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**Store Analysis**

1. **#Top 10 Stores Sales by Store Area**

# Sort the data by Store\_Sales in descending order and take the top 10 rows

top\_10\_sales = Store\_Sales.sort\_values(by='Store\_Sales', ascending=False).head(10)

plt.figure(figsize=(10, 6))

sns.barplot(data=top\_10\_sales, x='Store\_Area', y='Store\_Sales')

plt.title('Bar Plot of Top 10 Store Sales vs. Store Area')

plt.xlabel('Store Area')

plt.ylabel('Store Sales')

plt.show()

**# Bottom 10 Store Sales vs. Store Area**

# Sort the data by Store\_Sales in ascending order and take the bottom 10 rows

bottom\_10\_sales = Store\_Sales.sort\_values(by='Store\_Sales', ascending=True).head(10)

# Sort the bottom 10 sales by Store\_Sales for plotting

sorted\_bottom\_10\_sales = bottom\_10\_sales.sort\_values(by='Store\_Sales', ascending=True)

plt.figure(figsize=(10, 6))

sns.barplot(data=sorted\_bottom\_10\_sales, x='Store\_Area', y='Store\_Sales')

plt.title('Bar Plot of Bottom 10 Store Sales vs. Store Area')

plt.xlabel('Store Area')

plt.ylabel('Store Sales')

plt.show()

**2.The distribution of items available**

plt.figure(figsize=(10, 6))

top\_items = Store\_Sales['Items\_Available'].value\_counts().head(10)

top\_items.plot(kind='bar')

plt.title('Top 10 Items Available Distribution')

plt.xlabel('Number of Items Available')

plt.ylabel('Frequency')

plt.show()

**3.# Items Available Distribution**

top\_5\_items = Store\_Sales['Items\_Available'].value\_counts().head(5)

plt.figure(figsize=(8, 8))

plt.pie(top\_5\_items, labels=top\_5\_items.index, autopct='%1.1f%%', startangle=140)

plt.title('Top 5 Items Available Distribution')

plt.show()

**4.# Average daily sales**

Store\_Sales['Avg\_Daily\_Sales'] = Store\_Sales['Store\_Sales'] / Store\_Sales['Daily\_Customer\_Count']\_Sales

**5. # Create a bar chart to display the top 5 daily customer counts by average store sales**

plt.figure(figsize=(8, 4))

sns.barplot(data=avg\_sales\_sorted.head(5), x='Daily\_Customer\_Count', y='Store\_Sales')

plt.title('Top 5 Daily Customer Counts by Average Store Sales')

plt.xlabel('Daily Customer Count')

plt.ylabel('Average Store Sales')

plt.show()

**6.# To get the store with the largest area**

largest\_area\_store = Store\_Sales.loc[Store\_Sales['Store\_Area'].idxmax()]

print(largest\_area\_store)