SYSTEM DESIGN DOCUMENT

House Price Predictor
Predict The Market Value of Properties

Submitted by

ALDRIN SIMENTHY

GREESHMA PRASAD P

JYOTHIS K S

VISMAYA DINESH

On

05 - APRIL - 2021

Contents

List of Figures

1 Introduction

1.1 Purpose

This purpose of this document is to outline in detail the system design of "House price predictor". This document will provide the system Architecture use case diagram, context diagram, sequence diagram and price prediction graphs for each model in machine learning to give a better understanding of how information will be processed with regards to this system. In addition, images will be provided that show the GUI model to give a better idea of the system's user interface design.

1.2 Scope

Housing prices is an important reflection of the economy, the scope of housing prices is a major concern for both the buyer and the seller. As continuous housing prices, they lasso regression, ridge regression, Elastic Net regression, Gradient Boosting regression,SVM regression and such as a random forest regression, will be predicted using a variety of regression technique.

This document provides the design of "House price predictor". It will show how the application's functionalities work by explaining each of the system's components.

1.3 Overview

This document will cover the basic functionality of this application, its context and its design. It will cover how data flows within and out of the system. The system architecture will cover each of the components of the application and its relation to system functionality.

2 System Overview

The objective of our project is to reduce the problems faced by the customer. Proposed work aims at predicting the availability of houses based on different features of the houses and also the facilities available nearby the location of the houses. Work also includes the price prediction of the houses based on the features of the house and facilities nearby its location.

A real time dataset is prepared by analysing the major cities like Kochi, Chennai, Bangalore, Mumbai, Delhi and Kolkata. The dataset contains the following features of the houses such as Number of bedrooms, bathrooms, age of the house, transport facility, schools available in the nearby location and shopping facilities etc.

3 Design Considerations

3.1 Goals

- Ease of usability is top priority for the development process.
- The application will have buttons with labels that explain the functionality of that button.
- Make a simple UI and its give more accurate price prediction.

3.2 Development Methods

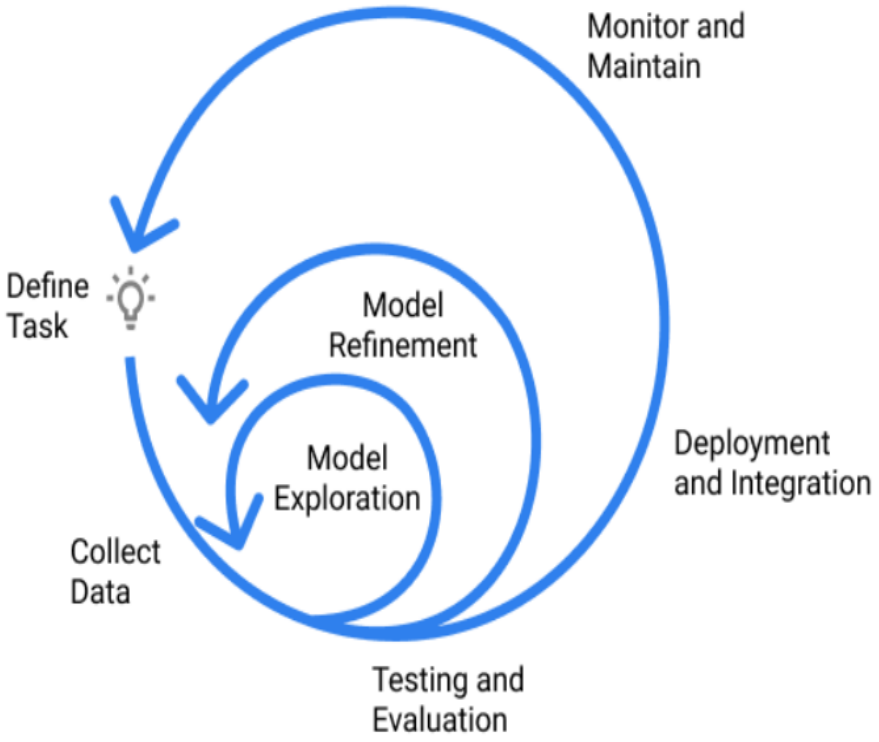

Figure 1: Development Life Cycle.

4 Software Requirements

- **Platform :** Should work on Android Phones.
- **Operating System :** Android – Version 6.0 above (API 23 above).
- **Hardware :** Smartphone atleast 1GB RAM.

