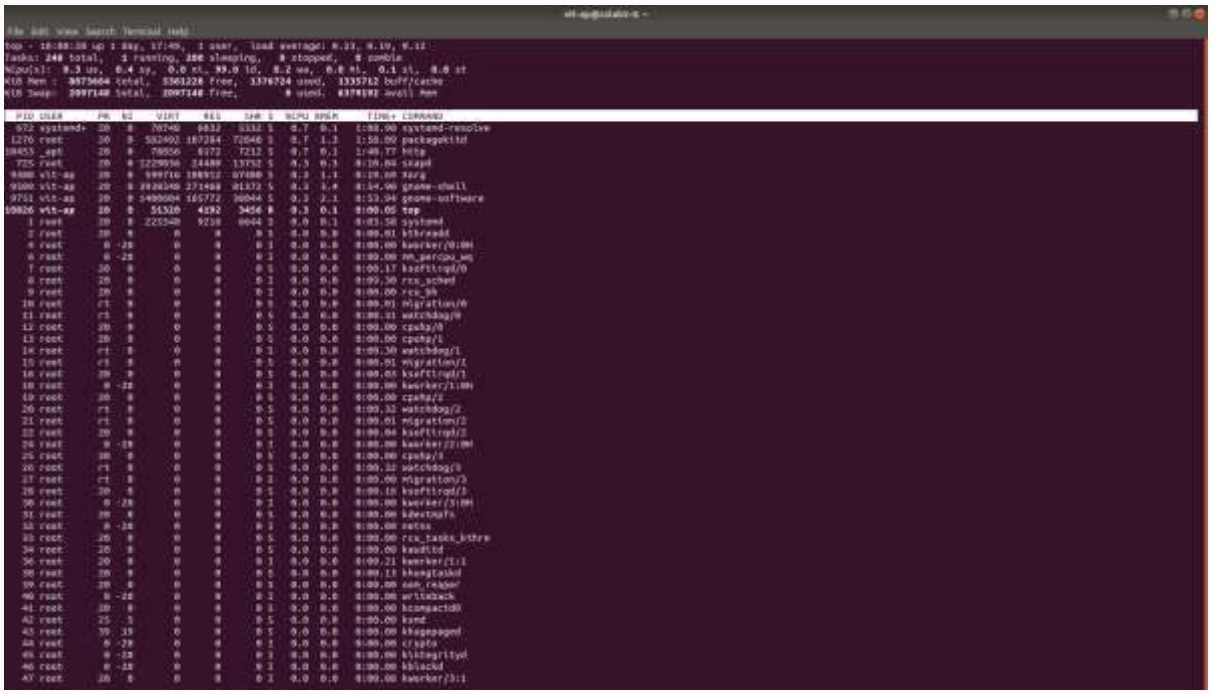
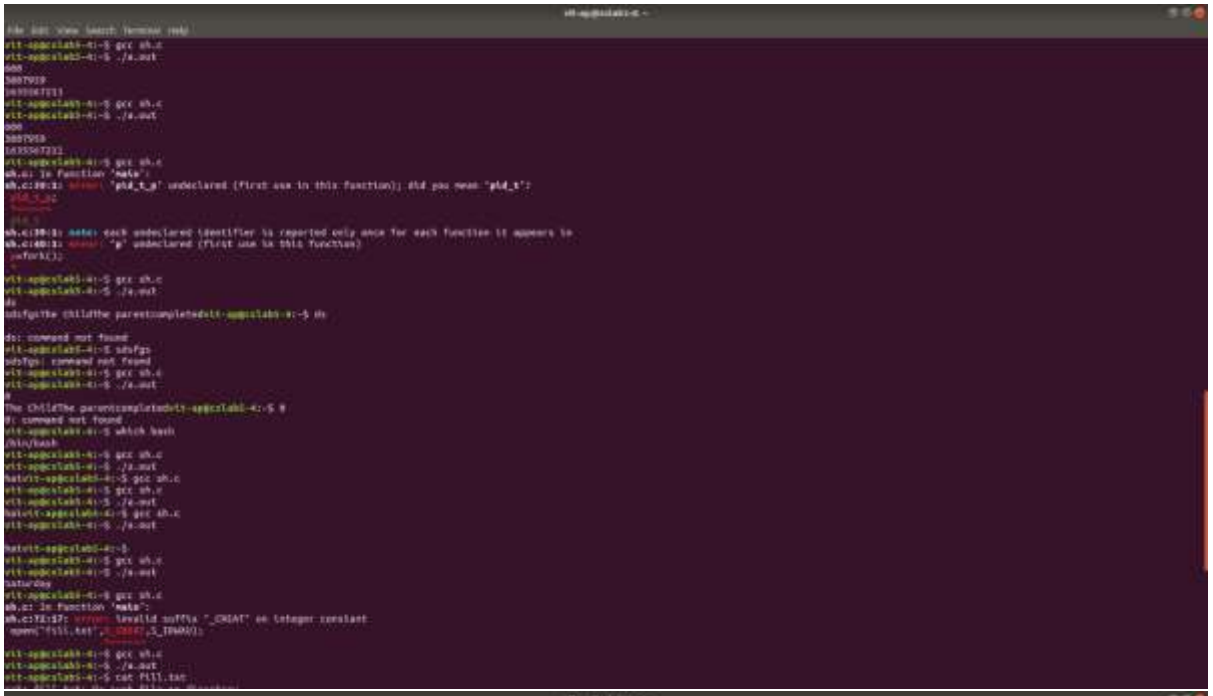
NAME : Hariprasad K K

REG NO : 19BCE7079

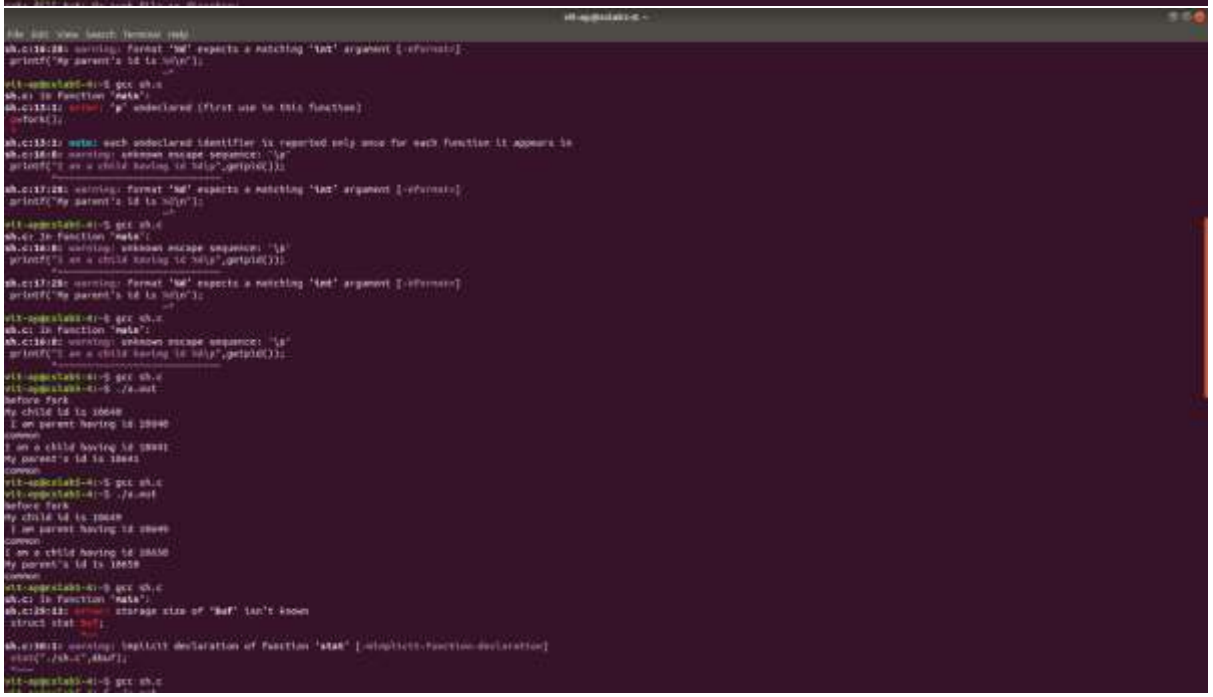
