## Artificial Intelligence

## and

## Machine Learning

Project Abstract

Semester-IV (Batch-2022)

House price predictor

A red and white sign

Description automatically generated with low confidence

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**Title:** Predicting Home Prices using Artificial Intelligence and Machine Learning

**Abstract:**

The real estate market is complex, influenced by numerous factors ranging from location and economic conditions to architectural trends and demographic shifts. Predicting home prices accurately is crucial for buyers, sellers, and investors to make informed decisions. This project proposes the development of an Artificial Intelligence (AI) and Machine Learning (ML) model for predicting home prices, leveraging advanced algorithms and data analytics techniques.

The objective of this project is to create a robust predictive model that can analyze various features of a property and its surrounding environment to estimate its market value accurately. The model will utilize a diverse dataset encompassing information such as property characteristics (size, age, amenities), neighborhood demographics, economic indicators, and historical sales data.

Key components of the project include data collection and preprocessing, feature engineering, model selection, training, and evaluation. Various ML algorithms, including linear regression, random forests, and gradient boosting, will be explored to identify the most suitable approach for the predictive task. Feature selection techniques will be employed to determine the most relevant attributes impacting home prices.

Moreover, the project will focus on the development of a user-friendly interface to enable stakeholders to interact with the predictive model easily. This interface will allow users to input property details and receive instant price estimates based on the trained AI model's predictions.

The potential impact of this project is significant, as it can empower buyers, sellers, real estate agents, and investors with valuable insights into property valuation. By leveraging AI and ML techniques, this project aims to revolutionize the way home prices are predicted, providing more transparency and accuracy in real estate transactions.