

ASSIGNMENT GUIDELINES

- Make the changes in the PPT as you solve the parts
- This file contains the template for the **EDA part** of the project.
- Check the instructions added in the note section of every slide for clarity.
- Don't move around any image or text box
- If you require more/lesser elements, be careful when you copy/delete the existing ones.

ASSIGNMENT

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Problem Statement

Bank of Corporate conducted a telemarketing campaign for one of its financial products, 'Term deposits', to build a long-term relationship with the existing customers. Your goal is to identify the target customers for the term deposits from the pool of the bank's existing customers. You should also capture the key driving factors (or driver variables) behind the successful conversion of a customer, i.e., the customer opening a term deposit account with the bank.

Assignment Objective

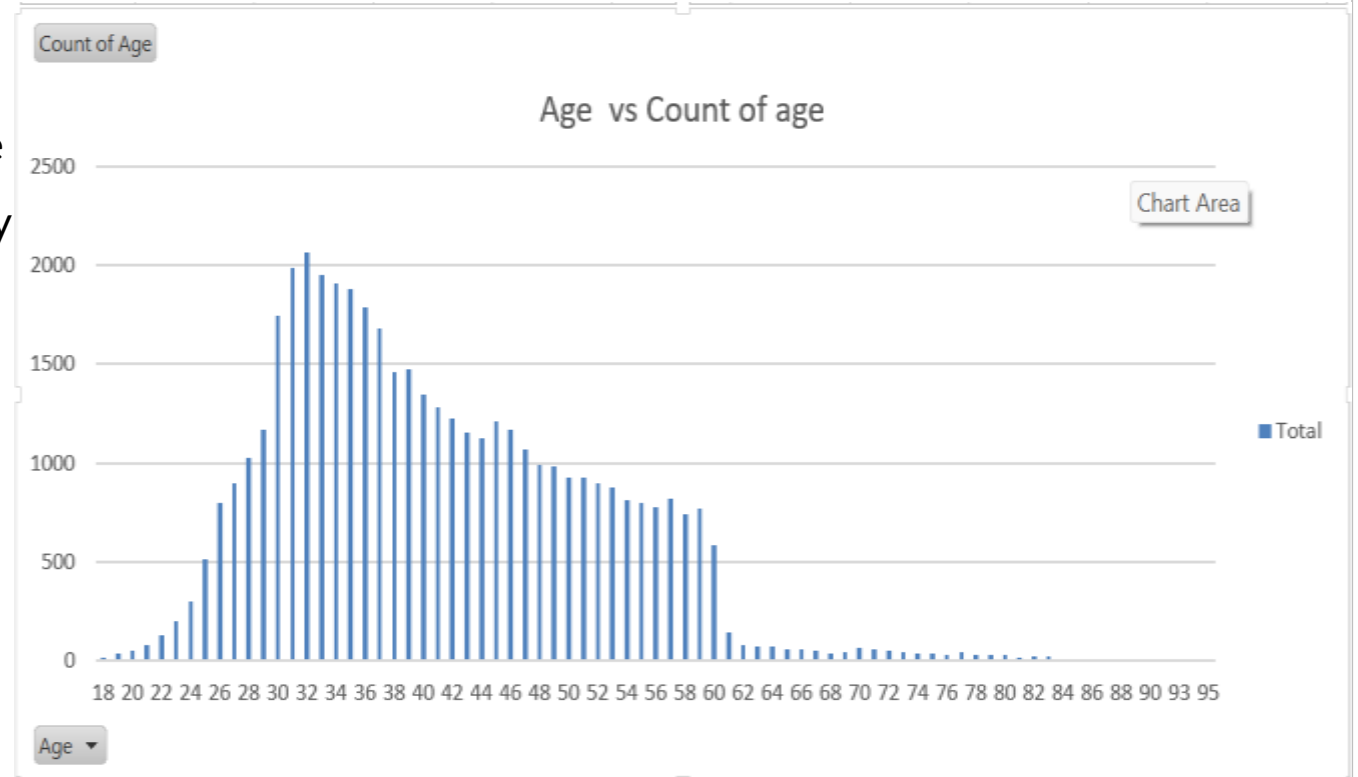
To identify the target customers and the driving factors behind a successful customer conversion for future marketing campaigns.

PART I : Univariate Analysis

Variable under consideration:

1.AGE

- From the graph 1, we can understand that people aged between 24 and 60 years age are the majority customers for the bank.
- People aged 31 and 37 years are the customers that use the most of the bank products.



