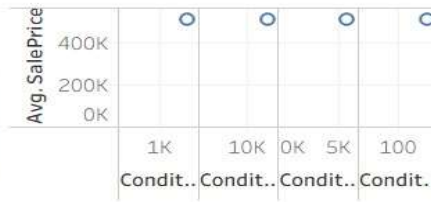
Sheet 4



Sheet 5

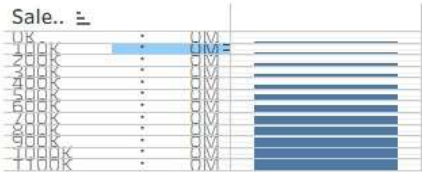

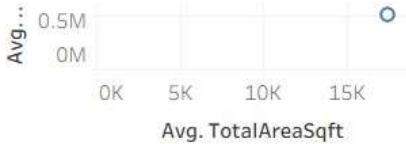

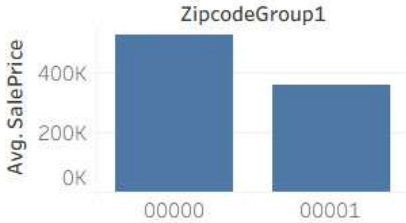
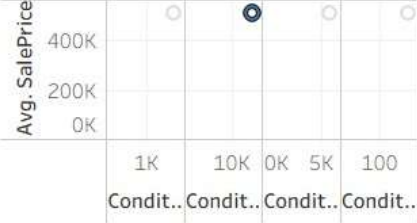



Sheet 6



Sheet 7



6	Story Design	<div>Story 1</div> <div>Overview of Sales Distribution</div> <div> <div>Sheet 1</div>  </div> <div> <div>Sheet 2</div>  </div> <div> <div>Sheet 3</div>  </div> <div> <div>Sheet 4</div>  </div> <div> <div>Sheet 5</div>  </div> <div> <div>Sheet 6</div>  </div> <div> <div>Sheet 7</div>  </div>
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