

**UNIVERSITY OF THE FREE STATE
DEPARTMENT OF MATHEMATICAL STATISTICS AND
ACTUARIAL SCIENCE
STSM 2634**

Assignment 4

Full marks: 25

Date: 29 April, 2025

Deadline: 05 May, 2025

**FOLLOW THESE INSTRUCTIONS METICULOUSLY, OTHERWISE
MARKS WILL BE SUBTRACTED:**

- **You must submit the word file generated by R-markdown (.rmd). Other types of files will not be accepted..**
- Save the answer file as **'Assignment4'** as the file name and **'student number'** as the author name. Your **programming (code), and the output must be included in your answers.**
- To get full marks, your code should be executable and producing the correct output. PARTIAL GRADING is possible depending on the partial correctness of the code. **If the code fails to run, you will get 0 mark.**
- You are allowed to use the class notes, or any other help from the internet.
- No submission will be accepted after the deadline.

Q1.

Dataset: Obtain the Asn4_data.csv file from Blackboard. This dataset consists of 50 rows and 500 columns, where each row represents a data string of 500 variables (as indicated by the columns). Additionally, a dummy variable classifies each data string into one of five types. The id variable serves as the index for each row.

Objective: Create a single plot featuring multiple line charts, one for each of the 50 rows. Use the types of the data strings, as specified by the dummy variable, to color the line charts.

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