

## BB4301: Business Information Analysis Excel Statistics Exercise

Download the **ExampleData** Excel worksheet from

<http://www.barryavery.com/blog/teaching/bb4301-business-information-analysis>

1. Do the following analyses of the age data.
  - (a) Create a frequency distribution for the age data. You should use the same approach as that for the frequency distribution for the gender data which already appears on the worksheet. That is:
    - Under a heading for the first column you should list the distinct age values. For this data set they should be presented in ascending order.
    - In the second column, which should be titled **Frequency**, you should use the **countif** function which counts how many values in an array of values match the second input to the function. Note that you need to use absolute addressing (by prefixing the row numbers in the array with a dollar sign), so that when you drag this expression to other cells the array is unchanged.
    - Remove any rows that have a zero frequency.
  - (b) Create a cumulative frequency distribution for the age data.
  - (c) Create a relative frequency distribution.
  - (d) Using the above distributions calculate the mode, median, mean and variance for the age data.
2. Sort **all** of the data using the gender column. You need to highlight all of the rows (including the headings) in columns A and B and then use the **sort** function which can be found under the **data** tab. It will prompt you for a column to sort by – you should select **Gender**.

*Note that you should select both columns when sorting so that both items of data for each person appear together in a row.*
3. Repeat the analyses undertaken in 1 for the female students and then for the male students.
4. Using your analyses confirm or reject the following statements.
  - (a) The majority of students are female.
  - (b) There are more 18 year old students than 19 year old students.
  - (c) On average female students are older than male students.
  - (d) There are more male students who are older than 19 than female students who are older than 19.
  - (e) The ages of the male students are more variable than the ages of the female students.
  - (f) The majority of 18 year old students are female.