

## **SMART CITY RAJKOT HACKATHON-2021**

**Team Name:** White Tigers

**Team Leader Name:** Nisarg Ganatra

**Team Leader Mobile No:** 8200945502

**Department:** IT

**Problem Statement:** Data analytics to provide complete solution for various RMC services

## **Concept and Design**

Our concept is to create a dashboard which will help to Rajkot Municipal Corporation in daily life problem by using analytics technique. First, we analyze data will provided by you and after that we perform data cleaning. After that we are ready to do different types of analysis on that data. In this analysis we will use pandas, NumPy, matplotlib etc libraries. For dashboard application we will use plotly dash. In this analysis we provide different types of plot or charts like scatterplot, bar chart, pie chart etc so that user can easily understand. We will also provide filter function so that user can filter that data according to their needs.

## **Innovation**

We will use PLOTLY DASH technology for creating dashboard because user can easily understand by graph or chart. We also use map box for create Rajkot map.

## **Implement Ability/Sustainability**

Here different graphs or plots have their own important.

**Scatterplot:** Scatter plots' primary uses are to observe and show relationships between two numeric variables. The dots in a scatter plot not only report the values of individual data points, but also patterns when the data are taken as a whole.

**Bar Graph:** Bar graphs are used to compare things between different groups or to track changes over time. However, when trying to measure change over time, bar graphs are best when the changes are larger.

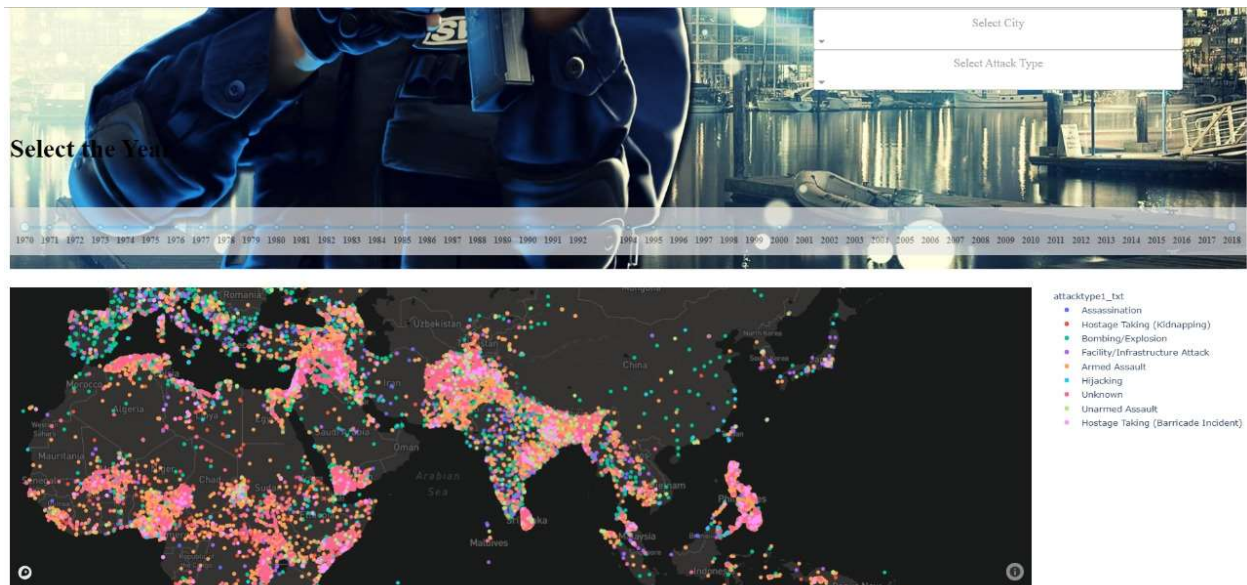
**Pie Chart:** Pie charts are generally used to show percentage or proportional data and usually the percentage represented by each category is provided next to the corresponding slice of pie. Pie charts are good for displaying data for around 6 categories or fewer.

**Line Graph:** Line graphs are used to track changes over short and long periods of time. When smaller changes exist, line graphs are better to use than bar graphs. Line graphs can also be used to compare changes over the same period of time for more than one group.

There are three main ways to speed up Dash apps: caching, using WebGL chart types, and implementing client-side callbacks.

**Example:** This are some work we have done previously in data analysis.

1. <https://ipldash.herokuapp.com>
2. Snapshots of another data analysis website



## **Public Utility and User Friendliness**

We will end up with several (slightly provocative) thoughts on the subject, including practical implications for the work of the requirements engineer.

This subject may seem incredibly “big” for a single article, but it’s about the specific nature of usability that we often overlook or confuse. With this appreciation, we’ll be able to design more effectively, and our website’s user ship will be able to grow, too