Free University of Bolzano Bozen – School of Economics and Management

Information Systems and Data Management exam

# Rules

* + No communication with other people or among students is allowed. Phones and every other means of communication 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.

Enter Windows with your login. You have 40 minutes starting from now.

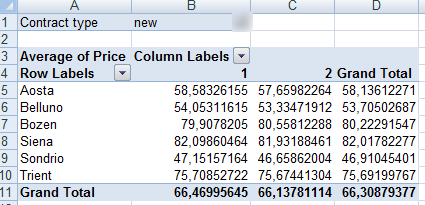
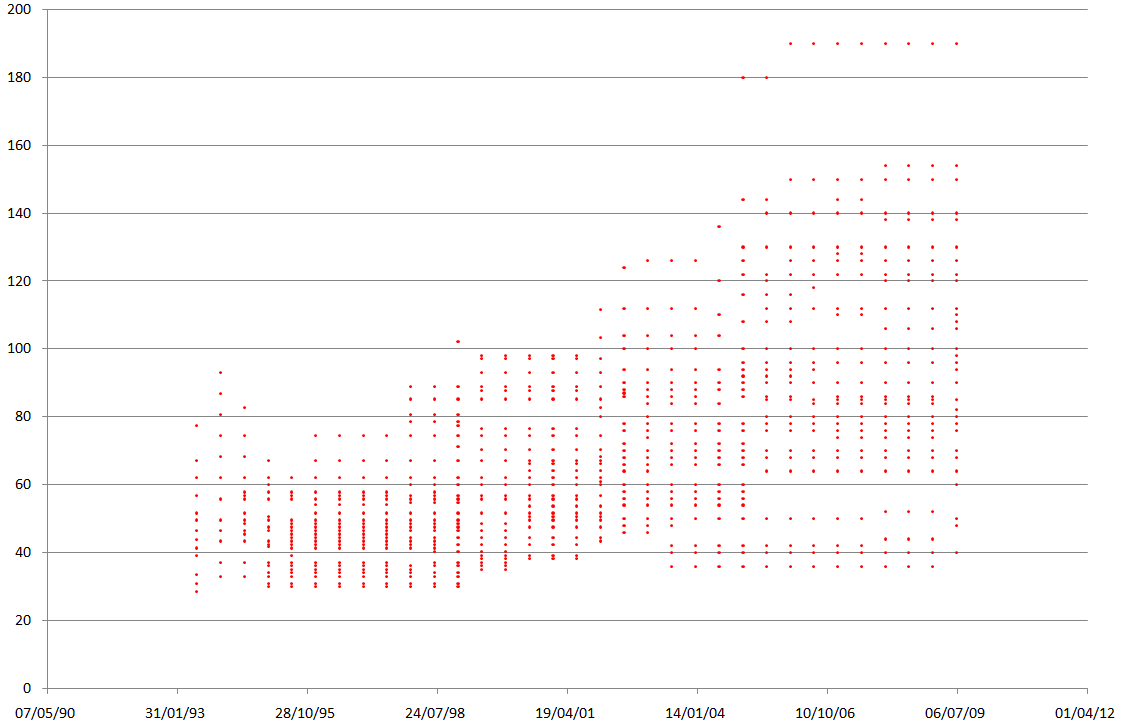
Copy all the files in **\\ubz01fst\courses\exam\_coletti\YOURNAME** on your Desktop. At the end of each exercise copy here only the files you are required to return.

# Exercise File handling

* build directory **abc** on your Desktop;
* copy file **exam.zip** on your Desktop and uncompress it;
* open file **text.docx** with Microsoft Word and produce a PDF file called **text.pdf**;
* to file **text.pdf** apply a password protection (using password “**pass**”) which prevents the opening of the file without knowing the password;
* move only file **text.pdf** into directory **abc**;
* return directories **abc** and **text**.

# Exercise Excel

Open with Microsoft Excel 2007 file **rentalprices.xlsx** and:

* build a pivot table which displays average prices, semester by semester, town by town, considering only the “new” contract types;
* apply an automatic formatting to column B which displays a green traffic light when value is larger or equal to 2003, a yellow one when it is between 1997 and 2002 and a red one when smaller than 1997;
* in cell G2 put the automatic sum of prices which are smaller than 90;
* fill column J with the rental price divided by the natural logarithm of the value in cell G2, with 8 decimal digits;
* in column H put an automatic function which displays a date with year taken from column B and 30th of June if semester is 1, 31st December if semester is 2;
* inside a new sheet display an histogram of rental prices with classes 0-20, 20-40, ..., 160-180, 180 and larger;
* build a new sheet with red tab and copy the values of column J in number format with 8 decimal digits;
* using the data in H2:H1163 for the x axis and in F2:F1163 for the y axis build a scatterplot like the one in the picture, in a new sheet, with red circles of size 2, without legend.   
  Hint 1: use Select Data dialog box in order to choose the appropriate series.

Hint 2: if you were not able to put dates in column H, put any sequence of dates to build this graph.

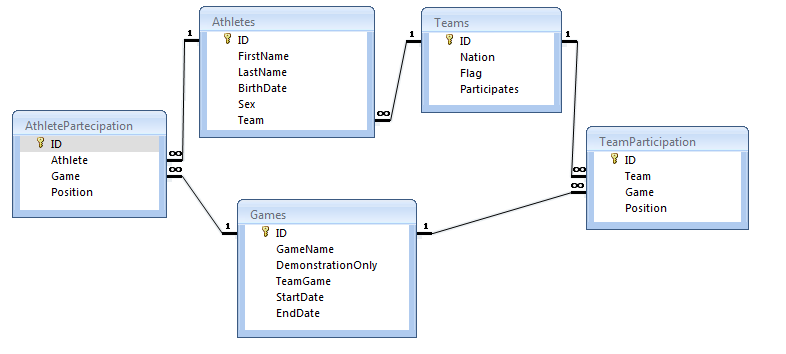
In a new sheet, consider a loan of 200 000 euro:

* display the yearly payment for 30 payments and a fixed interest rate of 7%;
* display the duration for yearly payments of 12 000 euro and a fixed interest rate of 7%, writing a short sentence to explain and justify the result;
* display the internal rate of return for 30 yearly payments of 15 000 euro.

Return file **rentalprices.xlsx**.

# Exercise Access

Open with Access 2007 database **olympicgames.accdb** and:



* modify table **Athlete** applying to Sex field a non-mandatory drop down menu with “male”, “female”, options;
* create query **query1** which shows for all the games with duration strictly larger than 4 days the corresponding total number of participating athletes;
* create query **query2** which asks for a nation and counts the nation’s team participations that obtained the first position (result is a single number).

Return file **olympicgames.accdb**.