VirtuChef: Your Cloud KitchenExperience

Milestone:Application(Python or R)

Group 3
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Percentage of Effort Contributed by Student 1: 50

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In [1]:
```
import mysql.connector
```

In [2]:
```
connection = mysql.connector.connect(
        host='localhost',
        database='sys',
        user='root',
        password=' ',
#         auth_plugin='mysql_native_password'
    )
```

In [3]:
```
if connection.is_connected():
        db_Info = connection.get_server_info()
        print(f"Connected to MySQL Server version {db_Info}")

        # Create a cursor object to execute SQL queries
        cursor = connection.cursor()
```

```
Connected to MySQL Server version 8.3.0
```

In [5]:
```
connection
```

Out[5]:
```
<mysql.connector.connection_cext.CMySQLConnection at 0x10647aa50>
```

In [6]:
```
import pandas as pd
```

In [7]:
```
df = pd.read_sql_query("SELECT * FROM Chef", connection)
df.head(10)
```

```
/var/folders/xp/6gfc4kz52316spkystt_4mw00000gn/T/ipykernel_79561/843454546.py:1: UserWarning: pandas only s
upports SQLAlchemy connectable (engine/connection) or database string URI or sqlite3 DBAPI2 connection. Oth
er DBAPI2 objects are not tested. Please consider using SQLAlchemy.
  df = pd.read_sql_query("SELECT * FROM Chef", connection)
```

Out[7]:

	E_ID	Specialization	Signature_Dishes
0	1	French Cuisine	Coq au vin, Bouillabaisse
1	2	Italian Cuisine	Lasagna, Pizza Napoletana
2	3	Indian Cuisine	Butter Chicken, Biryani
3	4	Japanese Cuisine	Sushi, Ramen
4	5	Mexican Cuisine	Tacos, Mole Poblano
5	6	Thai Cuisine	Pad Thai, Tom Yum Soup
6	7	Mediterranean Cuisine	Moussaka, Paella
7	8	Korean Cuisine	Bibimbap, Kimchi Jjigae
8	9	Cajun Cuisine	Jambalaya, Gumbo
9	10	Vegan Cuisine	Lentil Shepherd's Pie, Rainbow Veggie Wraps

In [8]:
```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
```

In [9]:
```
df1 = pd.read_sql_query("SELECT * FROM Delivery_Personnel", connection)
df1.head(10)
```

```
/var/folders/xp/6gfc4kz52316spkystt_4mw00000gn/T/ipykernel_79561/50093908.py:1: UserWarning: pandas only su
pports SQLAlchemy connectable (engine/connection) or database string URI or sqlite3 DBAPI2 connection. Othe
r DBAPI2 objects are not tested. Please consider using SQLAlchemy.
  df1 = pd.read_sql_query("SELECT * FROM Delivery_Personnel", connection)
```

Out[9]:

	E_ID	Orders_Completed	Vehicle_Type	Vehicle_Number
0	101	25	Car	ABC-123
1	102	42	Scooter	DEF-456
2	103	18	Bicycle	GHI-789
3	104	37	Motorcycle	JKL-012
4	105	51	Van	MNO-345
5	106	19	Car	PQR-678
6	107	33	Scooter	STU-901
7	108	21	Bicycle	VWX-234
8	109	48	Motorcycle	YZZ-567
9	110	62	Truck	AAA-111

In [10]:
```
#Visualizing the top 5 vehicles used by delivery personnels
```

In [11]:

