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In [4]: """LEVEL 01 - TASK 03"""

'''Task: Geospatial Analysis
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-->Visualize the locations of restaurants on a
map using latitude and longitude
information.
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-->Analyze the distribution of restaurants
across different cities or countries.
Determine if there is any correlation
between the restaurant's location and its
rating.'''
```

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In [ ]: #importing Libraries
import pandas as pd
import matplotlib.pyplot as plt
import folium
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In [5]: #install folium ---> !pip install folium
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In [6]: data = pd.read_csv("Dataset.csv")
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In [9]: # Visualization the locations of restaurants on a map using Latitude and Longitude
res_map = folium.Map(location=[data['Latitude'].mean(), data['Longitude'].mean()],

for index, row in data.iterrows():
    popup_text = f"{row['Restaurant Name']} - Rating: {row['Votes']}"
    folium.Marker([row['Latitude'], row['Longitude']], popup=popup_text).add_to(res

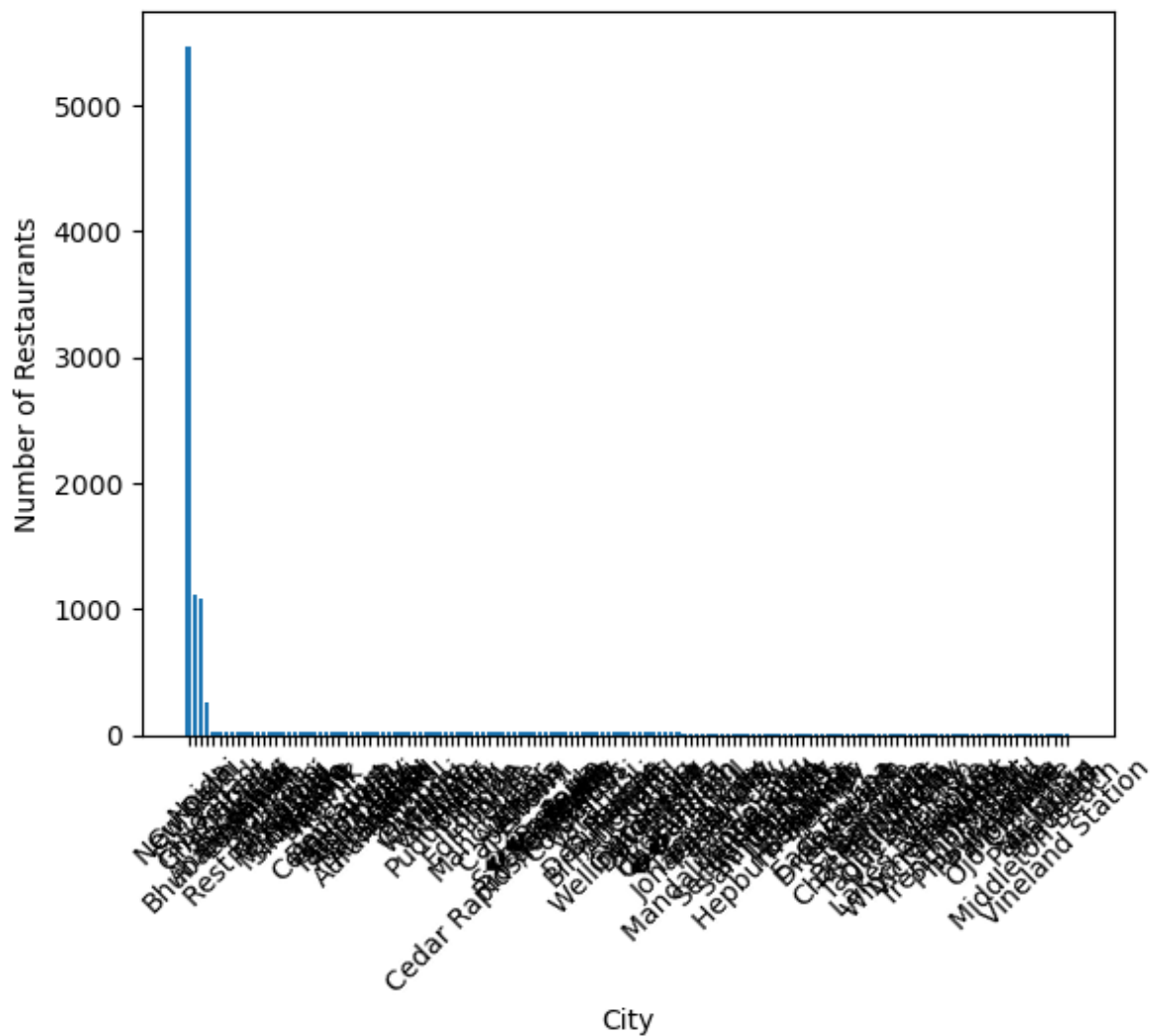
res_map.save('res_map.html')

# Analyze the distribution of restaurants across different cities
city_distribution = data['City'].value_counts()

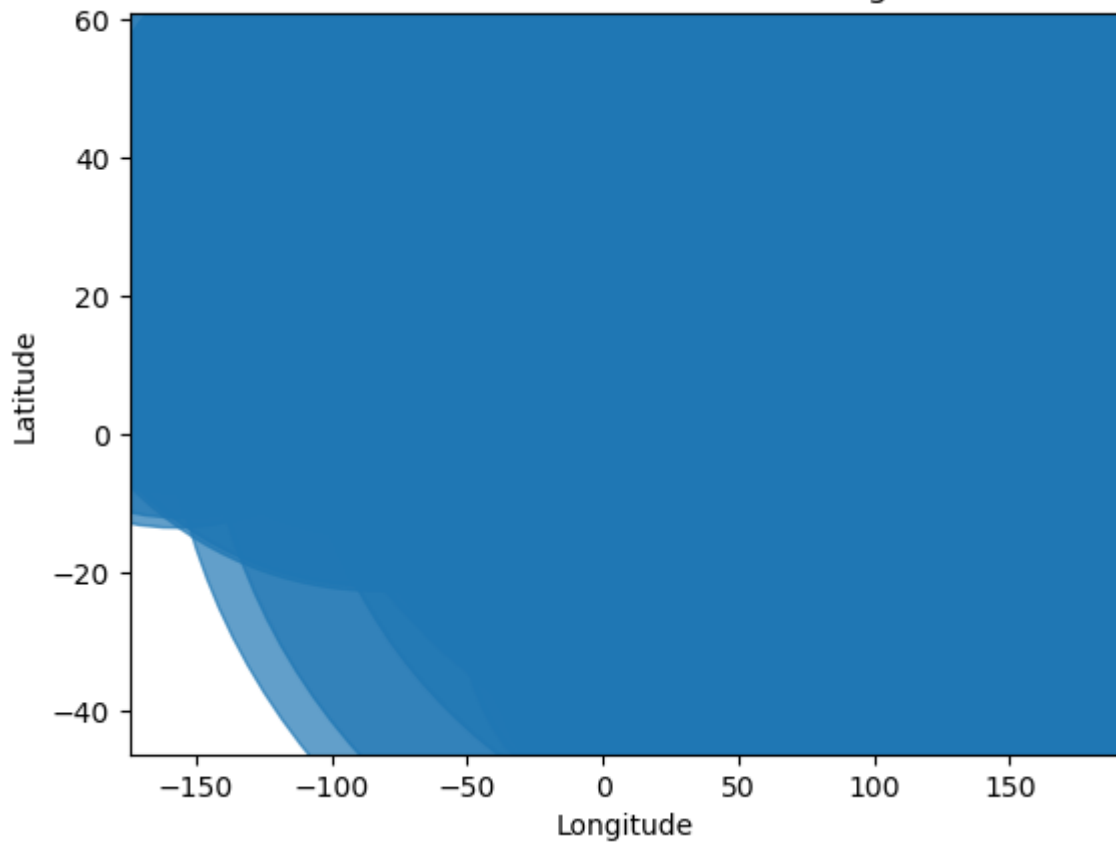
# Plot the distribution using a bar chart
plt.bar(city_distribution.index, city_distribution.values)
plt.xlabel('City')
plt.ylabel('Number of Restaurants')
plt.title('Restaurant Distribution across Cities')
plt.xticks(rotation=45)
plt.show()

# Plotting scatter plot with size based on rating
plt.scatter(data['Longitude'], data['Latitude'], s=data['Votes'] * 20, alpha=0.7)
plt.xlabel('Longitude')
plt.ylabel('Latitude')
plt.title('Restaurant Locations and Ratings')
plt.show()
```