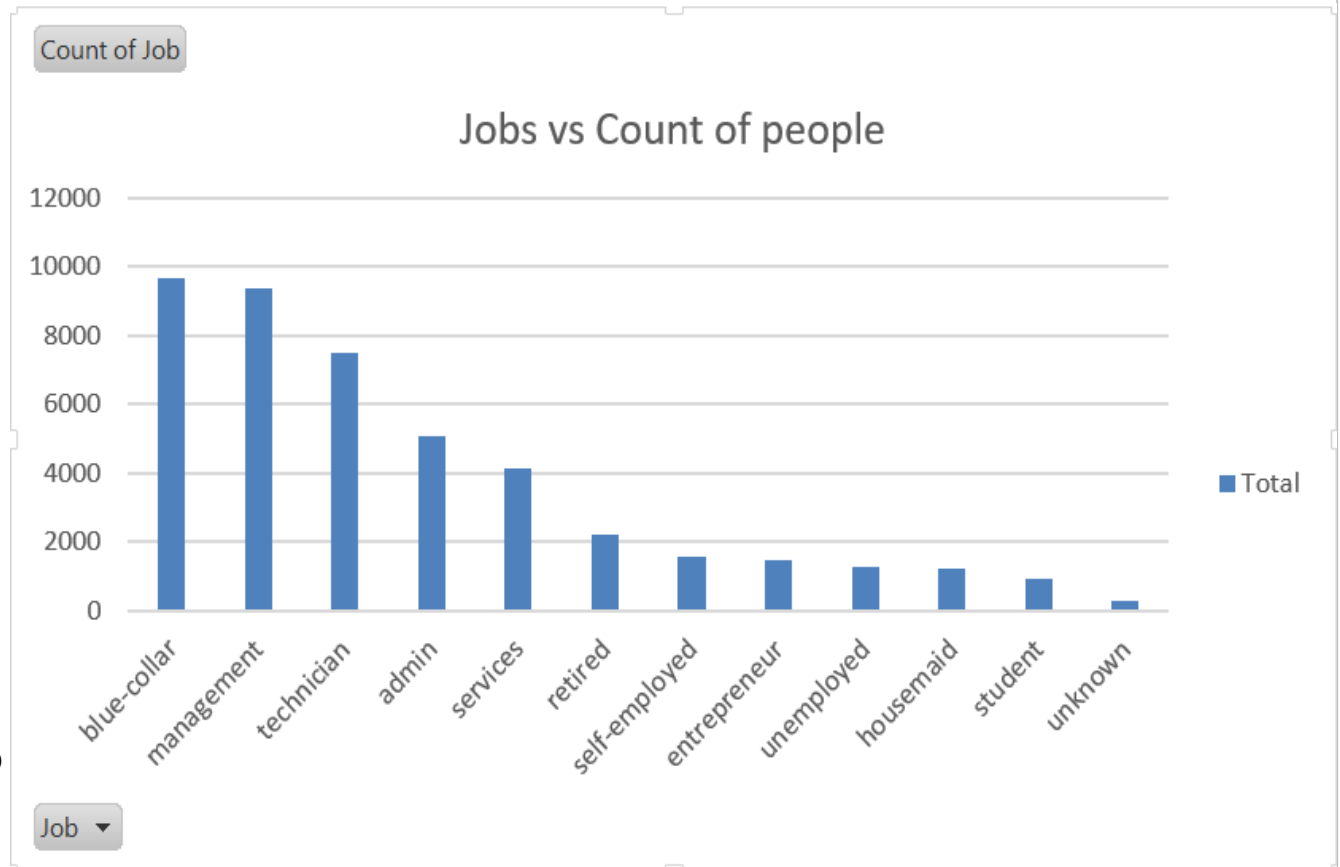
Graph 1

PART I : Univariate Analysis

Variable under consideration:

2. JOB

- Majority of customers using bank products work in Blue-collar, management, Technician, admin, and services jobs.
- The customers working in first 5 jobs accumulate about 80.3% of total customers.
- The Blue-collar and Management jobs are at par to each other.



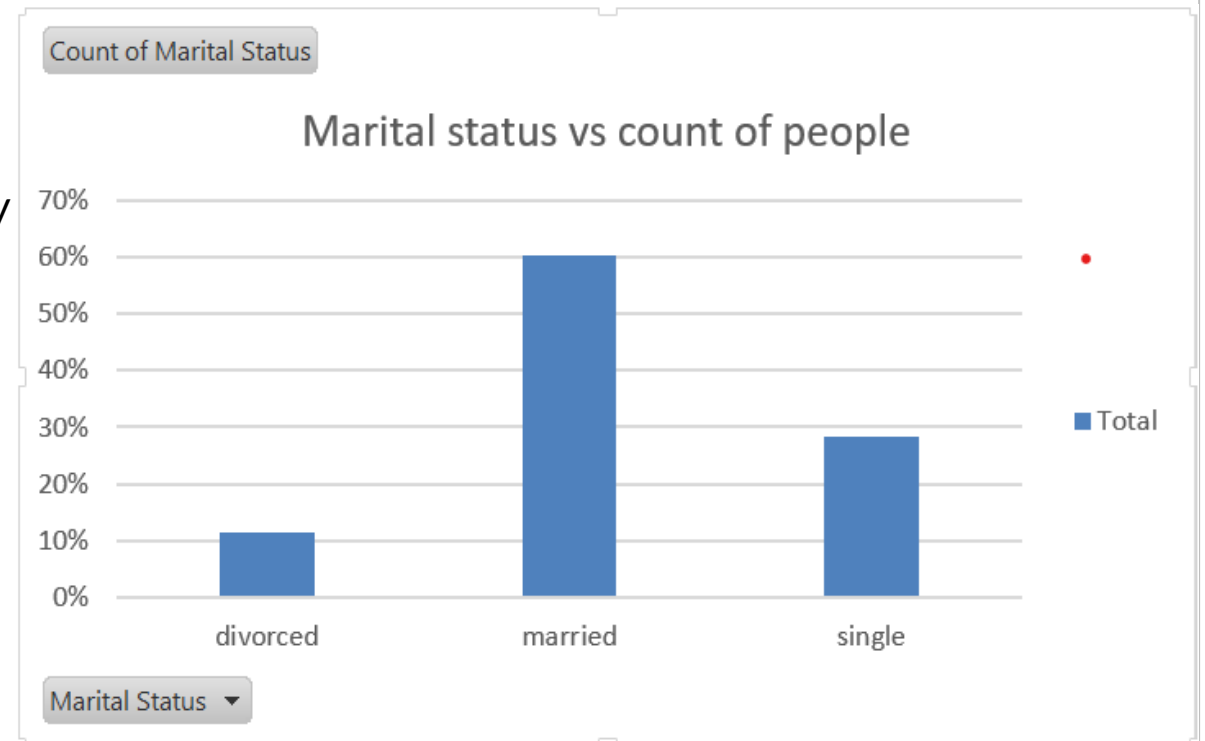
Graph 2

PART I : Univariate Analysis

Variable under consideration:

3. Marital Status

- From the graph beside, we can interpret that the majority in the marital status come from married segment.
- Married customers combine to form **60%** of customers followed by single with **28%**.
- Only 10% of customers are divorced.



