Output

Level - 1

Task -1

Data Exploration and Preprocessing

Q.1) Explore the dataset and identify the number of rows and columns.

O/P->

Number of Rows: 9551

Number of Columns: 21

Name of columns :

[1] "Restaurant ID" "Restaurant Name" "Country Code" "City" "Address”

[6] "Locality" "Locality Verbose" "Longitude" "Latitude" "Cuisines"

[11] "Average Cost for two" "Currency" "Has Table booking" "Has Online delivery" "Is delivering now"

[16] "Switch to order menu" "Price range" "Aggregate rating" "Rating color" "Rating text"

[21] "Votes"

Q.2) Check for missing values in each column and handle them

accordingly

O/P->

All null values are been replaced with mean of remaining values of that column.

Q.3) Perform data type conversion if necessary. Analyze the distribution of the target variable ("Aggregate rating") and identify any class imbalances.

O/P->

Distribution of the target variable ("Aggregate rating")

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
0.000	2.500	3.200	2.666	3.700	4.900

Task - 2

Descriptive Analysis

Q.1) Calculate basic statistical measures (mean, median, standard deviation, etc.) for numerical columns.

O/P->

Mean: 1199.211

Median: 400

Standard Deviation: 16121.18

Conclusion :

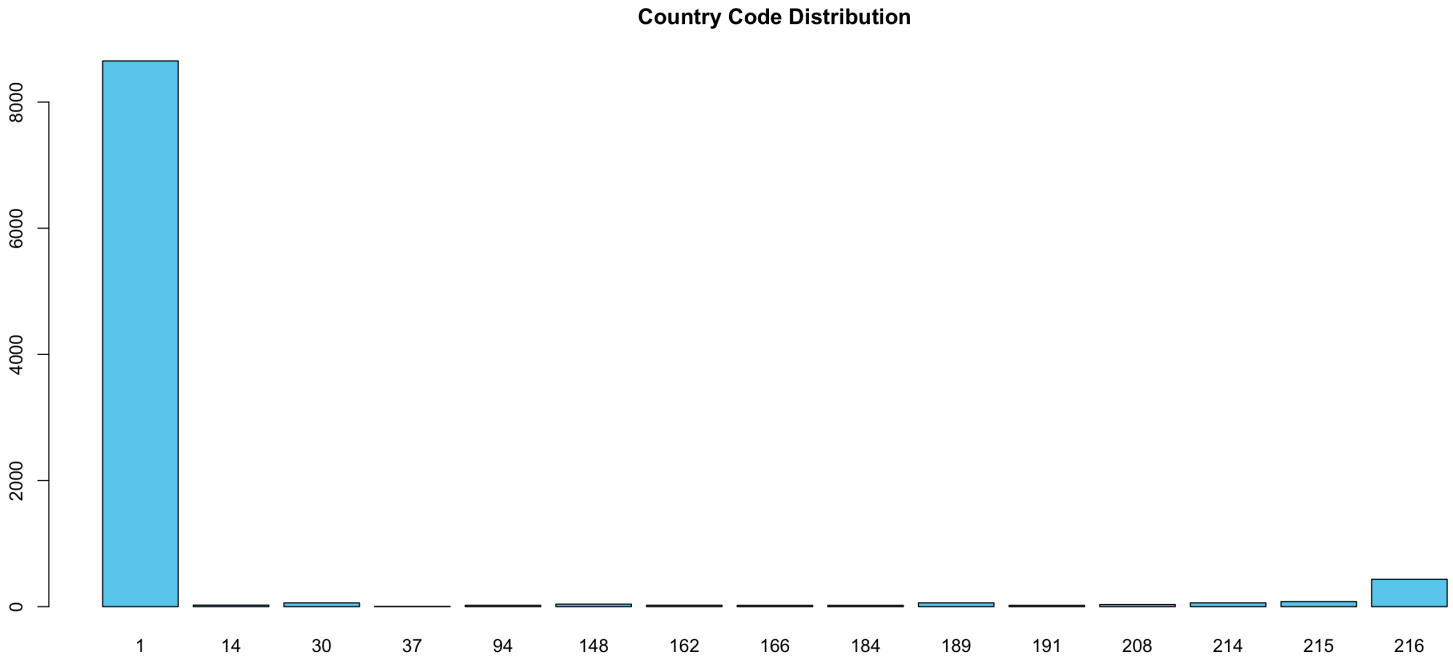
mean for a "Average Cost for two" column : 1200.326