5 System Design

5.1 System Architecture

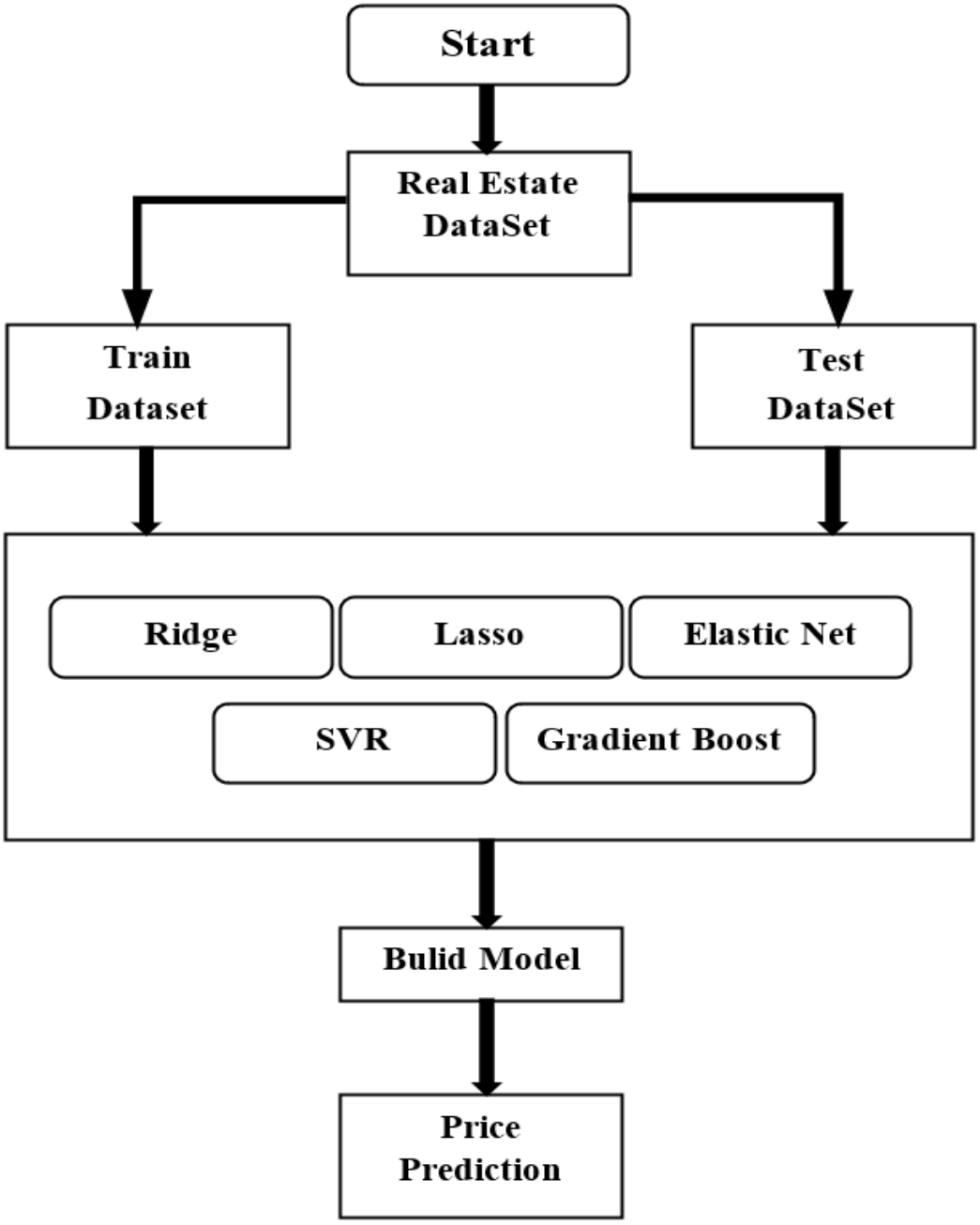

Figure 2: System Architecture.