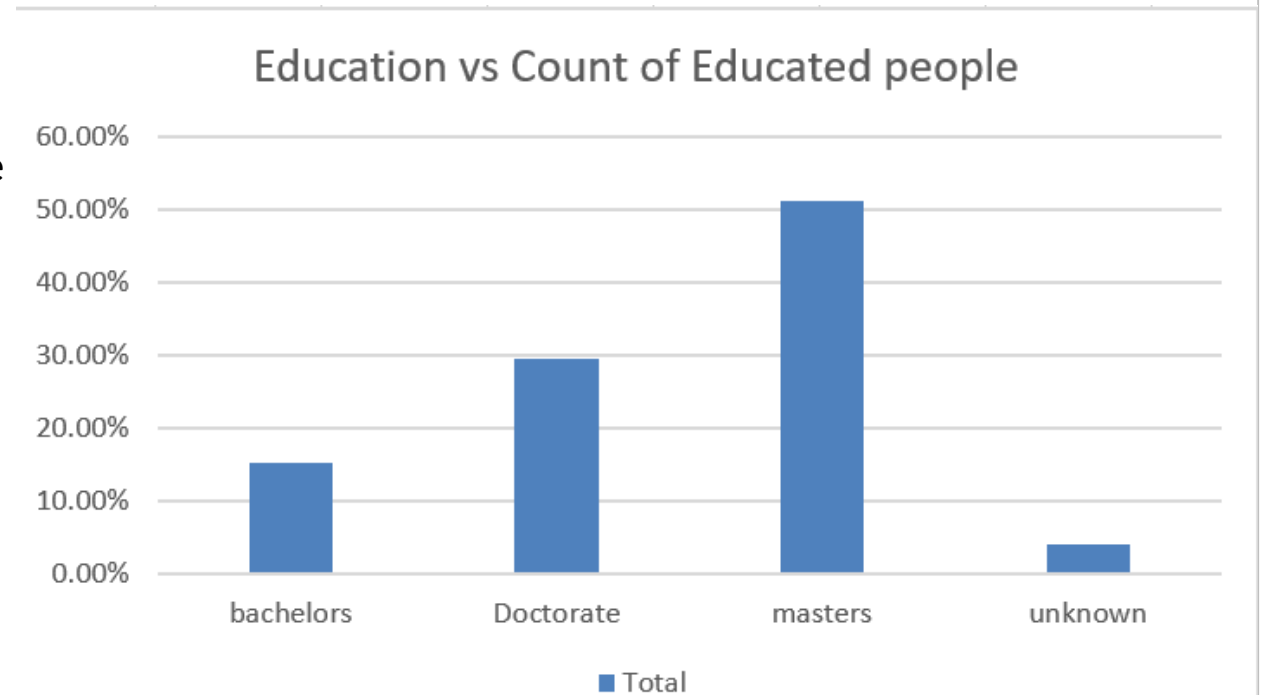
Graph 3

PART I : Univariate Analysis

Variable under consideration:

4. EDUCATION

- Customers who have completed their master's degree majority customers(**51.29%**) of the bank.
- Doctorates and bachelors accumulate about **29.44%** and **15.17%** respectively.
- And there is a minority of customers with **4.10%** whose education Educational qualifications are unknown.



