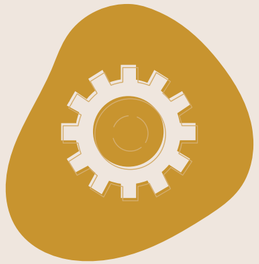
AMAZON SALES ANALYSIS USING PYTHON

OBJECTIVE

Examine the Amazon sales figures to determine the most popular products among consumers during the sales period.



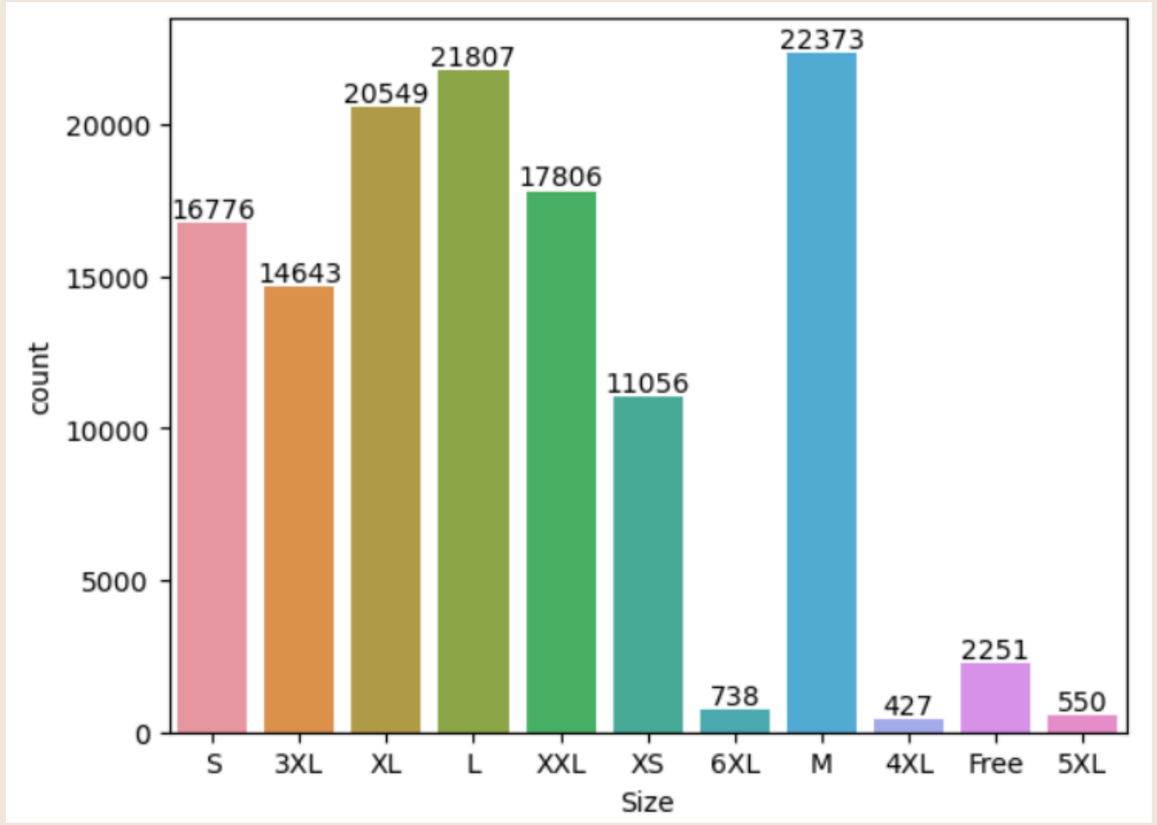
PLATFORM AND LIBRARIES USED IN THIS PROJECT

- Jupyter Notebook serves as a coding platform where various libraries are utilized.
- For instance, NumPy is employed for array operations.
- Pandas is used for data manipulation and cleaning.
- while Seaborn and Matplotlib are applied for visualizing data.

