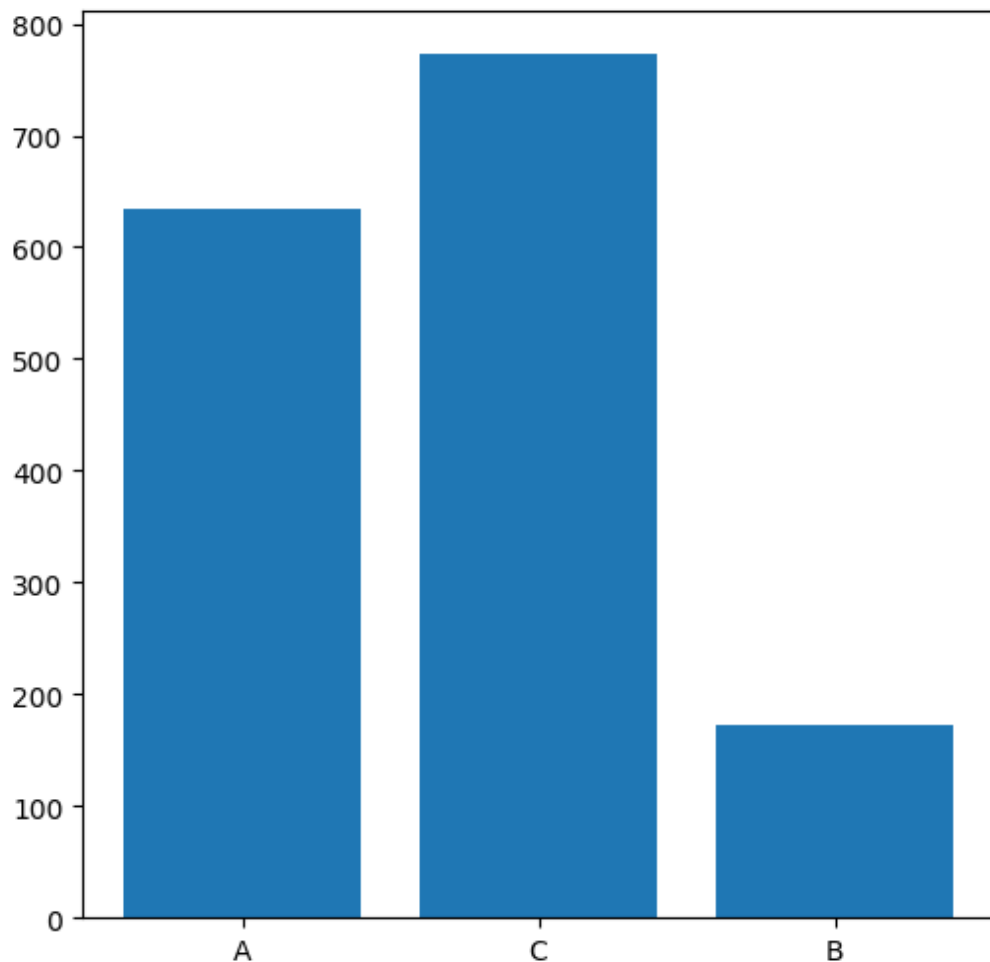
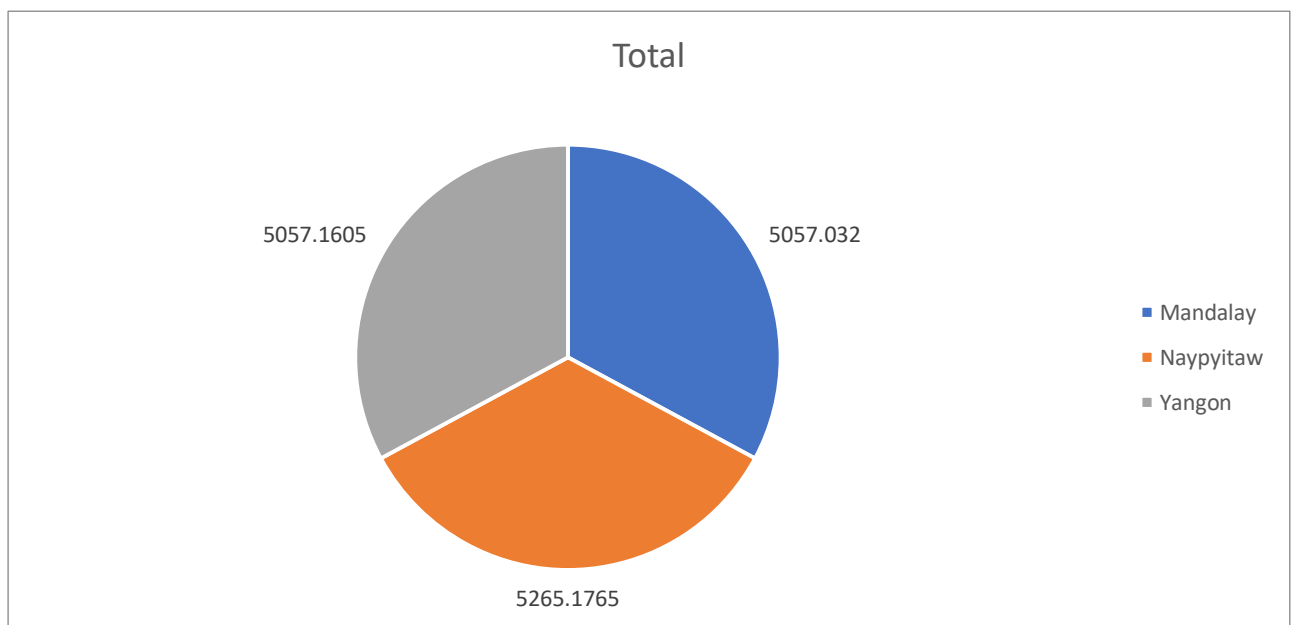


