DATA ANALYSIS IN PYTHON
Diwali Sales Data

Objective:

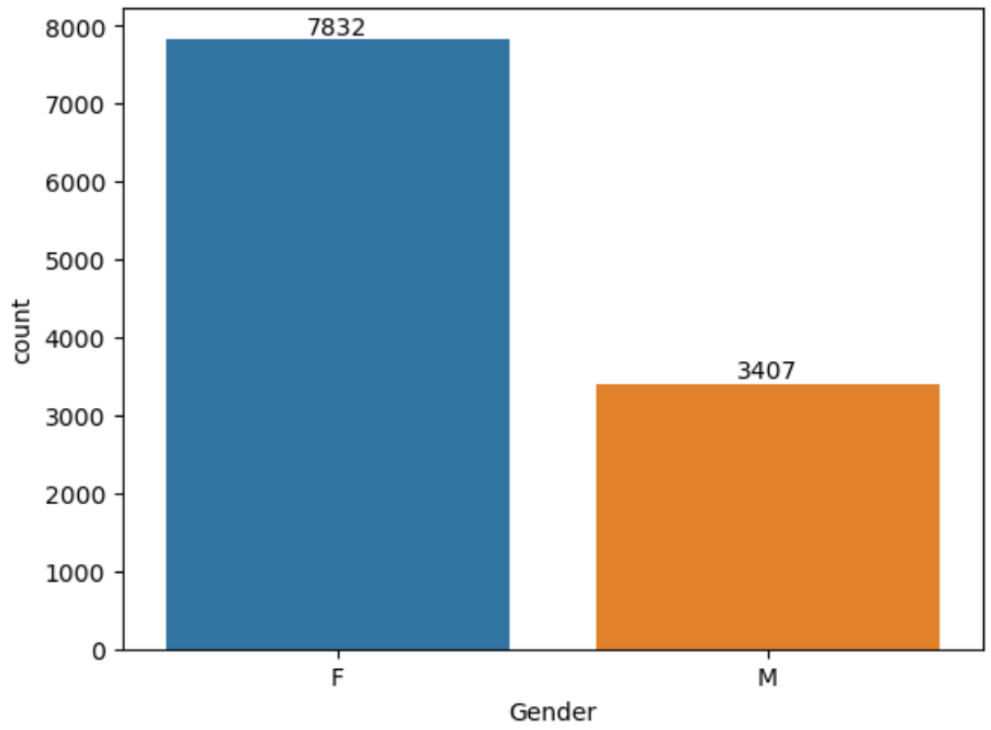
Our objective is to improve customer experience by analysing sales data and increase revenue.

Data Cleaning:

- Removed Blank/Unrelated Columns from the dataset.
- Dropped null values from the amount column as there were 12 null values.
- Changed data type of amount column from float to int.