5.2 Use Case Diagram

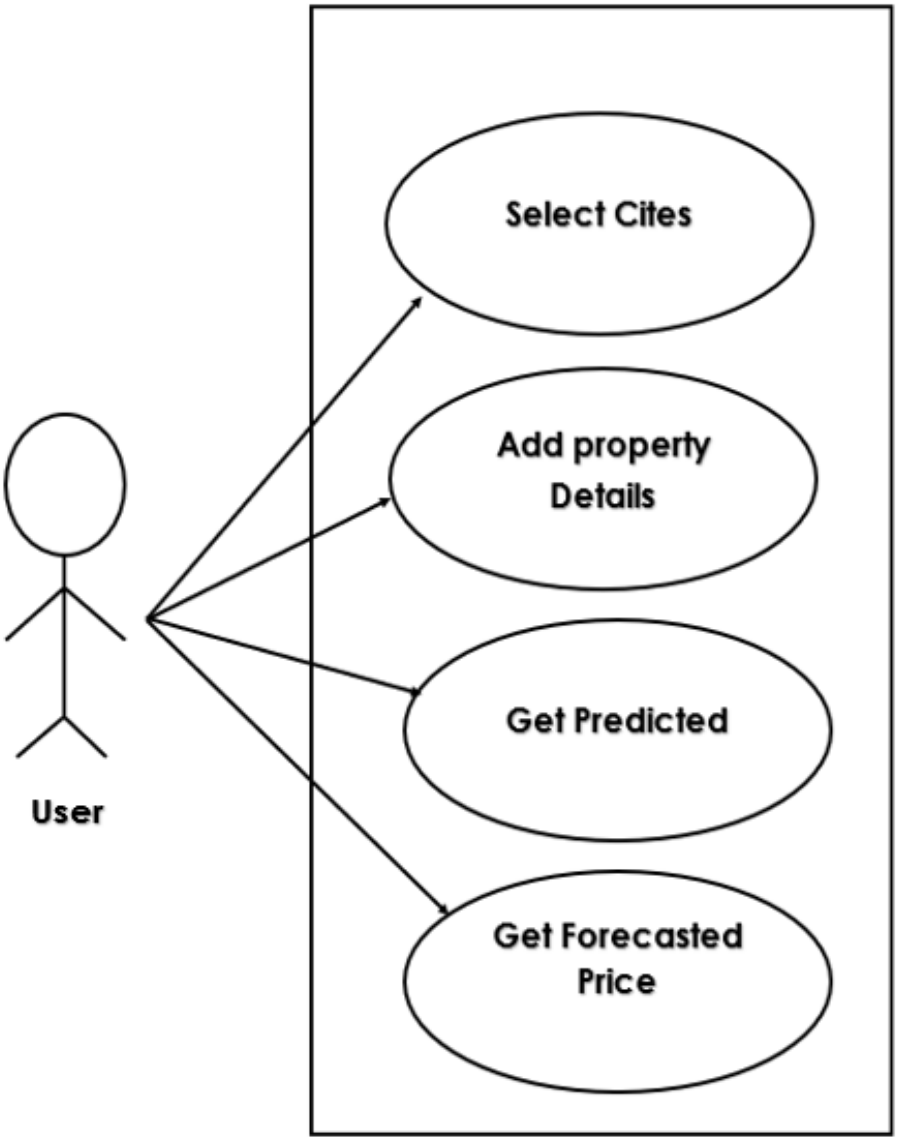

Figure 3: Use Case Diagram.

5.3 Context Diagram

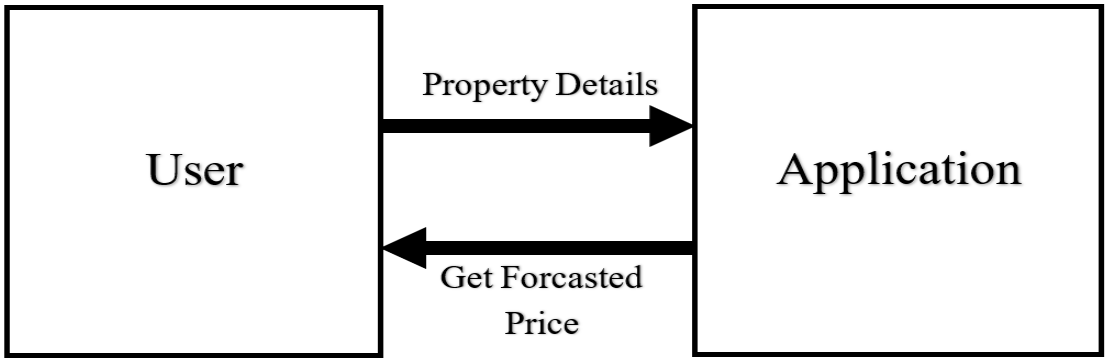

Figure 4: Context Diagram.