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This above graph shows us that in this given dataset of Supermarket Sales, there are total three Branches of that shop contributing to the sales. These three branches are A, B and C namely. If we look at the Total Sales number then C is contributing exceptionally high while A is also in good

amount but B is very less. So, most of the Income of Supermarket is from C Branch. It drives the Sales so owner needs to understand this thing and should work more on Branch A and B to get more customers by giving some special offers or discounts etc. Also, to maintain the sales of Branch C owner needs to maintain the stock and staff at that Branch properly.

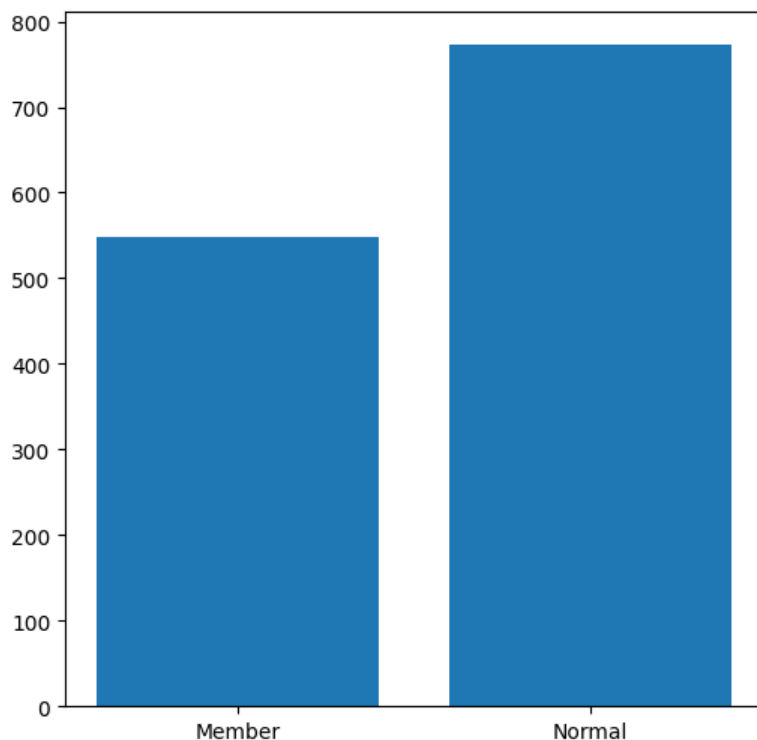


Above graph shows that, there are three cities mention in this Supermarket Sales dataset namely Mandalay, Naypyitaw and Yangon. Out of these three, maximum contribution is from Naypyitaw, while other two are almost similar in Total Sales.

