```
//to print hello//
code in gedit->echo "hello"
commands in terminal->
student@Lab-301-5:~$ gedit hello.sh
student@Lab-301-5:~$ sh hello.sh
hello
student@Lab-301-5:~$./hello.sh
bash: ./hello.sh: Permission denied
student@Lab-301-5:~$ chmod 777 hello.sh
student@Lab-301-5:~\$./hello.sh
hello
//to add two numbers//
code in gedit->#!/bin/bash
echo "Enter first number"
read a
echo "Enter second number"
read b
c=\ensuremath{`expr}\$a + \$b`
echo $c
command in terminal->
student@Lab-301-5:~$ gedit add.sh
student@Lab-301-5:~$ sh add.sh
Enter first number
5
Enter second number
3
8
//sort top 10 processes in descending order//
student@Lab-301-5:~$ ps -e|sort -r|head
 PID TTY
               TIME CMD
 994?
           00:00:00 dnsmasq
 946?
           00:00:00 dhclient
 942?
           00:00:00 colord
 927?
           00:00:00 lightdm
  9?
          00:00:00 migration/0
 89?
          00:00:00 charger manager
 887?
           00:00:00 kworker/1:1H
 882?
           00:00:00 irgbalance
 88?
          00:00:00 deferwq
//sorting top 10 processes in descending order according to pid//
student@Lab-301-5:~$ ps -ef --sort=-pid|head
UID
        PID PPID C STIME TTY
                                        TIME CMD
                                  00:00:00 head
student 3581 2601 0 11:43 pts/5
                                   00:00:00 ps -ef --sort=-pid
student 3580 2601 0 11:43 pts/5
       3537
              2 0 11:35 ?
                              00:00:00 [kworker/u8:2]
root
       3474
              2 0 11:29 ?
                              00:00:00 [kworker/u8:0]
root
              2 0 11:18 ?
                              00:00:00 [kworker/1:0]
       3371
root
              2 0 10:55 ?
                              00:00:00 [kworker/0:0]
       3175
root
       3148
              2 0 10:51 ?
                              00:00:00 [kworker/2:1]
root
```

```
student 3070 3051 0 10:47? 00:00:12 /usr/lib/libreoffice/program/soffice.bin --writer --splash-pipe=5 student 3051 1441 0 10:47? 00:00:00 /usr/lib/libreoffice/program/oosplash -writer
```

## //Display processes with highest memory usage//

```
student@Lab-301-5:~$ ps -eo pid,pid,%mem,%cpu --sort=-%mem|head PID PID %MEM %CPU
2038 2038 9.7 4.0
3070 3070 3.4 0.4
1810 1810 2.1 0.9
1830 1830 2.1 0.0
1131 1131 1.3 0.9
1847 1847 1.1 0.0
1894 1894 1.1 0.0
1677 1677 1.0 0.0
1963 1963 1.0 0.0
```

## //Display current logged in user and logname//

```
code in gedit->#!/bin/bash
whoami
echo "$LOGNAME"
command in terminal->
student@Lab-301-5:~$ sh 3.sh
student
student
///
```