In [2]:
```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
```

In [17]:
```
# Load your dataset
df = pd.read_csv(r'restaraunt.csv')  # Replace with your actual file path
```

In [6]:
```
# Drop rows with missing cuisine data
df = df.dropna(subset=['Cuisines'])
print(df)
```

```
      Restaurant ID           Restaurant Name  Country Code              City  \
0           6317637          Le Petit Souffle           162       Makati City
1           6304287          Izakaya Kikufuji           162       Makati City
2           6300002    Heat - Edsa Shangri-La           162  Mandaluyong City
3           6318506                      Ooma           162  Mandaluyong City
4           6314302              Sambo Kojin            162  Mandaluyong City
...             ...                       ...           ...               ...
9546        5915730              Naml\ Gurme           208           stanbul
9547        5908749             Ceviz A  ac\           208           stanbul
9548        5915807                    Huqqa           208           stanbul
9549        5916112               A   k Kahve           208           stanbul
9550        5927402  Walter's Coffee Roastery           208           stanbul

                                                Address  \
0     Third Floor, Century City Mall, Kalayaan Avenu...
1     Little Tokyo, 2277 Chino Roces Avenue, Legaspi...
2     Edsa Shangri-La, 1 Garden Way, Ortigas, Mandal...
3     Third Floor, Mega Fashion Hall, SM Megamall, O...
4     Third Floor, Mega Atrium, SM Megamall, Ortigas...
...                                                 ...
9546  Kemanke   Karamustafa Pa  a Mahallesi, R\ht\m ...
9547  Ko  uyolu Mahallesi, Muhittin   st _nda   Cadd...
9548  Kuru _e  me Mahallesi, Muallim Naci Caddesi, N...
9549  Kuru _e  me Mahallesi, Muallim Naci Caddesi, N...
9550  Cafea  a Mahallesi, Bademalt\ Sokak, No 21/B, ...

                                     Locality  \
0      Century City Mall, Poblacion, Makati City
1     Little Tokyo, Legaspi Village, Makati City
2     Edsa Shangri-La, Ortigas, Mandaluyong City
3         SM Megamall, Ortigas, Mandaluyong City
4         SM Megamall, Ortigas, Mandaluyong City
...                                         ...
9546                                 Karak _y
9547                                Ko  uyolu
9548                               Kuru _e  me
9549                               Kuru _e  me
9550                                     Moda

                                    Locality Verbose   Longitude  \
0     Century City Mall, Poblacion, Makati City, Mak...  121.027535
1     Little Tokyo, Legaspi Village, Makati City, Ma...  121.014101
2     Edsa Shangri-La, Ortigas, Mandaluyong City, Ma...  121.056831
3     SM Megamall, Ortigas, Mandaluyong City, Mandal...  121.056475
4     SM Megamall, Ortigas, Mandaluyong City, Mandal...  121.057508
...                                                 ...         ...
9546                                Karak _y,   stanbul   28.977392
9547                               Ko  uyolu,   stanbul   29.041297
9548                              Kuru _e  me,   stanbul   29.034640
9549                              Kuru _e  me,   stanbul   29.036019
9550                                     Moda,   stanbul   29.026016

       Latitude                          Cuisines  ...          Currency  \
0     14.565443       French, Japanese, Desserts  ...  Botswana Pula(P)
1     14.553708                          Japanese  ...  Botswana Pula(P)
2     14.581404  Seafood, Asian, Filipino, Indian  ...  Botswana Pula(P)
3     14.585318                  Japanese, Sushi  ...  Botswana Pula(P)
4     14.584450                 Japanese, Korean  ...  Botswana Pula(P)
...         ...                              ...  ...               ...
9546  41.022793                          Turkish  ...  Turkish Lira(TL)
```

```
9547  41.009847   World Cuisine, Patisserie, Cafe  ...  Turkish Lira(TL)
9548  41.055817            Italian, World Cuisine  ...  Turkish Lira(TL)
9549  41.057979                  Restaurant Cafe  ...  Turkish Lira(TL)
9550  40.984776                             Cafe  ...  Turkish Lira(TL)

     Has Table booking Has Online delivery Is delivering now  \
0                  Yes                  No                No
1                  Yes                  No                No
2                  Yes                  No                No
3                   No                  No                No
4                  Yes                  No                No
...                ...                 ...               ...
9546                No                  No                No
9547                No                  No                No
9548                No                  No                No
9549                No                  No                No
9550                No                  No                No

     Switch to order menu Price range  Aggregate rating  Rating color  \
0                      No           3               4.8    Dark Green
1                      No           3               4.5    Dark Green
2                      No           4               4.4         Green
3                      No           4               4.9    Dark Green
4                      No           4               4.8    Dark Green
...                   ...         ...               ...           ...
9546                   No           3               4.1         Green
9547                   No           3               4.2         Green
9548                   No           4               3.7        Yellow
9549                   No           4               4.0         Green
9550                   No           2               4.0         Green

     Rating text Votes
0      Excellent   314
1      Excellent   591
2      Very Good   270
3      Excellent   365
4      Excellent   229
...          ...   ...
9546   Very Good   788
9547   Very Good  1034
9548        Good   661
9549   Very Good   901
9550   Very Good   591

[9542 rows x 21 columns]
```