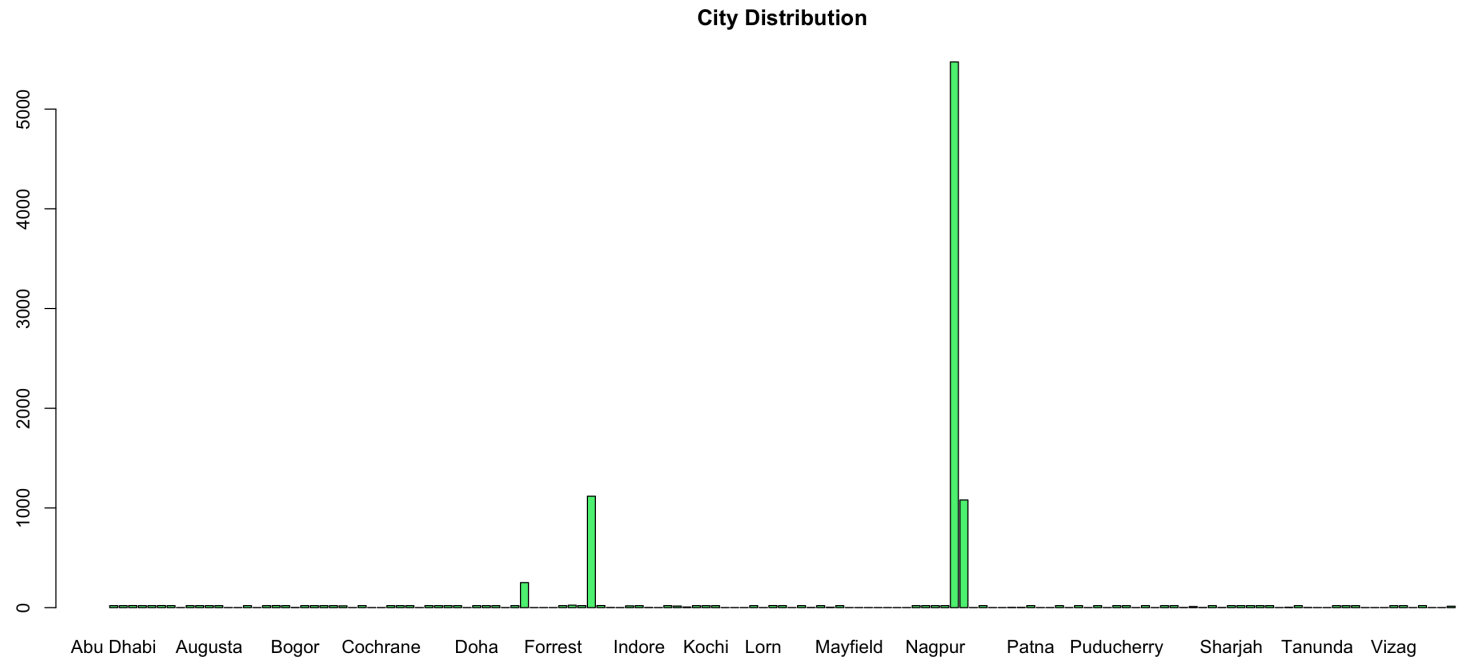
median for a "Average Cost for two" colum : 400

