```python
# Task: Price Range Analysis

- Determine the most common price range among all the restaurants.
- Calculate the average rating for each price range.
- Identify the color that represents the highest average rating among different
```

```python
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

```python
data_df=pd.read_csv('Dataset.csv')
data_df.head(40)
```

Out[15]:

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	L V
0	6317637	Le Petit Souffle	162	Makati City	Third Floor, Century City Mall, Kalayaan Avenu...	Century City Mall, Poblacion, Makati City	Centu Pob Mak
1	6304287	Izakaya Kikufuji	162	Makati City	Little Tokyo, 2277 Chino Roces Avenue, Legaspi...	Little Tokyo, Legaspi Village, Makati City	Little Mak
2	6300002	Heat - Edsa Shangri-La	162	Mandaluyong City	Edsa Shangri-La, 1 Garden Way, Ortigas, Mandal...	Edsa Shangri-La, Ortigas, Mandaluyong City	Edsa S La, C Manda Cit
3	6318506	Ooma	162	Mandaluyong City	Third Floor, Mega Fashion Hall, SM Megamall, O...	SM Megamall, Ortigas, Mandaluyong City	SM Me C Manda City, M
4	6314302	Sambo Kojin	162	Mandaluyong City	Third Floor, Mega Atrium, SM Megamall, Ortigas...	SM Megamall, Ortigas, Mandaluyong City	SM Me C Manda City, M
5	18189371	Din Tai Fung	162	Mandaluyong City	Ground Floor, Mega Fashion Hall, SM Megamall, ...	SM Megamall, Ortigas, Mandaluyong City	SM Me C Manda City, M
6	6300781	Buffet 101	162	Pasay City	Building K, SM By The Bay, Sunset Boulevard, M...	SM by the Bay, Mall of Asia Complex, Pasay City	SM Bay, Asia Co Pas
7	6301290	Vikings	162	Pasay City	Building B, By The Bay, Seaside Boulevard, Mal...	SM by the Bay, Mall of Asia Complex, Pasay City	SM Bay, Asia Co Pas
8	6300010	Spiral - Sofitel Philippine Plaza Manila	162	Pasay City	Plaza Level, Sofitel Philippine Plaza Manila, ...	Sofitel Philippine Plaza Manila, Pasay City	Ph Plaza Pasay C
9	6314987	Locavore	162	Pasig City	Brixton Technology Center, 10	Kapitolyo	Ka Pa

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	L V
					Brixton Street, ...		
10	6309903	Silantro Fil-Mex	162	Pasig City	75 East Capitol Drive, Kapitolyo, Pasig City	Kapitolyo	Ka Pa
11	6309455	Mad Mark's Creamery & Good Eats	162	Pasig City	23 East Capitol Drive, Kapitolyo, Pasig City	Kapitolyo	Ka Pa
12	6318433	Silantro Fil-Mex	162	Quezon City	Second Floor, UP Town Center, Katipunan Avenue...	UP Town Center, Diliman, Quezon City	U D Quez Quez
13	6310470	Guevarra's	162	San Juan City	387 P. Guevarra Corner Argonne Street, Additio...	Addition Hills	Additio San Ju
14	6314605	Sodam Korean Restaurant	162	San Juan City	17 J. Abad Santos Drive, Little Baguio, San Ju...	Little Baguio	Little San Ju
15	18185059	Cafe Arabelle	162	Santa Rosa	Ayala Mall, Solenad, Nuvali, Santa Rosa - Taga...	Nuvali, Don Jose, Santa Rosa	Nuv Jose Ros
16	18182702	Nonna's Pasta & Pizzeria	162	Santa Rosa	Ground Floor, Building G, Solenad 3, Nuvali, D...	Solenad 3, Don Jose, Santa Rosa	Sol Do Sant San
17	6318213	Balay Dako	162	Tagaytay City	Aguinaldo Highway, Tagaytay City	Tagaytay City	Tagayt Tagay
18	18255654	Hobing Korean Dessert Cafe	162	Taguig City	Third Floor, BGC Stopover Pavillion, Rizal Dri...	BGC Stopover Pavillion, Bonifacio Global City	BGC St P Bo Globa
19	6308205	Wildflour Cafe + Bakery	162	Taguig City	Ground Floor, Netlima Building, 4th Avenue Cor...	Bonifacio Global City	Bo Glob Tagu

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	L V
