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.

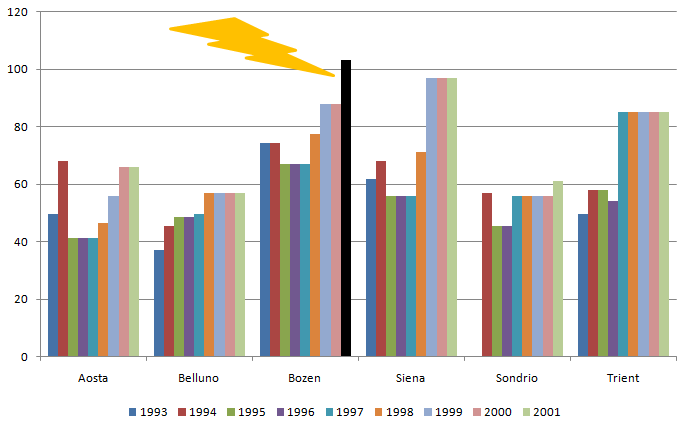
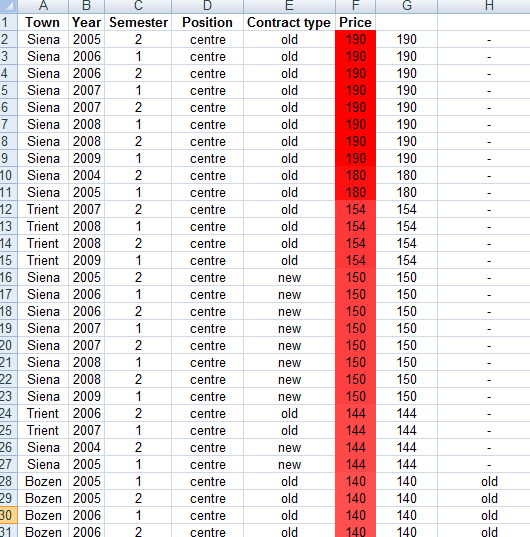
Copy all the files in **\\ubz01fst\courses\exam\_coletti\YOURNAME** on your Desktop. At the end of each exercise copy here only the files you are required to return.

# Exercise File handling

* build directory **abc** on your Desktop;
* copy file **exam.zip** on your Desktop and uncompress it;
* move only files **text.docx** and **text.tab** inside directory **abc**;
* rename file **text.docx** to **text2.docx**;
* return only directory **abc**;
* delete the other files on your Desktop.

# Exercise Excel

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

* build a pivot table which displays maximum of rental prices by town and by year, from 1993 to 2001 and considering only “new” contract type;
* using the data from the previous pivot table build a pivot graph like the one in the picture with legend at the bottom and an orange lightning bolt pointing towards the Bozen highest bar, which must be black;
* inside a new sheet calculate the descriptive statistics for year;
* in sheet Prices sort the data by price from largest to smallest;
* apply an automatic formatting to column F which displays a background colour ranging from white for small values to red for large values;
* in column G put an automatic function which displays the price with an addition of 50% if the year is before or equal to 1997, with an addition of 30% if the year is between 1998 and 2001 and without addition if the year is 2002 or larger;
* in column H put an automatic function which displays for town starting with “B” the contract type, otherwise a dash.

In a new sheet consider these four investments, starting on 1/1/2016 and ending on 1/1/2022

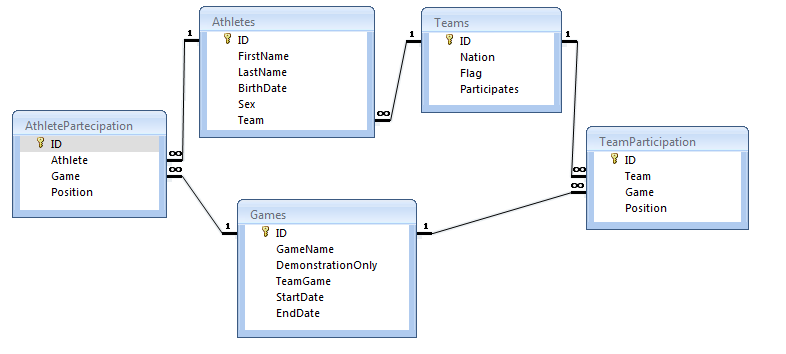
1. ~~a bond bought for price 97, with a yearly step up coupon of 1%, 2%, 3%, 4%, 5%, 6%;~~
2. putting 100 € into a bank with an interest of 3% compounded yearly (formula is C·(1+i)t );
3. giving 100 € to a friend who will give at the end an extra 25%;
4. ~~a BTP bought for price 98 with coupon 3.5%.~~

* determine the four internal rates of return.

Return file **rentalprices.xlsx**.

# Exercise Access

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



* modify table **AthleteParticipation** applying to Position field a validation rule to check that it is strictly positive, with appropriate validation text;
* create query **query1** which asks for a nation and shows all the athletes whose age is strictly larger than 25;
* create query **query2** which shows the first name and last name of all female athletes that participate to more than 2 games.

Return file **olympicgames.accdb**.