

Data Intro

- The dataset consists of information about the purchases of chocolate candy bars of 500 individuals from a given area when entering a physical 'FMCG' store in the period of 2 years. All data has been collected through the loyalty cards they use at checkout.
- Identify the key factors that are impacting the purchases of chocolate candy bars. Work on the data and generate actionable insights.



41K

Sum of Quantity

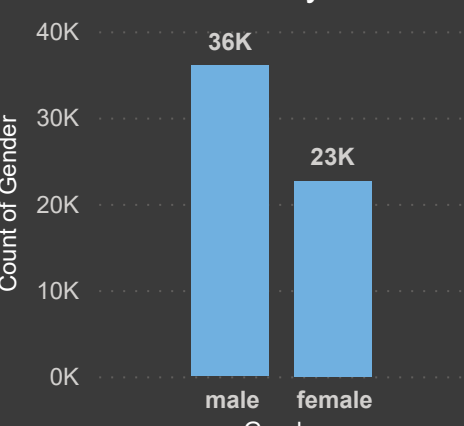
730

Count of Day

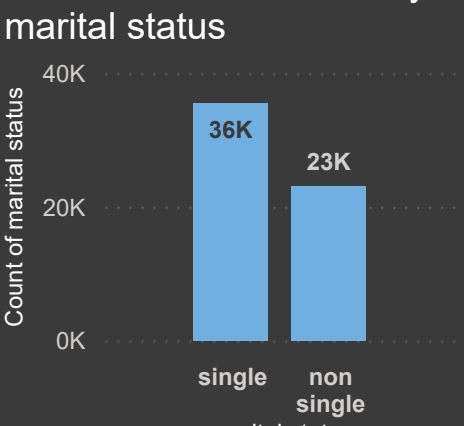
7151M

Sum of Income

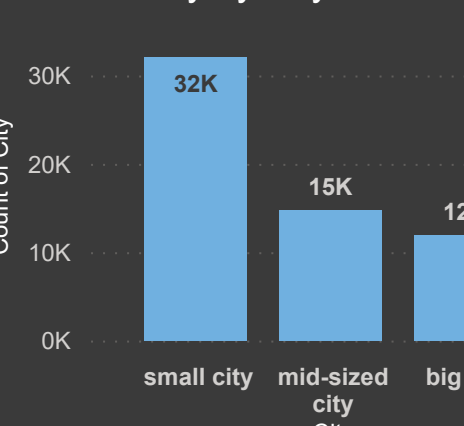
Count of Gender by Gender



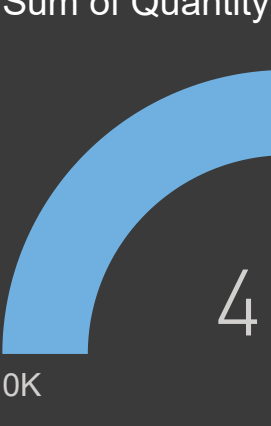
Count of marital status by marital status



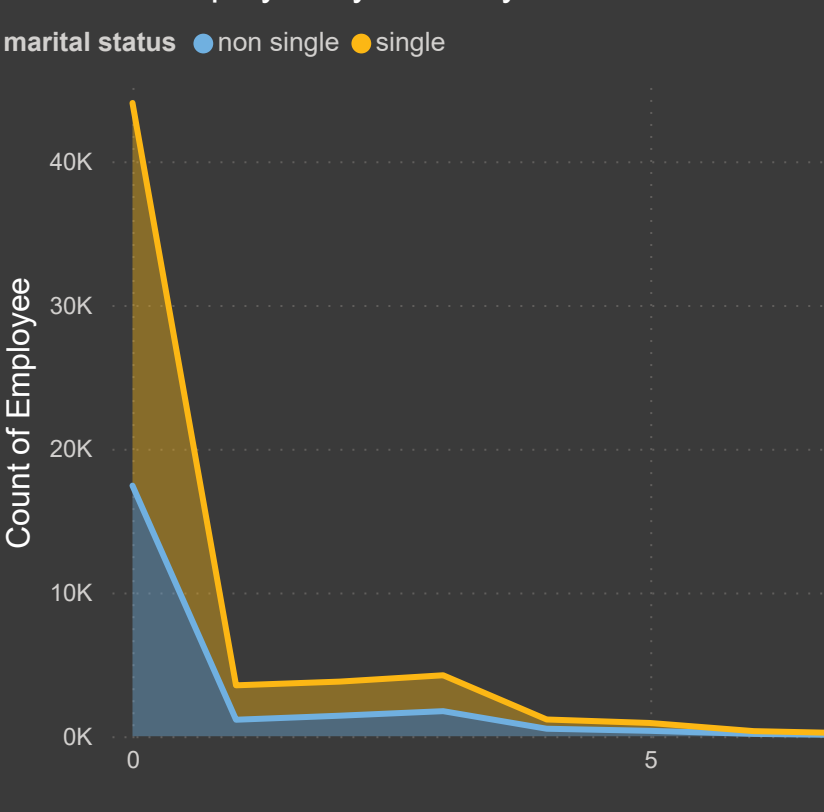
Count of City by City



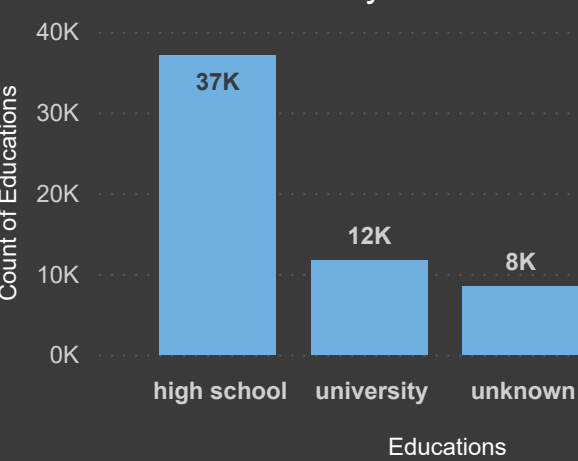
Sum of Quantity



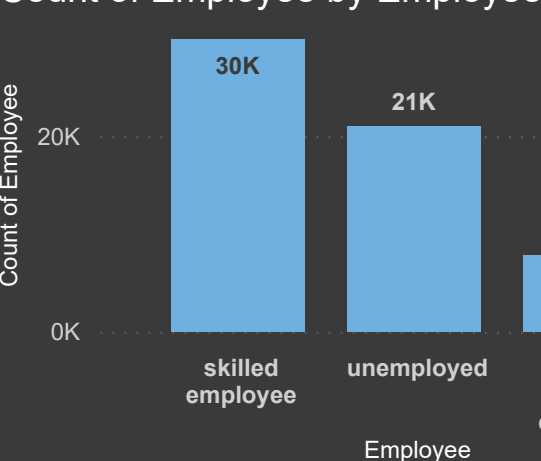
Count of Employee by Quantity and marital status