20	6315438	NIU by Vikings	162	Taguig City	Sixth Floor, SM Aura Premier, C5 Road Corner 2…	SM Aura Premier, Bonifacio Global City, Taguig…	S P Bo Glob T
21	6310406	The Food Hall by Todd English	162	Taguig City	Fifth Floor, SM Aura Premier, C5 Corner 26th S…	SM Aura Premier, Bonifacio Global City, Taguig…	S P Bo Glob T
22	6600681	Chez Michou	30	Bras�_lia	SCLN, 208, Bloco A, Loja 30, Asa Norte, Bras�_lia	Asa Norte	Asa Br
23	6601005	Caf�� Daniel Briand	30	Bras�_lia	SCLN 104, Bloco A, Loja 26, Asa Norte, Bras�_lia	Asa Norte	Asa Br
24	6600292	Casa do Biscoito Mineiro	30	Bras�_lia	SCLN 210, Bloco D, Loja 36/48, Asa Norte, Bras…	Asa Norte	Asa Br
25	6600441	Maori	30	Bras�_lia	CLN 110, Bloco D, Loja 28, Asa Norte, Bras�_lia	Asa Norte	Asa Br
26	6600970	Pizza �� Bessa	30	Bras�_lia	SCS 214, Bloco C, Loja 40, Asa Sul, Bras�_lia	Asa Sul	A Br
27	6600379	Sushi Loko	30	Bras�_lia	SCS 213, Bloco C, Loja 35, Asa Sul, Bras�_lia	Asa Sul	A Br
28	6600214	Beirute	30	Bras�_lia	CLS 109, Bloco A, Loja 2/6, Asa Sul, Bras�_lia	Asa Sul	A Br
29	6601218	New Koto	30	Bras�_lia	SCS 212, Bloco B, Loja 26, Asa Sul, Bras�_lia	Asa Sul	A Br
30	6600060	Sandubas Caf��	30	Bras�_lia	Edif�_cio Jos��	Asa Sul	A Br

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	L V
					Severo, SCS 6, Bloco A, Loja 9...		
31	6600083	Villa Tevere	30	Bras�_lia	CLS 115, Bloco A, Loja 2, Asa Sul, Bras�_lia	Asa Sul	Br
32	6601515	Rovereto	30	Bras�_lia	Rua 13 Norte, Lote 4, �guas Claras, Bras�_lia	�guas Claras	�guas Br
33	6601361	Buena Carne	30	Bras�_lia	Avenida Arauc��rias, 1325, Loja 19, �guas Clar...	�guas Claras	�guas Br
34	6601602	Taco Pep	30	Bras�_lia	Vila Malls, Avenida das Castanheiras, Lote 106...	�guas Claras	�guas Br
35	6601589	Coco Bambu	30	Bras�_lia	Bras�_lia Shopping - Piso 2, SCN 5, Bloco A, A...	Bras�_lia Shopping, Asa Norte	Br Shoppi Br
36	6601862	Tayp��	30	Bras�_lia	Fashion Park, Shis QI 17, Bloco G, Loja 208, L...	Lago Sul	La Br
37	6601595	Outback Steakhouse	30	Bras�_lia	ParkShopping - Piso 2, SAI/SO, �rea 6580, Guar...	ParkShopping, Guar�� I	ParkSh Gua Br
38	6601158	Manzu��	30	Bras�_lia	Pont��o Lago Sul, SHIS 10, Lote 9, Lago Sul, B...	Pont��o Lago Sul, Lago Sul	Por La La Br
39	6600427	Coco Bambu	30	Bras�_lia	SCES, Trecho 2, Conjunto 13/36, Setor de Clube...	Setor De Clubes Esportivos Sul	S Esportiv Br

40 rows × 21 columns

Determine the most common price range among all the restaurants.

```
In [7]: most_common_price= data_df['Price range'].mode()[0]
        # the mode will heples to find out the frequntly occuring value in given one.
        print(f"The most common price range is:",most_common_price)
```

The most common price range is: 1

Calculate the average rating for each price range.

```
In [8]: average_rating_by_price = data_df.groupby('Price range')['Aggregate rating'].mea
        # Renaming columns
        average_rating_by_price.columns = ['Price Range', 'Average Rating']
        average_rating_by_price
```

Out[8]:

	Price Range	Average Rating
0	1	1.999887
1	2	2.941054
2	3	3.683381
3	4	3.817918

Identify the color that represents the highest average rating among different price ranges.

```
In [14]: h_a_price_range = average_rating_by_price.loc[average_rating_by_price['Average R
         h_a_color = data_df[data_df['Price range'] == h_a_price_range]['Rating color'].m
         h_a_color
```

Out[14]: 'Yellow'

```
In [ ]:
```