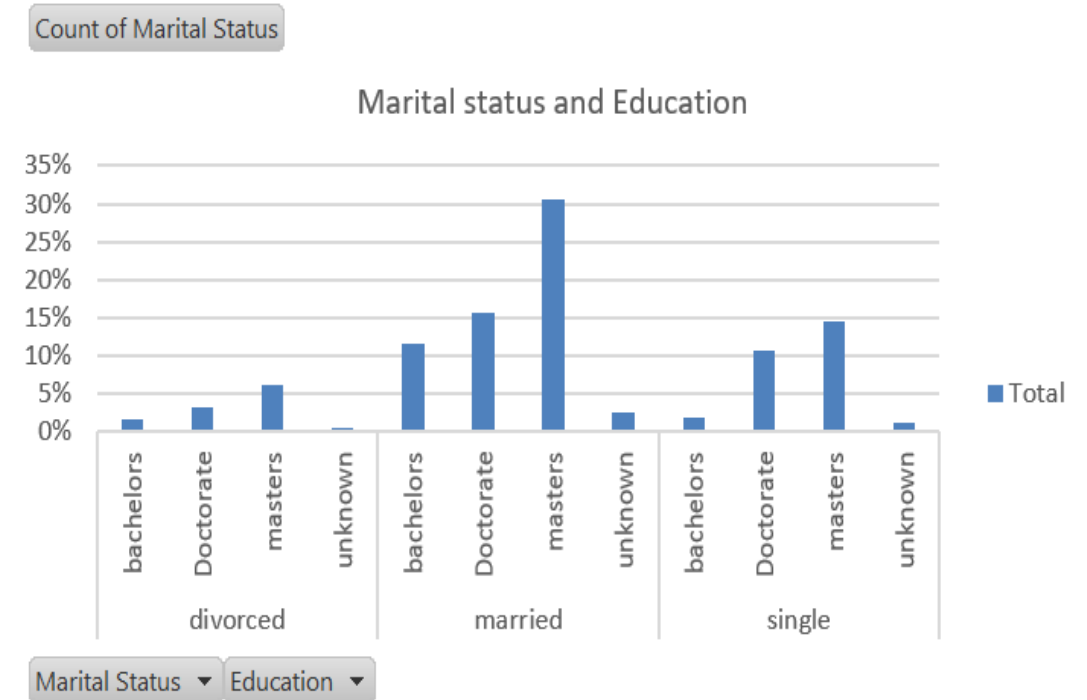
Graph 4

PART I : Univariate Analysis

Variable under consideration:

5. MARITAL STATUS AND EDUCATION

- Customer who are married as well as having a master's degree are the majority customers of the bank.
- Followed by Doctorates, bachelors and unknown.
- A similar pattern of values can be observed for education qualifications in each marital status. Masters > doctorates > Bachelors > Unknown.



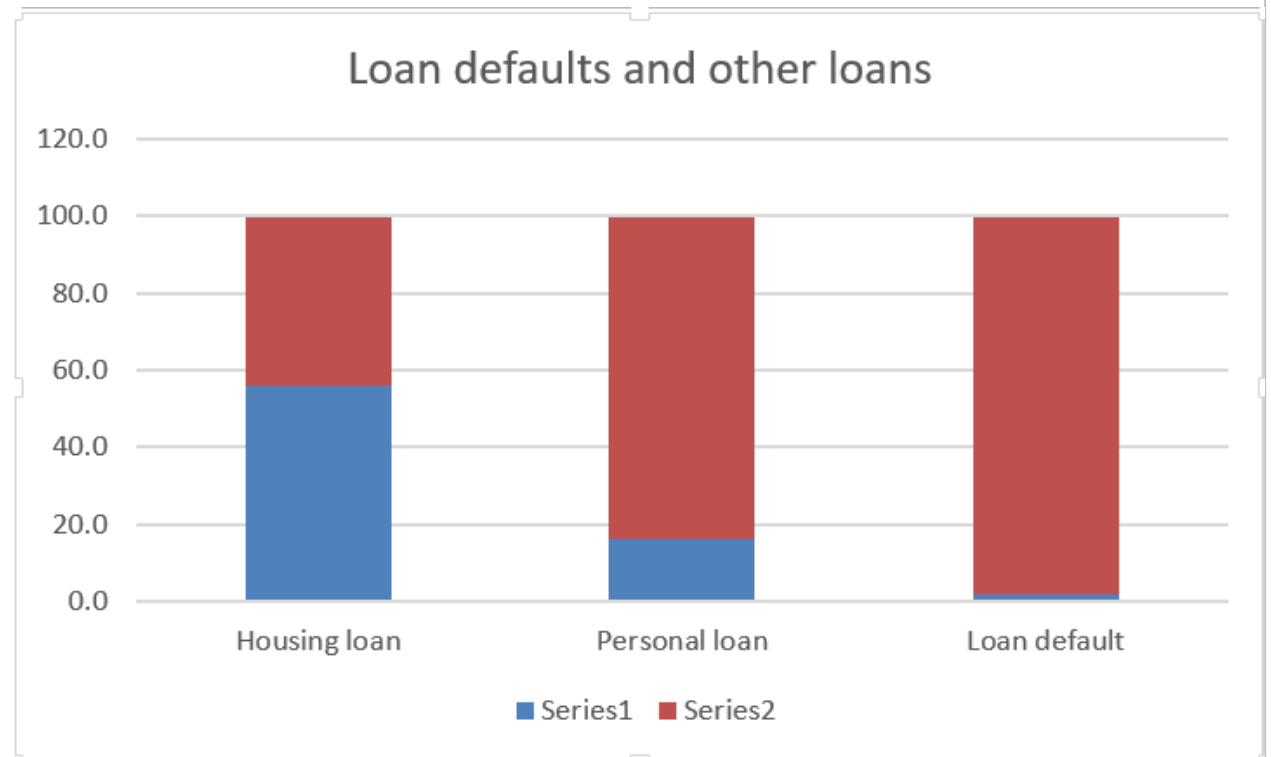
Graph 5

PART I : Univariate Analysis

Variable under consideration:

6. Loan

- The graph illustrated explains us the type of loan, which are being bought by the customers.
- Housing loans are sold mostly with 55.7% of leads being converted to customers, followed by Personal loans at 16%.
- The last column of chart shows what percent of customer are defaulting their loan payments.
- And it was observed that around 1.8% of defaulters are yet to pay the loan back.



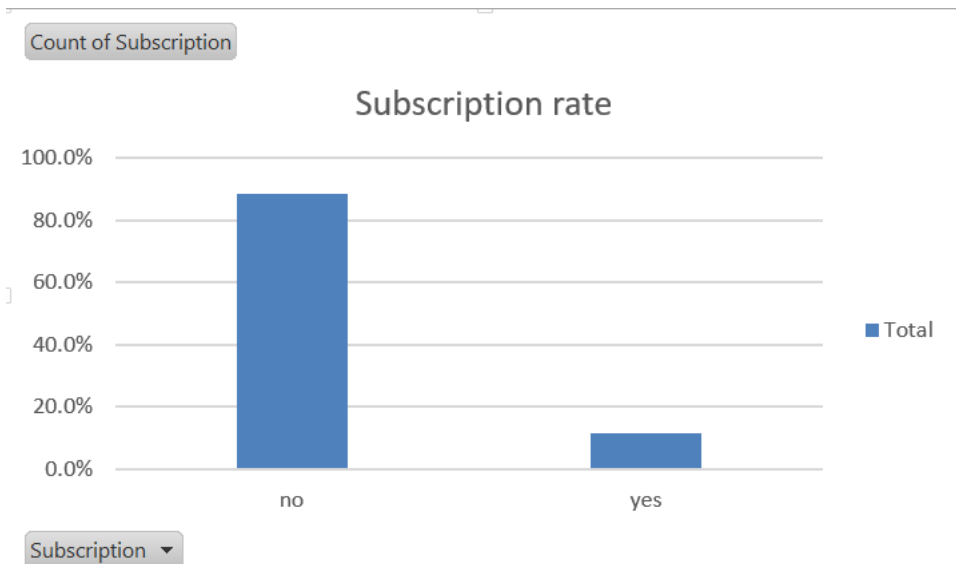
Graph 6

PART I : Univariate Analysis

Variable under consideration:

7. Subscription

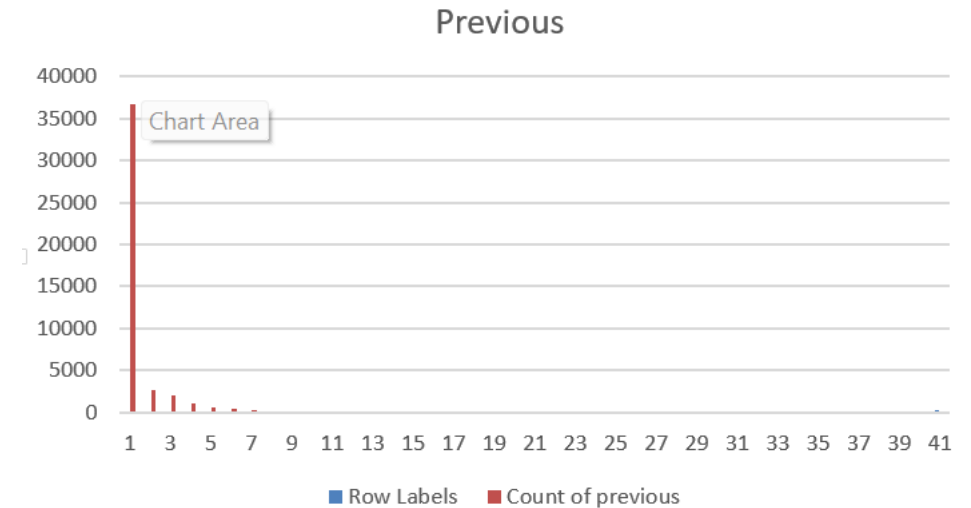
- The below table shows us that only 11.5% of total leads have subscriptions with the bank.



Graph 7

8. Previous Customers

- From the below graph it can be interpreted that around 81.9% of leads were not at all contacted as part of the marketing campaign.



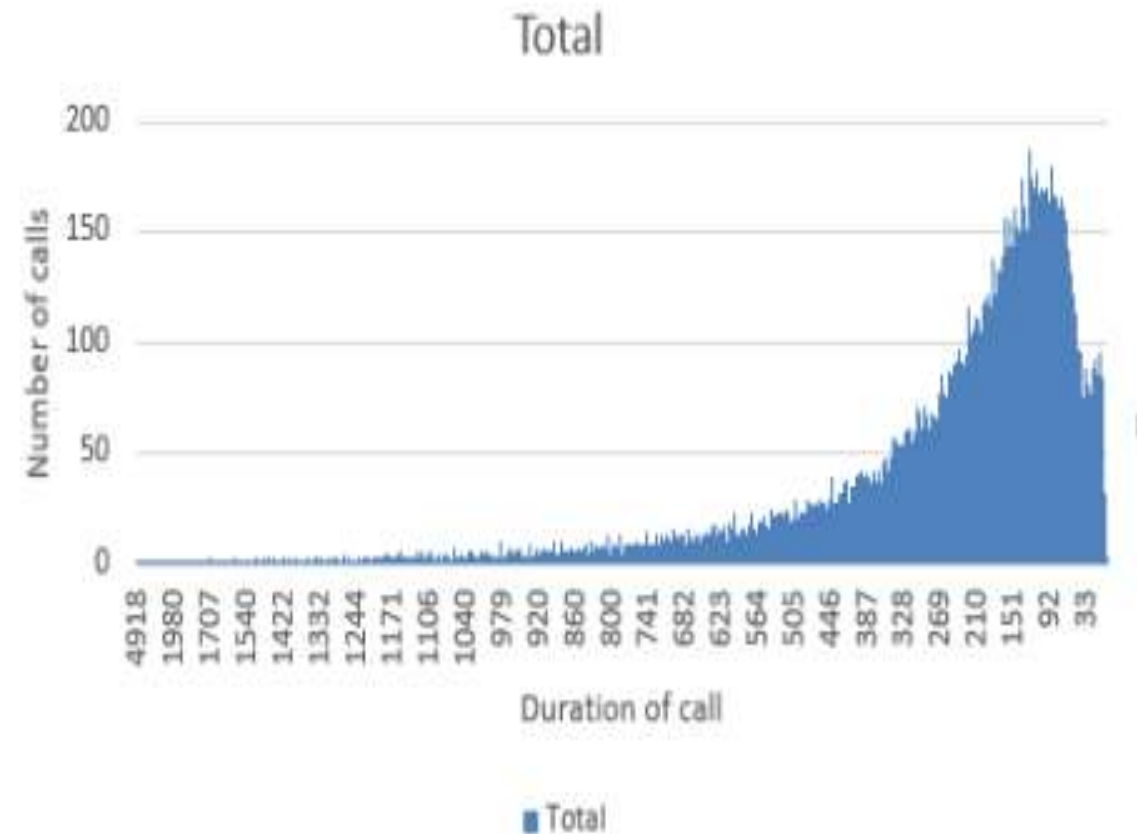
Graph 8

PART I : Univariate Analysis

Variable under consideration:

