Free University of Bolzano Bozen – Faculty of Economics and Management

Information Systems and Data Management 27006 exam

# Rules

* + Communication with other people or among students is forbidden. Portable communication devices must be turned off. Opening any communication program on the computer is not allowed and is considered cheating.
  + You are responsible for the correct copy of your files.

You have 40 minutes starting from now.

Your files are in **\\ubz01fst\courses\exam\_coletti\YOURNAME** . You may work directly here or alternatively copy the files on your Desktop and at the end of the exam copy them back on the network folder overwriting the original files.

## Exercise Excel

Open file **banks.xlsx** with Microsoft Excel 2016 and

in sheet **List**

* fill column N with the **Return** value in that row divided by the sum of all the **returns** of all the banks in that **year**;
* when **Return** (column C) is larger than **Index** (column J), fill column O with text “profitable and trusted” if **Funding** (column G) is larger than **Assets** (column D) or “profitable” if **Funding** is not larger than **Assets**. When **Return** is smaller or equal than **Index**, write a dash;
* fill column P with “anticyclic” when **Return** (column C) is positive and **Index** (column J) is negative or when **Return** (column C) is negative and **Index** (column J) is positive. Fill it with “cyclic” otherwise;
* in a new sheet insert a bubble chart with **Return** (column C) on horizontal axis, **Debts** (column F) on vertical axis and **Assets** (column D) as bubble size, displaying only the banks in 1974 and 1975 using two different bubble’s colours;

In sheet **Dates**

* insert in columns C, D, E the number of days, months and years passed between the date in column A and the one in column B.

In a new sheet

* build the full loan table for a mortgage loan of 50 000 € started on 1/1/2018 to be paid back with constant yearly payments of 3000 € and an interest rate of 3.4% (you have to determine the duration yourself);
* after 5 payments you decide that it is too long and you would like to finish your debt in 15 years total (10 more years) and the bank asks you to pay 7000 € per year. Change the mortgage loan table accordingly and determine the new interest rate;
* determine the overall internal rate of return (you can do this even without doing the previous two points).

In a new sheet

* draw the graph of function between 0.5 and 40;
* using Goal Seek tool, find the two values on the horizontal axis where the function is equal to 0.

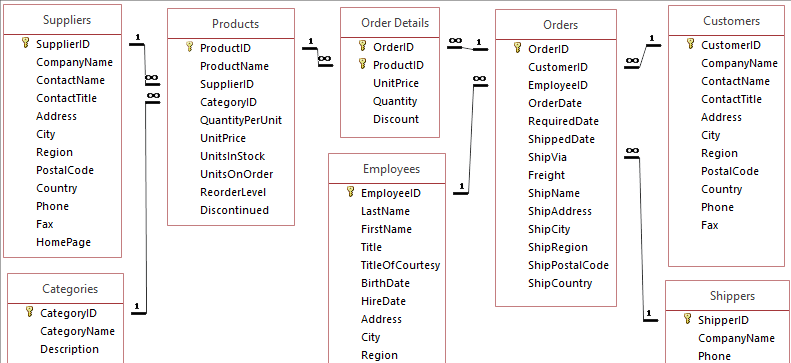
## Save and return:

* **banks.xlsx**

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## Exercise Access

Open database **Northwind.accdb** with Microsoft Access 2016 and



* create query **query1** that lists the suppliers (CompanyName, City, Country) from two countries chosen by the user. Invest one minute testing whether it works;
* create **report1** that displays, shipper by shipper, some data on the orders, sorted by ShippedDate;
* into a new table called **PrivateCompanies** import the data from sheet **List** of Excel file **companies.xlsx**, skipping **ID** and using **CCIAA number** as primary key.

## Save and return:

* **Northwind.accdb**