# Bank churn Excel project (500)

Using Excel to analyze bank customers and understand factors contributing to customer churn.

## Dataset Description

This dataset contains information about 500 bank customers and is designed to help understand factors contributing to customer churn. The dataset includes the following variables:

CustomerID: A unique identifier for each customer.

Surname: The last name of the customer.

CreditScore: A score between 350 and 850 that represents the customer's creditworthiness.

Geography: The country or region where the customer resides (France, Spain, or Germany).

Gender: The customer's gender (Male or Female).

Age: The customer's age.

Tenure: The number of years the customer has been with the bank.

Balance: The customer's bank account balance.

NumOfProducts: The number of banking products the customer uses.

HasCrCard: Indicates whether the customer has a credit card with the bank (1 = Yes, 0 = No).

IsActiveMember: Indicates whether the customer is an active member (1 = Active, 0 = Inactive).

EstimatedSalary: The estimated salary of the customer.

Churn: Indicates whether the customer has left the bank (1 = Yes, 0 = No).

## Assignment Objectives

Analyze the provided dataset to gain insights into bank customer behavior and the factors that contribute to customer churn. Using Pivot Tables for the analysis.

## Analytical Questions

Using Pivot Tables in Excel to answer the following:

1. What is the average credit score for each geography?
2. How does the average account balance vary between genders within each country?
3. What is the distribution of active members versus non-active members according to having credit card?
4. What is the customer churn rate per number of products used?
5. What is the average credit score for customers who have exited compared to those who have stayed, across different tenure?

## Using Data Analysis ToolPak to answer the following:

1. Is there any significant difference in customers' average earning between churned and not-churned?
2. Is there any significant difference in customers' average credit scores among customers' geographic locations?

## Dealing with our data

Deal with missing values in "EstimatedSalary" and inconsistent value in "Balance" variables.

Use average value to replace any missing value or inconsistent data within the variables.

For each question, we are to create a separate Pivot Table and include a brief summary of your findings.

Complete your analysis for the last 2 questions using Data Analysis ToolPak in Excel based on the provided dataset. Significance level = 0.05. No need to test any assumptions.

For each research question, create a separate worksheet and include a brief summary of your findings.