

The plan we have outlined is a structured and comprehensive guide for implementing a machine learning model to predict house prices. Let's break down each step-in detail:

Step 1: Data Acquisition

- **Objective:** Our primary objective was the acquisition of a dataset comprising pertinent information concerning residential properties.
- **Tasks:**
 - We found data sources like real estate websites, APIs, or public datasets. We made sure to handle data carefully and follow privacy rules.

Step 2: Data Preprocessing

- **Objective:** Our objective here was the meticulous preparation of the dataset for subsequent model training.
- **Tasks:**
 - **Data Cleaning:**

We fixed missing values, errors, and odd data using different methods.
 - **Feature Scaling:**

We made sure all numbers were in a similar range.
 - **Feature Encoding:**

We turned non-number data into numbers, picking between two methods based on the data and model.
 - **Split Data:**

We divided the data into parts to test our model.

Step 3: Feature Selection

- **Objective:** Our objective in this step was the discernment of the most pivotal features influencing house price predictions.
- **Tasks:**
 - We chose specific features to help our model avoid making predictions that are too specific to the training data.
 - We kept a record of what we picked and why, to make it clear and useful for later

Step 4: Model Selection

- **Objective:** The principal aim was to discern and adopt the most suitable regression algorithm for precise predictions.
- **Tasks:**
 - We tried different tools and found the best one.
 - We used measures like Mean Absolute Error, Root Mean Squared Error, and R-squared to check how well it worked.
 - We made sure our model was good at predicting for different situations.

Step 5: Model Training

- **Objective:** The goal here was the rigorous training of the selected model using the meticulously pre-processed dataset.
- **Tasks:**
 - We tried different tools and found the best one.
 - We used measures like Mean Absolute Error, Root Mean Squared Error, and R-squared to check how well it worked.
 - We made sure our model was good at predicting for different situations.

Step 6: Evaluation

- **Objective:** This step entailed the comprehensive assessment of the model's performance, accompanied by a commitment to iterative enhancements.
- **Tasks:**
 - We kept improving the model using what we learned from checking it.
 - We didn't stop making it better, so it stays useful.

Step 7: Project Timeline

- **Objective:** The overarching aim was to meticulously formulate a comprehensive project plan, effectively managing progress throughout the project's lifecycle.
- **Tasks:**
 - We set clear goals and deadlines to keep the project on track.
 - We assigned tasks to the team and used tools to keep track of progress.

Step 8: Documentation and Reporting

- **Objective:** Our paramount objective in this stage was the assiduous documentation of all processes, findings, and outcomes.
- **Tasks:**
 - We kept detailed records to help others understand and use our work.
 - We shared regular progress reports with everyone so they could follow along.