

PROJECT PROPOSAL

Title: House Price Predictor

Course: B.Tech CSE (1st Semester)

Subject: Artificial Intelligence & Machine Learning

Class: 1CSE10



HOUSE PRICE PREDICTOR

TEAM NAME - PROPTech

Team Leader: Divyansh Pandey

Team Members:

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Submitted To:

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1. Core Concept & Problem Statement

Problem: The real estate market often lacks a transparent and accessible method for individuals to accurately estimate a property's value. Prices are influenced by numerous factors, including location, size, and amenities, making manual estimation prone to error.

Our Approach: We will build a supervised machine learning model that learns from a dataset of historical house sales to predict future house prices. This project will serve as a practical application of core AI/ML principles, including data analysis and regression modeling.

2. Project References

Dataset: We will use a publicly available dataset from Kaggle called *House Prices – Advanced Regression Techniques*. This dataset contains many house features (like number of rooms, area, etc.) which are useful for training a prediction model.

Technical Tools: The project will be developed in Python. We will use some common machine learning libraries:

- *Pandas* – to manage and organize the dataset.
- *Scikit-learn* – to build and train the prediction model.

Methodology: To understand the steps better, we will also take help from online tutorials and learning resources. These will guide us in following the proper workflow for data preprocessing, model training, and testing.



3. Project Plan

We will follow a simple but structured plan to complete the project, with each team member contributing to the different phases.

1. **Data Preparation:** We will download the dataset and prepare it for our model by cleaning it and organizing the key information.
2. **Model Building:** We will use our technical tools to build a simple model that learns from the prepared data.
3. **Prediction and Evaluation:** We will use our model to make predictions and then check how accurate they are.
4. **Documentation:** We will create a simple report or presentation that explains what we did and what our results were.

4. Expected Outcomes

By the end of this project, we aim to have:

- **A Functional Program:** A working Python program that can take a new set of house features and accurately predict its price.
- **Practical Experience:** A solid understanding of the basic steps involved in a machine learning project, from handling data to building a model.
- **Project Report:** A simple document that explains our process, our findings, and the accuracy of our final model.

