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BSCS-5th Semester

OS Lab Tasks

LAB # 5

Submitted to:

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Question: Run all switches with uname command.

-r, -m, -p, -l, -o, -a, -v, -n

And define in one line about these commands according to your understanding.

```
student@student-virtual-machine:~$ uname
Linux
student@student-virtual-machine:~$ uname -r
6.8.0-49-generic
student@student-virtual-machine:~$ uname -n
student-virtual-machine
student@student-virtual-machine:~$ uname -v
#49~22.04.1-Ubuntu SMP PREEMPT_DYNAMIC Wed Nov  6 17:42:15 UTC 2
student@student-virtual-machine:~$ uname -m
x86_64
student@student-virtual-machine:~$ uname -p
x86_64
student@student-virtual-machine:~$ uname -l
x86_64
student@student-virtual-machine:~$ uname -o
GNU/Linux
student@student-virtual-machine:~$ uname -a
Linux student-virtual-machine 6.8.0-49-generic #49~22.04.1-Ubuntu SMP PREEMPT_DYNAMIC Wed Nov  6 17:42:15 UTC 2 x86_64 x86_64 x86_64 GNU/Linux
```

uname: Print Operating System Name like Linux or Unix

- n** print the network node hostname
- r** print the kernel release
- v** print the kernel version
- m** print the machine hardware name
- p** print the processor type or "unknown"
- i** print the hardware platform or "unknown"
- o** print the operating system
- a** print complete information of operating system

Question: Create new file named labSort and insert following text

End of file

6 apples

file to be sorted

apple on the table

23 years old

File To be Sorted

78 apples

Class

3 bananas

99 sort files

Use other option with sort command and observe output.

```
student@student-virtual-machine:~$ pico labSort
student@student-virtual-machine:~$ cat labSort
End of file
6 apples
file to be sorted
apple on the table
23 years old
File to be sorted
78 apples
Class
3 bananas
99 sort files
```

```
student@student-virtual-machine:~$ sort -r labSort
File to be sorted
file to be sorted
End of file
Class
apple on the table
99 sort files
78 apples
6 apples
3 bananas
23 years old
```

```
student@student-virtual-machine:~$ sort -b labSort

23 years old
3 bananas
6 apples
78 apples
99 sort files
apple on the table
Class
End of file
file to be sorted
File to be sorted
```

```
student@student-virtual-machine:~$ sort -f labSort

23 years old
3 bananas
6 apples
78 apples
99 sort files
apple on the table
Class
End of file
file to be sorted
File to be sorted
```

```
student@student-virtual-machine:~$ sort -k labSort
sort: invalid number at field start: invalid count at start of 'labSort'
```

```
student@student-virtual-machine:~$ sort -k 1 labSort
23 years old
3 bananas
6 apples
78 apples
99 sort files
apple on the table
Class
End of file
file to be sorted
File to be sorted
student@student-virtual-machine:~$ sort -n labSort
apple on the table
Class
End of file
file to be sorted
File to be sorted
3 bananas
6 apples
23 years old
78 apples
99 sort files
```

Question: Create another file with name **SortLabNumeric** two columns in it.

- 12 Online classes
- 6 Network security
- 14 Hacking stories
- 7 Tom and jerry
- 13 People of Pakistan

One column contains numeric values while other contain text. Now perform sorting on both columns. Also perform **-n** switch on both columns again and observe the pattern.

```
student@student-virtual-machine:~$ pico SortLabNumeric
student@student-virtual-machine:~$ sort -n SortLabNumeric

6 Network security
7 Tom and jerry
12 Online classes
13 People of Pakistan
14 Hacking stories
```

Question: Explain the Linux 'cd' command options along with the description?

cd Used to Change your current directory to another directory.

cd / Move to root directory

cd .. Move to one directory backward

cd dir-name To change to any sub-directory under the current directory.