DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Operating Systems Practice (**CS305**)

Basic Linux Commands

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Contents

1 Shell File

```bash
#!/bin/bash

# Running whoami
echo "Result of 'whoami' -"
whoami
echo $'\n'

# Running user
echo "Users on this PC -"
users
echo $'\n'

# Running who
echo "Result of 'who'"
who
echo $'\n'

# Running w
# It shows active user(s) with their stats
echo "Result of 'w' -"
w
echo $'\n'

# Creating a directory to do all things
echo "Creating a directory 'assg' and moving to it"
mkdir assg
cd assg

# Running pwd
echo "Result of 'pwd' -"
pwd
echo $'\n'

# Creating some files
i=0
while [ $i -lt 5 ]
do
    file="file"
    file="$file$i.txt"
    touch $file
    echo "Created $file"
    i=`expr $i + 1`
done
echo $'\n'
```

```bash
# Now listing files using the ls command
echo "Result of ls -"
ls
echo $'\n'

# Listing all files with all details
# like permission, number of memory blocks etc.
echo "Result of 'ls -l' -"
ls -l
echo $'\n'

# Using ls with meta characters -
echo "Result of ls fil*.t*"
ls fil*.t*

echo "Result of ls fi?4.t*"
ls fi?e4.t*

echo $'\n'

# Displaying all files including the hidden ones
echo "Result of 'ls -a' -"
ls -a
echo $'\n'

# Displaying files in the subdirectory
echo "Result of 'ls -R' is -"
ls -R ../assg
echo $'\n'

# Writing something in files
echo "Written in file 0" > file0.txt
echo "Written in file 1" > file1.txt
echo "Written in file 2" > file2.txt
echo "Written in file 3" > file3.txt
echo "Written in file 4" > file4.txt

# Using cat command to display contents of file
i=0
while [ $i -lt 5 ]
do
    file="file"
    file="$file$i.txt"
    echo "Contents of $file - "
    cat $file
```

```
    i=`expr $i + 1`
done
echo $'\n'
# Doing same thing, but with -b so that it shows the line number
i=0
while [ $i -lt 5 ]
do
    file="file"
    file="$file$i.txt"
    echo "Contents of $file - "
    cat -b $file
    i=`expr $i + 1`
done
echo $'\n'

# Finding count of number of lines, words, characters in ecch file
i=0
while [ $i -lt 5 ]
do
    file="file"
    file="$file$i.txt"
    echo "Details of $file - "
    wc $file
    i=`expr $i + 1`
done
echo $'\n'

# Copying file0 to the same folder with name file5
cp file0.txt file5.txt
echo "Made a copy of file0 with name file5"
echo $'\n'

# Renaming file5 to file_new
mv file5.txt file_new.txt
echo "file5 is renamed to file_new"
echo $'\n'

# Removing file_new
rm file_new.txt
echo "file_new have been removed"
echo '\n'

# Going to parent directory
cd ..

# Removing this assg directory
```

```
rm -rf assg
echo "'assg' have been deleted"
echo '\n'
```

2 Output

output.txt

```
Result of 'whoami' -
paras


Users on this PC -
paras


Result of 'who'
paras    :0           2022-07-24 18:39 :0


Result of 'w' -
 22:03:20 up 14 days,  3:23,  1 user,  load average: 0.63, 0.62, 0.54
USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
paras    :0       :0               24Jul22 ?xdm?   9:03m  0.03s /usr/lib/gdm3/


Creating a directory 'assg' and moving to it
Result of 'pwd' -
/mnt/32b6b06a-25ad-4911-90a2-9c68b656b0e3/IIITK/5th Sem/OS P/Assignments/Assignment 1/shell_script


Created file0.txt
Created file1.txt
Created file2.txt
Created file3.txt
Created file4.txt


Result of ls -
file0.txt  file1.txt  file2.txt  file3.txt  file4.txt


Result of 'ls -l' -
total 0
-rw-rw-r-- 1 paras paras 0 Aug  7 22:03 file0.txt
-rw-rw-r-- 1 paras paras 0 Aug  7 22:03 file1.txt
-rw-rw-r-- 1 paras paras 0 Aug  7 22:03 file2.txt
-rw-rw-r-- 1 paras paras 0 Aug  7 22:03 file3.txt
-rw-rw-r-- 1 paras paras 0 Aug  7 22:03 file4.txt


Result of ls filfile0.txt  file1.txt  file2.txt  file3.txt  file4.txt
Result of ls fi?4.tfile4.txt
```

```
Result of 'ls -a' -
.  ..  file0.txt  file1.txt  file2.txt       file3.txt  file4.txt


Result of 'ls -R' is -
../assg:
file0.txt  file1.txt  file2.txt  file3.txt  file4.txt


Contents of file0.txt -
Written in file 0
Contents of file1.txt -
Written in file 1
Contents of file2.txt -
Written in file 2
Contents of file3.txt -
Written in file 3
Contents of file4.txt -
Written in file 4


Contents of file0.txt -
     1         Written in file 0
Contents of file1.txt -
     1         Written in file 1
Contents of file2.txt -
     1         Written in file 2
Contents of file3.txt -
     1         Written in file 3
Contents of file4.txt -
     1         Written in file 4


Details of file0.txt -
 1  4 18 file0.txt
Details of file1.txt -
 1  4 18 file1.txt
Details of file2.txt -
 1  4 18 file2.txt
Details of file3.txt -
 1  4 18 file3.txt
Details of file4.txt -
 1  4 18 file4.txt


Made a copy of file0 with name file5


file5 is renamed to file_new


file_new have been removed
```

5

```
'assg' have been deleted
```