**Visualization Mini Project**

Name, Date

# Introduction

1. Download the dataset from the link <https://archive.ics.uci.edu/dataset/222/bank+marketing>
2. Create a presentation or pdf file with the following visualizations of the dataset
3. Read the dataset 'bank-additional.csv'
4. Draw a scatter plot 'age' on y-axis and the outcome target variable 'y' (has the client subscribed a term deposit?) on the x axis
5. Create a bar chart of outcome target variable 'y' (has the client subscribed a term deposit?) grouped by the variable 'job'. This will lead to one bar per job type type of job (categorical: 'admin.','blue-collar','entrepreneur','housemaid','management','retired','self-employed','services','student','technician','unemployed','unknown')
6. Create a histogram of the variable 'campaign' (number of contacts performed during this campaign and for this client (numeric, includes last contact)). This should show the most frequent number of contacts and the least frequent number of contacts made during the campaign.
7. Review each chart has the following basic requirements: i). Title of the chart ii). X-axis label and Y-axis label iii). The X-ticks and Y-ticks are readable, sized properly, not overlapping iv). A small description of what you observed from the chart written at the bottom of each chart
8. Create a Github account and create a new project (name the project broadly such as 'Data Analysis and Visualization Projects' or something similar, so that multiple sub-projects can be created under it
9. Create the first project under it using the information from the Dataset.
10. In the Readme section of the project, cite the dataset (as shown above) and reuse the description from the dataset. At the bottom of it, if you find something interesting or appropriate, add your own description to enrich it.

# Data Set Overview

Dataset is from "Moro,S., Rita,P., and Cortez,P.. (2012). Bank Marketing. UCI Machine Learning Repository. <https://doi.org/10.24432/C5K306>"

# PowerBI Description

Version

Screenshot

# PowerBI Outputs

## 4. Draw a scatter plot 'age' on y-axis and the outcome target variable 'y' (has the client subscribed a term deposit?) on the x axis

1. **Image**

A screenshot of a computer

Description automatically generated

1. **Interpretation comments**

Clients with average age of less than 40 are more likely to refuse the term deposit and ones with average age around 42 are more likely to take the term deposit.

## 5. Create a bar chart of outcome target variable 'y' (has the client subscribed a term deposit?) grouped by the variable 'job'. This will lead to one bar per job type type of job (categorical: 'admin.','blue-collar','entrepreneur','housemaid','management','retired','self-employed','services','student','technician','unemployed','unknown')

1. **Image**

A screenshot of a computer

Description automatically generated

1. **Interpretation comments**

Unemployed, housemaids, students and unknown profession people have the least contacts where people who work as admins, blue-collar and technician have most contacts.

## 6. Create a histogram of the variable 'campaign' (number of contacts performed during this campaign and for this client (numeric, includes last contact)). This should show the most frequent number of contacts and the least frequent number of contacts made during the campaign.

1. **Image**

A screen shot of a computer

Description automatically generated

1. **Interpretation comments**

In initials campaign they contacted larger number of people and then the number started reducing in later campaigns.