# LAB ASSIGNMENT 2

1. R Project
   Prepare a dataset and perform k-means clustering

   Solution:

   Dataset that is used contains information about crime rate of the different states of The United States of America. The crime that has taken place is broadly classified into 4 types: Murder, Assault, Urban Pop and Rape.

   The dataset is read and its unnecessary columns are altered and then K-Means Clustering is performed onto it and the result is stored. Following line of code is run to make a total of 4 clusters:

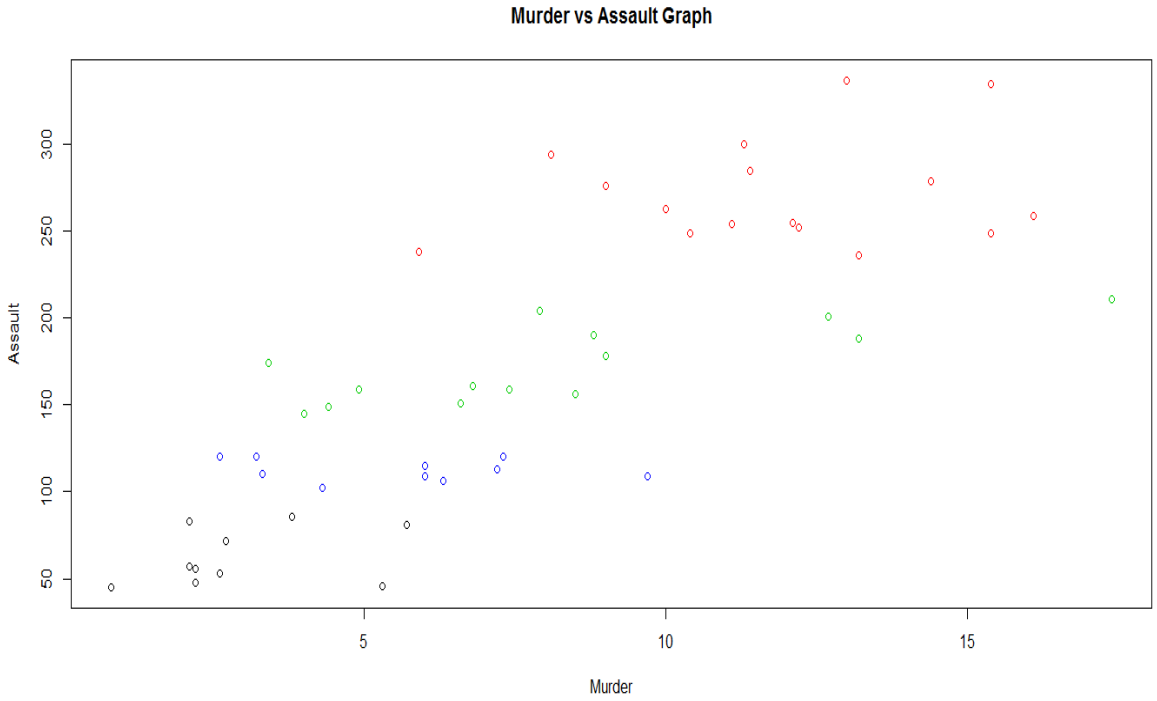
   **> result <- kmeans(crime_data_ft,4)**