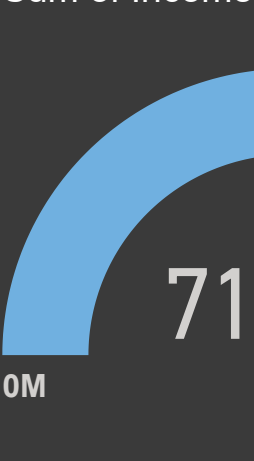
Count of Educations by Educations



Count of Employee by Employee



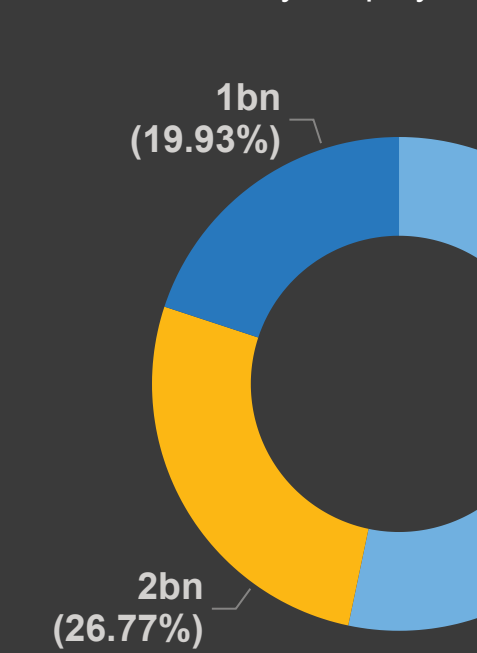
Sum of Income



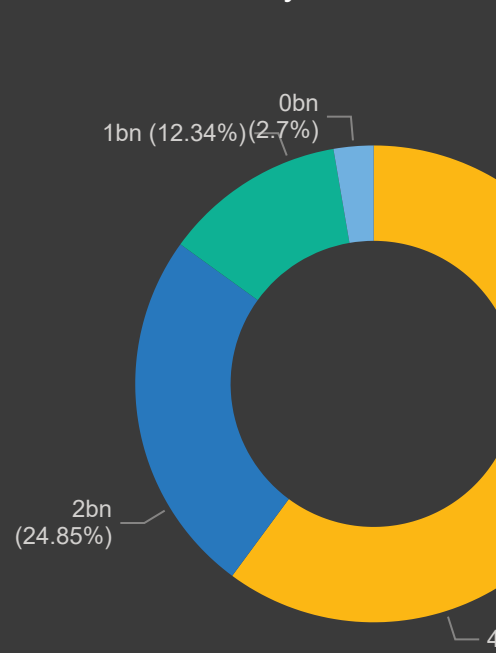
Using the Demographic Data about people EDA

- Insights we are seeking to get out of the analysis is to understand the purchasing patterns of the segments, Which would Answer Questions such as
- Which Segment has more monetary value?
 - Which Segment Purchases more often?
 - Which Brands do each segment prefer more often?
 - Who are the most valuable customers(Overall and to each brand) and which segment do they belong to?