COURSE : Operating System

DATE : 30-10-2021

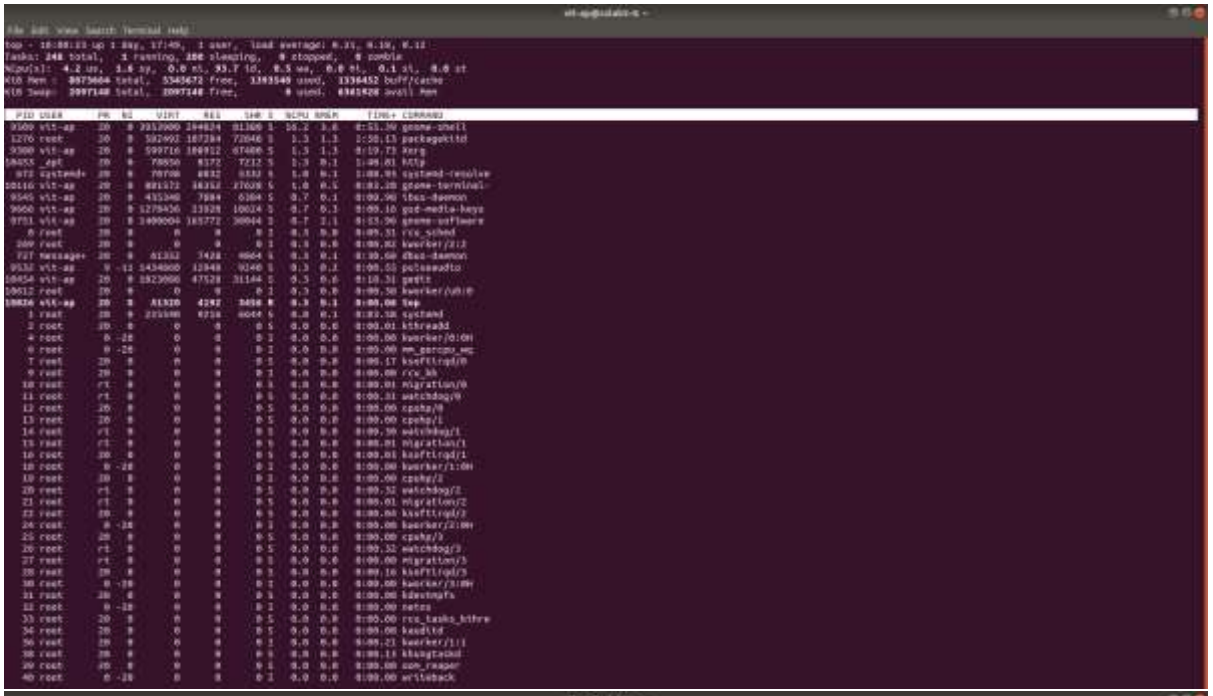


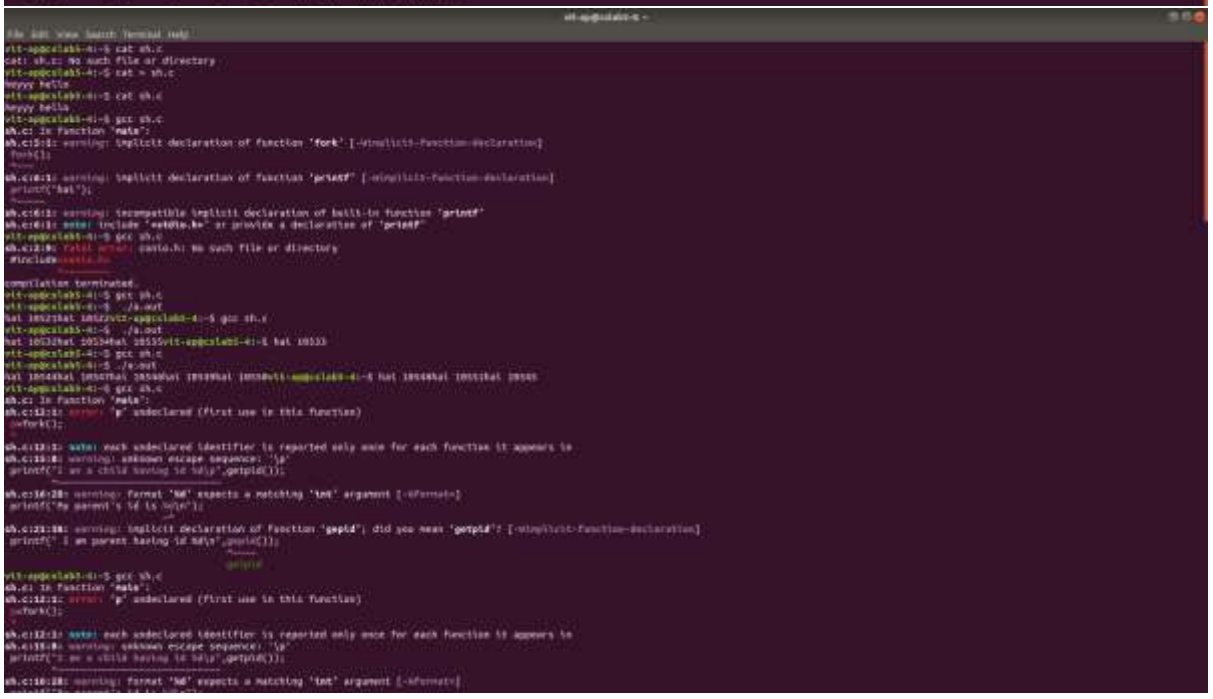


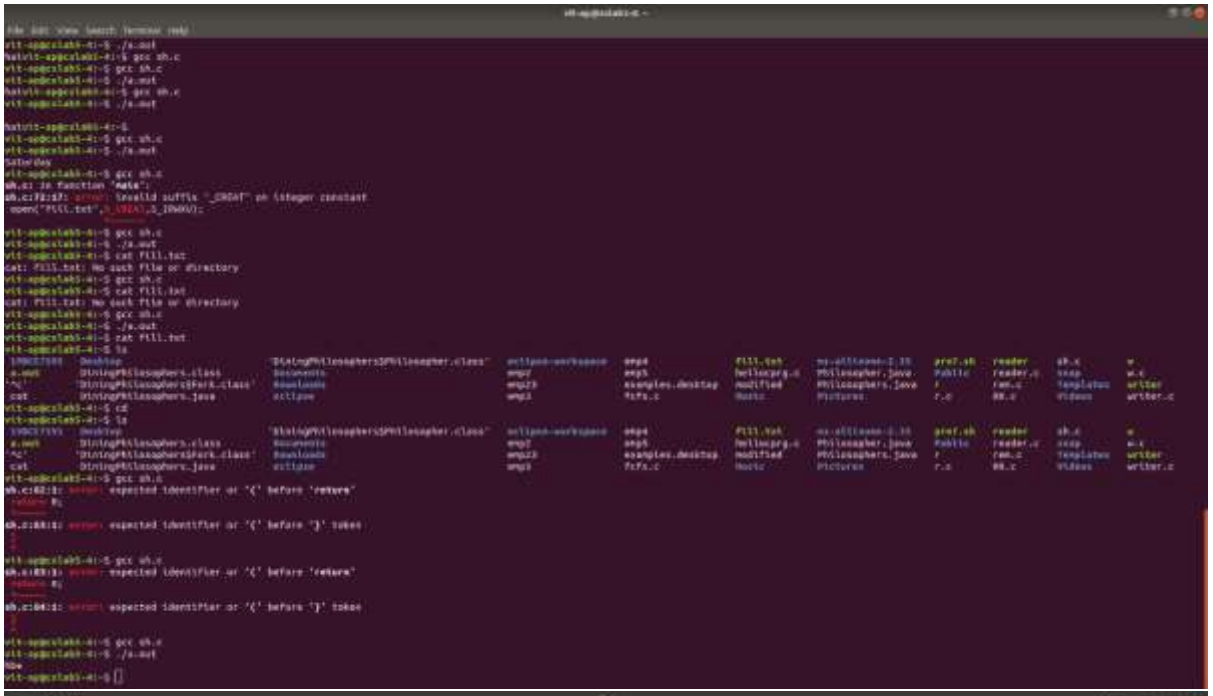
```
File Edit View Search Terminal Help
vtt-aggcslab4-4:~$ gcc sh.c
vtt-aggcslab4-4:~$ ./a.out
000
1007919
1035567231
vtt-aggcslab4-4:~$ gcc sh.c
vtt-aggcslab4-4:~$ ./a.out
000
1007919
1035567231
vtt-aggcslab4-4:~$ gcc sh.c
sh.c: In function 'main':
sh.c:39:1: error: 'pid_t_p' undeclared (first use in this function); did you mean 'pid_t'?