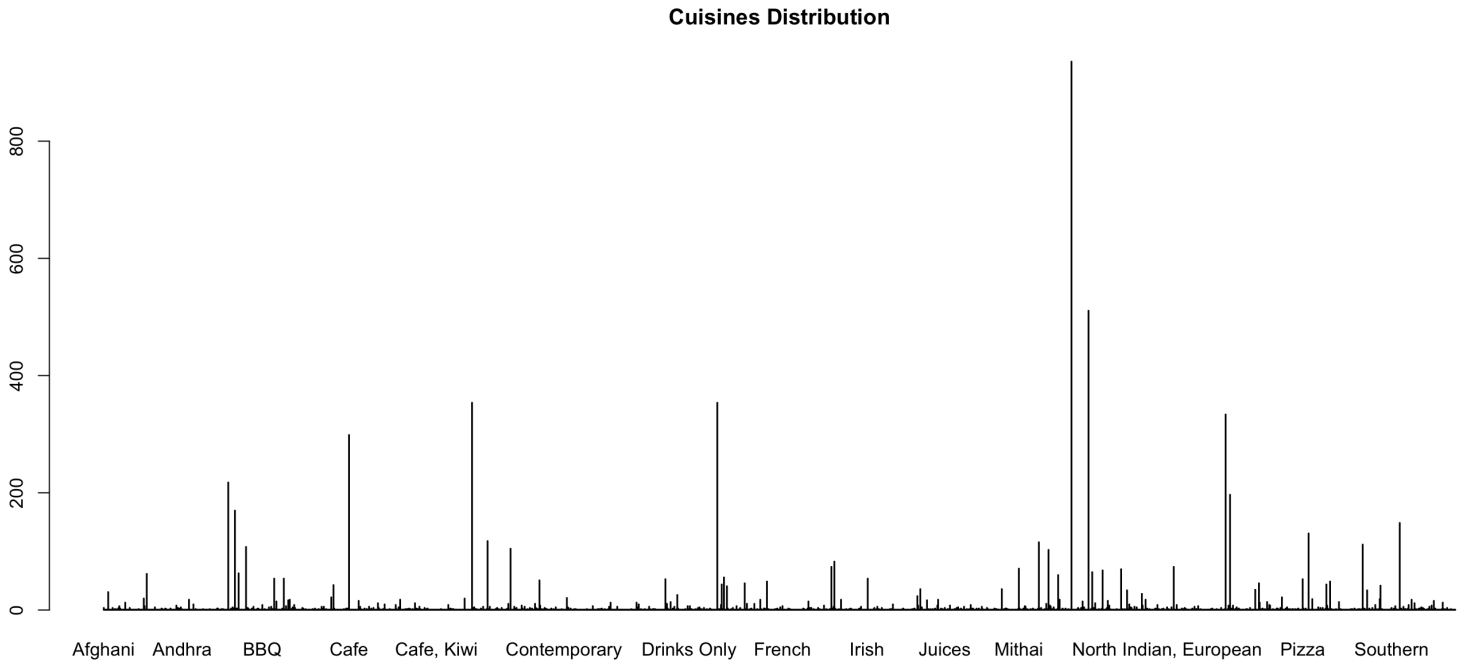
standard deviation for a "Average Cost for two" colum : 16128.74

Q.2) Explore the distribution of categorical variables like "Country Code, " "City, " and "Cuisines. "

O/P->







Q.3) Identify the top cuisines and cities with the highest number of restaurants

O/P->

Top Cuisines: North Indian, North Indian, Chinese, Chinese, Fast Food, North Indian, Mughlai

Top Cities: New Delhi, Gurgaon, Noida, Faridabad, Ghaziabad

Conclusion:

Top Cuisines with the highest number of restaurants are : North Indian, North Indian, Chinese, Chinese, Fast Food, North Indian, Mughlai

Top Cities with the highest number of restaurants are: New Delhi, Gurgaon, Noida, Faridabad, Ghaziabad

