

OS Lab 5 Tasks

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Task 1:

```
student@student-virtual-machine:~$ uname -r
6.8.0-40-generic
student@student-virtual-machine:~$ uname -m
x86_64
student@student-virtual-machine:~$ uname -p
x86_64
student@student-virtual-machine:~$ uname -l
uname: invalid option -- 'l'
Try 'uname --help' for more information.
student@student-virtual-machine:~$ uname -I
uname: invalid option -- 'I'
Try 'uname --help' for more information.
student@student-virtual-machine:~$ uname -i
x86_64
student@student-virtual-machine:~$ uname -o
GNU/Linux
student@student-virtual-machine:~$ uname -a
Linux student-virtual-machine 6.8.0-40-generic #40-22.04.3-Ubuntu SMP PREEMPT_DYNAMIC Tue Jul 30 17:30:19 UTC 2 x86_64 x86_64 x86_64 GNU/Linux
student@student-virtual-machine:~$ uname -v
#40-22.04.3-Ubuntu SMP PREEMPT_DYNAMIC Tue Jul 30 17:30:19 UTC 2
student@student-virtual-machine:~$ uname -n
student-virtual-machine
```

uname -r: This command shows kernel version

uname -m: This command shows the machine architecture

uname -p: This command shows the processor type

uname -i: This command shows the hardware architecture.

uname -o: This command shows the operating system being used

uname -a: This command shows all the information related to the system including the operating system, machine name, kernel version, date, time, machine architecture, processor type and hardware architecture.

uname -n: This command shows the name of the machine.

Task 2:

```
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
```

```

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 -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
student@student-virtual-machine:~$ █

```

Task 3:

```

student@student-virtual-machine:~$ cat>SortLabNumeric
12 Online classes
6 Network security
14 Hacking stories
7 Tom and Jerry
13 People of Pakistan
student@student-virtual-machine:~$ sort -k 1 SortLabNumeric
12 Online classes
13 People of Pakistan
14 Hacking stories
6 Network security
7 Tom and Jerry
student@student-virtual-machine:~$ sort -k 2 SortLabNumeric
14 Hacking stories
6 Network security
12 Online classes
13 People of Pakistan
7 Tom and Jerry
student@student-virtual-machine:~$ █

```

```
student@student-virtual-machine:~$ sort -n SortLabNumeric
6 Network security
7 Tom and Jerry
12 Online classes
13 People of Pakistan
14 Hacking stories
student@student-virtual-machine:~$
```

Task 4:

Cd:

This command allows the user to change directories. When only cd is typed, it moves the location to the root directory.

Cd *directory name*:

This command allows the user to change the directory location to the specified directory. For example, cd physics would allow the user to change the directory location to the directory named physics.

Cd ..:

Cd .. allows the user to move one directory back. For example, if we are in the directory \$~/books/physics and if we type cd .. it will move us from the physics directory to the books directory.