5.4 Sequence Diagram

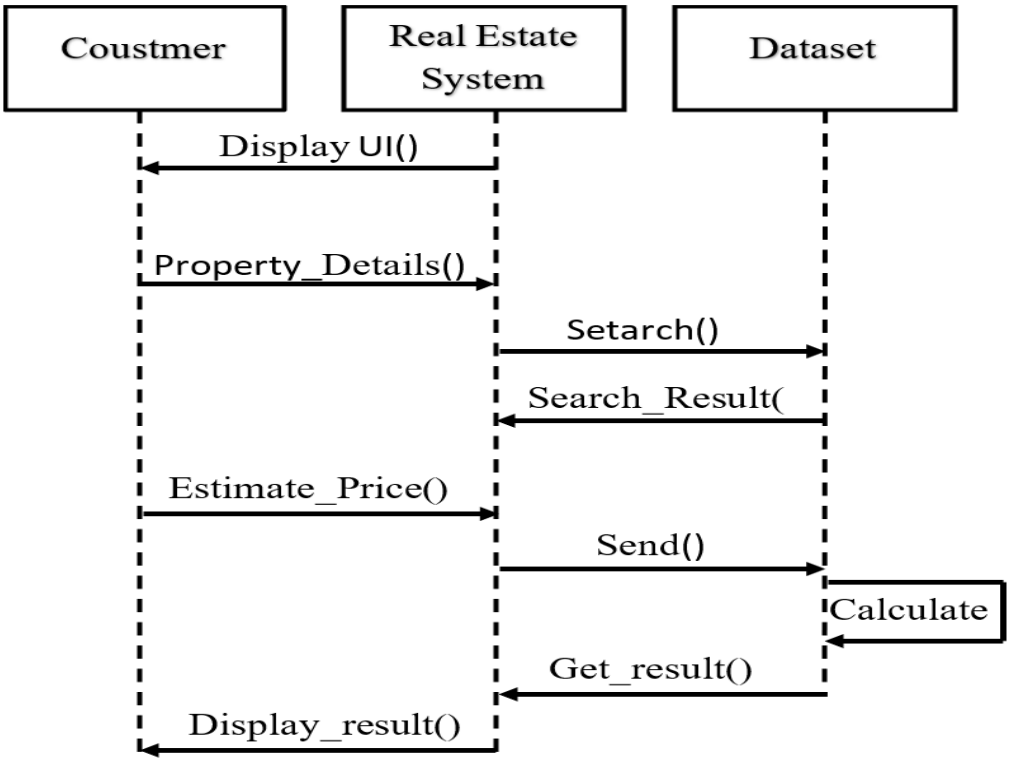

Figure 5: Sequence Diagram.

