

# DV1457 H21 lp1 Programming in UNIX-miljö

## Project Report

**Group :** Assignment 1 Group 7

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## Introduction

The goal of this report is to describe the issues we encountered when writing a script that reads a log file and extracts relevant information summaries from it, which is a frequent activity in system management. In this report we clearly explain about what challenges we have been faced in our code and how we solved it.

## Solving the Encountered Problems

- Limiting the data up to the given parameters by the user such as in the optional parameter ex: -n 10 was limited with the help of awk command by passing the “NR <= 10” parameter which limits the number of records prompted by the user.
- For every mandatory options need to print an unique IP address. Here we have used “uniq” command in Linux which prints the non-repeated Ip addresses in the log file.
- For Grouping the unique Ip addresses according to their error codes we have used several combinations of Linux commands such as uniq -c, sort nrk 1,1, and used the for loop to print the IP addresses which are been sorted by occurrence inside each of the groups. These status code groups were further sorted by which status code group appears most frequently.
- In order to print whether the given Ip address is present in the black listing text file, faced an issue of appending the column such that it prints the black listing as an output w.r.t Ip addresses. This was solved by the paste command which merges the output of the two files into a single file.
- Argument handling was performed with help of the switch case, such that it allows the accurate parameters given by the user.
- To perform the command function in two different ways we have used the if-else and nested if-else condition. So that we can ensure that the command is executed in bi-directional way.
- When “-“is given as a filename or no filename is given then a “read” command is used in linux to read from a standard input and appended the argument values in an array thus enabling the script to be executed in a smooth way.