



# Data Glacier

Your Deep Learning Partner

## Week #10 Deliverables

### **Team member details:**

Group Name: Intern\_Project

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### **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).

### **Github Repo link:**

<https://github.com/1Sophani/DataGlacier-Internship/tree/main/Week%209>

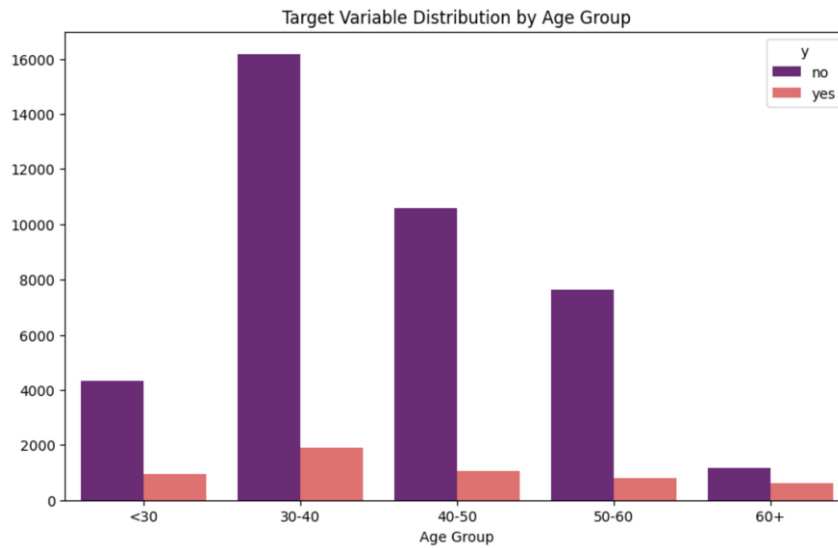
### **Exploratory Data Analysis**

- I explored the distribution and relationships between categorical variables such as age, job, marital status, loan ownership, education.
- Correlation analysis was done to identify relationships between numeric variables
- Categorical variables were analyzed with relation to the target variable.

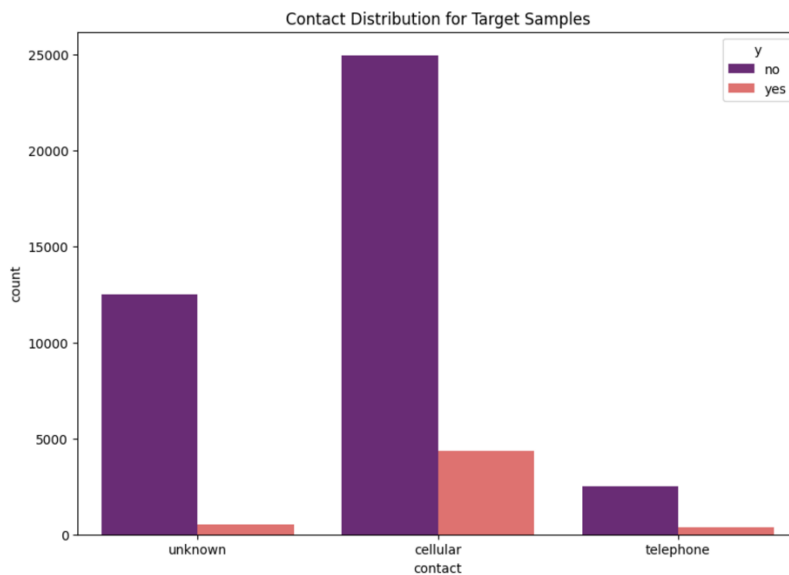
## Final Recommendation

Based on the EDA on the data, there is a noticeable imbalance of the target labels. There are a few observations:

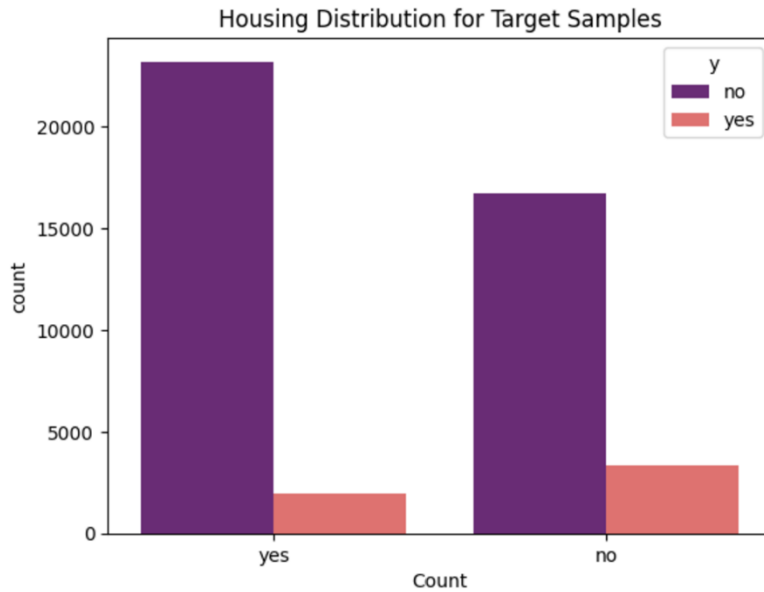
1. The subscription rate decreases as the age increases.



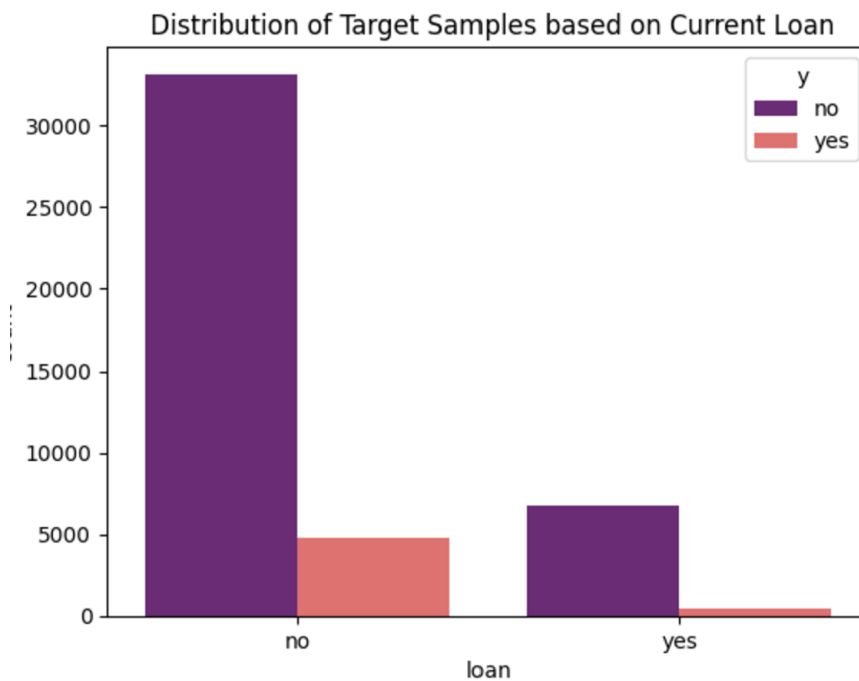
2. The rate of subscription increases with contact such as cellphone or telephone.