5.5 Prediction from All models

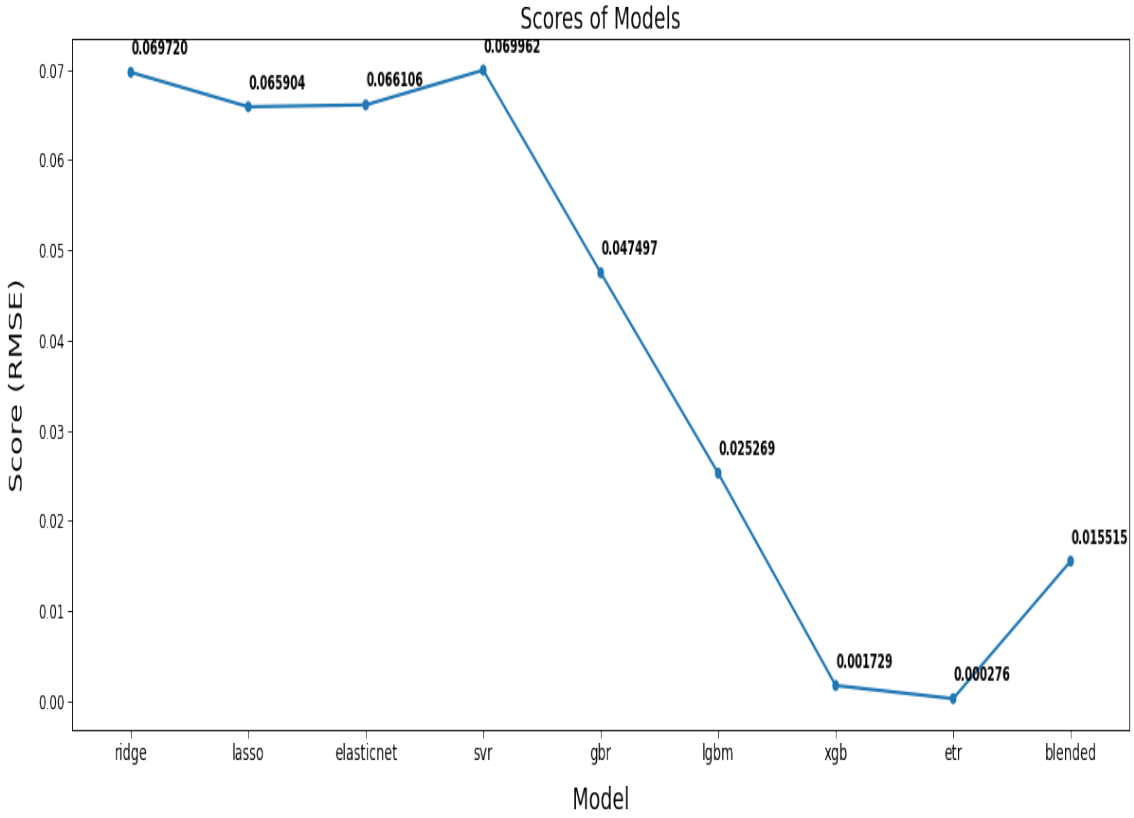

Figure 6: Prediction from All models.

6 Graphical User Interface

6.1 Android Application

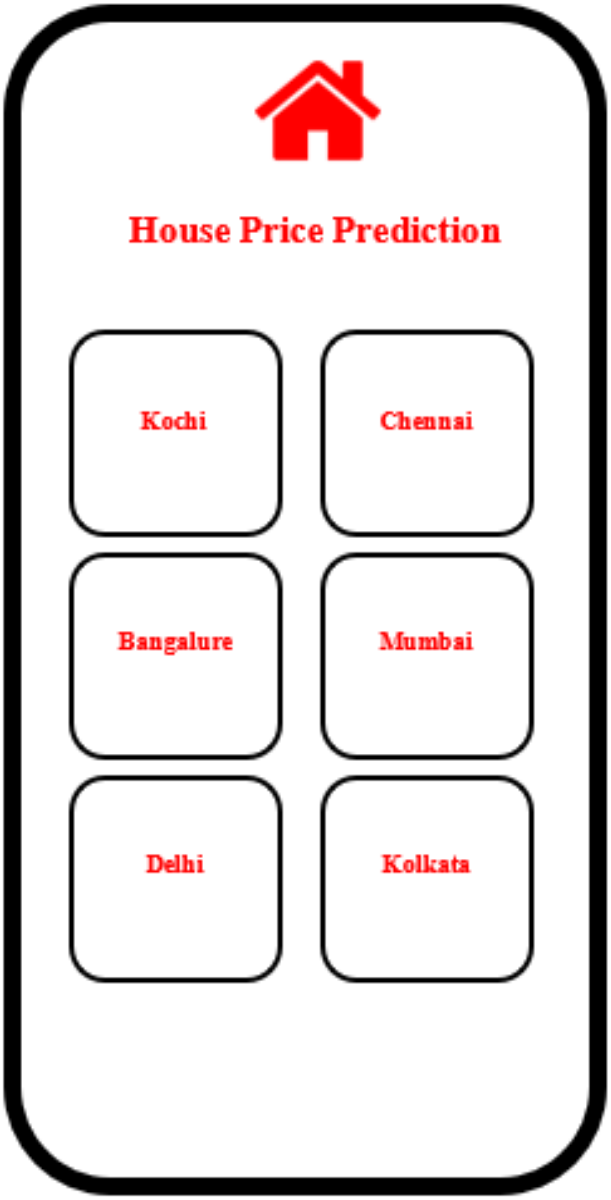

Figure 7: Home Page.

