**DATA MANIPULATION IN EXCEL**

Given the “Publications Data” spreadsheet, use Excel’s Pivot function to produce the following reports:

1. A list of all the unique main authors sorted alphabetically within the full-time (F-T) and part-time (P-T) categories with a count of articles by each author.

2. A list of the unique journal titles

3. In one table: list the journals by rank with columns for journal, journal rank, journal title and main author together with a count of the publications in each journal by each author. Filter out the journals that have no ranking (marked N/A or not applicable).

4. Draw a line graph of total publications by year

5. Produce a table of total publications by year by F-T and P-T faculty categories (years should be listed on the horizontal axis.) Depict the same data in a vertical bar graph.

IMPORTANT: The results of this exercise should be contained in one spreadsheet consisting of a number of worksheets, each worksheet should have an appropriate title and date at the top and each worksheet tab should be appropriately labeled. Include only 1 or 2 pages of each report in your submission.

1. As Unique main authors are requested we create the pivot table with main author name and categorised as per FT & PT respectively.
2. Unique journal titles is a straight forward to work out with the list of journal title names with the number of count they hold
3. Here I have listed all the journals by rank excluding NA, None, blank and unclassified ones as requested.   
   Also listed their respective authors titles and details according to if they were published or not.
4. The line graph is straight forward showcase the years and their respective number of published articles for that year.
5. In the bar graph you can see the FT & PT Journal Publications over the years represented in the bar graphs.