Output

Level - 2

Task -1

Table Booking and Online Delivery

Q.1) Determine the percentage of restaurants that offer table booking and online delivery.

O/P->

Percentage of restaurants offering table booking: **12.13582 %**
Percentage of restaurants offering online delivery: **25.68644 %**

Conclusion : Seeing above values we conclude that count of restaurants that offers online delivery is comparitively more than count of restaurants offering table booking

Q.2) Compare the average ratings of restaurants with table booking and those without.

O/P->

Average rating for restaurants with table booking: **3.441969**
Average rating for restaurants without table booking: **2.557956**

Conclusion :Seeing above values we can conclude that restaurants with table booking has more Average rating compared to Average rating of restaurants without table booking

Q.3) Analyze the availability of online delivery among restaurants with different price ranges.

O/P->

	1	2	3	4
Yes	701	1286	411	53

Since the p-value is very close to zero (smaller than the typical significance level of 0.05), we reject the null hypothesis.

Conclusion : Therefore, there is a significant association between online delivery and price range. In other words, the availability of online delivery varies significantly across different price ranges of restaurants.Here We conclude that availability of online delivery is higher for those restaurants who's price range is 1 and 2

Task - 2

Price Range Analysis

Q.1) Determine the most common price range among all the restaurants.

O/P-> The most common price range is: 1

Conclusion : From above results we can say that most common price range among all the restaurants is : 1

Q.2) Calculate the average rating for each price range.

O/P->

	Price range	Aggregate rating
1	1	1.999887
2	2	2.941054
3	3	3.683381
4	4	3.817918

Conclusion : We can say that avg rating is high for price range of 4 compared to others

Q.3) Identify the color that represents the highest average rating among different price ranges.

O/P-> The color that represents the highest average rating among different price ranges is: Green

Task - 3

Feature Engineering

Q.1) Extract additional features from the existing columns, such as the length of the restaurant name or address.

O/P->

After adding new columns

[1] "Restaurant ID"   "Restaurant Name"   "Country Code"   "City"   "Address"

[6] "Locality"   "Locality Verbose"   "Longitude"   "Latitude"   "Cuisines"

[11] "Average Cost for two" "Currency"   "Has Table booking"
"Has Online delivery" "Is delivering now"

[16] "Switch to order menu" "Price range"   "Aggregate rating"
"Rating color"   "Rating text"

[21] "Votes"   "Rest_Name_Len"   "Addr_Len"

Q.2) Create new features like "Has Table Booking" or "Has Online Delivery" by encoding categorical variables.

O/P-> [1] "Restaurant ID"   "Restaurant Name"   "Country Code"   "City"

 [5] "Address"   "Locality"   "Locality Verbose"
"Longitude"

 [9] "Latitude"   "Cuisines"   "Average Cost for two"
"Currency"

[13] "Has Table booking"   "Has Online delivery"   "Is delivering now"   "Switch to order menu"

[17] "Price range"   "Aggregate rating"   "Rating color"
"Rating text"

[21] "Votes"   "Rest_Name_Len"   "Addr_Len"
"Has_Table_Booking_Encoded"

[25] "Has_Online_Delivery_Encoded"