SWIGGY SALES ANALYSIS

Import Libraries

In [2]:

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
import plotly.express as px
```

Import Data

In [3]:

```
df = pd.read_excel("C:/Users/sanik/Downloads/swiggy_data.xlsx")
```

In [4]:

```
df.head()
```

Out[4]:

	State	City	Order Date	Restaurant Name	Location	Category	Dish Name	Price (INR)	Rating
0	Karnataka	Bengaluru	2025-06-29	Anand Sweets & Savouries	Rajarajeshwari Nagar	Snack	Butter Murukku-200gm	133.9	4.0
1	Karnataka	Bengaluru	2025-04-03	Srinidhi Sagar Deluxe	Kengeri	Recommended	Badam Milk	52.0	4.5
2	Karnataka	Bengaluru	2025-01-15	Srinidhi Sagar Deluxe	Kengeri	Recommended	Chow Chow Bath	117.0	4.7
3	Karnataka	Bengaluru	2025-04-17	Srinidhi Sagar Deluxe	Kengeri	Recommended	Kesari Bath	65.0	4.6
4	Karnataka	Bengaluru	2025-03-13	Srinidhi Sagar Deluxe	Kengeri	Recommended	Mix Raitha	130.0	4.0

In [5]:

```
df.tail()
```

Out[5]:

	State	City	Order Date	Restaurant Name	Location	Category	Dish Name	Price (INR)	Rating	Rating Count
197425	Sikkim	Gangtok	2025-01-25	Mama's Kitchen	Gangtok	Momos	Soya cheese chilli momo ...	112.0	4.4	0
197426	Sikkim	Gangtok	2025-07-02	Mama's Kitchen	Gangtok	Momos	Kurkure momo fried ...	140.0	4.4	0
197427	Sikkim	Gangtok	2025-03-25	Mama's Kitchen	Gangtok	Momos	Chilli cheese momo	126.0	4.4	0
197428	Sikkim	Gangtok	2025-03-26	Mama's Kitchen	Gangtok	Momos	Veg Momos (8 Pc)	85.0	4.4	0
197429	Sikkim	Gangtok	2025-03-27	Mama's Kitchen	Gangtok	Momos	Soya Momo	100.0	4.4	0

Metadata

In [7]:

```
print("No of Rows:", df.shape[0])
```

```
No of Rows: 197430
```

In [8]:

```
print("No of Fiels:", df.shape[1])
```

```
No of Fiels: 10
```

In [9]:

```
df.info
```

Out[9]:

```
<bound method DataFrame.info of              State       City Order Date  
Restaurant Name  \
0       Karnataka  Bengaluru 2025-06-29  Anand Sweets & Savouries
1       Karnataka  Bengaluru 2025-04-03     Srinidhi Sagar Deluxe
2       Karnataka  Bengaluru 2025-01-15     Srinidhi Sagar Deluxe
3       Karnataka  Bengaluru 2025-04-17     Srinidhi Sagar Deluxe
4       Karnataka  Bengaluru 2025-03-13     Srinidhi Sagar Deluxe
...           ...        ...        ...                       ...
197425     Sikkim    Gangtok 2025-01-25            Mama's Kitchen
197426     Sikkim    Gangtok 2025-07-02            Mama's Kitchen
197427     Sikkim    Gangtok 2025-03-25            Mama's Kitchen
197428     Sikkim    Gangtok 2025-03-26            Mama's Kitchen
197429     Sikkim    Gangtok 2025-03-27            Mama's Kitchen

                    Location     Category  \
0       Rajarajeshwari Nagar        Snack   
1                    Kengeri  Recommended   
2                    Kengeri  Recommended   
3                    Kengeri  Recommended   
4                    Kengeri  Recommended   
...                      ...          ...   
197425               Gangtok        Momos   
197426               Gangtok        Momos   
197427               Gangtok        Momos   
197428               Gangtok        Momos   
197429               Gangtok        Momos   