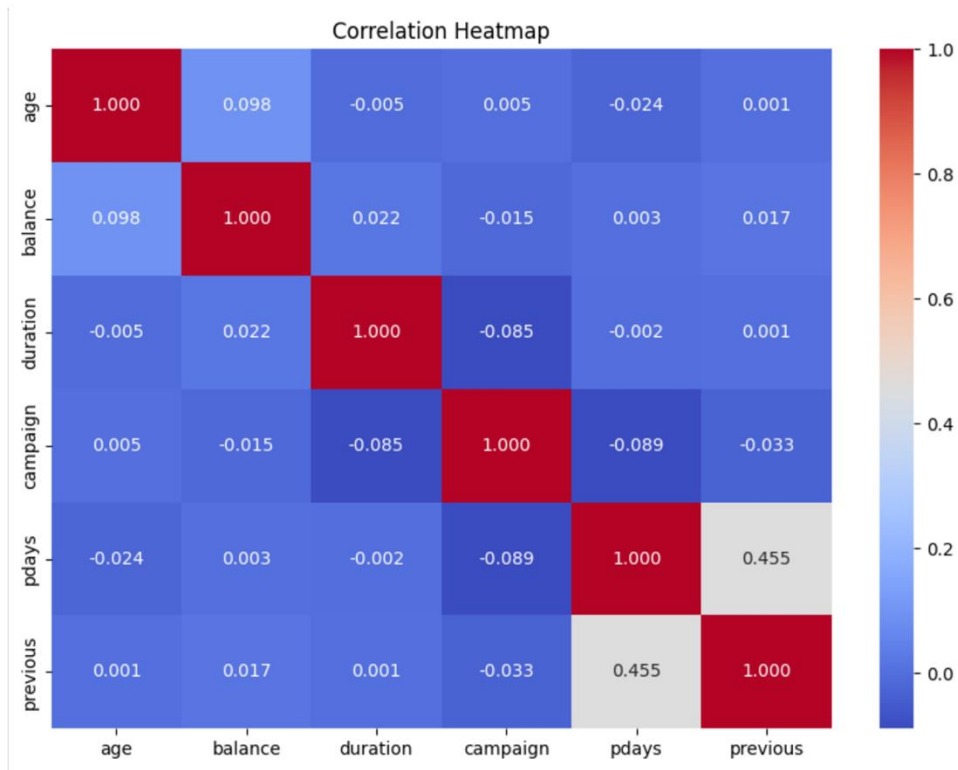
3. There are more subscription rates with those who have housing.



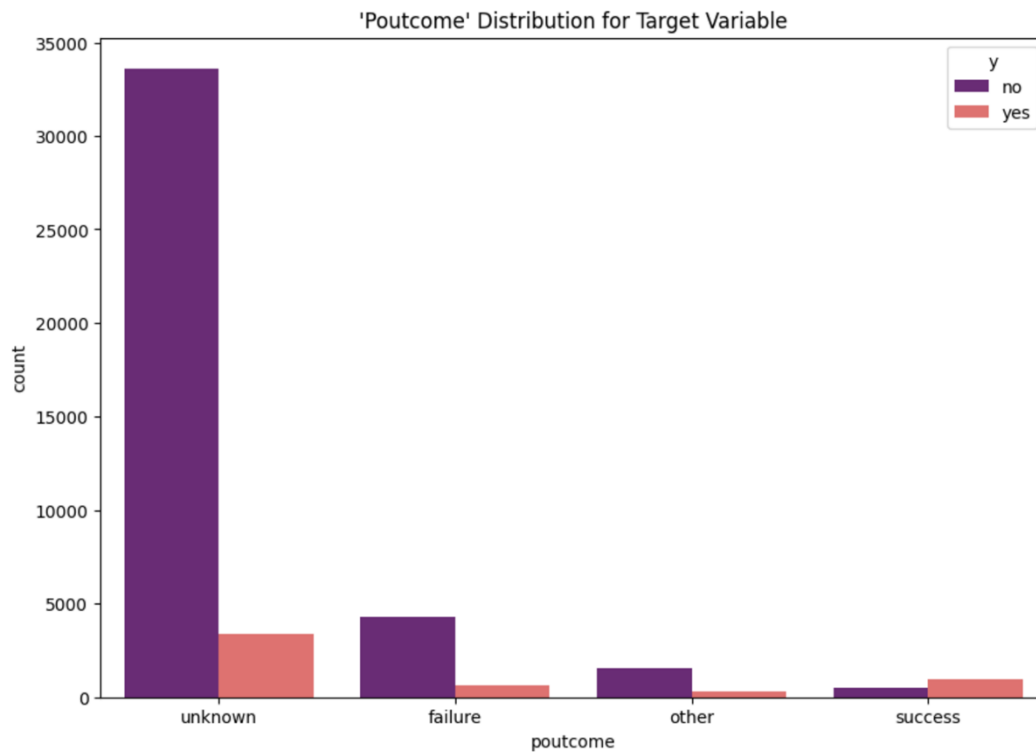
4. Those who do not have a previous loan are less likely to subscribe to a term deposit.