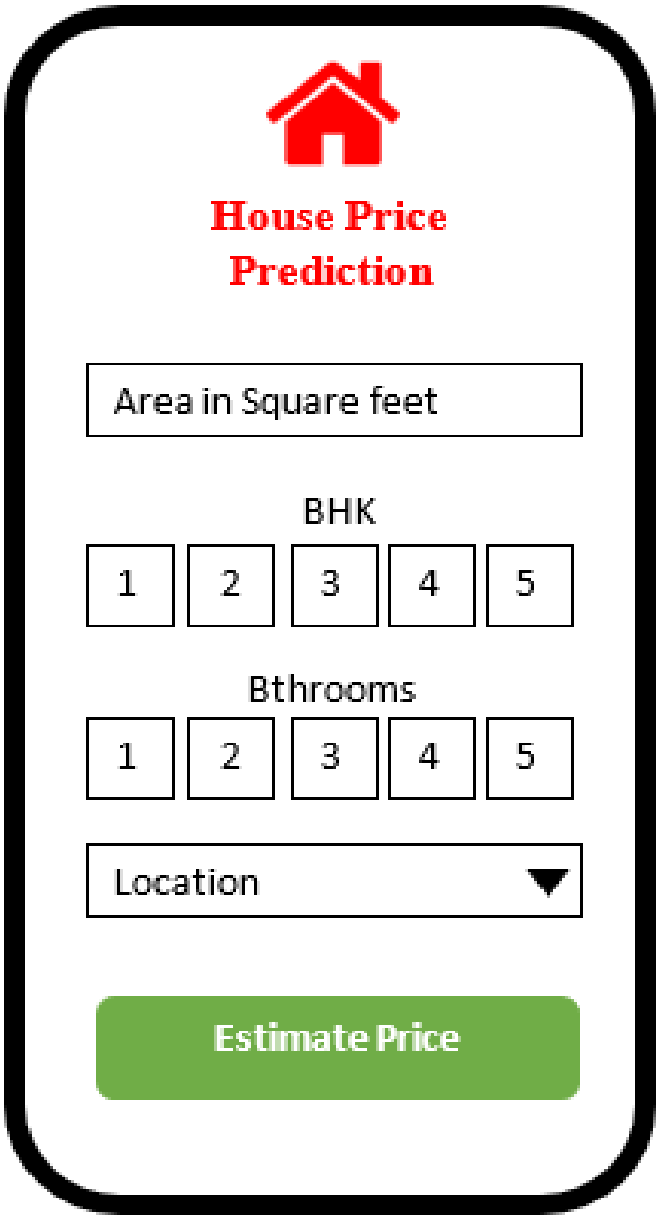

Figure 8: Add Property Details.

Figure 9: Predicting Price.