Task - 3

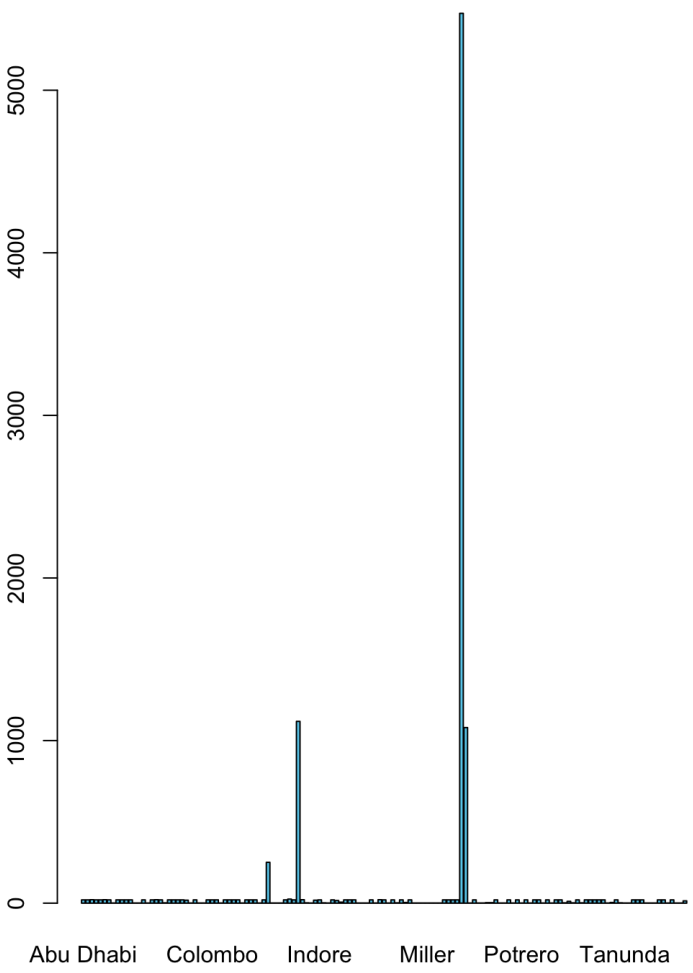
Geospatial Analysis

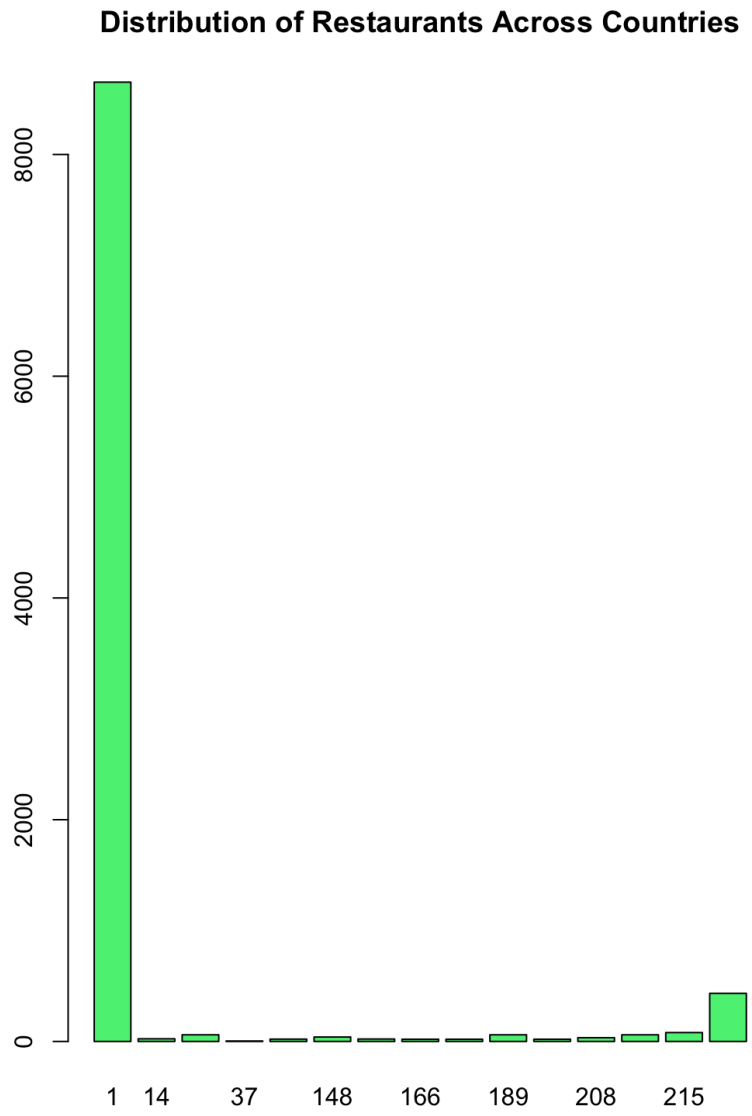
Q.1) Visualize the locations of restaurants on a map using latitude and longitude information.