                                                Dish Name  Price (INR)  \
0                                    Butter Murukku-200gm        133.9   
1                                              Badam Milk         52.0   
2                                          Chow Chow Bath        117.0   
3                                             Kesari Bath         65.0   
4                                              Mix Raitha        130.0   
...                                                   ...          ...   
197425  Soya cheese chilli momo                       ...        112.0   
197426  Kurkure momo fried                            ...        140.0   
197427                                 Chilli cheese momo        126.0   
197428                                   Veg Momos (8 Pc)         85.0   
197429                                          Soya Momo        100.0   

        Rating  Rating Count  
0          4.0             0  
1          4.5            25  
2          4.7            48  
3          4.6            65  
4          4.0             0  
...        ...           ...  
197425     4.4             0  
197426     4.4             0  
197427     4.4             0  
197428     4.4             0  
197429     4.4             0  

[197430 rows x 10 columns]>
```

Data Types

In [10]:

```
df.dtypes
```

Out[10]:

```
State                      object
City                       object
Order Date         datetime64[ns]
Restaurant Name            object
Location                   object
Category                   object
Dish Name                  object
Price (INR)               float64
Rating                    float64
Rating Count                int64
dtype: object
```

In [11]:

```
df.describe()
```

Out[11]:

	Order Date	Price (INR)	Rating	Rating Count
count	197430	197430.000000	197430.000000	197430.000000
mean	2025-05-01 19:41:20.996808960	268.512920	4.341582	28.321805
min	2025-01-01 00:00:00	0.950000	1.500000	0.000000
25%	2025-03-01 00:00:00	139.000000	4.300000	0.000000
50%	2025-05-02 00:00:00	229.000000	4.400000	2.000000
75%	2025-07-01 00:00:00	329.000000	4.500000	15.000000
max	2025-08-31 00:00:00	8000.000000	5.000000	999.000000
std	NaN	219.338363	0.422585	87.542593

KPI's

Total Sales

In [15]:

```
Total_sales = df["Price (INR)"].sum()
print("Total sales (INR):",round(Total_sales,2))
```

```
Total sales (INR): 53012505.77
```

Average Rating

In [17]:

```
Average_rating = df["Rating"].mean()
print("Average rating:", round(Average_rating,1))
```

```
Average rating: 4.3
```

Average Order Value

In [23]:

```
Avg_order_value= df["Price (INR)"].mean()
print("Avg order value (INR):",round(Avg_order_value,2))
```

```
Avg order value (INR): 268.51
```

Ratings Count

In [22]:

```
Ratings_count = df["Rating Count"].sum()
print("Rating Count:",round(Ratings_count,2))
```

```
Rating Count: 5591574
```

Total Orders

In [25]:
```python
total_orders = len(df)
print("Total orders:",round(total_orders,2))
```

