

Task: Price Range Distribution

1.3.1 Create a histogram or bar chart to visualize the distribution of price ranges among the restaurants.

In [2]:

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

In [3]:

```
data = pd.read_csv(r"C:\Users\HP\OneDrive\Documents\Cognifyz Internship Program\Dataset.csv")
```

In [4]:

```
data
```

Out[4]:

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	Locality Verbose	Longitude	Latitude	Cuisines	...	Currency	Has Table booking	Has Online delivery	Is delivering now	Switch to order menu	Price range	Aggregate rating	Rating color	Rating text	Votes
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...	121.027535	14.565443	French, Japanese, Desserts	...	Botswana Pula(P)	Yes	No	No	No	3	4.8	Dark Green	Excellent	314
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...	121.014101	14.553708	Japanese	...	Botswana Pula(P)	Yes	No	No	No	3	4.5	Dark Green	Excellent	591
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...	121.056831	14.581404	Seafood, Asian, Filipino, Indian	...	Botswana Pula(P)	Yes	No	No	No	4	4.4	Green	Very Good	270
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...	121.056475	14.585318	Japanese, Sushi	...	Botswana Pula(P)	No	No	No	No	4	4.9	Dark Green	Excellent	365
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...	121.057508	14.584450	Japanese, Korean	...	Botswana Pula(P)	Yes	No	No	No	4	4.8	Dark Green	Excellent	229
...
9546	5915730	Namlı Gurme	208	İstanbul	Kemankel Karamustafa Paşa Mahallesi, Rıhtım ...	Karaköy	Karaköy, İstanbul	28.977392	41.022793	Turkish	...	Turkish Lira(TL)	No	No	No	No	3	4.1	Green	Very Good	788
9547	5908749	Ceviz Afişi	208	İstanbul	Koşuyolu Mahallesi, Muhtinin Şifada Cadd...	Koşuyolu	Koşuyolu, İstanbul	29.041297	41.009847	World Cuisine, Patisserie, Cafe	...	Turkish Lira(TL)	No	No	No	No	3	4.2	Green	Very Good	1034
9548	5915807	Huqqa	208	İstanbul	Kuruçeme Mahallesi, Muallim Naci Caddesi, N...	Kuruçeme	Kuruçeme, İstanbul	29.034640	41.055817	Italian, World Cuisine	...	Turkish Lira(TL)	No	No	No	No	4	3.7	Yellow	Good	661
9549	5916112	AkKahve	208	İstanbul	Kuruçeme Mahallesi, Muallim Naci Caddesi, N...	Kuruçeme	Kuruçeme, İstanbul	29.036019	41.057979	Restaurant Cafe	...	Turkish Lira(TL)	No	No	No	No	4	4.0	Green	Very Good	901
9550	5927402	Walter's Coffee Roastery	208	İstanbul	Cafeaâ Mahallesi, Bademaltı Sokak, No 21/B, ...	Moda	Moda, İstanbul	29.026016	40.984776	Cafe	...	Turkish Lira(TL)	No	No	No	No	2	4.0	Green	Very Good	591

9551 rows × 21 columns

In [5]:

```
plt.title('Distribution of restaureant price range ')
plt.xlabel('Price range')
plt.ylabel('Freq')
plt.hist(data['Price range'])
```

Out[5]:

```
(array([4444.,  0.,  0., 3113.,  0.,  0., 1408.,  0.,  0.,
        586.]),
 array([1. , 1.3, 1.6, 1.9, 2.2, 2.5, 2.8, 3.1, 3.4, 3.7, 4. ]),
 <BarContainer object of 10 artists>)
```

1.3.2 Calculate the percentage of restaurants in each price range category

In [13]:

```
price_counts = data['Price range'].value_counts()
```

In [14]:

```
price_counts
```

Out[14]:

```
1    4444
2    3113
3    1408
4     586
Name: Price range, dtype: int64
```

In [15]:

```
total_restaurants = len(data)
```

In [11]:

```
for price_range, count in price_counts.iteritems():
    pct = count / total_restaurants * 100
    print(f"{price_range}: {pct:.2f}%")
```

1: 46.53%
2: 32.59%
3: 14.74%
4: 6.14%

In []: