1. List the top 5 unique IP addresses accessing your Apache webserver.

The default path for Apache web server log is:

/var/log/http/access\_log [For RedHat based systems]

/var/log/apache2/access.log [For Debian based systems]

awk '{ print $1}' access.log.2021-05-28 | sort | uniq -c | sort -nr | head -n 5

awk – prints the access.log.2021-05-28 file.

sort – helps to sort lines in a access.log.2021-05-28 file, the -n option compares lines based on the numerical value of strings and -r option reverses the outcome of the comparisons.

uniq – helps to report repeated lines and the -c option helps to prefix lines according to the number of occurrences.

2. List the past 10-days 4XX results of Apache's access log file, sorted by date with their IP address.

#!/bin/bash

path=$1

# Using only awk, sort, uniq and tail.

echo "Past 10-days 4XX results of Apache's access log file, sorted by date with their IP address : "

echo "---------------------------------------------------------------------------------------------"

echo " Date IP Status Code"

echo "---------------------------------------------------------------------------------------------"

output=$(awk -vDate=`date -d'now-10 days' +[%d/%b/%Y:%H:%M:%S` ' { if ($4 > Date && $9~/^[4]/) print $4 " " $1 " " $9}' $path | sort -nr)

echo "$output"

3. Write a utility script to view the top 10 disk-space users of a given path across multiple hosts.

#!/bin/bash

path=”/tmp/disk123”

for server in `more servers.txt`

do

output=`ssh $server "sudo du -h $path | sort -nr | head -n10"`

echo "---------------------------------------------------------------------------"

echo "HostName"

echo "---------------------------------------------------------------------------"

echo "$server"

echo ""

echo "---------------------------------------------------------------------------"

echo "Paths found"

echo "---------------------------------------------------------------------------"

echo "$output"

echo ""

echo ""

echo ""

done

Note we can schedule the script using crontab also. We should run this script in a centralized server only.

We should make give execution permission for these scripts.