 pid_t_p;
 ^~~~~~
 pid_t
sh.c:39:1: note: each undeclared identifier is reported only once for each function it appears in
sh.c:40:1: error: 'p' undeclared (first use in this function)
 p=fork();
 ^
vtt-aggcslab4-4:~$ gcc sh.c
vtt-aggcslab4-4:~$ ./a.out
sh
sdsfgsThe childThe parentcompletedvtt-aggcslab4-4:~$ sh

sh: command not found
vtt-aggcslab4-4:~$ sdsfgs
sdsfgs: command not found
vtt-aggcslab4-4:~$ gcc sh.c
vtt-aggcslab4-4:~$ ./a.out
0
The childThe parentcompletedvtt-aggcslab4-4:~$ 0
0: command not found
vtt-aggcslab4-4:~$ which bash
/bin/bash
vtt-aggcslab4-4:~$ gcc sh.c
vtt-aggcslab4-4:~$ ./a.out
hatvtt-aggcslab4-4:~$ gcc sh.c
vtt-aggcslab4-4:~$ gcc sh.c
vtt-aggcslab4-4:~$ ./a.out
hatvtt-aggcslab4-4:~$ gcc sh.c
vtt-aggcslab4-4:~$ ./a.out

hatvtt-aggcslab4-4:~$
vtt-aggcslab4-4:~$ gcc sh.c
vtt-aggcslab4-4:~$ ./a.out
saturday
vtt-aggcslab4-4:~$ gcc sh.c
sh.c: In function 'main':
sh.c:71:17: error: invalid suffix "_CREAT" on integer constant
 open("fill.txt",O_CREAT,S_IRWXU);
                 ^~~~~~
vtt-aggcslab4-4:~$ gcc sh.c
vtt-aggcslab4-4:~$ ./a.out
vtt-aggcslab4-4:~$ cat fill.txt
```

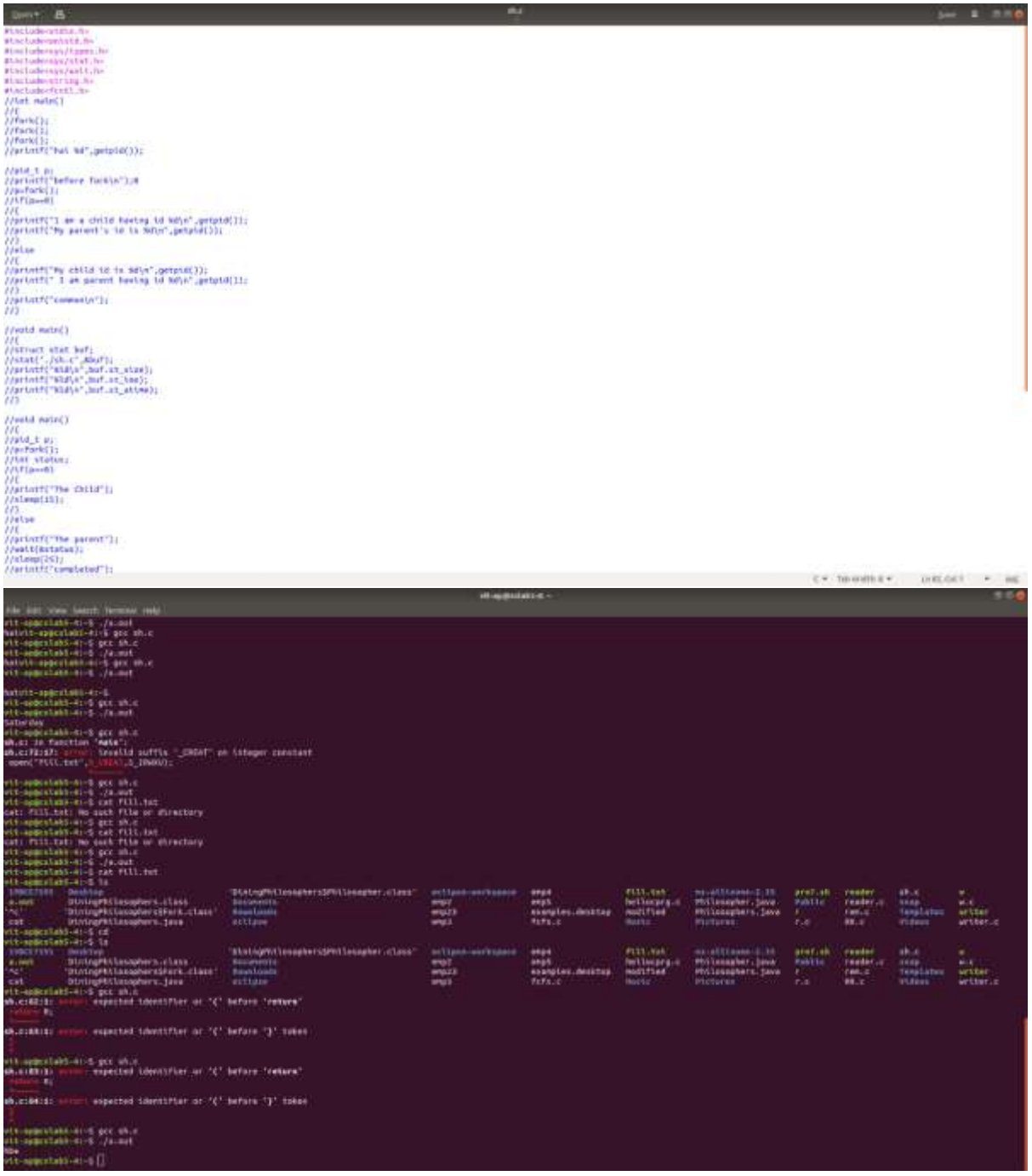


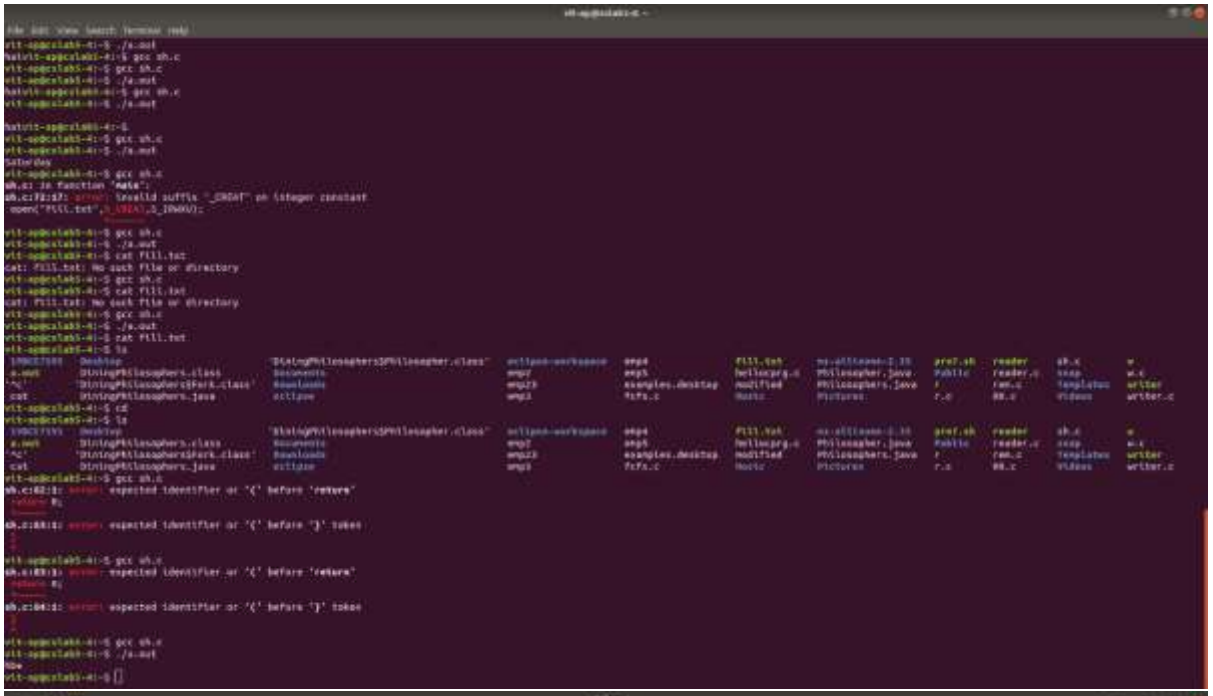
```
File Edit View Search Terminal Help
sh.c:16:28: warning: format '%d' expects a matching 'int' argument [-Wformat]
 printf("My parent's id is %d\n");
                          ~^
vtt-aggcslab4-4:~$ gcc sh.c
sh.c: In function 'main':
sh.c:13:1: error: 'p' undeclared (first use in this function)
 p=fork();
 ^

sh.c:13:1: note: each undeclared identifier is reported only once for each function it appears in