9. Call duration:

- The shown graph represents the number of calls the marketing team had done and their call duration
- We can understand that maximum number of calls done by the team was 188 calls which lasted for around 124 seconds.
- The highest call duration was recorded at 4918 seconds.



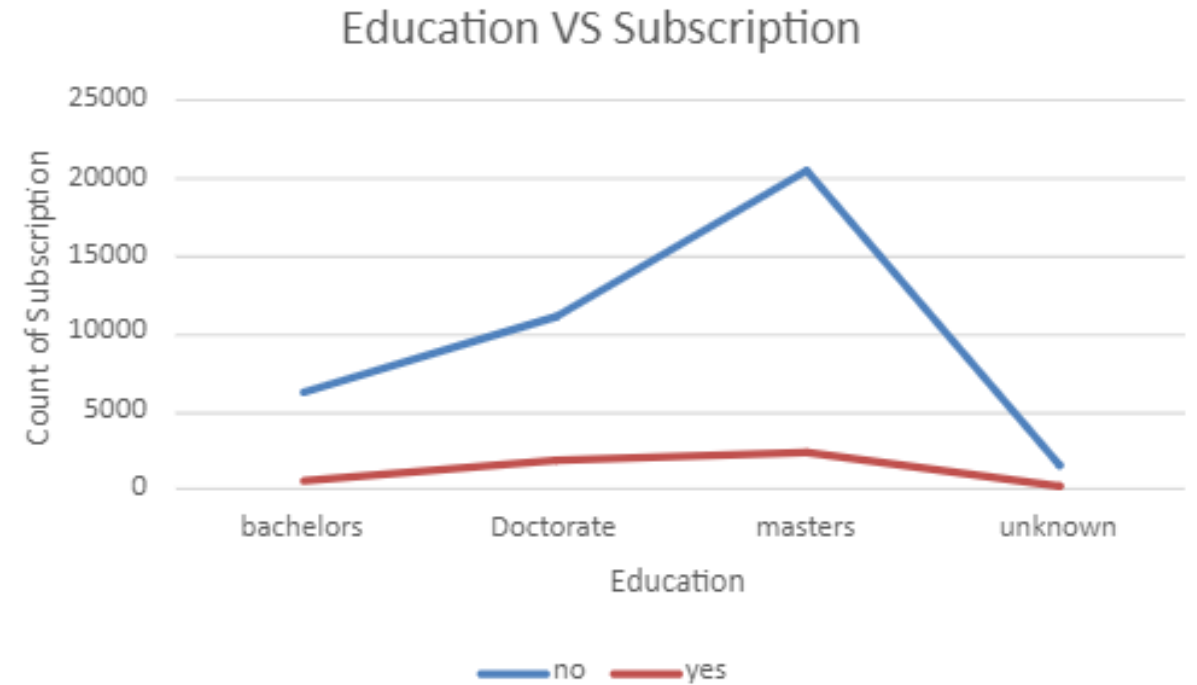
Graph 9

PART II : Bivariate Analysis

Variables under consideration:

1. Education VS Loan default

- Highest subscription rate can be seen in doctorate segment with around **14.81%** conversion.
- Followed by unknown, masters, bachelors with 13.38%, and 8.61% subscription rate respectively.



