**TERMINAL COMMANDS ASSIGNMENT-1**

**Problem statement: 1-** Move files from one folder to the respective folder.

**Solution**:$ touch abc.txt def.txt

$ nano demo.sh

for file in `ls \*.txt`

do

folder=`echo $file | awk -F .'{print $1}'`

mkdir $folder

mv $file $folder

echo "File moved to"$folder

done

**Problem statement: 2**- Append current date to all log files name which has extension .log.1 from a folder.

**Solution**: $ touch abc.log.1 def.log.1

$ nano demo.sh

for file in `ls \*.log.1`

do

I1=`echo $file | awk -F . '{print $1}'`

I2=`echo $file | awk -F . '{print $2}'`

I3=`echo $file | awk -F . '{print $3}'`

today=`date +%d%m%y`

I4=`echo "$I1.$I2.$today.$I3"`

mv $file $I4

done

**Problem statement: 3**- Archive the files from var/log folder which have modified 7 days ago and move it to your backup folder.

**Solution**: $ destination="C:/Users/Admin/Git\_demo/linux-content/bkup"

for file in `find /var/log -type f -mtime +7`

do

cp $file $destination

done

**Problem statement: 4**- Check if folder exists or not. If it’s not present, create it.

**Solution:** $ nano -T 3 demo.sh

if [-d Tom]

then

echo "Folder alredy exists"

else

mkdir Tom

echo "folder created"

fi

**Problem statement: 5**- Execute command “hello” and “ls” and check its execution status and print whether command executed successful or not.

**Solution**$ Hello

bash: Hello: command not found

$ $?

bash: 127: command not found

$ ls

README.md data.csv linux\_chit\_sheet.pdf

access.log demo.sh.save linux\_problem\_sheet.pdf

$ $?

bash: 0: command not found

**Problem statement: 6**- Set environment usersecret=”dH34xJaa23” if its already not set.

**Solution**:

$ env | grep usersecret

$ export usersecret=dh34xJaa23

$ echo $usersecret

dh34xJaa23

$ env | grep usersecret

usersecret=dh34xJaa23

**Problem statement: 7-** Find a word “systemd” from all log files in the folder/var/log and print number of occurrence more than 0 against each file.

**Solution:** $ grep -wc "systemd" access.log

**Problem statement: 8**- Create process list table displays process id, parent process id,command name, % of memory consumption, % of cpu utilization.

**Solution:** $ ps -f

Uid pid ppid tty stime command

**Problem statement: 9-** Print last 4 frequently access urls count in sorted order from /var/log/httpd/access.log.

**Solution:** $ cat access.log | awk '{print $11}' | sort | uniq -c |sort -nr | tail -4

**Problem statement: 10-** Print list of last 4 frequently access unique urls at particular hours from /var/log/httpd/access.log.

**Solution**: $ cat access.log | awk '{print $4"["$11}' | sort | uniq -c | tail -4

**Problem solution: 11**- Print list of web response code count in the unique sorted order at specific hours.

**Solution:** $ cat access.log | awk '{print $9}' | sort | uniq -c | head -4

**Problem solution: 12**- Print list of last 10 unique sorted client IP from /var/log/httpd/access.log

**Solution:**

$ cat access.log | awk '{print $1}' | sort | uniq -c | sort –nr | tail -4

**Problem Statement:13-** Data analysis / manipulation (awk)

**Solution:**

**i)**. Print EmployeeName and TotalPay who has basePay greater than 10000

-$ cat data.csv | awk '{if($4>10000) print $2 " " $7}'

**ii)**.What is the aggregate TotalPay of employees whose jobtitle is ‘CAPTAIN’

-$ cat data.csv| grep CAPTAIN | awk '{sum+= $4}END{ print sum}'

468427

**iii)**. Print JobTitle and overtimePay who has Overtimepay is between 7000 and 10000.

- $ cat data.csv | awk '{ if($5>7000 && $5<10000) print $3" "$5}'

DEPUTYCHIEF 9737

ASSTDEPUTY 8601

**iv)**. Print average BasePay.

-$ cat data.csv | awk '{sum+=$4} END {print sum/NR}'

157972

**Problem statement: 14** – Find the difference between original file and the updated file. Apply changes to the original files.

**Solution:** $ mkdir original updated

$ touch original\_file.sh updated-file.sh

$ mv original\_file.sh original

$ mv updated-file.sh updated

$ nano demo1.sh

diff=`diff -iEZ ~/C:/Users/Admin/Git\_demo/linux-content/original/original\_file.sh ~/C:/Users/Admin/Git\_demo/linux-content/updated/updated-file.sh`

echo ${#diff}

if [${#diff} -gt 0]

then

echo " Difference in Files"

cp ~/C:/Users/Admin/Git\_demo/linux-content/original/original\_file.sh ~/C:/Users/Admin/Git\_demo/linux-content/updated/updated-file.sh

echo "Changes applied to updatedfolder"

else

echo "No difference"

fi

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