 Air University Multan campus

Department of Computer Science and Engineening



Property Value Predictor

**Project Proposal**

Prepared by

|  |  |
| --- | --- |
| Group#: | Grade: |
| Group Email: | |
| Group members: | |
| *Qasim Farooq 183181* |  |
| *TALAL 183233* |  |
| *Abdur Rafay 183169* |  |
| *Kashif Saleem 183185* |  |

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# **Introduction**

**Context:**

This project has been done as part of my course for the BS Computer Science at Air University. Supervised by Dr. Atka Ali, we had two months to fulfill the requirements in order to succeed the module. Every three weeks, a meeting was organized to show and report our progress and fix the next objectives.

**Problem:**

The big problem is that people don’t know about their property value, property tax and financial planning. The current market value is important for a whole host of reasons, for; insurance purposes, property tax, financial planning and of course when selling, downsizing or trading up.

**Response:**

Square footage, plot size, location, age, number of bedrooms and bathrooms. If commercial, the best usage the property could be put to (office, shop, retail, warehouse). Overall condition of property (good, average, poor).

# **The Problem**

The Problem is that people don’t know about their property value, property tax and financial planning. They don’t how to pay money to purchaser and how much tax apply on their property.

We resolve this problem by making this project. The user can find the price of their property (plot, house, shop…. etc.) and the government tax also.

# **Project Goals and Objectives**

The goal of this project is to predict the value of a property by using some information from user.

1. Area in square feet.
2. Number of bedrooms.
3. Number of Bathrooms.
4. Latitude.
5. Longitude.

After taking this information system predicts the property value and user know their property value.

1. **The Solution**

The solution of this project to take inputs from user and he/she easily know their property value by using this project. This project predicts the value of a property by location, no. of bedrooms, no. of bathrooms and size of a property.

1. **Project Scope**

The project scope is good in the CS market. By using this project user easily find the prices of property at their home without going to real state brockers. The fraud ratio will be decreased timely by using this project.

# **Hardware and Software Tools**

**Hardware:**

No, hardware tool is used in this project.

**Software:**

This project is only based on software tools.

For Software tools:

Python

Pandas (library)

Numpy (library)

# **Cost (if applicable)**

The project cost is very cheap because this project is only based on software and there is no use of any kind of hardware tool.

# **Risk Management**

We should identify all the expected risk (minimum five risks), the likelihood that the risk will occur and your strategy in avoiding, minimizing or dealing with each risk if occurred.

# **References**

To conduct this project the following tools have been used :

● Python

● Pandas (Library) : <http://pandas.pydata.org/>

● Numpy (Library) : <http://www.numpy.org/>

The techniques used to visualize and preprocess the data has been inspired from the book “Data Mining Concepts and Technique”. The Machine Learning part has been greatly inspired by the Machine Learning course teached by Andrew Ng of Coursera (https://www.coursera.org/course/ml) and the book “An introduction to Statistical Learning”.