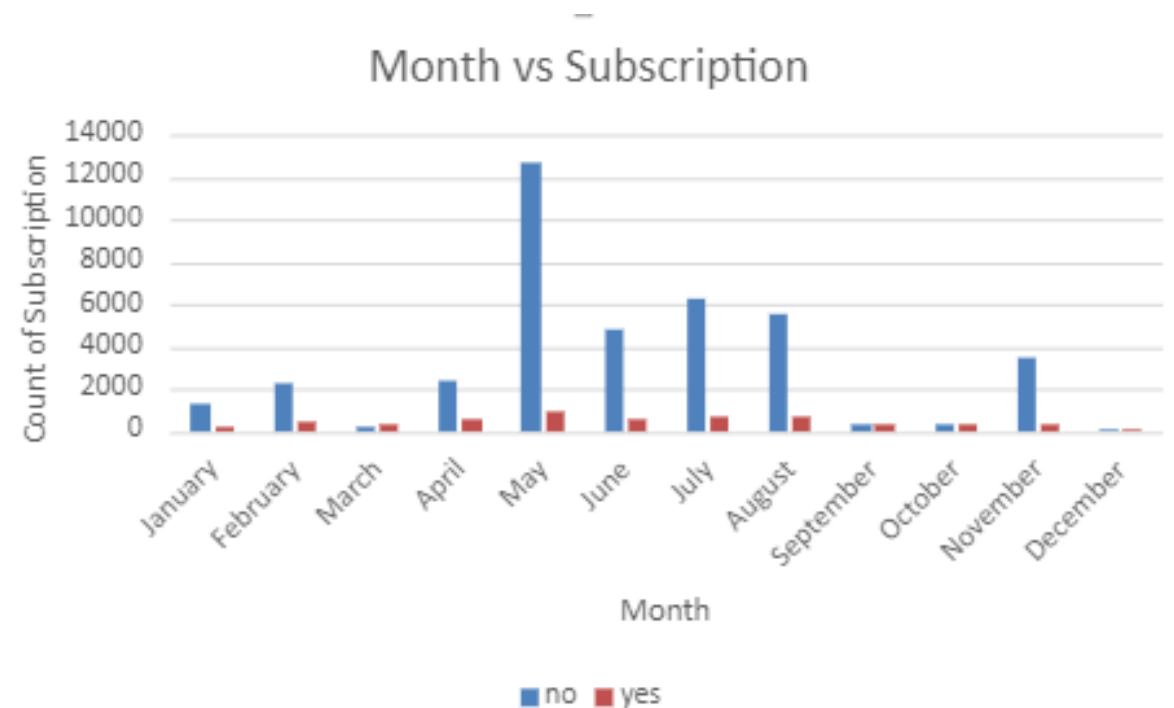
Graph 10

PART II : Bivariate Analysis

Variables under consideration:

2. MONTH VS SUBSCRIPTION:

- Majority of marketing call were done in the month of **May**.
- But the subscription rate was lowest: **6.75%**.
- Highest subscription rate of **52.21%** was seen in the month of **March**.
- High subscription rate was also found in the month of **September, October and December** with **46.52%**, **43.37%** and **46.76%** respectively.



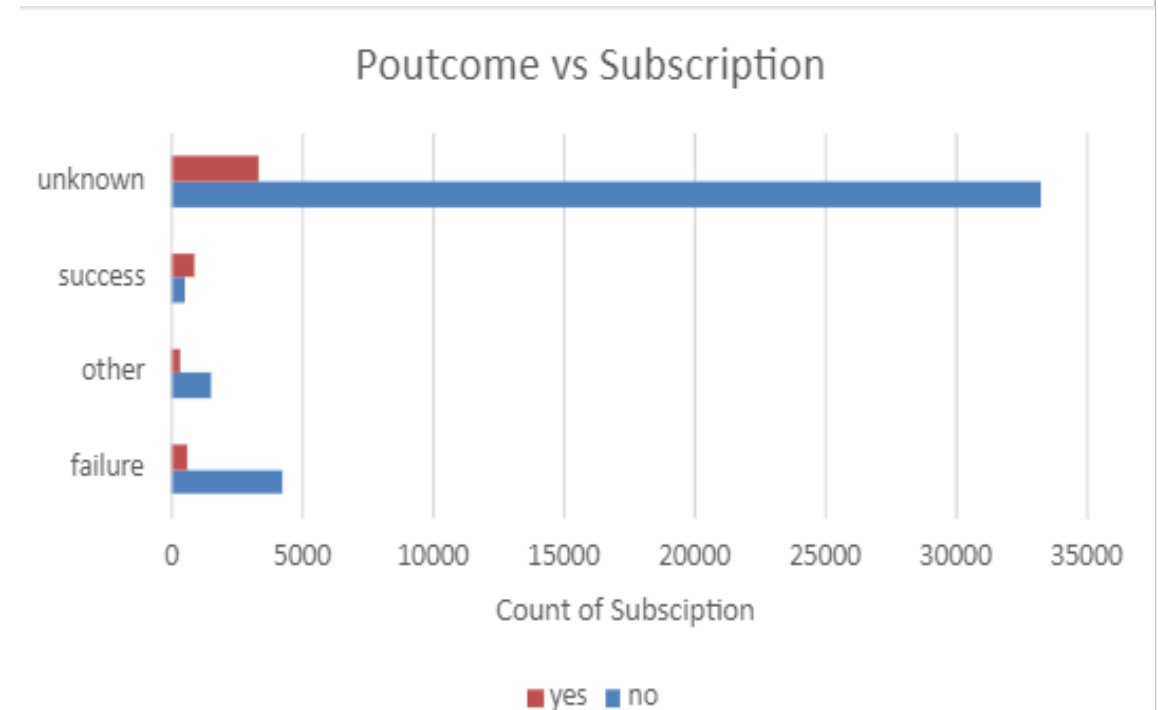
Graph 11

PART II : Bivariate Analysis

Variables under consideration:

3. POUTCOME VS SUBSCRIPTION

- From the graph it can understood that **64.3%** of customers who were using bank products have bought term deposit subscription.
- And customers(unknown) even though they were not called for marketing they still opened term deposit account, **9.1%** unknown customers have bought term deposit.
- Only a few percent of customers (failures and others), were interested in the term deposit.