EXPLORATORY DATA ANALYSIS SET-QUESTIONS

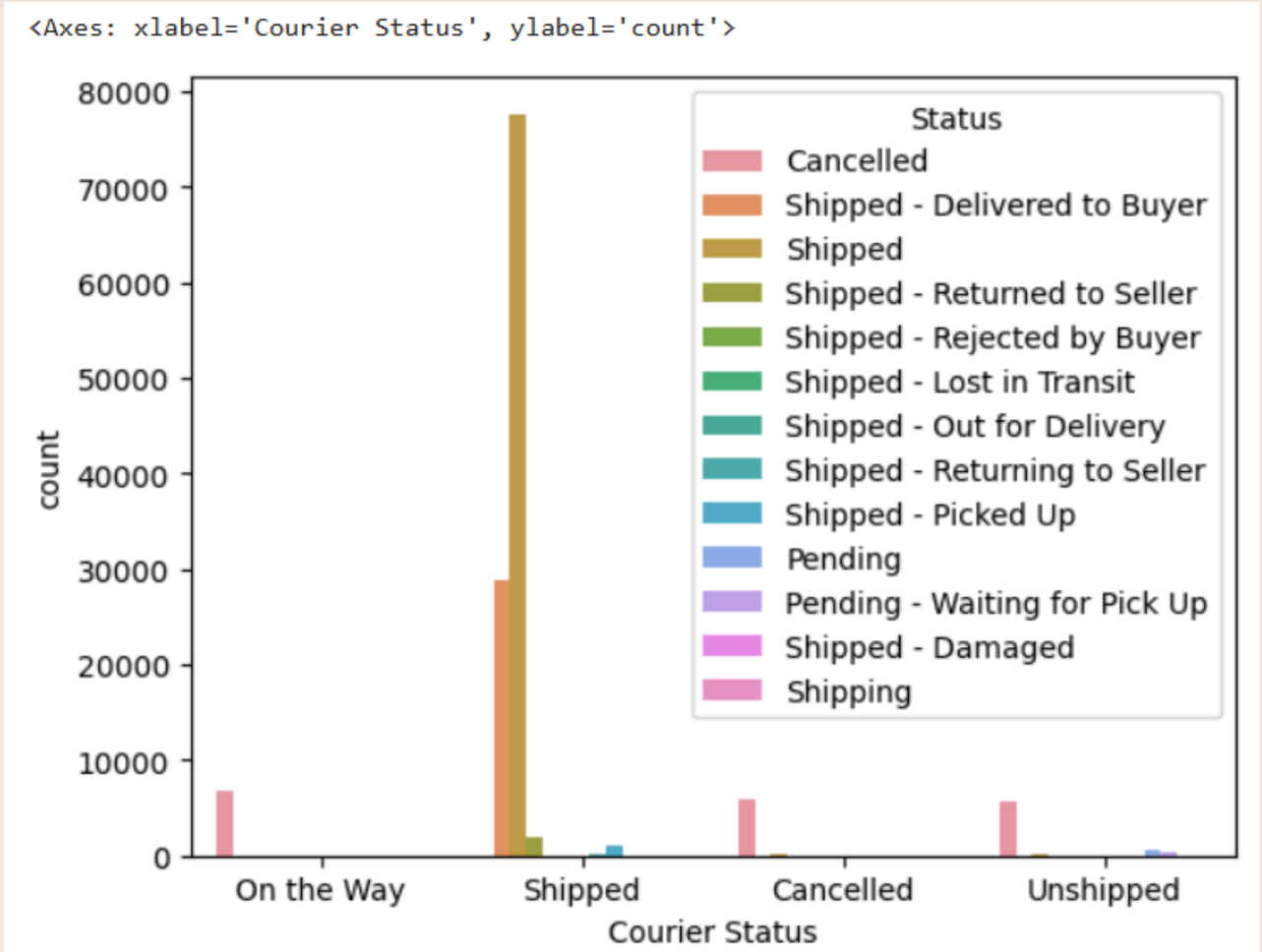
The below graph shows you that most people buy M-size.

```
ax=sns.countplot(x='Size', data=df)

for bars in ax.containers:
        ax.bar_label(bars)
```