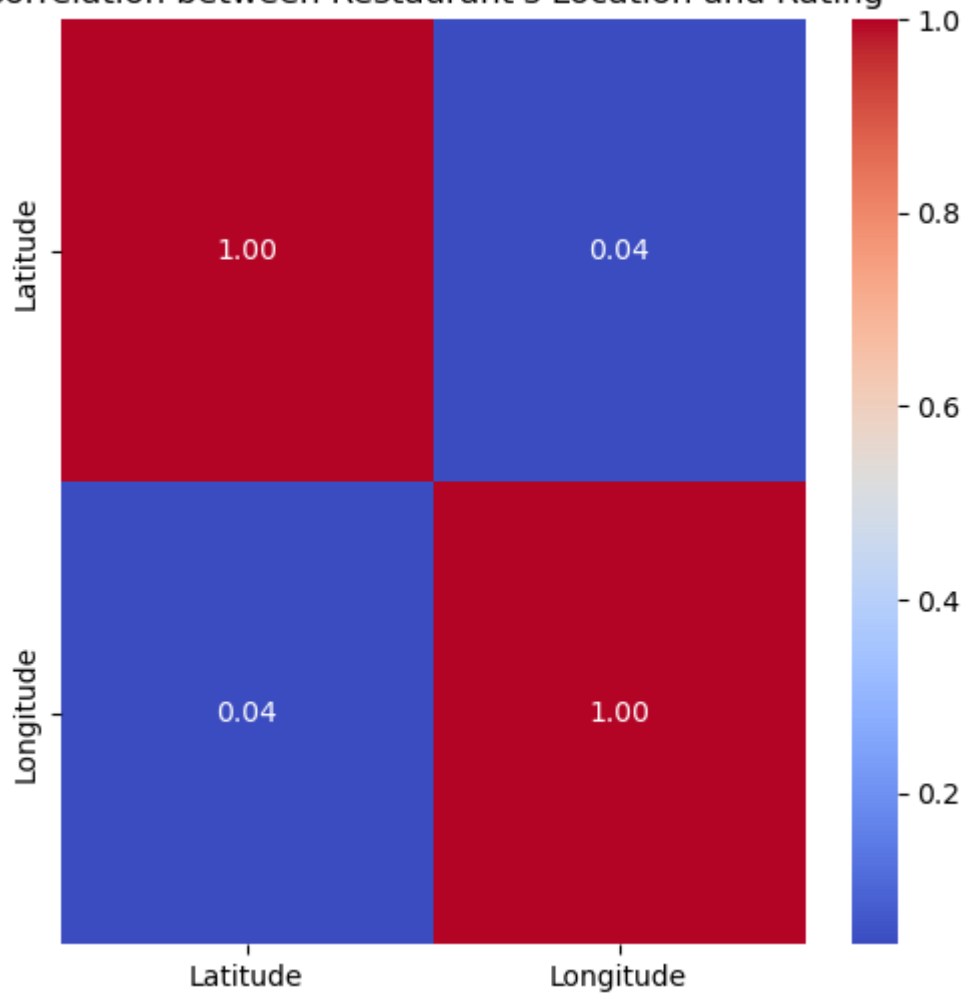
Restaurant Distribution across Cities



Restaurant Locations and Ratings



Correlation between Restaurant's Location and Rating



In []: