

- Deadline : Midnight Friday Week 9
- Submit by Email
- Subject Line : "**MA405 Homework 5 Submission**"  
(*Dont not write anything else*)

## SPSS Homework 5 Task 1: Visualizing Categorical Data

- Open your data set in the **Butter** Folder.
- There is likely to be a fair bit of SPSS output for this particular exercise. This is probably the only time that will happen.
- Include a Narrative or introduction at the start.
- Include the SPSS output in your submission.
- Descriptive Statistics of "fat content" (i.e. The Fat Variable)
- Descriptive Statistics of "fat content" for each Process
- Descriptive Statistics of "fat content" for each Factory
- Compare outcomes for each group, commenting upon
  - mainly : Mean, Median,
  - also : Max, Min, Range, Standard Deviation

### Part A: Frequency Table of Animal Types (3 Marks)

Data Set : Market Research

*(Remark: The Market Research Data Set got mixed up with the Animals Data Sets. I am going to leave it be - using Market Research, which contains information on Animals - So we are market researching on Geese and Hamsters.)*

- (i) No Narrative or Introduction is required here at all.
- (ii) Frequency Table of Animal Types
- (iii) Try to add as much information into the table as possible, using percentages and cumulative percentages etc

## Part B: Frequency Tables and Cross Tabulations

Data Sets : MarketResearchUpdated

(if you were doing this on the old version, just continue.

Make sure you get something similar to below)

Create the following Frequency Tables

- Frequency Table for Sex.
- Frequency Table for Each Age Group.
- Frequency Table for Each Brand Preference.
- Accompany each table with a Pie-Chart, or Bar Chart.

For each combination of pairs of categorical Variables:

- Create a Crosstabulation with Count and Row Percentages only (**Type 1**).
- Create a Crosstabulation with Count and Column Percentage only (**Type 2**).
- For the sake of consistency:
  - Always Pick the "Sex" variable for "Rows"
  - Always pick the "Brand Preference" Variable for "Columns"
- You should have 6 cross-tabulations in total.  
(3 combinations  $\times$  2 Types)

## Part C: Bar Chart (aka Bar Plot)

- (i) Create a Bar Chart of Animal Ages

## SPSS Homework 5 Task 2 : Descriptive Statistics

- Explain what case-wise differences are.
- Open your data set in the **BeforeAfter**.
- Compute the case-wise differences (After-Before)
- Provide the Descriptive Statistics for Case-Wise Difference.
- State the significance value and confidence intervals.