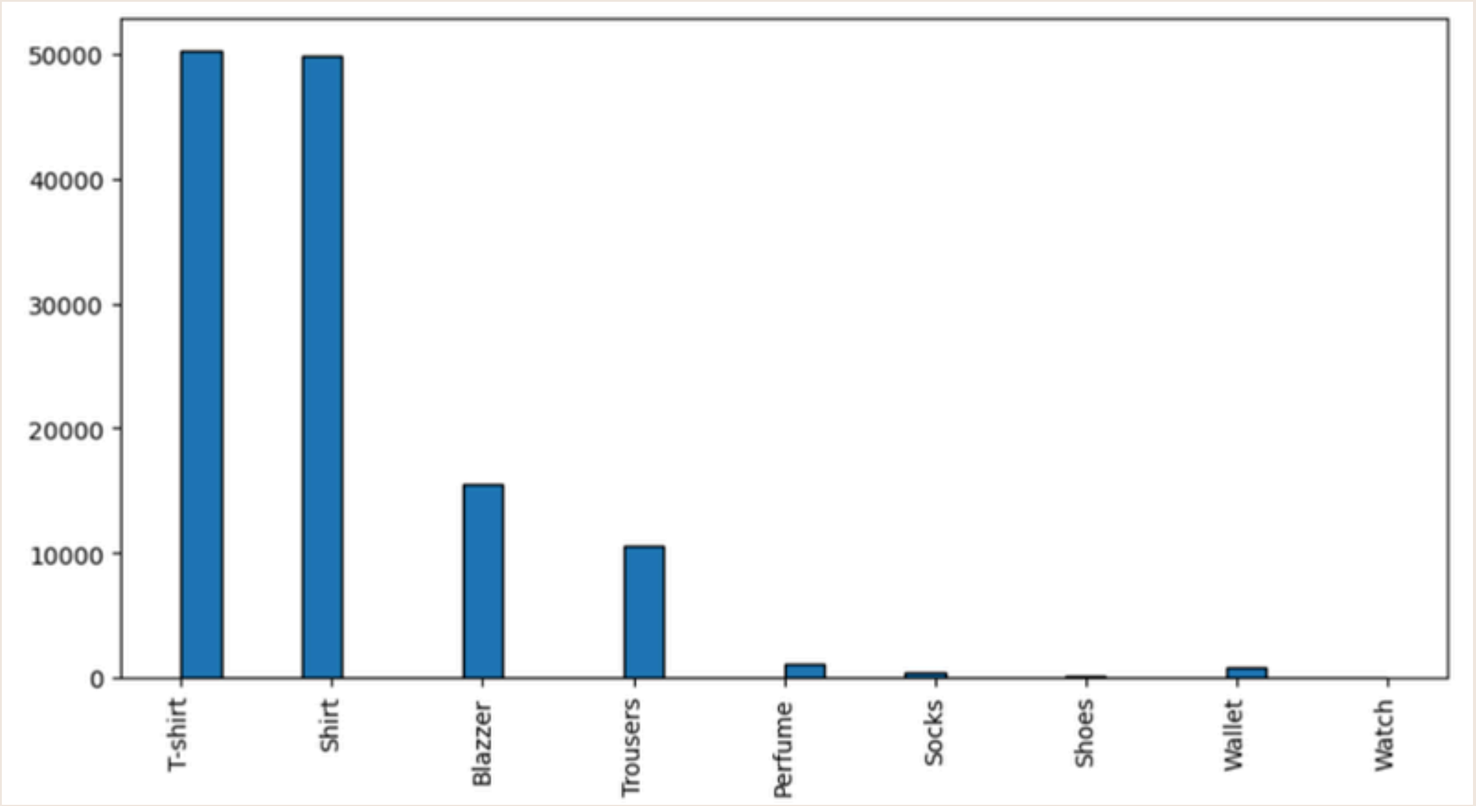
The below graph shows that most of the orders have been shipped through the Courier.

```
sns.countplot(data=df, x='Courier Status', hue = 'Status')
```