As mention earlier, to improve sales some offers or discounts should be given to attract customers and at the same time membership should be provided to customers so that there

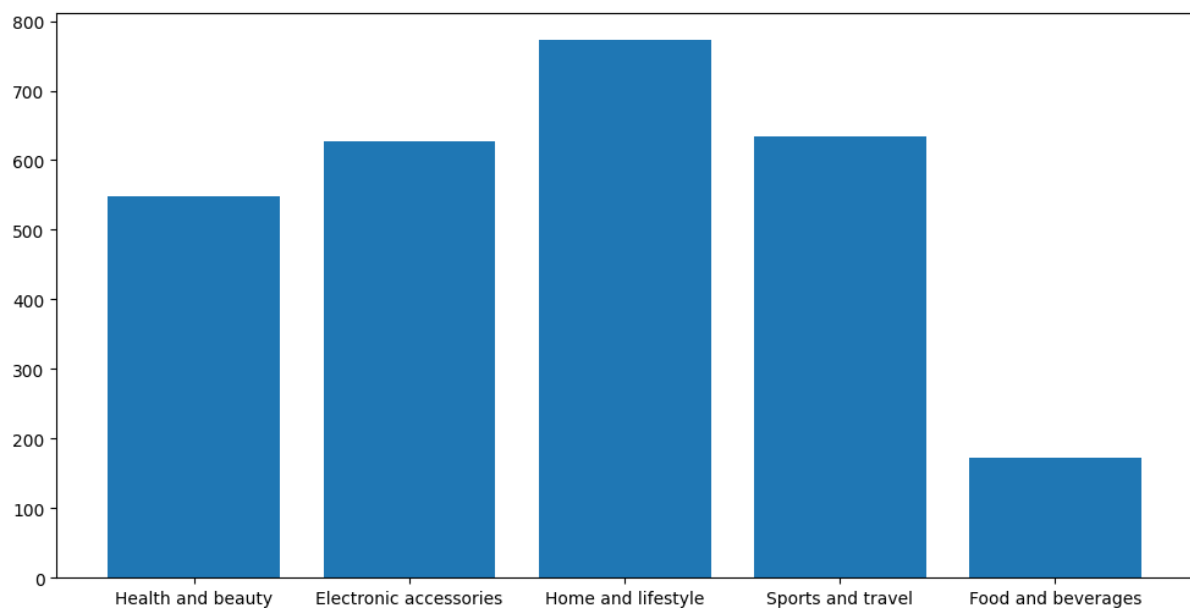
should be some fix amount of sales in every month which will eventually capture the market.

If possible home delivery of few selected items should be provided to increase the customers.



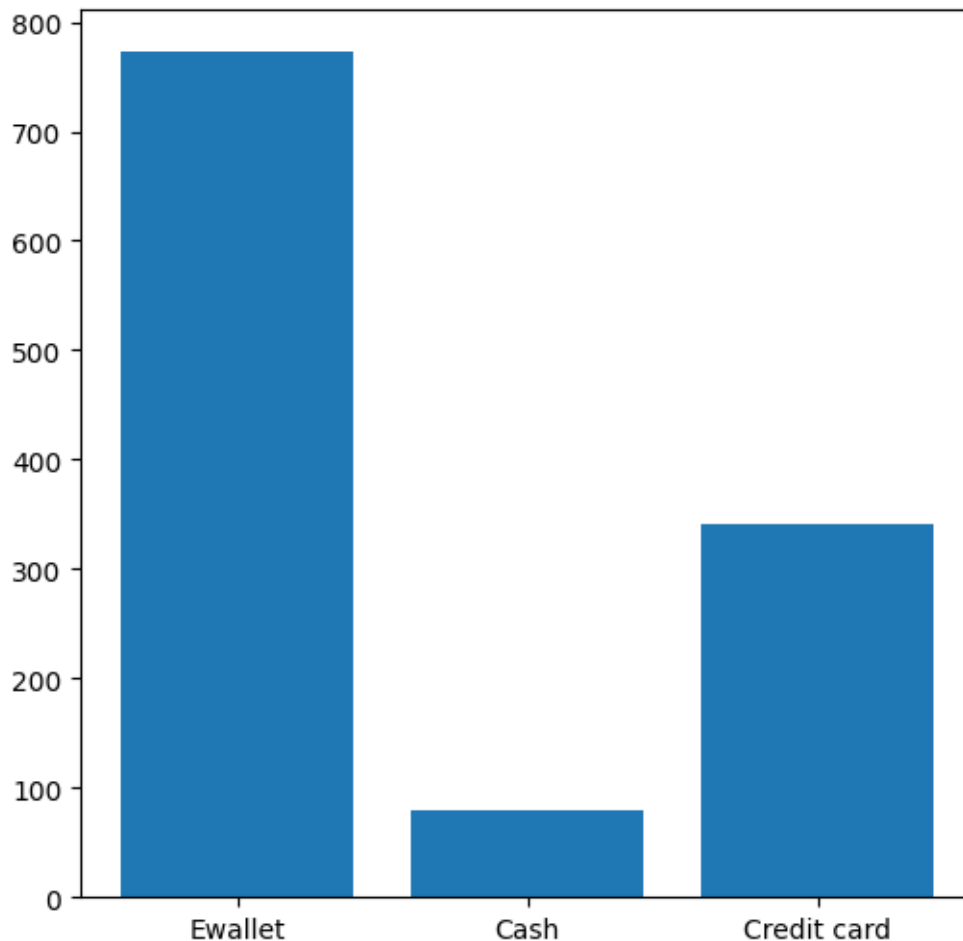
Above graph shows that, there are two categories of customers i.e. Normal and Member namely. We can clearly see from this graph that Normal customers are major contributor to the sales. Total Sales by Normal is 700-800 and by Members is almost 550

