Assignment Details

- **Task:** Build a simple machine learning model to predict house prices using a structured dataset.
- **Time Duration:** 48 hours

Requirements & Expectations

1. Data Preprocessing

- Clean the dataset and handle missing values (if any).
- Encode categorical variables appropriately.
- Normalize or scale numerical features.
- Perform basic exploratory data analysis (EDA) to understand trends and correlations.

2. Model Development

- Train and compare at least **two different models** (e.g., **Linear Regression, Decision Trees, or Neural Networks**).
- Justify your choice of model based on performance metrics.

3. Model Evaluation

- Use relevant evaluation metrics:
  - **For Regression Models:** RMSE, MAE, R^2-score.
  - **For Classification Models (if applicable):** Accuracy, Precision, Recall, F1-score.
- Analyze and explain the model's performance and limitations.

4. Code Quality & Documentation

- Maintain **clean, well-structured code** following best practices.
- Include **clear comments and markdown explanations** in the Jupyter Notebook.
- Provide a brief **summary report** (Markdown or PDF) explaining your approach and findings.

Bonus (Optional, for Extra Credit)

- Deploy your model using **Flask or Django** and create an API that accepts user inputs and returns predictions.
- Host the API on **AWS/GCP** or provide instructions for running it locally.

Submission Instructions

Please submit your completed assignment via GitHub and also provide a PDF document of notebook