**UNIX commands**

Since I had a MAC, it was relatively simple to access UNIX since the terminal has UNIX integrated into it. While the syntax was a little difficult to understand at times, I was able to execute some basic commands. However, this process was a lot harder for my partner with a windows laptop. Downloading the terminal went relatively smoothly but that was when the problems started. The terminal was not able to access computer files properly and we were not able to find the solution on the internet. This problem was only solved by using a series of specific commands that was provided by the instructor. After the file access problem was addressed, both my partner and I were able to perform some simple commands and got the same output. One of our partners was also having file download issues for the lab period so he was not able to download or use the terminal properly. We tried to address his problem by uninstalling his antiviral software but it still did not make a difference. The problem was still unresolved at the end of lab.

**Coding diagram**

**Text, letter

Description automatically generated**

**Debugging of the r script**

1. Initially, we had a problem deleting a row when the length came out to 1 because we could not link the two actions together. We fixed this by making a vector for the Paper ID row and calling it LEEs. This vector was used for defining how many times the for loop ran and also correlated to the row that the unique function was currently calculating.
2. Another problem that we came across was that when a row was deleted, the row numbers were changed when deleting from top to bottom. To go around this problem, we deleted rows from bottom to top to keep the row numbers from changing.
3. We originally forgot to use the unlist function and when the script was run, the entire data frame was deleted. We used the print function for the paper ID counting portion of the loop and found out that not revectorizing the led to all rows being labeled as having 1 unique value. When we used the unlist function, the unique function worked again and we got different values for each row.
4. When using %in% in the for loop, the for loop did not work properly. When we removed the % symbols, the loop started to function again.

**Debugging of user input script**

At first, we had no idea how to use a command to take user input. However, upon searching on google, we found the readline function and were able to save the user input under “filename”. This was then used to upload a data frame. We were first trying to have the user also input what they named the file but realized that we could just save any dataframe under a name that we chose. Thus, we assigned the name “filename” to any dataframe that is uploaded and just used “filename” wherever we needed to index the dataframe. We also tried to use double backslash (//) when assigning a file path while testing the userinput portion and found that the script did not work. However, when we tried to just paste the file path with just a single slash instead, the script worked normally. This was added as a comment to inform the user to not use the double backslash when assigning file path. After we determined this solution, everything else worked as intended.