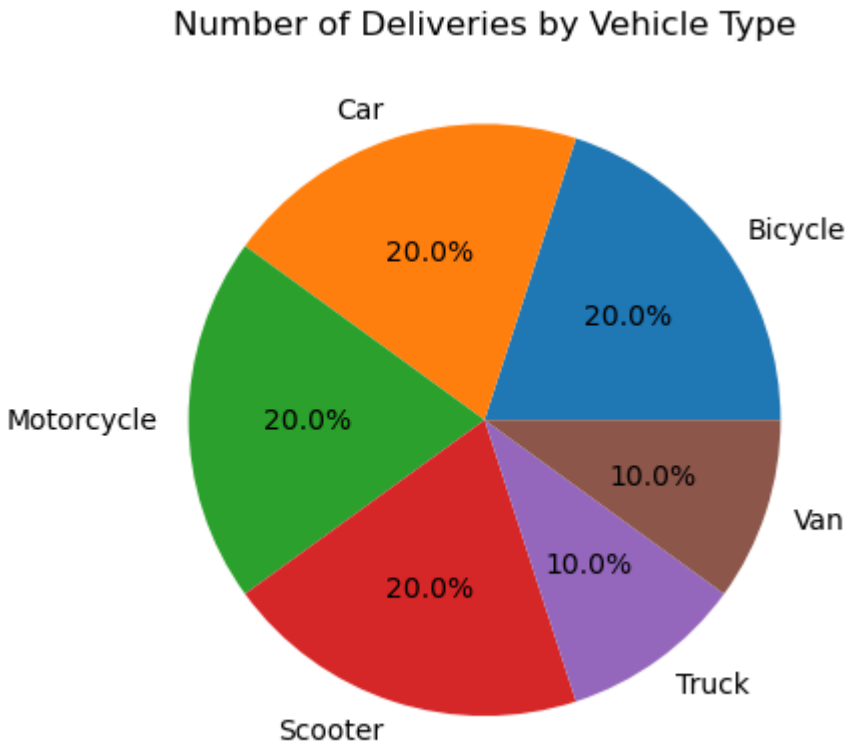
```
vehicle_counts = df1.groupby('Vehicle_Type')['Vehicle_Type'].count().sort_values(ascending=False)

# Extract vehicle types and counts for the pie chart
vehicle_types = vehicle_counts.index.to_numpy()
vehicle_counts = vehicle_counts.to_numpy()

# Create the pie chart
plt.pie(vehicle_counts, labels=vehicle_types, autopct="%1.1f%%")  # Displays percentage only

# Add a title
plt.title("Number of Deliveries by Vehicle Type")

# Display the chart
plt.show()
```



In [12]:
```
# Visualize the count of ratings the restaurant chain has got
```

In [13]:
```
df4 = pd.read_sql_query("SELECT * FROM Feedback", connection)
df4.head(10)
```

```
/var/folders/xp/6gfc4kz52316spkystt_4mw00000gn/T/ipykernel_79561/3770727224.py:1: UserWarning: pandas only
supports SQLAlchemy connectable (engine/connection) or database string URI or sqlite3 DBAPI2 connection. Ot
her DBAPI2 objects are not tested. Please consider using SQLAlchemy.
  df4 = pd.read_sql_query("SELECT * FROM Feedback", connection)
```

Out[13]:

	F_ID	C_ID	O_ID	Rating	Comments
0	10a	191	91	5	Exquisite flavors!
1	10b	192	92	4	Prompt service.
2	10c	193	93	3	Satisfactory cleanliness.
3	10d	194	94	5	Wonderful ambiance!
4	10e	195	95	2	Unsatisfactory wait time.
5	10f	196	96	4	Beautiful decor.
6	10g	197	97	3	Reasonable prices.
7	10h	198	98	5	Delicious dishes!
8	10i	199	99	4	Friendly service.
9	1a	101	1	5	Excellent service!

In [14]:
```
rating_counts = df4['Rating'].value_counts().sort_index(ascending=True)  # Sort lowest to highest

# Create a color list for the bars
colors = ['pink', 'orange', 'green', 'coral']

# Create the bar chart
plt.bar(rating_counts.index, rating_counts.values, color=colors)
plt.xlabel('Rating')
plt.ylabel('Number of Ratings')
plt.title('Total Count of Ratings for the Restaurant (Lowest to Highest)')
plt.xticks(rotation=0)
plt.show()
```