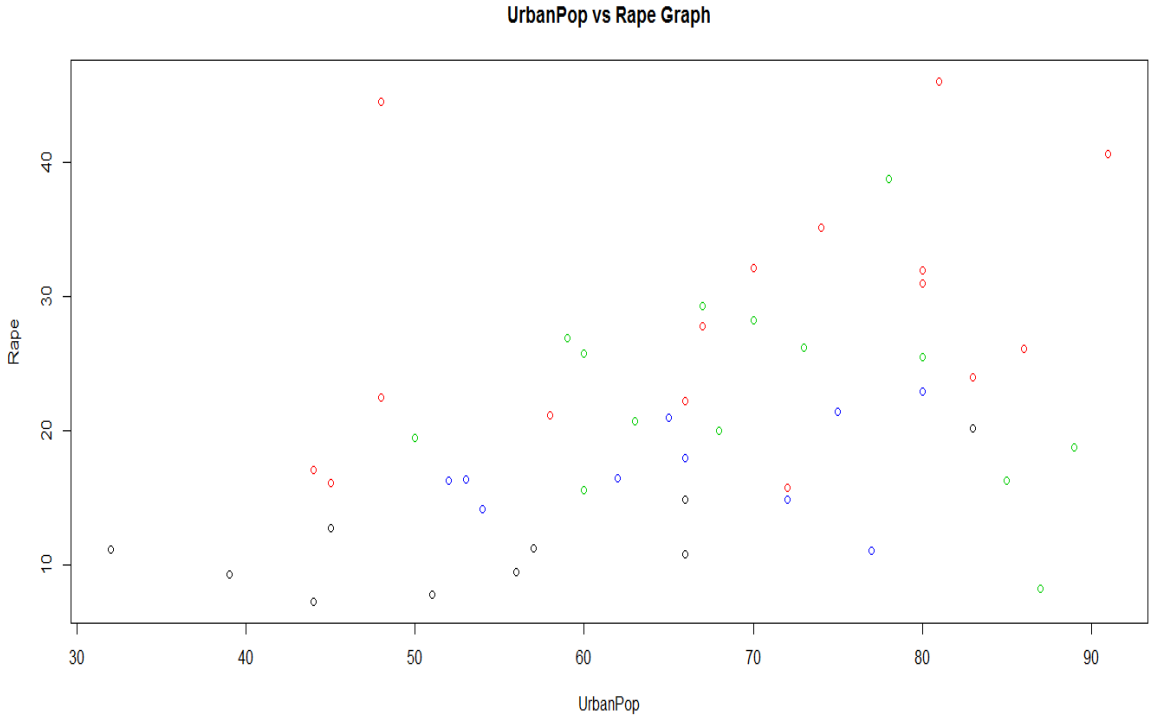
   After performing the clustering on the dataset, a graph comparing the 2 types of crime is plot using the following commands:

   **> plot(crime_data_ft[c("Murder","Assault")],col=result$cluster,main="Murder vs Assault Graph") // Plotting graph of two attributes of the dataset**

   **> plot(crime_data_ft[c("UrbanPop","Rape")],col=result$cluster,main="UrbanPop vs Rape Graph") // Plotting graph of two attributes of the dataset**

The Graphs obtained are:



2. RoboMe and Watch App
   Create a RoboMe and Watch App that uses weather or any API of choice.

   Solution:

   The API used for developing the mobile application is Google Maps API. This API allows to customize maps and use the information over it.

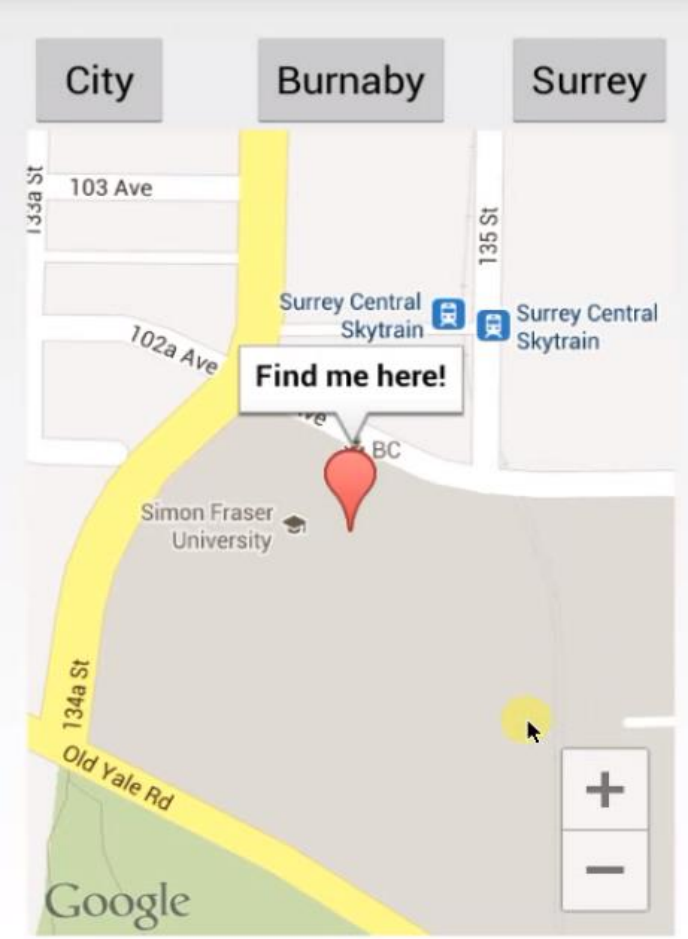



*Figure 1. Screen Shot*