Ideation Phase

Brainstorm & Idea Prioritization Template

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| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID50749 |
| Project Name | Visualizing Housing Market Trends: An Analysis  of Sale Prices and Features using Tableau |
| Maximum Marks | 4 Marks |

**Step 1: Team Gathering, Collaboration and Problem Statement**

Our team collaborated to identify pressing challenges in the real estate market, particularly in understanding how various property features influence housing sale prices. After exploring themes like housing affordability, real estate investment planning, urban development, and smart property insights, we narrowed down our focus to uncover actionable insights hidden in housing data. The objective was to visually explore trends using Tableau that would help buyers, sellers, investors, and policy makers understand patterns of sale prices based on features like area, bedrooms, renovation status, condition, location (zipcode groups), and more.

**Problem Statement:**

How can housing sale price trends and property characteristics be visualized and analyzed using Tableau to identify patterns, improve buyer/seller decision-making, and uncover insights that support strategic real estate planning?

**Step 2: Brainstorming, Idea Listing and Grouping**

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| S.No | Idea Description | Category |
| 1 | Visualize average sale price by SalePriceBin | Pricing Insights |
| 2 | Analyze impact of number of bedrooms on sale price | Property Features |
| 3 | Explore relationship between Total Area and Price (scatter plot) | Size-Based Pricing |
| 4 | Compare prices for renovated vs. non-renovated homes | Renovation Analysis |
| 5 | Group insights by Zipcode Clusters | Geographical Comparison |
| 6 | Analyze house condition vs. price using dummy variables | Quality-Based Pricing |

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| 7 | Add calculated field: TotalAreaSqft | Data Preparation |
| 8 | Create SalePriceBin with 100k intervals | Binning / Categorization |
| 9 | Use Tableau dashboard to combine insights | Dashboard Design |
| 10 | Build a Story in Tableau for narrative | Storytelling & Reporting |
| 11 | Embed Dashboard in Web Application using Flask | Deployment & Integration |
| 12 | Add filters for Bedrooms, Condition, Renovation in Dashboard | Interactive Exploration |

**Step 3: Idea Prioritization Table**

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| S.No | Idea Description | Impact | Feasibility | Priority |
| 1 | Visualize average sale price by SalePriceBin | High | Easy | High |
| 2 | Analyze impact of number of bedrooms on sale price | High | Easy | High |
| 3 | Explore TotalArea vs Price (scatter plot) | High | Easy | High |
| 4 | Compare prices for renovated vs. non- renovated homes | High | Medium | High |
| 5 | Group insights by Zipcode Clusters | Medium | Medium | Medium |
| 6 | Analyze house condition vs. price | High | Medium | High |
| 7 | Add calculated field: TotalAreaSqft | Medium | Easy | High |
| 8 | Create SalePriceBin with 100k intervals | Medium | Easy | High |
| 9 | Use Tableau dashboard to combine insights | High | Easy | High |

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| --- | --- | --- | --- | --- |
| 10 | Build a Story in Tableau | High | Medium | High |
| 11 | Embed Dashboard in Web Application | High | Hard | Medium |
| 12 | Add filters for Bedrooms, Condition, Renovation | Medium | Easy | Medium |