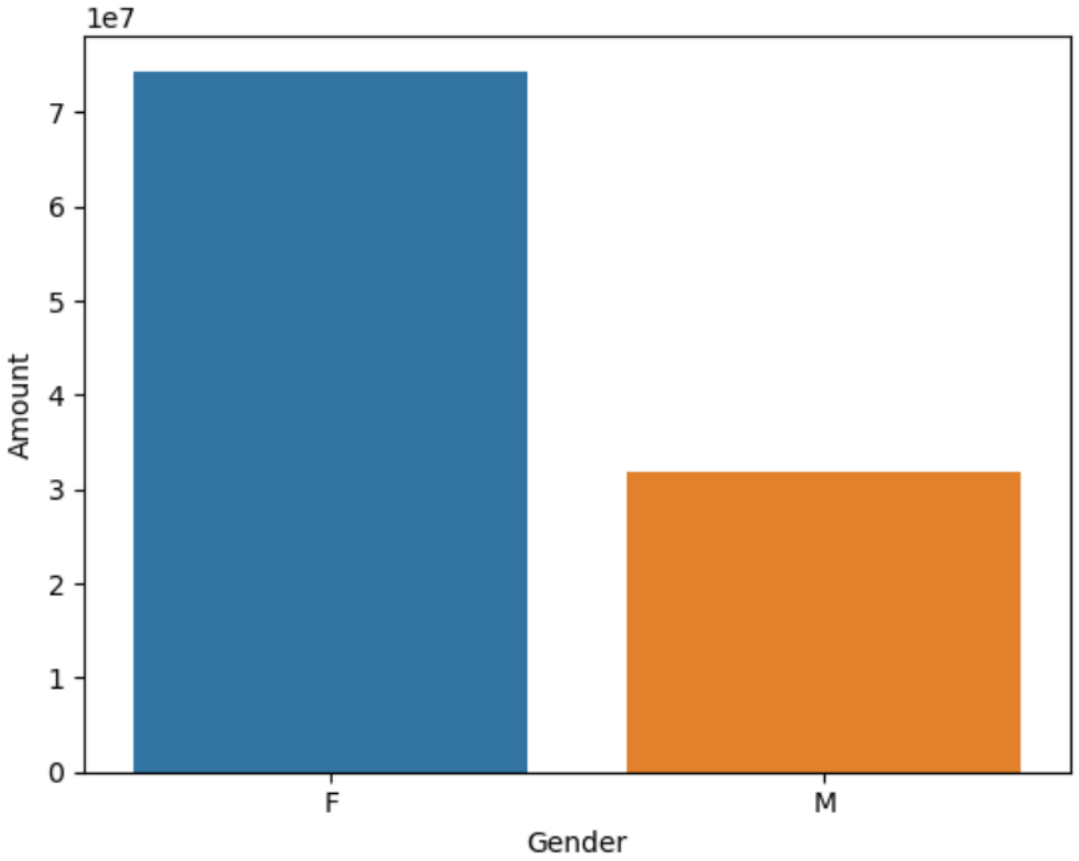
Exploratory Data Analysis:

Product bought by gender:



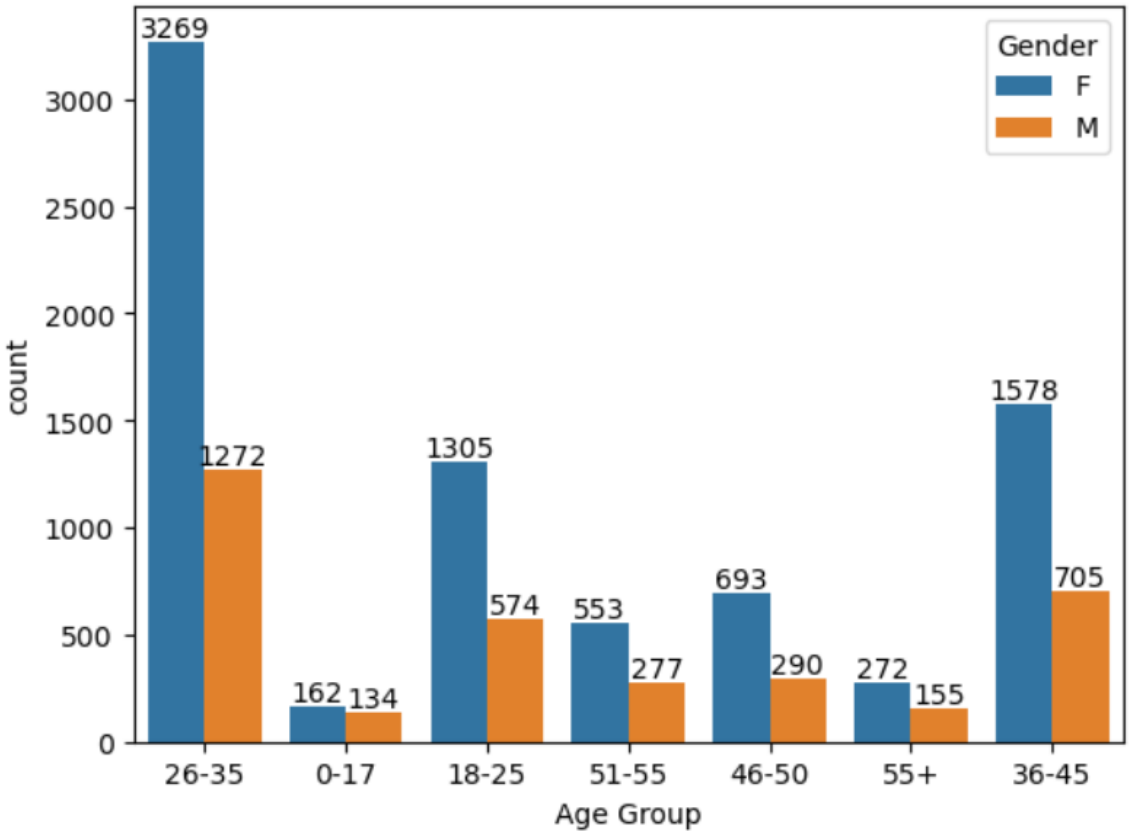
The result shows that out of 11239, 7832 were Female and 3407 were Male, Majority of the females bought the product.

