ASSIGNMENT 3

Operarting System

1. Create a script to fetch the list of all the users whose UID is greater than 500.

```
[root@localhost ~]# vim first.sh
#!/bin/bash
while read line
do
uid=$(echo "$line"| cut -d':' -f3)
name=$(echo "$line"| cut -d':' -f1)
if [ "$uid" -gt 500 ]
 then
      echo "$name"
fi
done < /etc/passwd
[root@localhost ~]# chmod +x first.sh
[root@localhost ~]# ./first.sh
```

1. Creates a script that creates a user named john with password - Password@123

```
[root@localhost ~]# vim second.sh
#!/bin/bash
useradd john
echo Password@123 | passwd --stdin john
[root@localhost ~]# chmod +x second.sh
[root@localhost ~]# ./second.sh
[root@centos7 edac]# cat /etc/passwd | grep john
john:x:1012:1012::/home/john:/bin/bash
```

2. Create a script to fetch the list of all the users whose UID is less than 500. Output should have following format : username ---->>>> shell

```
[root@localhost ~]# vim third.sh
#!/bin/bash
while read line
do
uid=$(echo "$line" | cut -d':' -f3)
name=$(echo "$line" | cut -d':' -f1)
shell=$(echo "$line" | cut -d':' -f7)
if [ $uid -lt 500 ]
then
echo "$name ---->>>> $shell"
fi
done < /etc/passwd
[root@localhost ~]# chmod +x third.sh
[root@localhost ~]# ./third.sh
```

3. Create a script that asks for a process name from the user and displays its PID.

```
[root@localhost ~]# vim fourth.sh
```

```
#!/bin/bash
 read -p "Enter a valid process name" pname
echo "PID of the process is as follows:"
pgrep "$pname"
[root@localhost ~]# chmod +x fourth.sh
[root@localhost ~]# ./fourth.sh
```

4. Create a script that asks for a process name from the user and displays its PPID.

```
[root@localhost ~]# vim fifth.sh
#!/bin/bash
read -p "ENTER A VALID PROCESS NAME :" process
echo "PPID of the process is as follows"
ps -lf | grep "$process" | awk '{print $5}'
[root@localhost ~]# chmod +x fifth.sh
[root@localhost ~]# ./fifth.sh
```

5. Create a script that asks for a file name and displays its permissions.

```
[root@localhost ~]# vim sixth.sh
#!/bin/bash
read -p "ENTER A VALID FILE NAME :" file
echo "Permissions for the given file are as follows"
stat -c "%a" $file
[root@localhost ~]# chmod +x sixth.sh
[root@localhost ~]# ./sixth.sh
```

6. Create a script that asks for a directory name and displays its size in MB

```
[root@localhost ~]# vim seventh.sh
#!/bin/bash
read -p "ENTER A DIRECTORY NAME :" dir
size=$(ls -l --block-size=M | grep "$dir" | awk '{print $5}')
echo "size of the directory is as follows"
echo "$size"
[root@localhost ~]# chmod +x seventh.sh
[root@localhost ~]# ./seventh.sh
```

7. Create a script that asks for a absolute path and tells you if that path is of a file or a directory. Output should be as follows: Path ---> File or Directory (Any One)

```
[root@localhost ~]# vim eighth.sh
#!/bin/bash
read -p "ENTER A FILE OR DIRECTORY PATH" path
if [ -d "$path" ]
      then
            echo "$path -----> Directory"
      else
            echo "$path -----> File"
fi
[root@localhost ~]# chmod +x eighth.sh
[root@localhost ~]# ./eighth.sh
```

8. Create a script to fetch the list of all the users whose SHELL is locked.

```
[root@localhost ~]# vim ninth.sh
cat /etc/passwd | cut -d':' -f1 > shellfile
while read line
do
output=$(passwd -S "$line" | grep "locked")
if [ -n "$output" ]
        then
                echo "User: $line is Locked"
        else
                echo "User: $line has password set"
fi
done < shellfile
[root@localhost ~]# chmod +x ninth.sh
[root@localhost ~]# ./ninth.sh
```