Task 2

Task: Cuisine Combination

Identify the most common combinations of cuisines in the dataset.

In [1]:

```
# import library
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sb
```

In [2]:

```
df=pd.read_csv("C:\\Users\\abhis\\Downloads\\Dataset .csv")
df
```

Out[2]:

	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	6318506	Ooma	162	Mandaluyong City	Third Floor, Mega Fashion Hall, SM Megamall, O...	SM Megamall, Ortigas, Mandaluyong City	SM Megamall Ortigas Mandaluyong City, Mandal..
4	6314302	Sambo Kojin	162	Mandaluyong City	Third Floor, Mega Atrium, SM Megamall, Ortigas...	SM Megamall, Ortigas, Mandaluyong City	SM Megamall Ortigas Mandaluyong City, Mandal..
...	...	...	...	...	...	...	..
9546	5915730	Naml\ Gurme	208	��stanbul	Kemanke�� Karamustafa Pa��a Mahallesi, R\ht\m ...	Karak�_y	Karak�_y ��stanbu
9547	5908749	Ceviz A��ac\	208	��stanbul	Ko��uyolu Mahallesi, Muhittin ��st�_nda�� Cadd...	Ko��uyolu	Ko��uyolu ��stanbu
9548	5915807	Huqqa	208	��stanbul	Kuru�_e��me Mahallesi, Muallim Naci Caddesi, N...	Kuru�_e��me	Kuru�_e��me ��stanbu
9549	5916112	A���k Kahve	208	��stanbul	Kuru�_e��me Mahallesi, Muallim Naci Caddesi, N...	Kuru�_e��me	Kuru�_e��me ��stanbu
9550	5927402	Walter's Coffee Roastery	208	��stanbul	Cafea��a Mahallesi, Bademalt\ Sokak, No 21/B, ...	Moda	Moda ��stanbu

9551 rows × 21 columns

In [4]:
```
df.isnull().sum()
```

Out[4]:
```
Restaurant ID           0
Restaurant Name         0
Country Code            0
City                    0
Address                 0
Locality                0
Locality Verbose        0
Longitude               0
Latitude                0
Cuisines                9
Average Cost for two    0
Currency                0
Has Table booking       0
Has Online delivery     0
Is delivering now       0
Switch to order menu    0
Price range             0
Aggregate rating        0
Rating color            0
Rating text             0
Votes                   0
dtype: int64
```

In [6]:
```
df.dropna(inplace=True)
```

In [7]:
```
df
```

Out[7]:

	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	6318506	Ooma	162	Mandaluyong City	Third Floor, Mega Fashion Hall, SM Megamall, O...	SM Megamall, Ortigas, Mandaluyong City	SM Megamall Ortigas Mandaluyong City, Mandal..
4	6314302	Sambo Kojin	162	Mandaluyong City	Third Floor, Mega Atrium, SM Megamall, Ortigas...	SM Megamall, Ortigas, Mandaluyong City	SM Megamall Ortigas Mandaluyong City, Mandal..
...	...	...	...	...	...	...	..
9546	5915730	Namlı Gurme	208	��stanbul	Kemanke�� Karamustafa Pa��a Mahallesi, Rıhtım ...	Karak�_y	Karak�_y ��stanbu
9547	5908749	Ceviz A��acı	208	��stanbul	Ko��uyolu Mahallesi, Muhittin ��st�_nda�� Cadd...	Ko��uyolu	Ko��uyolu ��stanbu
9548	5915807	Huqqa	208	��stanbul	Kuru�_e��me Mahallesi, Muallim Naci Caddesi, N...	Kuru�_e��me	Kuru�_e��me ��stanbu
9549	5916112	A���k Kahve	208	��stanbul	Kuru�_e��me Mahallesi, Muallim Naci Caddesi, N...	Kuru�_e��me	Kuru�_e��me ��stanbu
9550	5927402	Walter's Coffee Roastery	208	��stanbul	Cafea��a Mahallesi, Bademaltı Sokak, No 21/B, ...	Moda	Moda ��stanbu

9542 rows × 21 columns

```
In [11]: cui=df['Cuisines']
         cui
```

```
Out[11]: 0               French, Japanese, Desserts
         1                                 Japanese
         2         Seafood, Asian, Filipino, Indian
         3                          Japanese, Sushi
         4                         Japanese, Korean
                               ...
         9546                               Turkish
         9547       World Cuisine, Patisserie, Cafe
         9548                Italian, World Cuisine
         9549                       Restaurant Cafe
         9550                                  Cafe
         Name: Cuisines, Length: 9542, dtype: object
```

```
In [12]: cui.value_counts()
```

```
Out[12]: North Indian                                             936
         North Indian, Chinese                                    511
         Chinese                                                  354
         Fast Food                                                354
         North Indian, Mughlai                                    334
                                                                 ...
         Bengali, Fast Food                                         1
         North Indian, Rajasthani, Asian                            1
         Chinese, Thai, Malaysian, Indonesian                       1
         Bakery, Desserts, North Indian, Bengali, South Indian      1
         Italian, World Cuisine                                     1
         Name: Cuisines, Length: 1825, dtype: int64
```

```
In [13]: cui.value_counts().head()
```

```
Out[13]: North Indian             936
         North Indian, Chinese    511
         Chinese                  354
         Fast Food                354
         North Indian, Mughlai    334
         Name: Cuisines, dtype: int64
```

Determine if certain cuisine combinations tend to have higher ratings.

```
In [20]: df.groupby(by='Cuisines')['Aggregate rating'].mean().sort_values(ascending=False).heac
```

```
Out[20]: Cuisines
         Italian, Deli              4.9
         Hawaiian, Seafood          4.9
         American, Sandwich, Tea    4.9
         Continental, Indian        4.9
         European, Asian, Indian    4.9
         Name: Aggregate rating, dtype: float64
```

```
In [ ]:
```