

```
import pandas as pd
df = pd.read_csv("Dataset .csv")
print(df['Cuisines'].value_counts())
top_cuisines = df['Cuisines'].value_counts().nlargest(10).index
df = df[df['Cuisines'].isin(top_cuisines)]
df = df.drop(['Restaurant Name', 'Address', 'Locality Verbose'], axis=1)
from sklearn.preprocessing import LabelEncoder
label = LabelEncoder()
df['Cuisines_encoded'] = label.fit_transform(df['Cuisines'])
for col in df.columns:
    if df[col].dtype == 'object':
        df[col] = label.fit_transform(df[col])
from sklearn.model_selection import train_test_split
from sklearn.ensemble import RandomForestClassifier
from sklearn.metrics import accuracy_score, classification_report, confusion_matrix
X = df.drop(['Cuisines', 'Cuisines_encoded'], axis=1)
y = df['Cuisines_encoded']
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2)
clf = RandomForestClassifier()
clf.fit(X_train, y_train)
y_pred = clf.predict(X_test)
print("Accuracy:", accuracy_score(y_test, y_pred))
print("Classification Report:\n", classification_report(y_test, y_pred))
```

```
import seaborn as sns
import matplotlib.pyplot as plt
plt.figure(figsize=(10, 6))
sns.heatmap(confusion_matrix(y_test, y_pred), annot=True, fmt="d", cmap="Blues")
plt.title("Confusion Matrix")
plt.xlabel("Predicted")
plt.ylabel("Actual")
plt.show()
```

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Cuisines
North Indian          936
North Indian, Chinese 511
Chinese               354
Fast Food             354
North Indian, Mughlai 334
...
World Cuisine, Patisserie, Cafe 1
Burger, Izgara             1
Desserts, B  rek          1
Restaurant Cafe, Turkish, Desserts 1
Restaurant Cafe, Desserts 1
Name: count, Length: 1825, dtype: int64
Accuracy: 0.3148936170212766
Classification Report:

```

	precision	recall	f1-score	support
0	0.22	0.07	0.11	56
1	0.27	0.07	0.12	41
2	0.44	0.48	0.46	56
3	0.26	0.11	0.16	80
4	0.28	0.28	0.28	64
5	0.37	0.51	0.43	186
6	0.24	0.35	0.29	91
7	0.24	0.32	0.28	60
8	0.11	0.05	0.07	38
9	0.39	0.39	0.39	33
accuracy			0.31	705
macro avg	0.28	0.26	0.26	705
weighted avg	0.30	0.31	0.29	705

