# **Assignment 3**

## Introduction

About this assignment, I choose financial-related topic. The raw data consists of customer information from a bank. It includes basic personal detail, account information and loan status. The bank has launched a campaign for term deposits to attract customers and proactively contacted customer to promote this activity. Term deposits offer higher interest rate compared to regular checking or saving account, but the investor can’t withdraw their funds only after the term ends. Otherwise, there will be a penalty assessed for early termination. I will conduct a simple analysis of customer’s background and loan status. What kind of customer prefer to invest their money in term deposit.

## Dataset explanation

There are four different table in my dataset, including Contact record, Personal information, Account information and Loan status. Explanation of each attribute is as shown below.

### Contact record

**Customer id**: Customer identification number

**Contact method**: contact communication type. Originally, the category contains “unknown” but I change all of them into “inquire at counter”. Because it is weird that contact times column has value with “unknown” contact method

**Day**: last contact day of the month

**Month**: last contact month of the year

**Duration**: last contact duration, in seconds

**Contact times**:  number of contacts performed during this campaign and for this client (includes last contact)

### Personal information

**Customer id**: Customer identification number

**Account id**: Account identification number

**Age**: The age of the customer

**Job**: the occupation of the customer

**Marital**: marital status

**Education**: Educational background

### Account information

**Account id**: Account identification number

**Balance**: average yearly balance, in euros

**Loan status**: use number 1 to 4 to represent the loan status

**Term deposit**: Has term deposit or not

### Loan status

**Loan status**: use number 1 to 4 to represent the loan status

**Housing**: Has housing loan or not

**Personal**: Has personal loan or not