Grouped data on the basis of gender and took the sum of amount



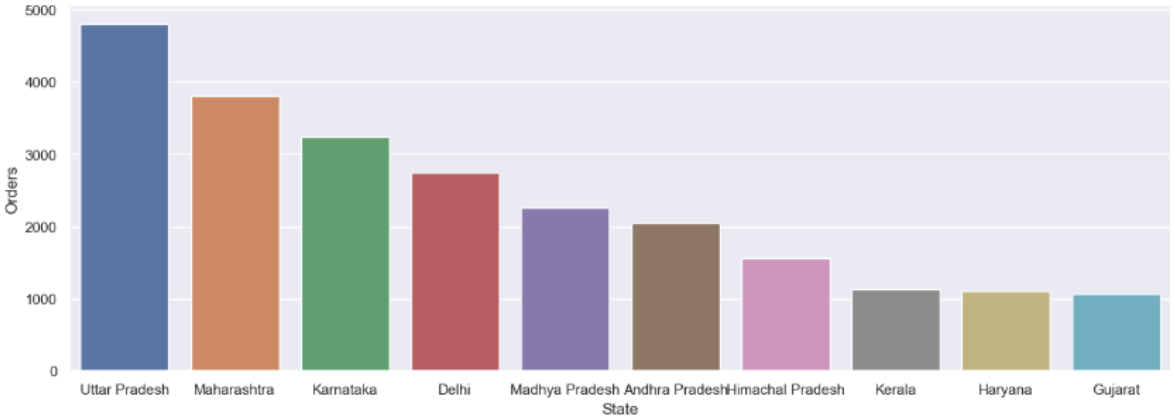
From the above plot you can see that most of the buyers are females and even the purchasing power of females is greater than men.

Age group of each gender:



The above plot shows that most buyers are between the age group of 26-35 and are females.

Total number of orders from top 10 states:



Total amount/sales from top 10 states:

