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Instructions:

1. Problem description

2. EDA performed on the data

3. Final Recommendation

Steps

1. Problem Description

ABC Bank wants to sell its term deposit product to customers and before launching the product they want to develop a model which help them in understanding whether a particular customer will buy their product or not (based on customer's past interaction with bank or other Financial Institution). To solve this problem, we will need to predict whether or not the client will subscribe to a term deposit.

2. EDA performed on the data

I performed many different analysis and visualization techniques, such as correlation matrices, bar plots, pie charts, etc. Through the EDA, I was able to find conclusions based on the data given. Below are some of the visualizations that I made:
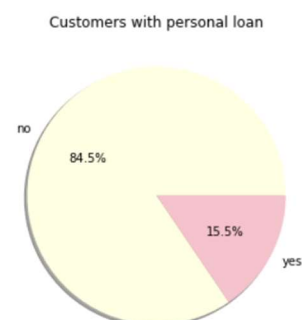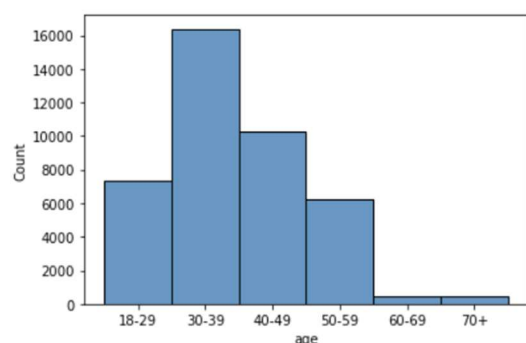
3. Final Recommendations

From this data, we can conclude some of the different possibilities to gain the maximum number of subscriptions to a term deposit. By looking at the data, it is evident that the data is skewed, favoring the option 'no' or not subscribing to a term deposit. We can see that individuals who are in the age groups of 30-39 and 40-49 have received the greatest count, so it is recommended to contact individuals in these age groups rather than others. A majority of individuals have housing loans, while few have personal loans. Individuals who have jobs in either administration, blue collar, or technicians have been contacted the most, so it is recommended to keep contacting those. However, there is a much greater 'yes' outcomes for students, so it is recommended to contact more of them to maximize subscriptions. Individuals with a high school education or a university degree were amongst those who were contacted the most. They are also in the group of individuals who subscribed the most. However, those with a high school education had a greater subscription rate, so it is recommended to contact more high school educated individuals. There is a higher rate of those who were contacted through cellular than telephone. Additionally, cellular received more subscriptions, so it is recommended to contact more individuals through their cellular device. There was little difference of subscriptions based of the day of the week, however, Tuesdays and Thursdays seemed to be the most successful based on the graphs. There was a large amount of contact between the months of may and august. This also resulted in higher subscription rates, so it is recommended to continue contacting individuals between those months. Additionally, if there was consistent contact throughout the year, it would be more efficient to measure which month had the highest subscription success rate.