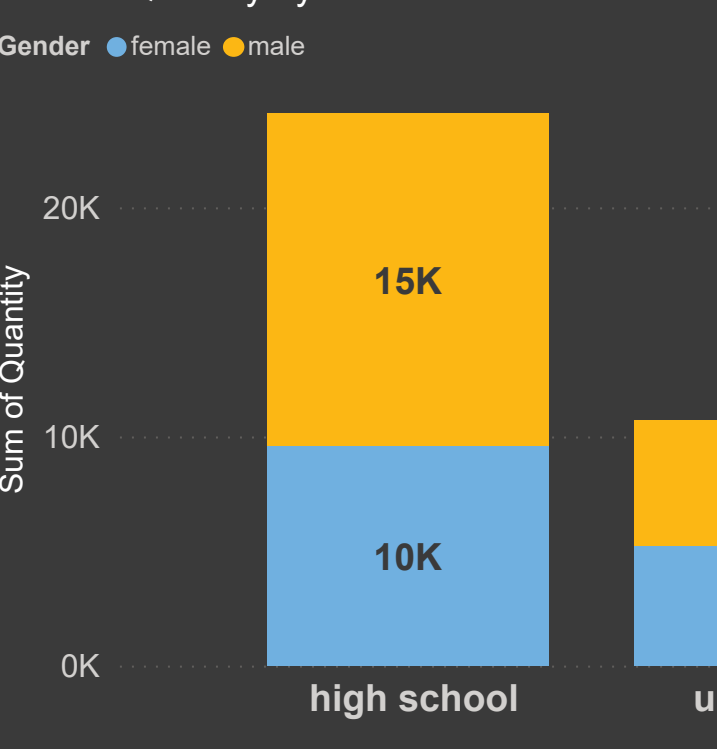
Sum of Income by Employee



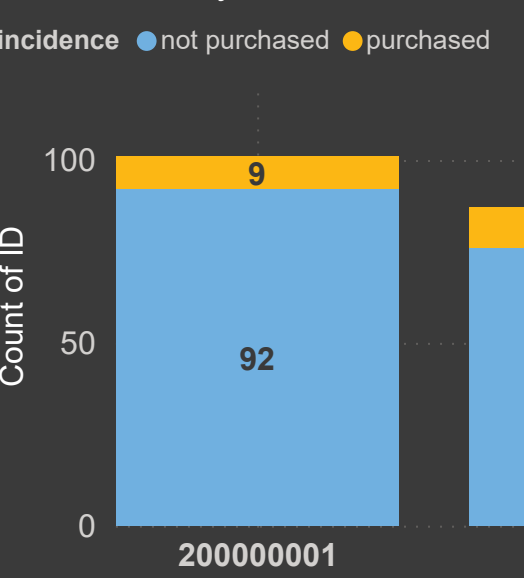
Sum of Income by Educations



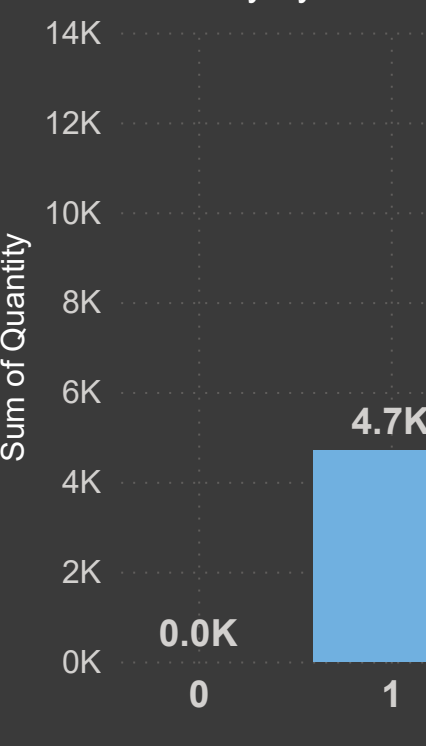
Sum of Quantity by Educations and Gender



