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Section : BS SE (5 – 2)

Course : Operating System

Lab 6 :

Tasks :

Task 1 :

```
riphah@kali: ~/Desktop/lab06/os
Applications
File  Actions  Edit  View  Help

  ┌──(riphah㉿kali)-[~/Desktop/lab06]
  └─$ gcc Code.c -o run

  ┌──(riphah㉿kali)-[~/Desktop/lab06]
  └─$ ./run

  ┌──(riphah㉿kali)-[~/Desktop/lab06]
  └─$ ls
Code.c  first  first.txt  os  run  Saad

  ┌──(riphah㉿kali)-[~/Desktop/lab06]
  └─$ cd os

  ┌──(riphah㉿kali)-[~/Desktop/lab06/os]
  └─$ ls
lab7

  ┌──(riphah㉿kali)-[~/Desktop/lab06/os]
  └─$ ▉
```

Task 2 :

```
File  Actions  Edit  View  Help

  ┌──(riphah㉿kali)-[~/Desktop/lab06/os]
  └─$ echo -e "\033[1m Hello World"
Hello World
  ┌──(riphah㉿kali)-[~/Desktop/lab06/os]
  └─$ echo -e "\033[5m Hello World"
Hello World
  ┌──(riphah㉿kali)-[~/Desktop/lab06/os]
  └─$ echo -e "\033[0m Hello World"
Hello World
  ┌──(riphah㉿kali)-[~/Desktop/lab06/os]
  └─$ echo -e "\033[31m Hello World"
Hello World
  ┌──(riphah㉿kali)-[~/Desktop/lab06/os]
  └─$ echo -e "\033[32m Hello World"
Hello World
  ┌──(riphah㉿kali)-[~/Desktop/lab06/os]
  └─$ echo -e "\033[33m Hello World"
Hello World
  ┌──(riphah㉿kali)-[~/Desktop/lab06/os]
  └─$ echo -e "\033[34m Hello World"
Hello World

  ┌──(riphah㉿kali)-[~/Desktop/lab06/os]
  └─$ ▉
```

Task 3 :

```
┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ ls -l /lib/modules
total 4
drwxr-xr-x 3 root root 4096 Jul 22 12:49 6.12.25-amd64

┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ uname -r
6.12.25-amd64

┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$
```

```
┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ ls -l /lib/modules > modules-list.txt

┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ uname -r > kernal-release.txt

┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ cat modules-list.txt
total 4
drwxr-xr-x 3 root root 4096 Jul 22 12:49 6.12.25-amd64

┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ cat kernal-release.txt
6.12.25-amd64

┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$
```

Task 4 :

```
File  Actions  Edit  View  Help
┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ uname
Linux

┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ uname -n
kali

┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ uname -r
6.12.25-amd64

┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ uname -v
#1 SMP PREEMPT_DYNAMIC Kali 6.12.25-1kali1 (2025-04-30)

┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ uname -m
x86_64

┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ uname -p
unknown

┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ uname -i
unknown

┌──(riphah㊀kali)-[~/Desktop/lab06]
└─$ uname -o
GNU/Linux
```

Task 5 :

```
File  Actions  Edit  View  Help

┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$ cat > two_cols.txt << 'EOF'
heredoc> 1

┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$ cat > two_cols.txt <<'EOF'
heredoc> 12 Operation payback
heredoc> 6 Network security
heredoc> 14 Hacking is fun
heredoc> 7 Tiger lives in jungle
heredoc> 13 Pakistan will win today
heredoc> EOF

┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$ sort -n -k1,1 two_cols.txt
6 Network security
7 Tiger lives in jungle
12 Operation payback
13 Pakistan will win today
14 Hacking is fun

┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$ sort -k1,1n -k2,2 two_cols.txt
6 Network security
7 Tiger lives in jungle
12 Operation payback
13 Pakistan will win today
14 Hacking is fun

┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$
```

Task 6 :

```
┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$ awk '{print $1, $2}' two_cols.txt
12 Operation
6 Network
14 Hacking
7 Tiger
13 Pakistan

┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$
```

Task 7 :

```
File  Actions  Edit  View  Help

┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$ cat filename > new
cat: filename: No such file or directory

┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$ ls
Code.c  first  first.txt  kernal-release.txt  modules-list.txt  new  os  run  Saad  two_cols.txt

┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$ cat first > new

┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$ date > new

┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$ cat first >> new

┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$ date >> new

┌──(riphah㉿kali)-[~/Desktop/lab06]
└─$ cat<<new
heredoc>
```