**SQL Project**

DAB 203 (All Sections)

**S2023**

We will use orders and customers dataset in SQL database to complete this lab. Make sure to write comments in the start of each query. Draw graphs in excel wherever necessary. Write description of each graph in your own words in a separate word document.

1. Explain what the RFM analysis stands for and what does it do (100 words).
2. Run a recency query (Recency is the amount of time since the most recent purchase.)
   1. Add a cumulative and a percentage column to the chart
   2. Create a table that shows the recency breakpoints at 20%, 40%, 60%, and 80%.
   3. Create a line chart showing the recency vs percentage. Add the breakpoints as dots on the table
   4. Explain what does 60% breakpoint mean
3. Run a frequency query (Frequency is the rate at which customers make purchases, calculated as the length of time since the earliest purchase divided by the number of purchases (sometimes it is calculated as the total number of purchases over all time).
   1. Add a cumulative and a percentage column to the chart
   2. Create a table that shows the frequency breakpoints at 20%, 40%, 60%, and 80%.
   3. Create a line chart showing the frequency vs percentage. Add the breakpoints as dots on the table
   4. Explain what does 60% breakpoint mean
4. Run a Monetary query (Monetary is the total amount of money spent by households.)
   1. Add a cumulative and a percentage column to the chart
   2. Create a table that shows the monetary breakpoints at 20%, 40%, 60%, and 80%.
   3. Create a line chart showing the monetary vs percentage. Add the breakpoints as dots on the table
   4. Explain what does 60% breakpoint mean
5. Give an example of a real problem of RFM. How it can be used and what kind of results will it give that would be valuable to a data scientist/analyst (150-200 words)