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.

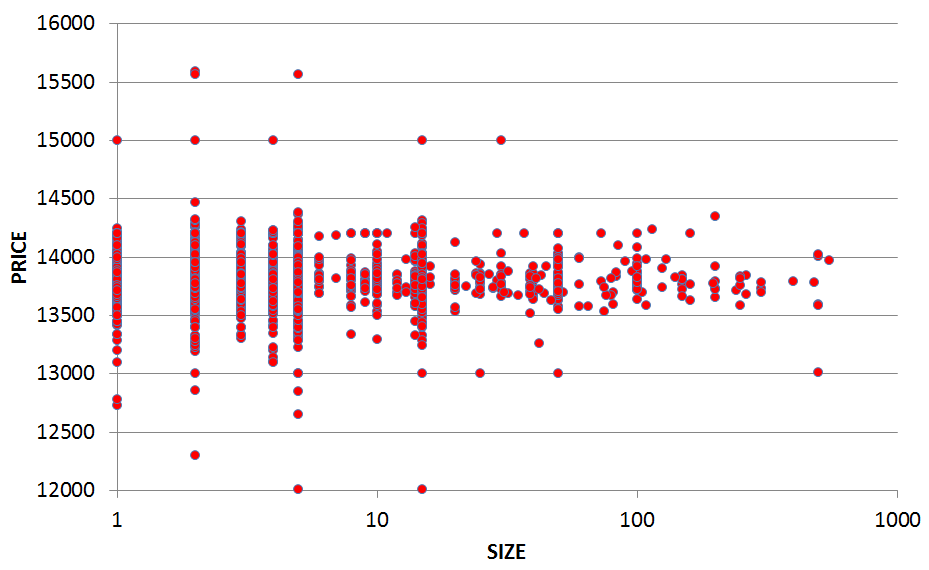
Enter Windows with your login. You have 45 minutes starting from now.

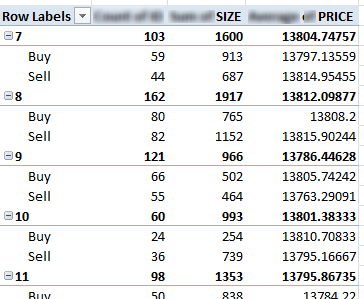
Copy all the files in **\\ubz01fst\courses\exam\_coletti\YOURNAME** on your Desktop. At the end of each exercise copy here only the files you are required to return, overwriting the original files you have modified.

# Exercise File handling

* Create directory **aaa**;
* download file **http://www.paolocoletti.it/exam/files.zip** , save it on your Desktop and uncompress it in directory **aaa**;
* delete file **files.zip**;
* compress directory **SPSS** into file **SPSScomp.zip**, encrypting it using exam as password;
* delete directory **SPSS** with all its content;
* delete file **example.doc**;
* return directory **aaa** with all its content.

# Exercise Excel

Open with Microsoft Excel 2010 file **data.xlsx**. Then insheet **Orders**:

* in column P build a date with year taken from column G, month from column H and day 31 or 30 according to the month (which may be only March or June);
* in column Q display the number of days passed between the corresponding value in column A and the value in column B;
* apply automatic formatting to PRICE using green data bar and edit the formatting rule to start from a minimum of 12000;
* build in an entirely new sheet a scatterplot of PRICE (vertical) by SIZE (horizontal axis), using red circles, vertical axis between 12000 and 16000, horizontal axis using logarithmic scale and appropriate axes’ titles.
* In a new sheet build a pivot table, taking data from columns A:O in sheet Orders and for each HOUR, subdivided by Sell/Buy, display the number of orders, the sum of SIZE and the average PRICE.
* Print range A1:K30 of sheet Orders on file **data.pdf**, with the table with gridlines and centered on a single landscape sheet.

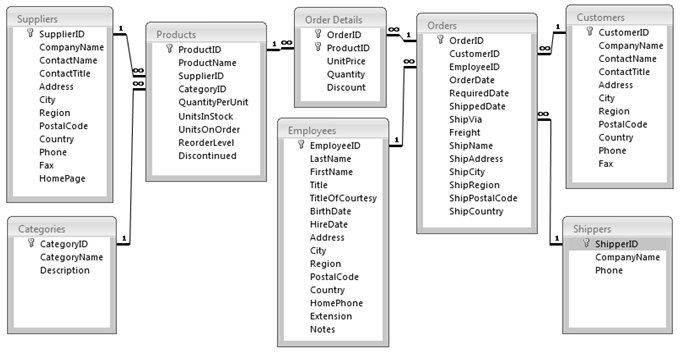
Build a new sheet called **Temp**, with red tab, and

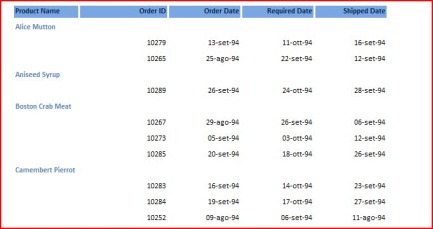
* calculate the sum of SIZE for rows with ID starting with “03DXL”. Hint: you may a new temporary column in sheet Orders to help the usage of function SUMIF;
* in D1 and D2 calculate average and variance of PRICE;
* in column E build 50 random numbers between 0 and 1 and apply percentage format;
* for a normal distribution with µ equal to cell D1 and σ2 equal to cell D2, in column F calculate the z-value which gives an area equal to the corresponding value in column E.
* in columns H:I build the cash flow table and calculate the Internal Rate of Return for a loan of 100 € to be paid, starting one month after the loan starts, with 5 monthly payments of 20 € plus an extra 15€ charged on the last payment.

Return files **data.xlsx** and **data.pdf**.

## Exercise Access

Open database **Northwind.accdb** and



* Create query **query1** that shows the companies (fields: company name and address) supplying more than one product.
* Create form **form1** to view orders. Lock the form to avoid order insertions.
* Create report **report1** that shows, product by product, the orders shipped between 1st March 1994 and 25th September 1994 containing that product (fields: products name, order ID, order date, required date, shipped date).

Return file **Northwind.accdb**.