**Decisionary**

**Team Members :**

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**Objective:**

To Provide a GUI Interface which suggests the best city to live according to the pre-defined inputs taken from the user.

**Overview :**

Relocating has become very common in today’s world. It takes a lot of thinking and research to pluck your roots from a place and re plant it somewhere else. As we all know, Home is where the heart is, but what if the heart does not know where it should be.

There are many parameters to consider while moving to a different place such as the crime rate, health facilities, climate, schools, property value, monthly expenditure, benefits of living etc. The decision cannot be taken considering only one specification rather it should be an amalgam of all the conditions.

In this Project we will create a GUI Interface which helps the user make their right decision by providing us their requirements. The Project will be based on the below flow model :

Website 🡪 Will have few questions and appropriate drop down menu to select answers 🡪 Selected answers will be sent as an Input to the Prediction tool 🡪 the tool will optimize the various input parameters to provide an output (the best city to live in for the particular user) 🡪 the output is sent to the GUI 🡪 The Best City is displayed to the User

**Datasets :**

* Climate Data
* Crime Data
* Property Tax Rate Data
* New Residential construction Data
* Construction Price Indexes Data
* Cost of Living Adjustment Data
* Living Assistance Benefits Data
* Monthly Expenditure Data
* Health Services Data
* Campus Safety and Crime Data for schools
* Reference for Datasets : data.gov

**What do we plan to deliver at the end of the semester?**

A GUI which takes in input through a drop down menu from the user and in turn provides the best city to live according to the chosen specifications through a suggestion window.

**How would we demo it and how the system will look like?**

Demo will be done through a website and will be done for various combinations of the parameters.

**Challenges we will come across :**

* Preparation of data
* Data Integration
* Data Cleaning
* Building the Prediction Model
* Validating the Tool

**Significance of the Challenges :**

* Input data should be correct
* Data Cleaning and Integration should be done efficiently
* Prediction should be precisely satisfactory

**Plan for addressing the challenges**

Planning to use few available data cleaning and data integration tools in order to prepare suitable input data for our Prediction Model

**How would we design and implement the solution**

**Design:** It will have the following modules

* Creating a blueprint of GUI
* Flowchart for all the modules

**Implementation:** It will have the following modules

* Creating a Prediction Model
* Integrating it with the GUI

**Evaluation of our Project :**

It will be evaluated based on the accuracy of the Prediction Model

**How would we call it a success?**

Based on the number of right suggestion it gives for various combinations of Input data.

**Partitioning of Tasks :**

Data Collection and Cleaning : Nikita Sathish

Data Integration: Deepa Warrier

Design : Nikita Sathish

Prediction Tool : Deepa Warrier & Nikita Sathish

GUI : Deepa Warrier