In [ ]:

```
'''LEVEL 03 -TASK 02'''

'''Task: Customer Preference Analysis

-->Analyze the relationship between the type of
cuisine and the restaurant's rating.

I-->dentify the most popular cuisines among
customers based on the number of votes.

-->Determine if there are any specific cuisines
that tend to receive higher ratings.'''
```

In [1]:

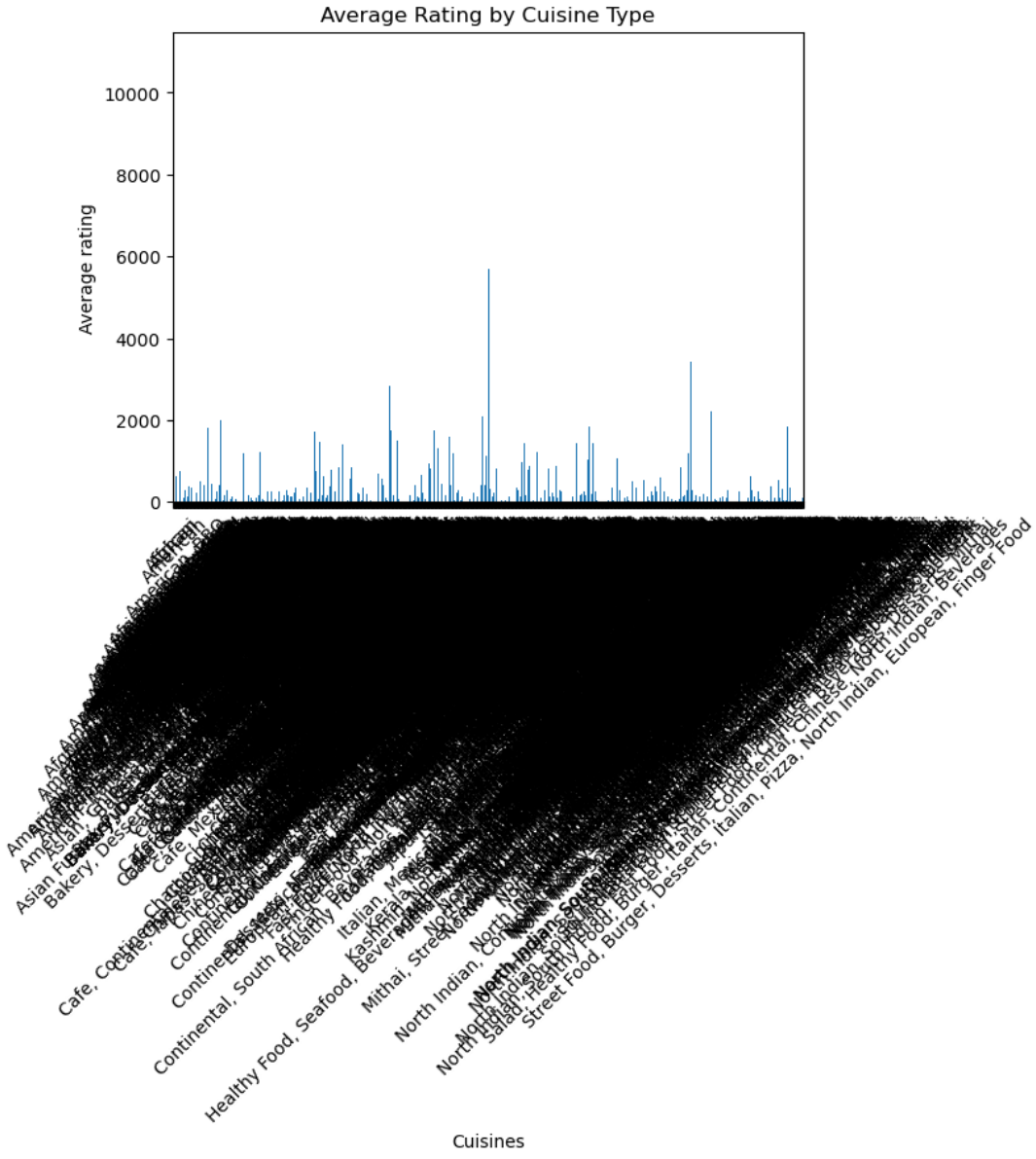
```
import pandas as pd
import matplotlib.pyplot as plt

data = pd.read_csv('Dataset.csv')
```

In [2]:

```
# Analyzing the relationship between the type of cuisine and the re
average_rating_by_cuisine = data.groupby('Cuisines')['Votes'].mean(
```

In [3]:

```
# Plot the average rating by cuisine
average_rating_by_cuisine.plot(kind='bar')
plt.xlabel('Cuisines')
plt.ylabel('Average rating')
plt.title('Average Rating by Cuisine Type')
plt.xticks(rotation=45)
plt.show()
```