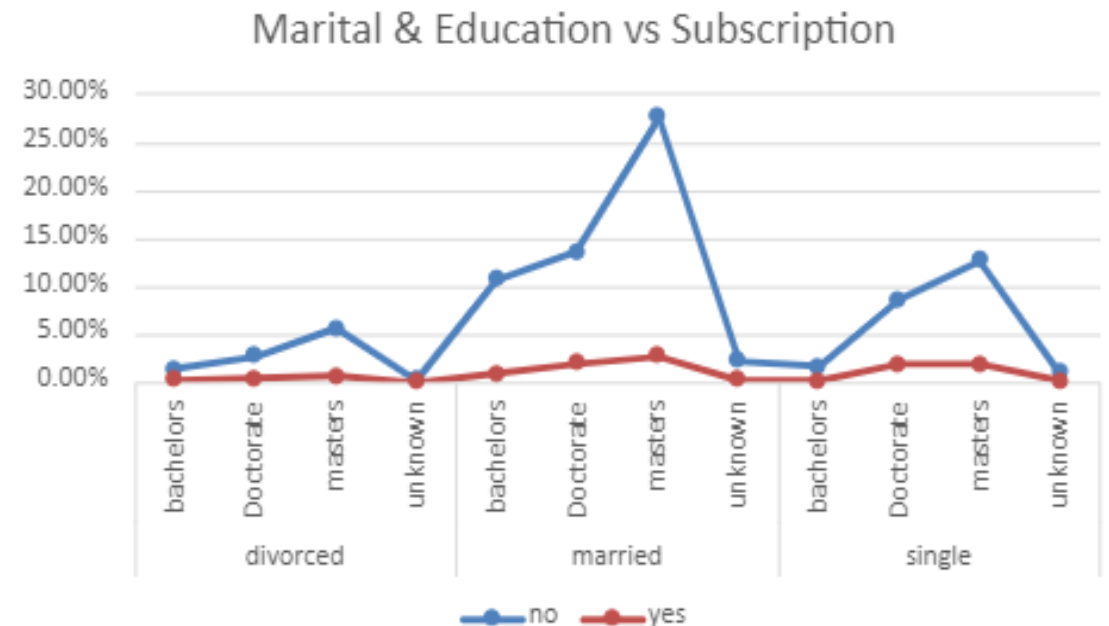
Graph 12

PART II : Bivariate Analysis

Variables under consideration:

4. MARITAL STATUS AND EDUCATION VS SUBSCRIPTION

- This graph illustrates that unknown in divorced segment, doctorates in married segment and singles segment have interest and have made subscription.
- Divorced and unknown – **14.5% of total customers**
Doctorate and married – **12.8% of total customers**
Doctorate and singles – **18.1% of total customers**
- Highest rejection was seen in married and master's category.



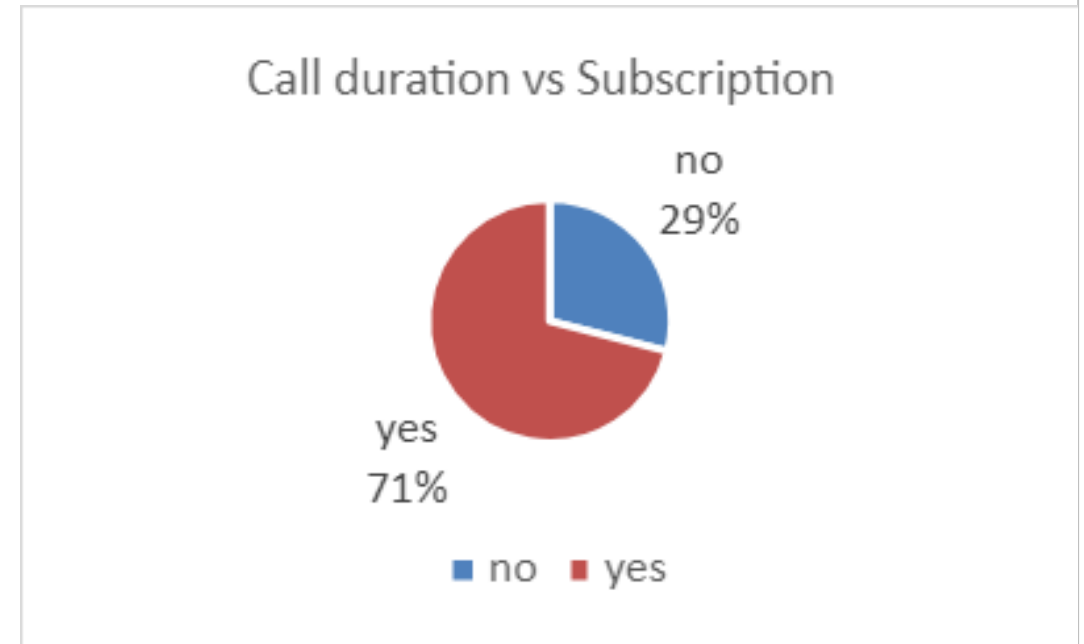
Graph 13

PART II : Bivariate Analysis

Variables under consideration:

4. CALL DURATION VS SUBSCRIPTION

- In this graph it can be interpreted that 71% of call duration ended up with people buying the term deposit.
- It took an average of 541 seconds of call duration to convince and make the customer buy the term deposit.



Graph 14

PART III: Major insights

Insights:

- Majority of customers are from 24 to 60 which is the working class group. So bank should target them as target audience for term deposit. After 60 years, people are looking to retire with their savings.
- As shown in Graph 2, the first five job professionals should be targeted more to increase interest among customer.
- Master's degree holders are targeted more, the bank should also contact other categories in education segment also like dropouts who are self employed they might be interested.
- The bank should either change their marketing strategy or hire contractors to increase their marketing, as the overall subscription rate is very low.
- Understand why married and master's degree holders are rejecting term deposit and rectify it.
- Around 80% of previous customers were not at all contacted for advertising their term deposit options.
- Many people don't know the advantages of term deposit or the existence of such products.

PART III: Major insights

Insights:

- The highest call duration was 1.36 hrs and the marketing guy was not able to convince the customer to buy the term deposit. So, It was a waste of time. So the marketing team should be more prepared about what the customers are expecting and understand them so as to convince them better in short time and clear all their doubts.
- Majority of previous customers are not interested in opening term deposits. The team should ask for feedbacks from the customers they sold the product and understand what made them decide not to buy the new product. And also what all changes the customers expect from previous market.