O/P->

Q.2) Analyze the distribution of restaurants across different cities or countries.

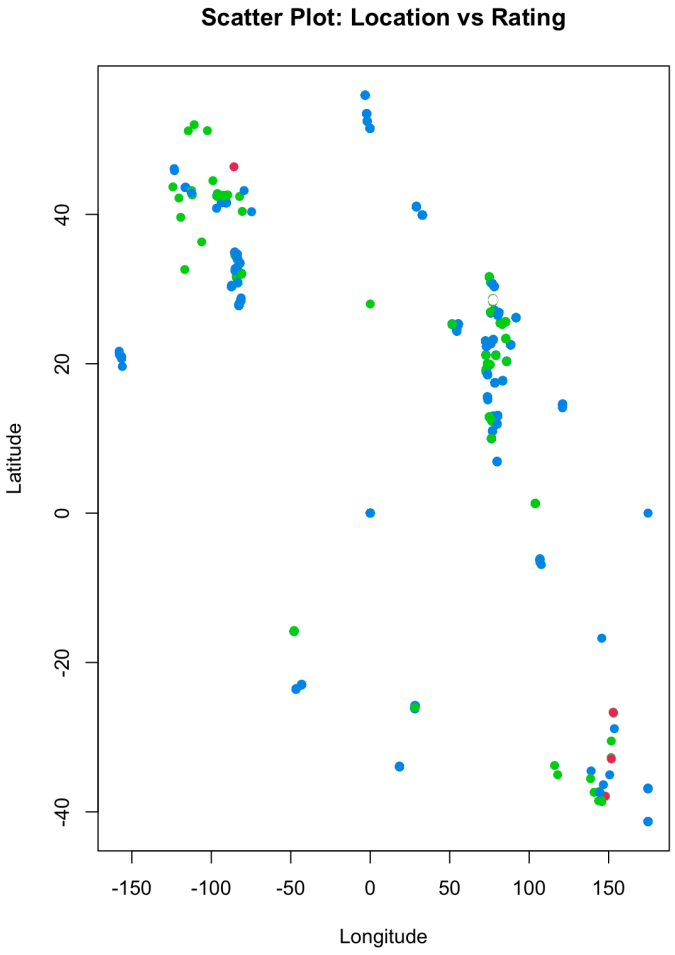
O/P->


Distribution of Restaurants Across Cities
0
1000
2000
3000
4000
5000
Abu Dhabi
Colombo
Indore
Miller
Potrero
Tanunda



Q.3) Determine if there is any correlation between the restaurant's location and its rating.

O/P->



Correlation between Latitude and Rating: 0.0005155807

Correlation between Longitude and Rating: -0.1168176