sh.c:14:8: warning: unknown escape sequence: '\p'
 printf("I am a child having id %d\p",getpid());
        ^~~~~~~~~~~~~~~~~~~~~~~~~~~~
sh.c:17:28: warning: format '%d' expects a matching 'int' argument [-Wformat]
 printf("My parent's id is %d\n");
                          ~^
vtt-aggcslab4-4:~$ gcc sh.c
sh.c: In function 'main':
sh.c:14:8: warning: unknown escape sequence: '\p'
 printf("I am a child having id %d\p",getpid());
        ^~~~~~~~~~~~~~~~~~~~~~~~~~~~
sh.c:17:28: warning: format '%d' expects a matching 'int' argument [-Wformat]
 printf("My parent's id is %d\n");
                          ~^
vtt-aggcslab4-4:~$ gcc sh.c
sh.c: In function 'main':
sh.c:16:8: warning: unknown escape sequence: '\p'
 printf("I am a child having id %d\p",getpid());
        ^~~~~~~~~~~~~~~~~~~~~~~~~~~~
vtt-aggcslab4-4:~$ gcc sh.c
vtt-aggcslab4-4:~$ ./a.out
before fork
My child id is 10640
 I am parent having id 10640
common
I am a child having id 10641
My parent's id is 10641
common
vtt-aggcslab4-4:~$ gcc sh.c
vtt-aggcslab4-4:~$ ./a.out
before fork
My child id is 10649
 I am parent having id 10649
common
I am a child having id 10650
My parent's id is 10650
common
vtt-aggcslab4-4:~$ gcc sh.c
sh.c: In function 'main':
sh.c:19:11: error: storage size of 'buf' isn't known
 struct stat buf;
           ^~~
sh.c:20:1: warning: implicit declaration of function 'stat' [-Wimplicit-function-declaration]
 stat("./sh.c",&buf);
 ^~~~
vtt-aggcslab4-4:~$ gcc sh.c
```


vit-ap@cslab5-4: ~
File Edit View Search Terminal Help
top - 10:08:23 up 1 day, 17:49, 1 user, load average: 0.31, 0.10, 0.12