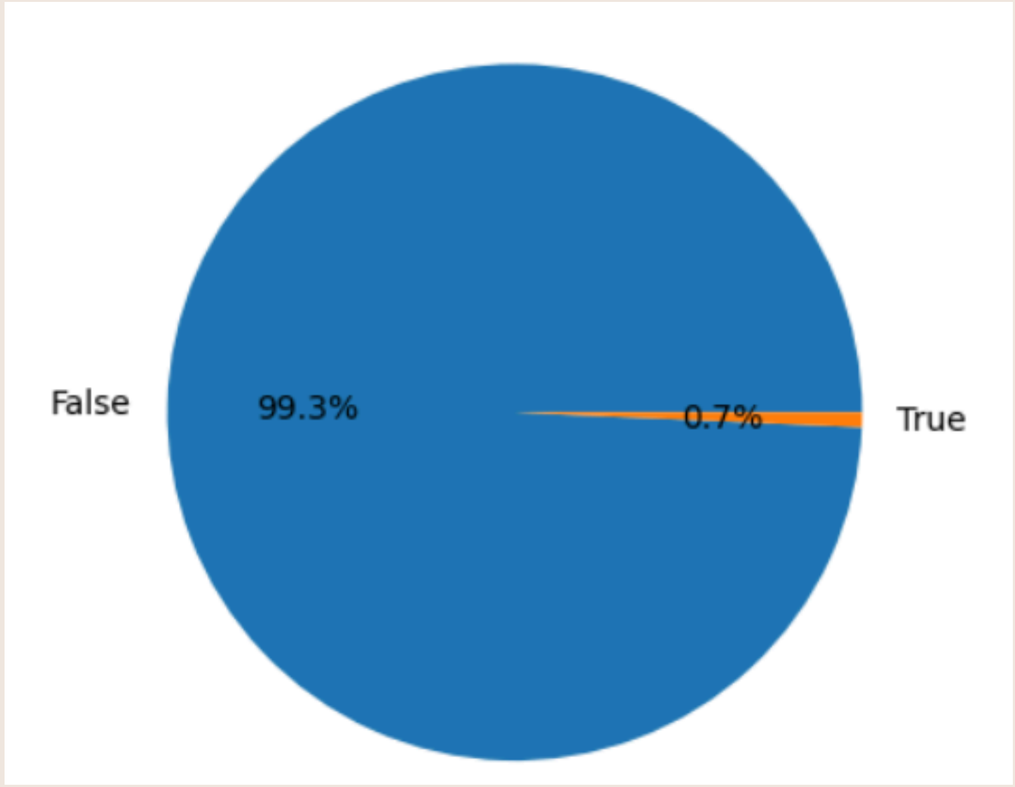


The below Graph shows that most of the buyers are T-shirt

```
df['Category'] = df['Category'].astype(str)
column_data = df['Category']
plt.figure(figsize=(10, 5))
plt.hist(column_data, bins=30, edgecolor='Black')
plt.sticks (rotation=90)  #--> show the x-axis values in 90 degrees.
plt.show()
```



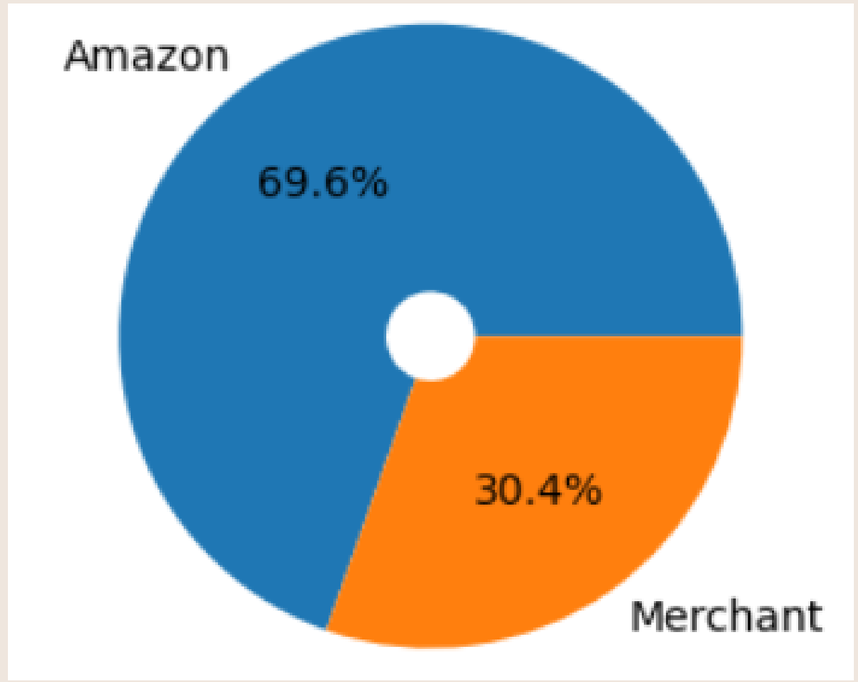
From the below chart we can see that the maximum i.e. 99.3% of buyers are retailers and 0.8% are B2B buyers




```
# Checking B2B Data  by using a pie chart
B2B_Check = df['B2B'].value_counts()

#  Plot the pie chart
plt.pie(B2B_Check, labels=B2B_Check.index, autopct='%1.1f%%')
#plt.axis('equal')
plt.show()
```