It seems that Membership scheme should be improved to get more customers. To get more customers Membership scheme should be promoted properly. Good marketing of this scheme will definitely lead to increase in sales, so that there should be fix amount of sales in every month.



Now, if we look at this above graph, we can clearly get to see that highest selling products are Home and Lifestyle. As we know, Food and Beverages is fast moving items so to improve sales owner should maintain the flow of Food and Beverages items and should try to give some special offers on combo pack of Food items so that sale of it should rise and which will overall add up to the Total Sale.

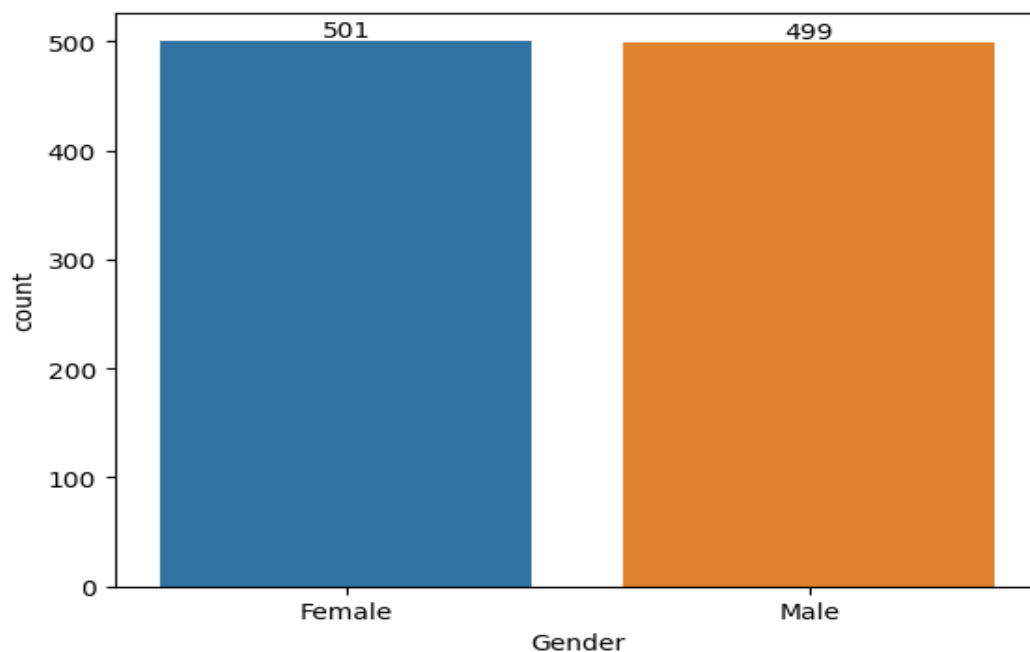
Least selling products are from Food and Beverages. While electronic, fashion accessories and Sports and Travel products shows almost similar trend. If there is festival season then special offers on Food items should give extra benefit and can add up to sales more. Also, Home and Lifestyle is giving highest contribution to sales so it's flow should be maintained. More and more variety of it should be added to stock so it will drive more customers.



