

# UNIX PROGRAMMING - DV1457

## LAB 1

### Team Members

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### Commands used

<b>grep</b>	This was used to search the log file based on a specified pattern. The <b>-q</b> flag was used so that grep will not display the output on the standard output
<b>nslookup</b>	This is used to query the internet domain name servers to get the domain name based on a submitted IP
<b>awk</b>	This was used basically to extract information from the piped output and formatted in a presentable manner
<b>rev</b>	This command was used to reverse the string to enable me select the domain name from the nslookup result
<b>cut</b>	The cut command was used to break up a string into blocks based on a pattern and then select the needed elements. It is primarily used to fetch portions of the string. The <b>-d</b> flag was used to set the delimiter for splitting the string
<b>sort</b>	This command was used to sort the output from the queries. The <b>-r</b> flag is used to perform the sort in a reverse order
<b>uniq</b>	This command was used to read the output and extract content such that duplicates are not displayed. It was used with the flag <b>-c</b> to get the count of duplicates.
<b>head</b>	This command was used to limit the number of display lines presented
<b>cat</b>	This command was used to print the content of the output on the standard output
<b>datamash</b>	This command is used to group the data based on a specified column while summing the other column

### Challenges:

Working with arrays was quite a challenge as it was technically limited and hence displayed operational challenges. Also, loops are very slow in the bash environment. To perform the optional task, I tried to call a custom function in the **awk** command but proved impossible and hence I decided to loop through the piped results and apply the custom function in there

### Limitations

When the **-e** flag is used, the script takes longer to run. This is because of the use of loops. In another attempt, I will like to find a way of eliminating the loop used in optional task.