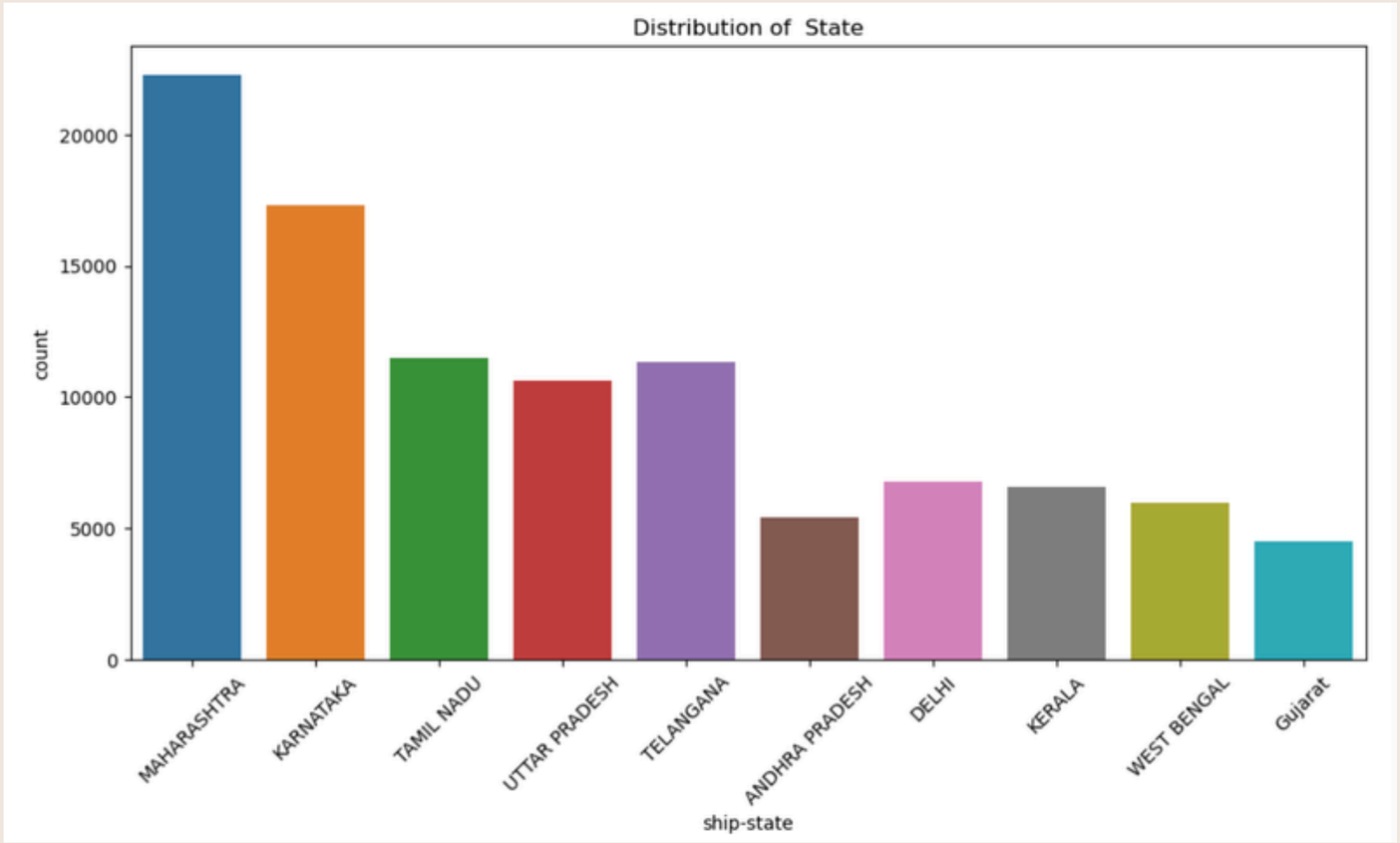
The below chart shows that most of the Fulfilment is amazon.

```
#  Prepare data for a pie chart
a1 = df['Fulfilment'].value_counts()

# Step 4: Plot the pie chart
fig, ax = plt.subplots()

ax.pie(a1, labels=a1.index, autopct='%1.1f%%', radius=0.7, wedgeprops=dict(width=0.6))
ax.set(aspect="equal")

plt.show()
```



The below Graph shows that most of the buyers are from Maharashtra state.

```
# top_10_States
top_10_state = df['ship-state'].value_counts().head(10)
# Plot count of cities by state
plt.figure(figsize=(12, 6))
sns.countplot(data=df[df['ship-state'].isin(top_10_state.index)], x='ship-state')
plt.xlabel('ship-state')
plt.ylabel('count')
plt.title('Distribution of  State')
plt.xticks(rotation=45)
plt.show()
```



CONCLUSION

- The analytical insights indicate a robust clientele in Maharashtra for the business, which primarily caters to retail outlets.

- The company executes order fulfillment via Amazon, with T-shirts being highly sought after, and medium size emerging as the top preference among consumers.

THANK YOU

The datasets and profile files can be found on my GitHub page, for which I have provided the link. Kindly review them at your convenience

https://github.com/PallaviJaiswal40/Python_Amazon_Sales_Analysis