Tasks: 248 total, 1 running, 200 sleeping, 0 stopped, 0 zombie
%Cpu(s): 4.2 us, 1.6 sy, 0.0 ni, 93.7 id, 0.5 wa, 0.0 hi, 0.1 si, 0.0 st
KiB Mem : 8073604 total, 5343672 free, 1393540 used, 1336452 buff/cache
KiB Swap: 2097148 total, 2097148 free, 0 used. 4361420 avail Mem
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
3160 vit-ap 20 0 2852000 194824 81360 S 16.2 3.0 4:51.30 gnome-shell
1276 root 20 0 582492 167384 72040 S 1.3 1.3 1:30.15 packagekitd
3300 vit-ap 20 0 599716 106912 67400 S 1.3 1.3 0:19.73 Xorg
10455 _apt 20 0 78056 8172 7212 S 1.3 0.1 1:49.81 http
972 systemd+ 20 0 70700 6832 6332 S 1.0 0.1 1:04.94 systemd-resolve
10116 vit-ap 20 0 891172 38352 27628 S 1.0 0.5 0:03.16 gnome-terminal-
9545 vit-ap 20 0 435340 7984 6304 S 0.7 0.1 0:00.90 ibus-daemon
9666 vit-ap 20 0 1279436 13928 10024 S 0.7 0.3 0:00.10 gsd-media-keys
9751 vit-ap 20 0 1400004 165772 30044 S 0.7 2.1 0:53.96 gnome-software
8 root 20 0 0 0 0 I 0.3 0.0 0:09.51 rcu_sched
369 root 20 0 0 0 0 I 0.3 0.0 0:00.02 kworker/2:2
727 message+ 20 0 61352 3428 4864 S 0.3 0.1 0:30.50 dbus-daemon
9532 vit-ap 9 -11 1434000 12948 9240 S 0.3 0.2 0:00.55 pulseaudio
10454 vit-ap 20 0 1023000 47528 31144 S 0.3 0.6 0:10.31 gedit
10612 root 20 0 0 0 0 I 0.3 0.0 0:00.50 kworker/u8:0
10634 vit-ap 20 0 41320 4292 3456 R 0.3 0.1 0:00.06 top
1 root 20 0 255100 6216 4004 S 0.0 0.1 0:03.58 systemd
2 root 20 0 0 0 0 S 0.0 0.0 0:00.01 kthreadd
4 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/0:0H
6 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 mm_percpu_wq
