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 43 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 square root of **Balance** whenever the natural logarithm of **Assets** is larger than **Debts**, a dash otherwise;
* fill column O with the first 5 characters of the **Name** followed by the **Year**;
* sort the data by **Return** (largest first) and then by **Year** (smallest first);
* save this sheet on a PDF file called **banks.pdf** (you do not need any particular formatting).

In sheet **Dates**

* calculate the standard deviation (expressed in number), the minimums, maximums and averages of the two dates’ columns.

In sheet **Scenario**

* fill in with appropriate formulas the two yellow cells and then set up a scenario manager with at least 3 scenarios and build the relative scenario summary sheet.

In sheet **Numbers**

* in column C insert the values of columns A divided by D3 (always D3) in sheet List. In column D insert the values of columns B divided by E3 (always E3) in sheet List. Use the most appropriate partial absolute reference;
* protect this sheet, giving the user the possibility to change values of the first column.

In a new sheet

* using the data from sheet **List** build a pivot table to display the average **Return** by **Type** and **Year**.

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Build a VBA function called **ApplyInterest** which receives as input the capital **C**, the number of years **T** and the interest rate **R** and calculates the compound interest as when **C** is positive or 0, when **C** is negative. If **R** is negative, set it to 0 and warn the user.

In a new sheet

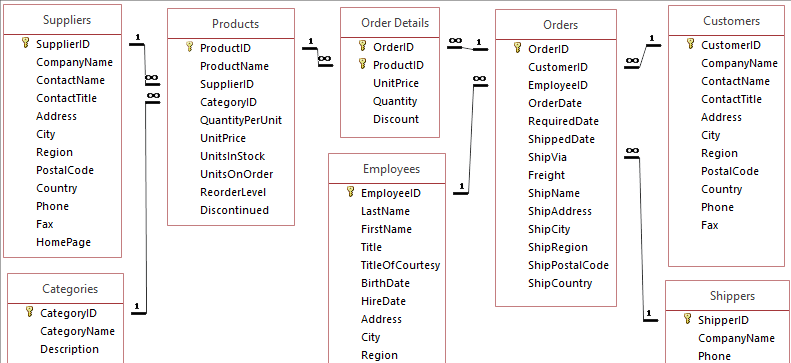
* import all the data from tab-delimited file **abc.txt**.

## Save and return:

* **banks.xlsm** (or **banks.xlsx** if you skipped the VBA exercises)
* **banks.pdf**

## Exercise Access

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



* create query **Query1** that lists the suppliers which have discontinued products. Display only the field CompanyName;
* build a new table called **Payments**, with fields
  + PayDate, set to required and indexed
  + PayAmount with validation text and rule to be not negative
  + Any other field which might be necessary for the structure.

Connect table Payments to table Orders with a many-to-one relation (many side on table Payments: each order can have several payments).

## Save and return:

* **Northwind.accdb**