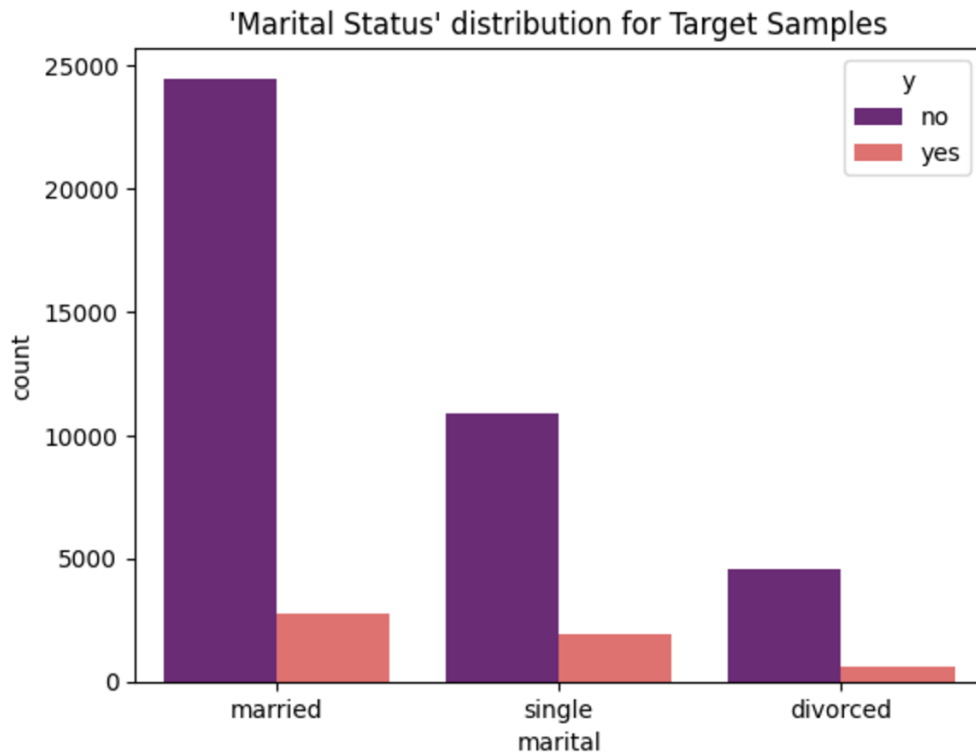
5. Based on the correlation matrix, age and balance have the strongest positive correlation at 0.098 while duration and campaign had the strongest negative correlation.



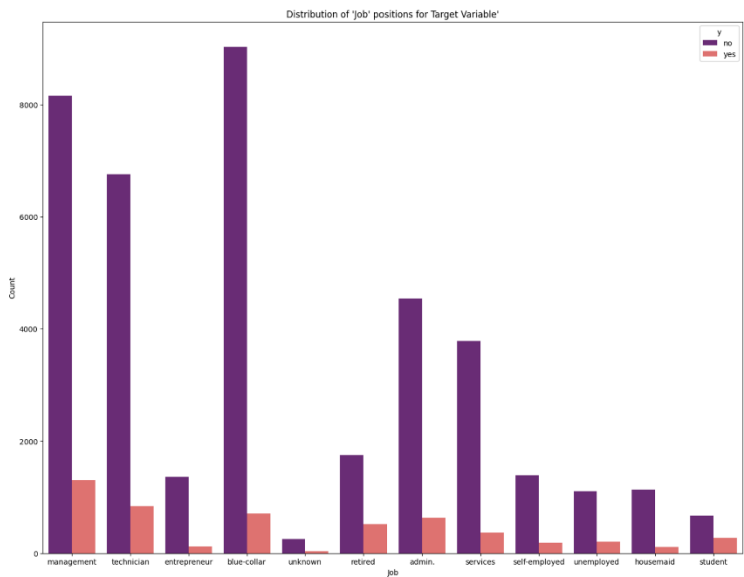
6. Those with a successful previous marketing campaign outcome are more than likely to subscribe to a term deposit.



