

## Project Initialization and Planning Phase

Date	15 March 2024
Team ID	LTVIP2025TMID25127
Project Title	Visualizing Housing Market Trends: An Analysis of Sale Prices and Features using Tableau
Maximum Marks	3 Marks

### Project Proposal (Proposed Solution) template

Our project simplifies complex real estate data using interactive Tableau visualizations, enabling real estate analysts to make data-driven decisions. The solution highlights pricing trends, property features, and market influences, offering insights into how factors like renovations, location, and house conditions impact sale prices. By transforming raw data into clear, user-friendly dashboards, analysts can quickly identify market trends and investment opportunities.

Project Overview	
Objective	The objective of this project is to analyze housing market trends using Tableau, focusing on sale prices and key influencing factors such as renovations, location, and property features. By transforming complex real estate data into interactive visualizations, the project aims to help real estate analysts and buyers make informed, data-driven decisions efficiently.
Scope	Enhancing data clarity using Text table, Bar chart, Pie chart and Side-by-Side Visualizations
Problem Statement	
Description	To address the complexity of real estate data, I am analyzing key factors such as sale prices, renovations, location, and property features using Tableau. By creating interactive visualizations, I aim to identify market trends, compare property values, and highlight factors influencing house prices. This approach simplifies data interpretation, making it easier for real estate analysts and buyers to make informed decisions based on insights rather than assumptions.
Impact	Without clear insights, potential profitable investments or pricing strategies may be overlooked.

Proposed Solution	
Approach	Using Tableau for dynamic dashboards, interactive filters, predictive modeling, and real-time data integration to analyze housing trends.
Key Features	This project focuses on visualizing housing market trends using Tableau by analyzing sale prices and key factors like house age, renovations, and features. The solution includes interactive dashboards, dynamic filters, predictive analytics, and real-time data integration to help analysts and investors make informed decisions efficiently.

## Resource Requirements

Resource Type	Description	Specification/Allocation
<b>Hardware</b>		
Laptop	Integrated or dedicated GPU for smooth visualization	Intel i3
Memory	RAM specifications	8 GB
Storage	Disk space for data, models, and logs	512 SSD
<b>Software</b>		
Frameworks	Python frameworks	e.g., Flask
Libraries	Additional libraries	e.g., scikit-learn, pandas, numpy
Development Environment	IDE, version control	e.g., Jupyter Notebook, Git
<b>Data</b>		
Data	Source, size, format	e.g., Kaggle dataset, 10,000 images