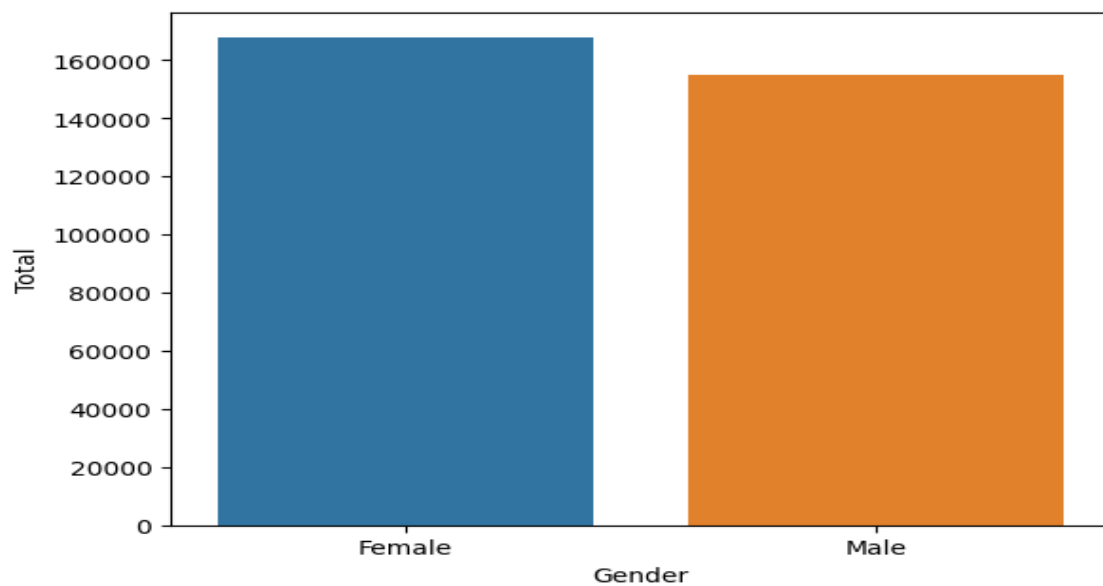
This above graph shows us that, in this dataset of Supermarket Sales, people use three types of payment modes namely Cash, Credit card and E-wallet. Most of the people today prefer E-wallet over Credit card and Cash. After E wallet, Credit-card is preferred and at last Cash is preferred. To manipulate time properly and handle crowd, Supermarket should create two counters for payment. One for customers

who want to pay with Cash and other for customers who want to pay by e wallet or Credit card.

It will save a lot of time, for both customers and counter person to complete the transaction.



This above graph shows that in this given dataset of Supermarket Sales, products are billed on Males and Females both in almost similar manner. Almost number of males and females visited are same.



This above graph shows that, in this dataset of Supermarket Sales, maximum contribution for Total sale is by female customers than males. We can see clearly that, female buyers have contributed to sales with 160000 amount in all while males have upto 140000 only.

Customers of this Supermarket are female centric and shows more buying capacity of females.

As we have seen earlier that Health and Beauty products are good selling and more buying capacity is shown by female customers that is most number of visitors are females so to improve sales, there should be some discounts on Health & Beauty products to make female buyers buy more products. So that sale of Health and Beauty sector should be grown and it will also add up to overall sales of Supermarket.

After applying Apriori Algorithm on this given dataset I have found that Pastry has more sales with Jam and Scandinavian while Cookies are more sold with Bread and Coffee. Also, we can see a pair of Brownie and tea that are mutually helping each other for sale.

We can follow these pairs to increase sales. It shows that people tend to buy Coffee more as compared to Tea and along with Coffee they like to eat Bread or Cookie.

Association pairs are as follows:

- 1) Pastry and Jam
- 2) Brownie and Tea
- 3) Scandinavian and Pastry
- 4) Bread and Cookies
- 5) Coffee and Cookies

Few least selling items are as follows:

- 1) Coke
- 2) Honey
- 3) Chicken sand
- 4) Eggs

Coffee is the most sold item in this given dataset while Bread is second most sold item with 250 and 142 count respectively.

Top 5 most selling items are respectively

1)Coffee

2)Bread

3)Tea

4)Pastry

5)Muffin

Frittata, Pastry and Scandinavian are the products that are sold most on weekends. These are the highest selling weekend products while Jam and Brownie are sold mostly on weekdays.

Rating for products is given from 4 to 10. Highest rating is 10 for Sports and travel type while lowest is 4 for which is for electronic accessories.