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<Axes: xlabel='State', ylabel='Amount'>
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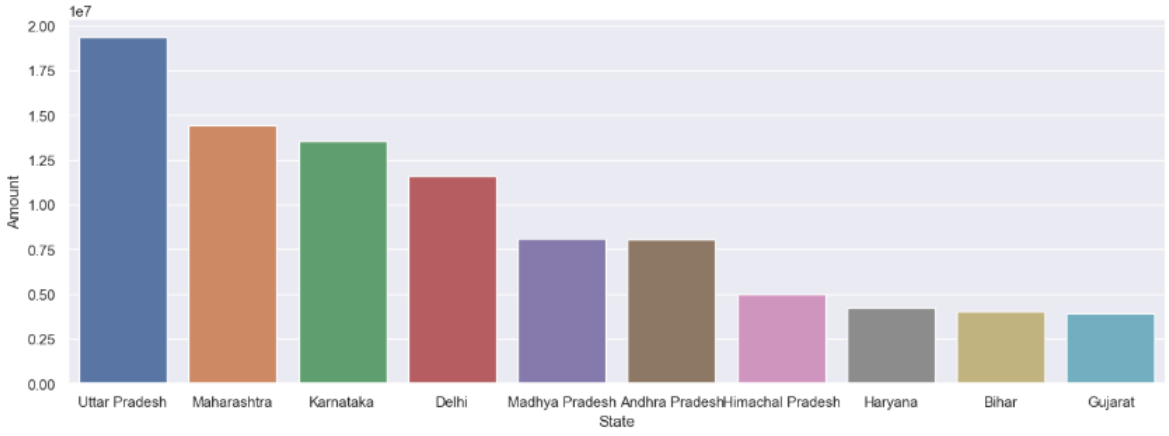
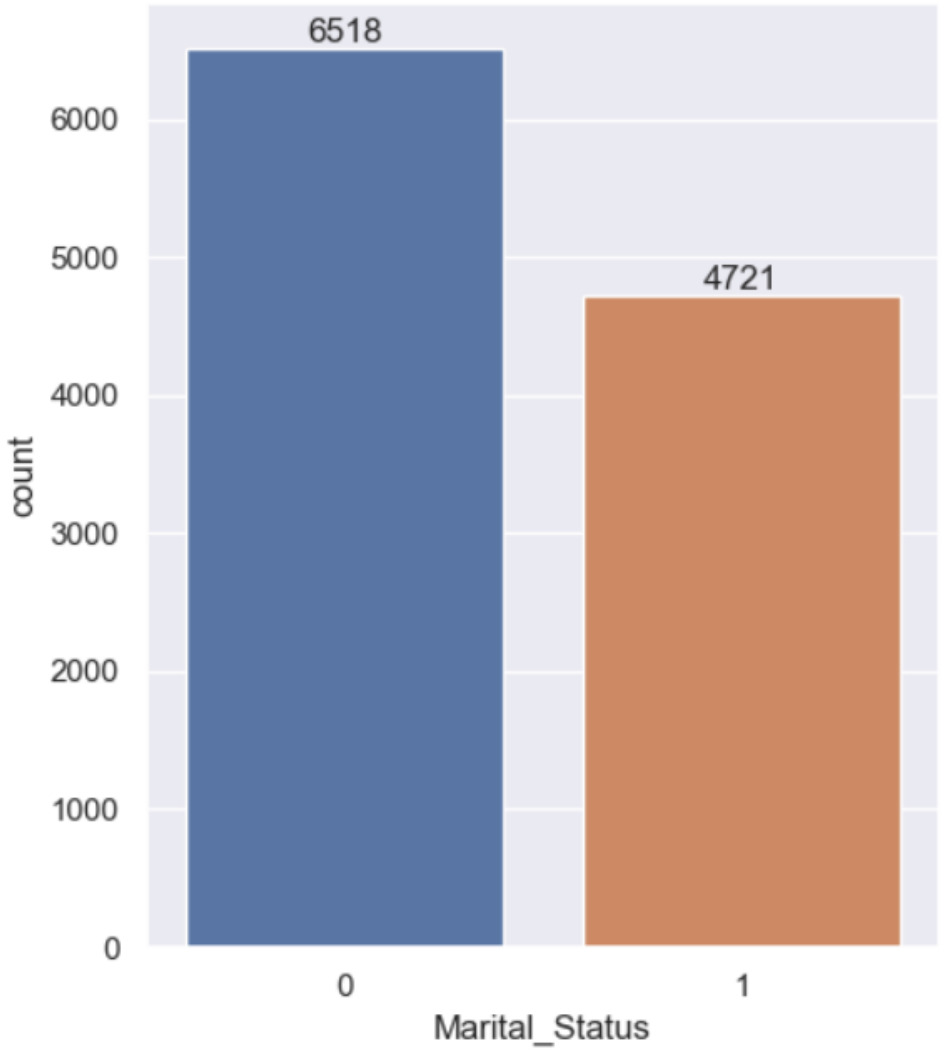
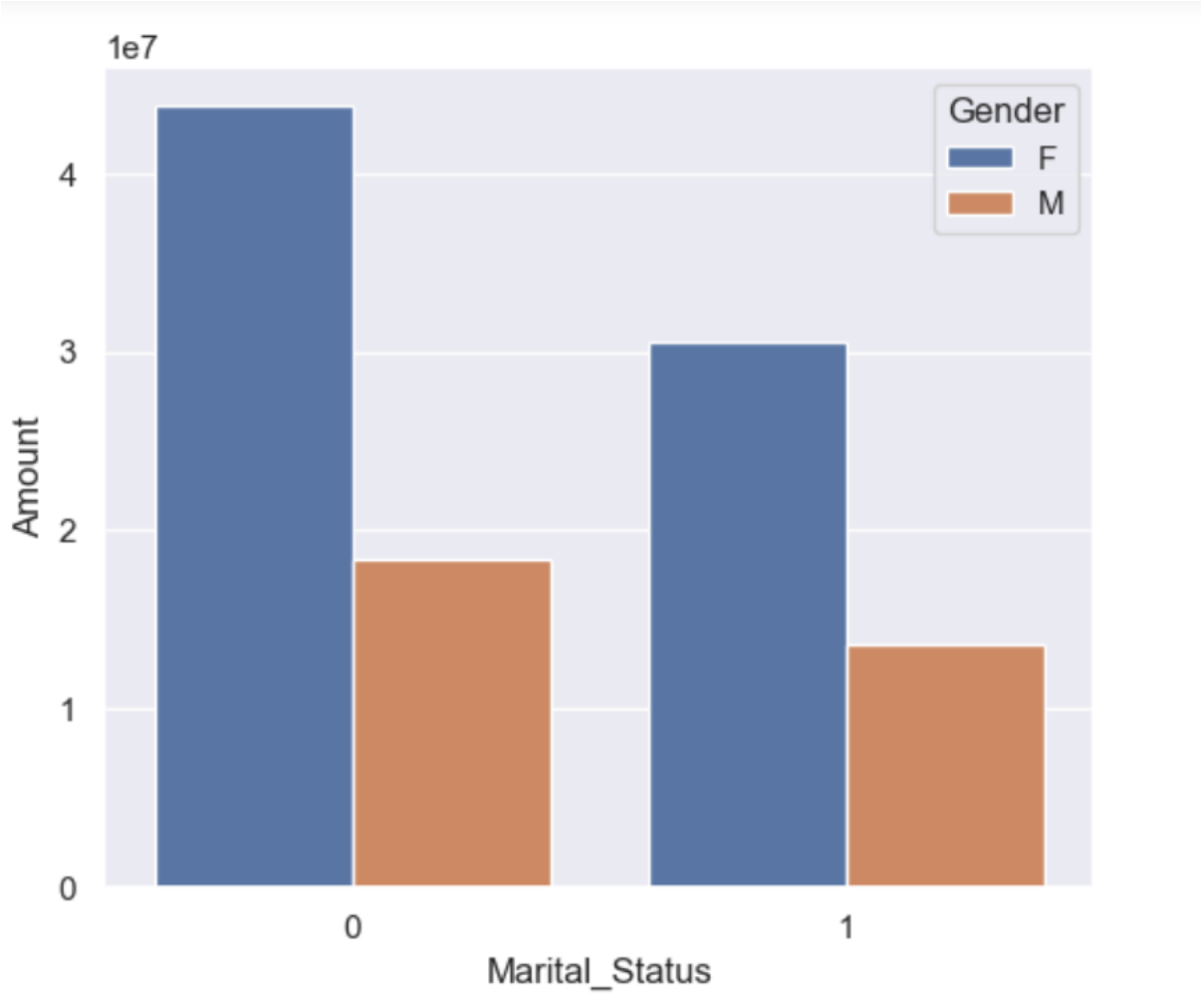


