**#### \*\*1. Exploratory Data Analysis (EDA)\*\***

**- \*\*Day 1:\*\***

**- [ 1] Explore the cleaned dataset using Python (Pandas, NumPy).**

**- [ 1] Calculate descriptive statistics for key variables (price, bathrooms, square footage, grade, bedrooms, year built).**

**- [ 1] Create initial visualizations such as histograms for price distribution and scatter plots for initial relationships.**

**- [ 1] Document initial findings and observations in Jupyter Notebook.**

**- \*\*Day 2:\*\***

**- [ ] Examine relationships between price and bathrooms, square footage, and grade (positive correlation factors).**

**- [ ] Use scatter plots and correlation coefficients to visualize these relationships.**

**- [ ] Write up key insights in Jupyter Notebook.**

**- \*\*Day 3:\*\***

**- [ ] Investigate the correlation between price and number of bedrooms (expected strong but weaker actual correlation).**

**- [ ] Visualize using scatter plots and correlation heatmaps.**

**- [ ] Summarize observations and compare it with other factors.**

**#### \*\*2. In-Depth Analysis of Correlation Patterns\*\***

**- \*\*Day 4:\*\***

**- [ ] Explore the correlation between the year/decade the house was built and the price (assumed correlation but minimal actual impact).**

**- [ ] Visualize this using line plots and scatter plots over time.**

**- [ ] Highlight the weaker or minimal correlation and discuss potential reasons.**

**#### \*\*3. Data Visualization\*\***

**- \*\*Day 5:\*\***

**- [ ] Create additional visualizations in Python (box plots, heatmaps) to summarize all relationships.**

**- [ ] Refine the visualizations to clearly show key findings about correlations.**

**- [ ] Ensure the plots are labeled and annotated well for clarity.**

**- \*\*Day 6:\*\***

**- [ ] Start organizing all findings into a well-structured Jupyter Notebook.**

**- [ ] Include markdown cells for explanations and interpretations of each visualization.**

**#### \*\*4. Correlation Summary and Report\*\***

**- \*\*Day 7:\*\***

**- [ ] Summarize key insights on the three factors with strong positive correlations (bathrooms, square footage, grade).**

**- [ ] Provide a comparison with the weaker-than-expected correlation of bedrooms.**

**- [ ] Discuss the minimal correlation between year built and price, and suggest potential further areas of investigation.**

**- \*\*Day 8:\*\***

**- [ ] Refine all visualizations and ensure they're clear for presentation or final submission.**

**- [ ] Start drafting the conclusion and recommendations based on the analysis.**

**#### \*\*5. Finalizing the Project\*\***

**- \*\*Day 9:\*\***

**- [ ] Organize the project files, ensuring that the Jupyter Notebook is polished and the narrative flows logically.**

**- [ ] Update the GitHub repository with:**

**- [ ] Cleaned and well-commented code.**

**- [ ] Descriptions of each section and how to replicate the analysis.**

**- [ ] Visualizations and results summaries.**

**- [ ] Prepare any additional materials for presentation or submission.**

**- \*\*Day 10:\*\***

**- [ ] Conduct a final review of the project.**

**- [ ] Ensure that the project documentation is clear, concise, and professional.**

**- [ ] Submit or share the project as needed.**