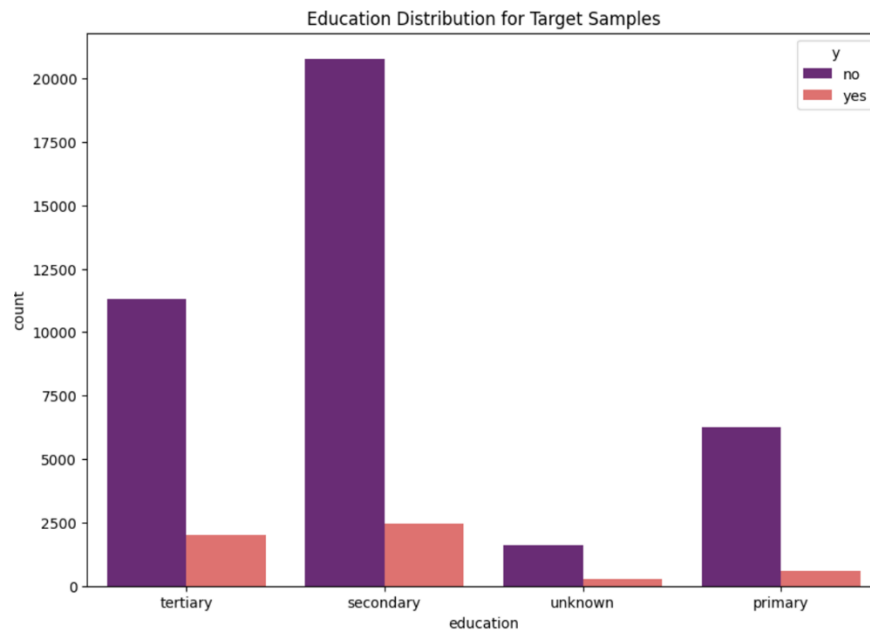
7. A 'married' status is more than likely to subscribe.



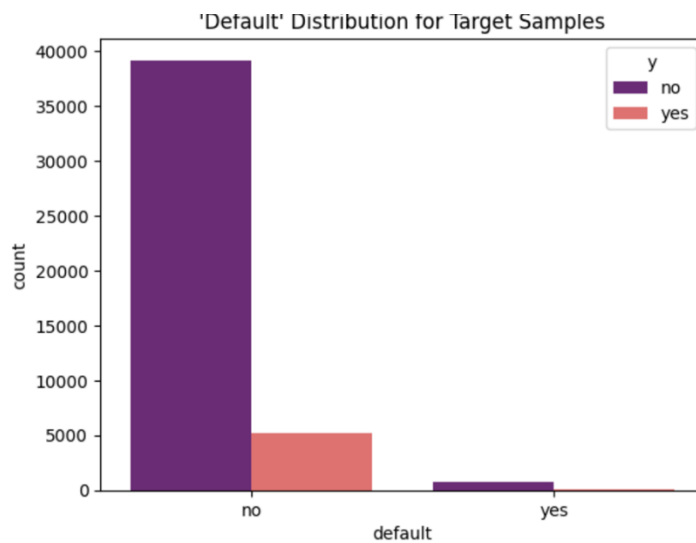
8. There are certain jobs that have a higher subscription rate.



9. A higher level of education is correlated with subscription rates.



10. Individuals with a history of defaulting are less likely to subscribe.



#### Tabular data details:

Total number of observations	42511
Total number of files	3
Total number of features	17
Base format of the file	.csv and .ipynb
Size of the data	5.37 MB

Submitted by: Sophonie Sidrac
Submitted to: Data Glacier