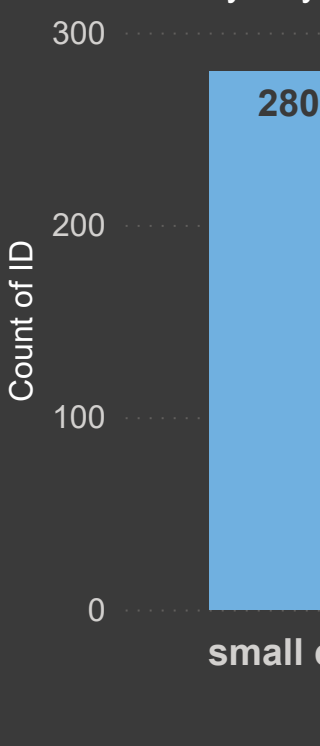
Count of ID by ID and incidence



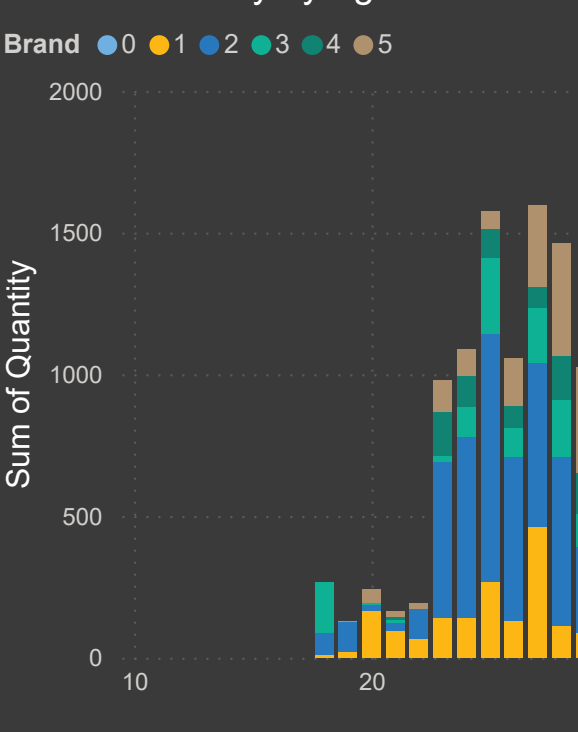
Sum of Quantity by Brand



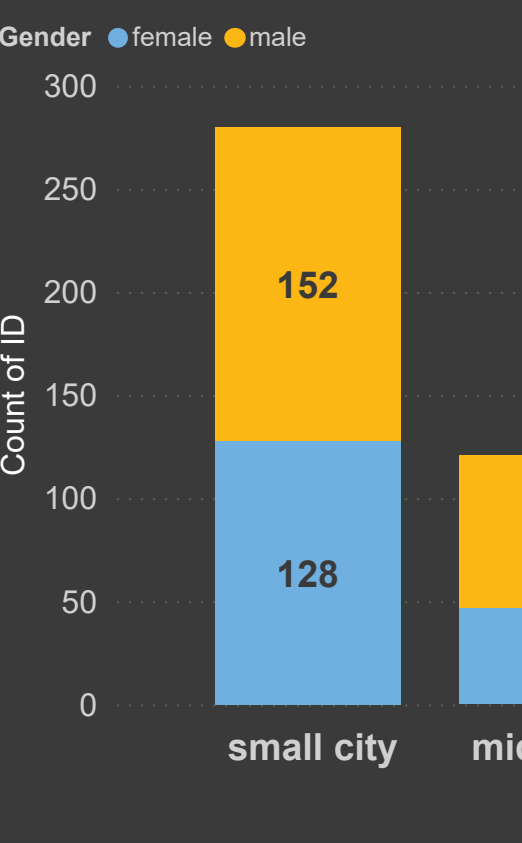
Count of ID by City



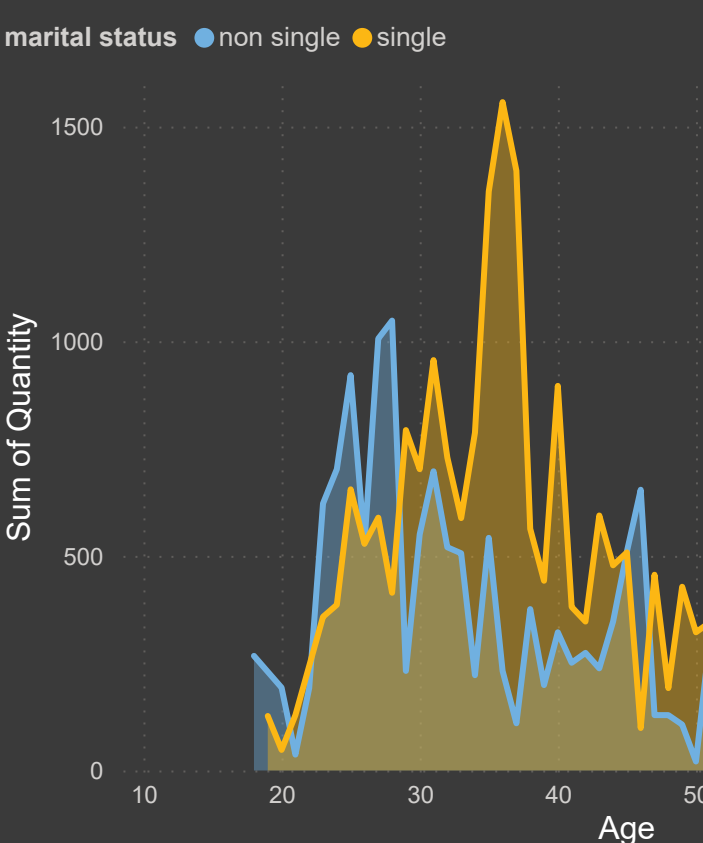
Sum of Quantity by Age and Brand



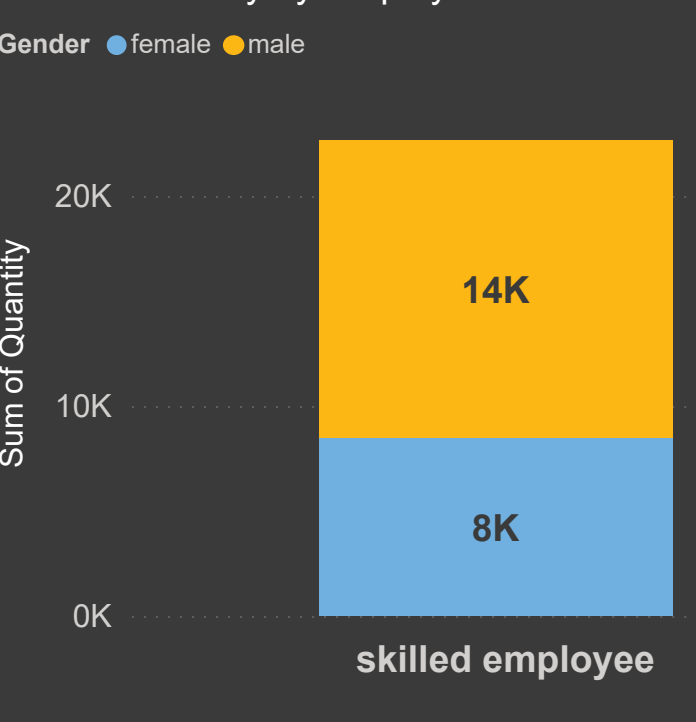
Count of ID by City and Gender



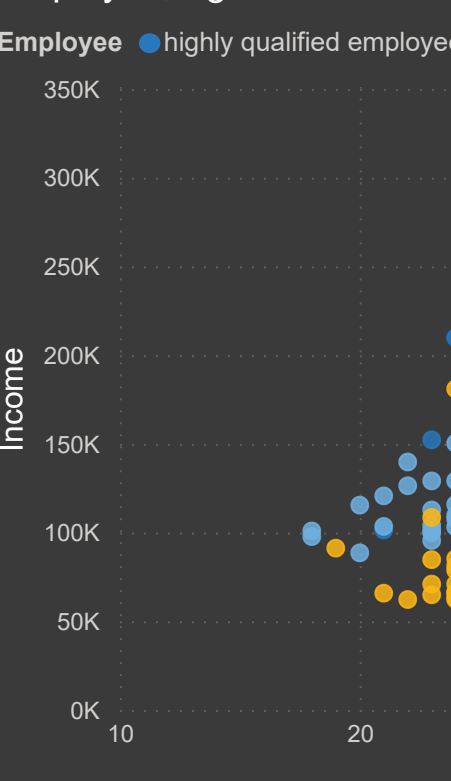
Sum of Quantity by Age and marital status



Sum of Quantity by Employee and Gender



Employee, Age and Income



Observations:

- As we can see above Loyal Customers actually bought the most candy
- Most number of people are in Potential Loyal Customer, It's always good to know that there is so much potential !
- Except for brand 2 in which 'customer needing more attention' segment has highest purchases, among all the other brands champions purchased more
- cross elasticity value of Brand-1 corresponding to 1.39 indicate the factor by which our brand's(brand-2) purchase probability could decrease, so a decrease by 1% of brand-1 price would mean a decline of 0.2% purchase probability of brand-2
- We could counter that discount given by brand-1 by decreasing our brand's price by 1% in which case purchase probability of our brand would increase by 1.2%
- Which means as a strategic move to counter the 1% discount of price by brand-1 we discount our brand candy price by 1% then total we would have an increase of 1% purchase probability (as 1.2-0.2=1)
- If we wanted to find out by how much do we need to decrease our prices in order to counter the decrease of brand-1 then we can simply do (cross_elasticity/brand_elasticity), which is (0.2/1.2 = 0.16) so we need to discount our prices by 0.16% to retain the market share