```
Total orders: 197430
```

Charts Design

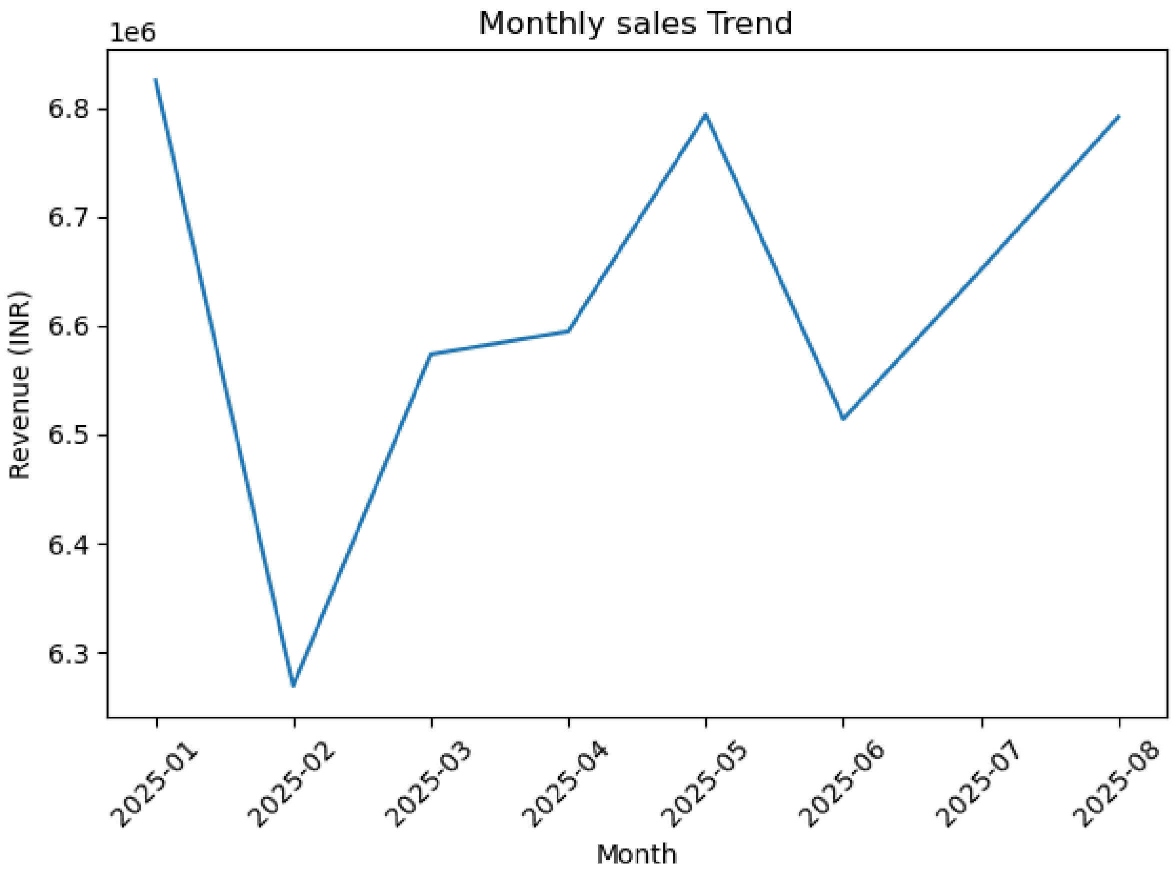
Monthly Sales Trend

In [30]:
```python
df["Order Date"] = pd.to_datetime(df["Order Date"])    # help to convert into other

df["YearMonth"] = df["Order Date"].dt.to_period("M").astype(str)  # ("M")--->2025-

monthly_revenue = df.groupby("YearMonth")["Price (INR)"].sum().reset_index()

plt.figure()
plt.plot(monthly_revenue["YearMonth"], monthly_revenue["Price (INR)"])
plt.xticks(rotation=45)
plt.xlabel("Month")
plt.ylabel("Revenue (INR)")
plt.title("Monthly sales Trend")
plt.tight_layout()
plt.show()
```



Daily Sales Trend

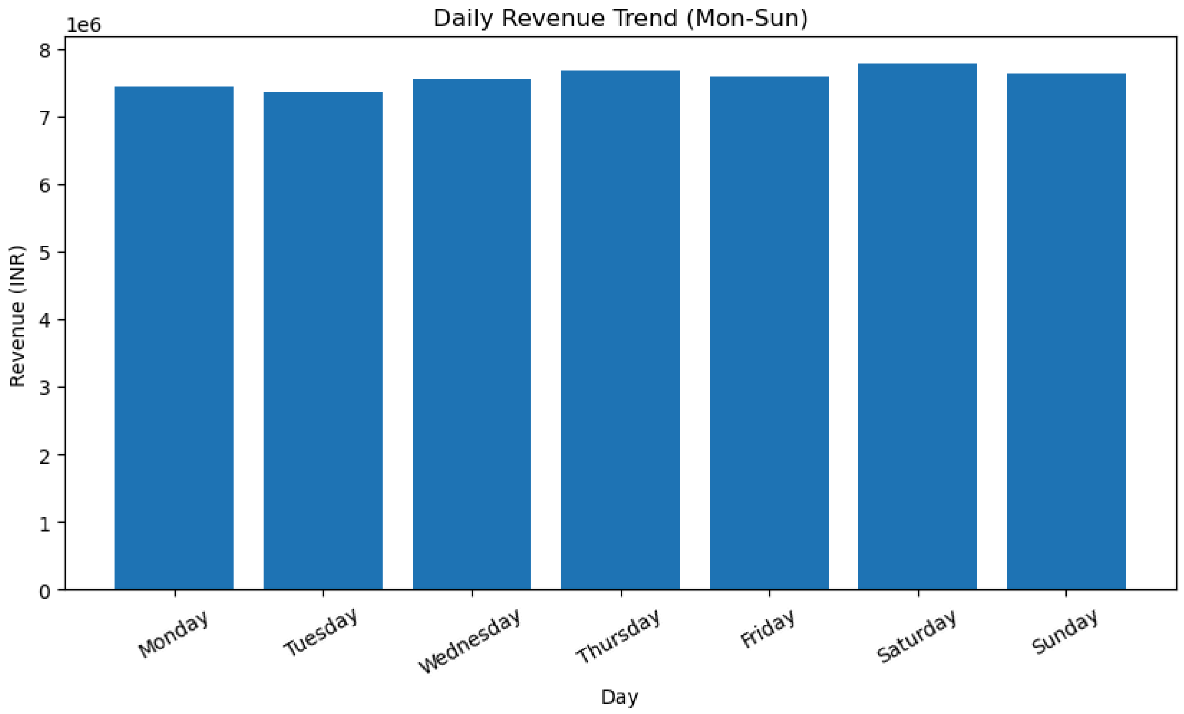
In [34]:

```
df["DayName"] = pd.to_datetime(df["Order Date"]).dt.day_name()

daily_revenue = (
    df.groupby("DayName")["Price (INR)"]
    .sum()
    .reindex(["Monday","Tuesday","Wednesday","Thursday","Friday","Saturday","Sunday
)

plt.figure(figsize=(10,5))
plt.bar(daily_revenue.index, daily_revenue.values)
plt.title("Daily Revenue Trend (Mon-Sun)")
plt.xlabel("Day")
plt.ylabel("Revenue (INR)")
plt.xticks(rotation=30)

plt.show()
```



Total Sales by Food Type (Veg vs Non-Veg)

In [58]:

```
non_veg_keywords = [
    "chicken", "egg", "fish", "mutton",
    "prawn", "biryani", "kabab", "kebob"
]

df["Food Category"] = np.where(
    df["Dish Name"].str.lower().str.contains("|".join(non_veg_keywords), na=False),
    "Non-veg",
    "Veg"
)
```

In [59]:

```
food_revenue = (
    df.groupby("Food Category")["Price (INR)"]
    .sum()
    .reset_index()
)
```

In [60]:

```
import plotly.express as px
```

```python
fig = px.pie(
    food_revenue,
    values="Price (INR)",
    names="Food Category",
    hole=0.5,
    title="Revenue Contribution: Veg vs Non-veg"
)

fig.update_traces(textinfo="percent+label")

fig.show()
```

Total Sales by State

In [49]:

```python
fig = px.bar (
    df.groupby("State", as_index=False)["Price (INR)"].sum()
      .sort_values("Price (INR)", ascending=False),
    x="Price (INR)",
    y="State",
    orientation="h",
    title="Revenue by state (INR)"
)

fig.update_layout(height=600, yaxis=dict(autorange="reversed"))
fig.show()
```

Quarterly Performance Summary

In [54]:

```
df["Order_Date"] = pd.to_datetime(df["Order Date"])
df["Quarter"] = df["Order_Date"].dt.to_period("Q").astype(str)
quarterly_summary = (
    df.groupby("Quarter", as_index=False)
      .agg(
           Total_sales=("Price (INR)", "sum"),
           Avg_Rating=("Rating","mean"),
           Total_Orders=("Order_Date", "count")
      )
      .sort_values("Quarter")
)


quarterly_summary
```

Out[54]:

	Quarter	Total_sales	Avg_Rating	Total_Orders
0	2025Q1	19667821.77	4.342643	73096
1	2025Q2	19902256.59	4.340011	74163
2	2025Q3	13442427.41	4.342359	50171

Top 5 cities by sales

In [64]:

```
top_5_cities = (
    df.groupby("City")["Price (INR)"]
    .sum()
    .nlargest(5)
    .sort_values()
    .reset_index()
)

fig = px.bar(
    top_5_cities,
    x="Price (INR)",
    y="City",
    orientation="h",
    title="Top 5 Cities by Sales (INR)",
    color_discrete_sequence=["sky Blue"]
)

fig.show()
```

```
In [ ]:
```