From the above plot we can see that most of the orders are from uttar pradesh, maharashtra and karnataka respectively but the total sales is from UP, karnataka and then maharashtra.

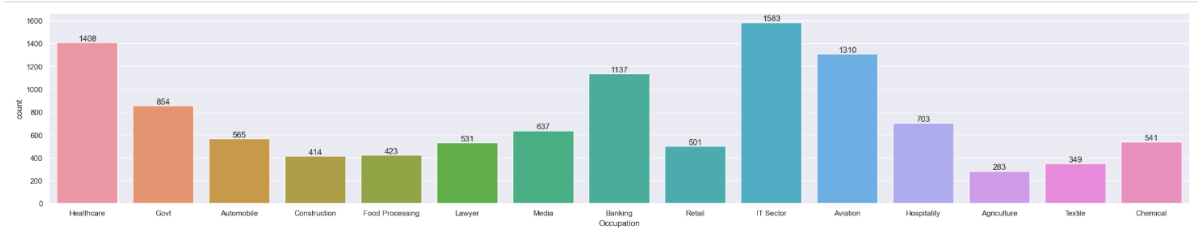
Buyers on the basis of marital status:

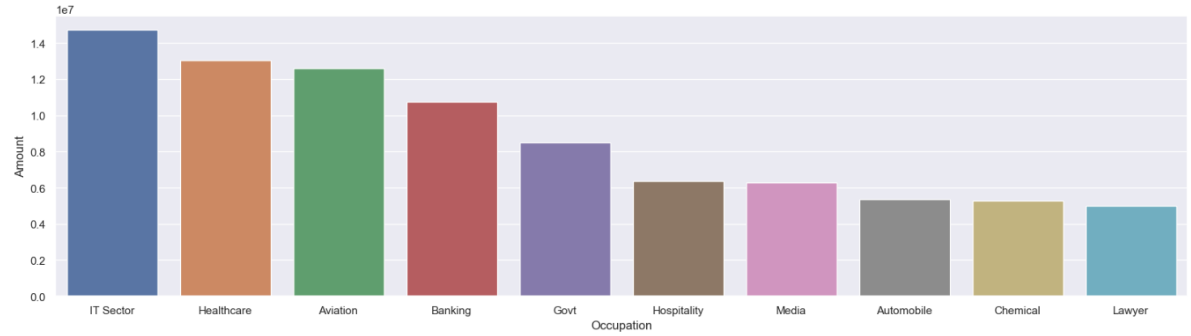

6518
4721
6000
5000
4000
3000
2000
1000
0
count
0
1
Marital_Status



From the above graph we can see that most of the buyers are married (women) and they have high purchasing power.

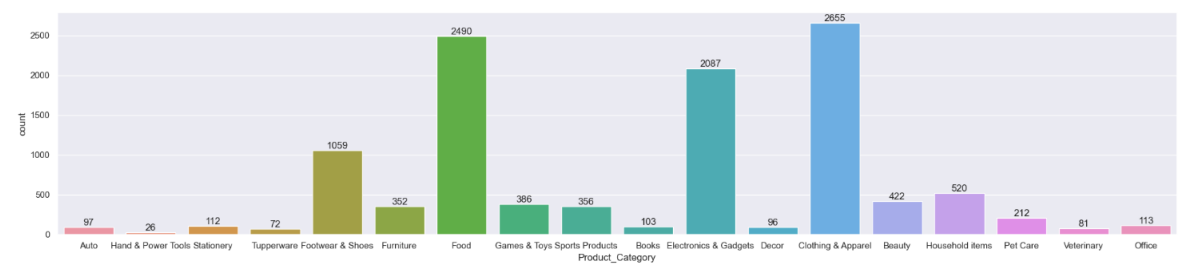
Occupation of buyers:



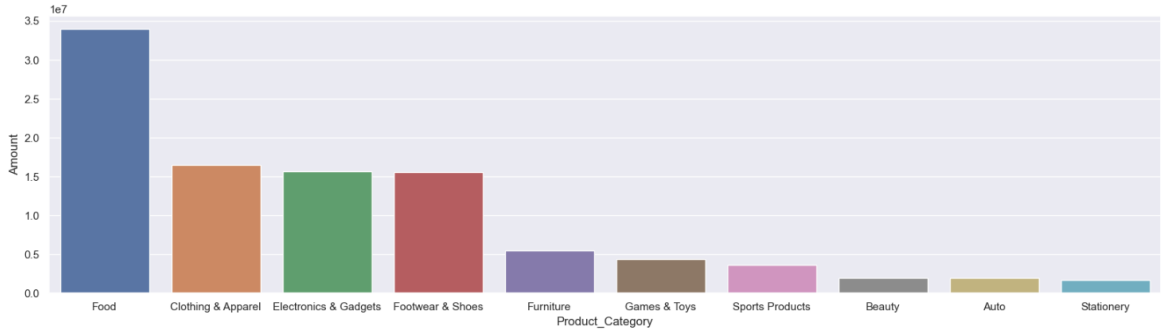


From the above graph we can see that most of the buyers are working in IT, Healthcare and then the aviation sector.

Product Category:



Above graph shows which category has the highest orders.



From the above graphs we can see that most of the sold products are from the food, footwear and electronic category.

Conclusion:

Married women in the age group 26-35 yrs from UP, Maharashtra and Karnataka working in IT, Healthcare and aviation are more likely to buy products from food, clothing and electronics category.