In [8]:
```python
# Split multiple cuisines and count each
cuisine_series = df['Cuisines'].str.split(',').explode().str.strip()
cuisine_counts = cuisine_series.value_counts()
print(cuisine_counts)
```

```
Cuisines
North Indian      3960
Chinese           2735
Fast Food         1986
Mughlai            995
Italian            764
                  ...
Cuisine Varies       1
Fish and Chips       1
Durban               1
D _ner               1
B _rek               1
Name: count, Length: 145, dtype: int64
```

In [11]:
```
# Get top 3 cuisines
top_cuisines = cuisine_counts.head(3)
df.head(3)
```

Out[11]:

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	Locality Verbose
0	6317637	Le Petit Souffle	162	Makati City	Third Floor, Century City Mall, Kalayaan Avenu...	Century City Mall, Poblacion, Makati City	Century City Mall, Poblacion, Makati City, Mak...
1	6304287	Izakaya Kikufuji	162	Makati City	Little Tokyo, 2277 Chino Roces Avenue, Legaspi...	Little Tokyo, Legaspi Village, Makati City	Little Tokyo, Legaspi Village, Makati City, Ma...
2	6300002	Heat - Edsa Shangri-La	162	Mandaluyong City	Edsa Shangri-La, 1 Garden Way, Ortigas, Mandal...	Edsa Shangri-La, Ortigas, Mandaluyong City	Edsa Shangri-La, Ortigas, Mandaluyong City, Ma...

3 rows × 21 columns

In [12]:
```
# Calculate percentage of restaurants serving each top cuisine
total_restaurants = len(df)
top_cuisine_percentages = (top_cuisines / total_restaurants) * 100
print(top_cuisine_percentages)
```

```
Cuisines
North Indian    41.500734
Chinese         28.662754
Fast Food       20.813247
Name: count, dtype: float64
```

In [13]:
```python
# Prepare data for visualization
top_cuisine_df = pd.DataFrame({
    'Cuisine': top_cuisine_percentages.index,
    'Percentage': top_cuisine_percentages.values
})
print(top_cuisine_df)
```

```
       Cuisine  Percentage
0  North Indian   41.500734
1       Chinese   28.662754
2     Fast Food   20.813247
```

In [14]:
```python
# Plotting
sns.set(style="whitegrid")
plt.figure(figsize=(8, 6))
sns.barplot(data=top_cuisine_df, x='Cuisine', y='Percentage', hue='Cuisine', pal
plt.title('Top Cuisines by Percentage of Restaurants', fontsize=14)
plt.ylabel('Percentage (%)')
plt.xlabel('Cuisine')
plt.xticks(rotation=45)
plt.tight_layout()
plt.show()
```