6.2 Web Application

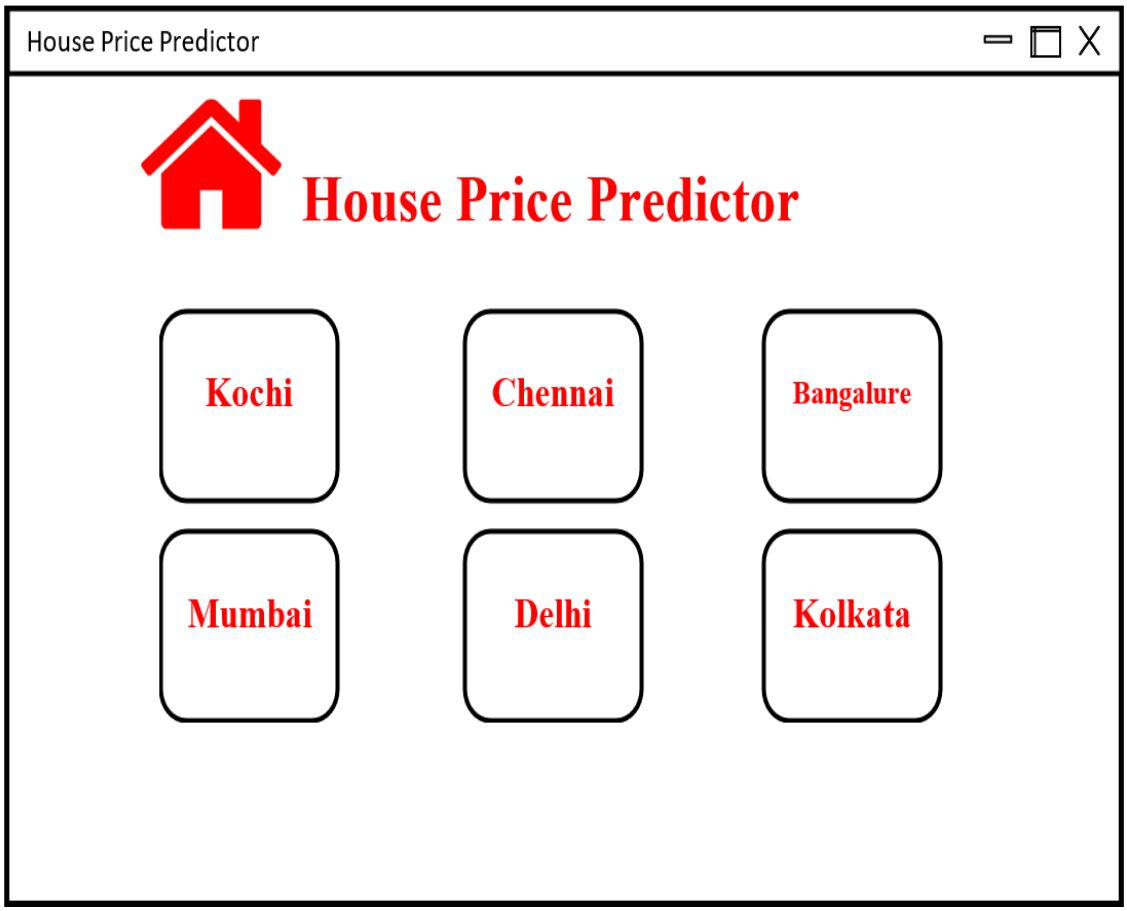

Figure 10: Web Home Page.

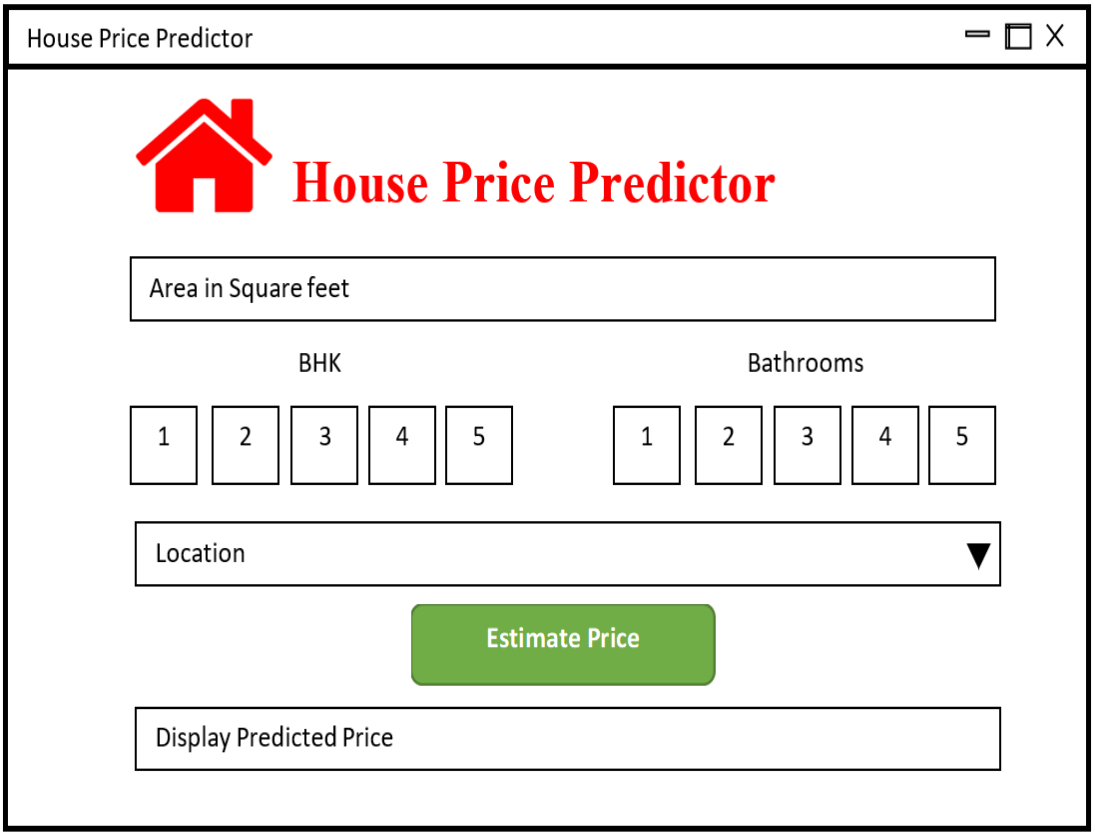

Figure 11: Web Predicting Price.