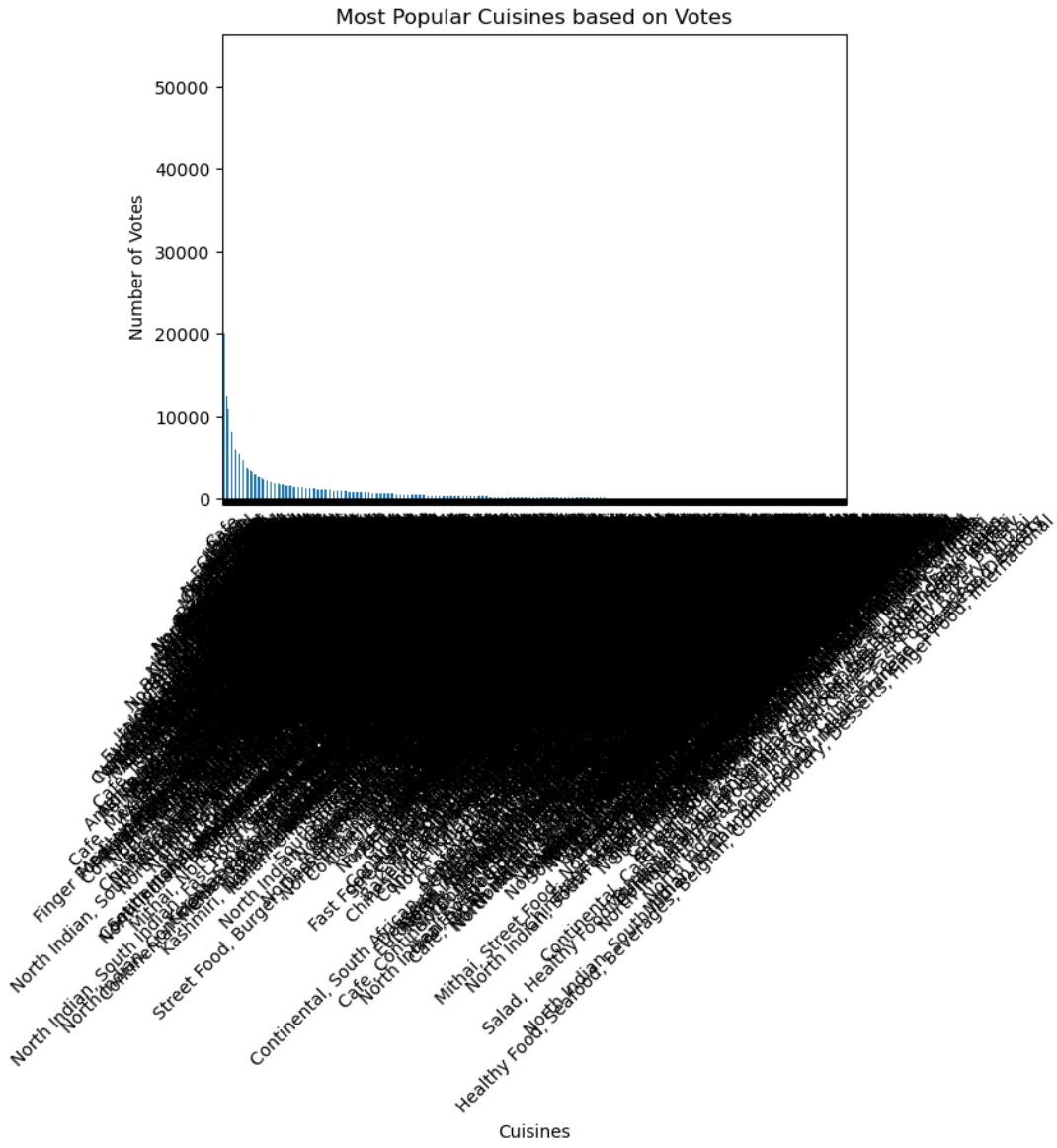


In [4]:

```
# Identifying the most popular cuisines among customers based on th
most_popular_cuisines = data.groupby('Cuisines')['Votes'].sum().sor
```

In [5]:

```
# Plot the number of votes by cuisine
most_popular_cuisines.plot(kind='bar')
plt.xlabel('Cuisines')
plt.ylabel('Number of Votes')
plt.title('Most Popular Cuisines based on Votes')
plt.xticks(rotation=45)
plt.show()
```



In [6]:

```
# Determining if there are any specific cuisines that tend to recei
correlation_cuisine_rating_votes = data.groupby('Cuisines')['Rating
```

```
C:\Users\kaila\AppData\Local\Temp\ipykernel_9176\2992708569.py:2: Futu
reWarning: Indexing with multiple keys (implicitly converted to a tupl
e of keys) will be deprecated, use a list instead.
  correlation_cuisine_rating_votes = data.groupby('Cuisines')['Rating
text', 'Votes'].corr().iloc[0::2, -1]
```

In [7]:

```
# Filter cuisines with a positive correlation
higher_rated_cuisines = correlation_cuisine_rating_votes[correlatio
```

In [8]:
```
1 print("Cuisines that tend to receive higher ratings: {', '.join(hig
```

```
Cuisines that tend to receive higher ratings: {', '.join(higher_rated_
cuisines)}
```

In [ ]:
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