7 root 20 0 0 0 0 S 0.0 0.0 0:00.17 ksoftirqd/0
8 root 20 0 0 0 0 I 0.0 0.0 0:00.00 rcu_sh
10 root rt 0 0 0 0 S 0.0 0.0 0:00.01 migration/0
11 root rt 0 0 0 0 S 0.0 0.0 0:00.31 watchdog/0
12 root 20 0 0 0 0 S 0.0 0.0 0:00.00 cpuhp/0
13 root 20 0 0 0 0 S 0.0 0.0 0:00.00 cpuhp/1
14 root rt 0 0 0 0 S 0.0 0.0 0:00.30 watchdog/1
15 root rt 0 0 0 0 S 0.0 0.0 0:00.01 migration/1
16 root 20 0 0 0 0 S 0.0 0.0 0:00.01 ksoftirqd/1
18 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/1:0H
19 root 20 0 0 0 0 I 0.0 0.0 0:00.00 cpuhp/2
20 root rt 0 0 0 0 S 0.0 0.0 0:00.32 watchdog/2
21 root rt 0 0 0 0 S 0.0 0.0 0:00.01 migration/2
23 root 20 0 0 0 0 S 0.0 0.0 0:00.04 ksoftirqd/2
24 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/2:0H
25 root 20 0 0 0 0 S 0.0 0.0 0:00.00 cpuhp/3
26 root rt 0 0 0 0 S 0.0 0.0 0:00.32 watchdog/3
27 root rt 0 0 0 0 S 0.0 0.0 0:00.00 migration/3
28 root 20 0 0 0 0 I 0.0 0.0 0:00.16 ksoftirqd/3
30 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/3:0H
31 root 20 0 0 0 0 S 0.0 0.0 0:00.00 kdevtmpfs
32 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 netns
33 root 20 0 0 0 0 S 0.0 0.0 0:00.00 rcu_tasks_kthre
34 root 20 0 0 0 0 S 0.0 0.0 0:00.00 kauditd
36 root 20 0 0 0 0 I 0.0 0.0 0:00.21 kworker/1:1
38 root 20 0 0 0 0 S 0.0 0.0 0:00.14 khungtaskd
39 root 20 0 0 0 0 S 0.0 0.0 0:00.00 oom_reaper
40 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 writeback


vit-ap@cslab5-4: ~
File Edit View Search Terminal Help
vit-ap@cslab5-4:~$ cat sh.c
cat: sh.c: No such file or directory
vit-ap@cslab5-4:~$ cat > sh.c
heyyy hello
vit-ap@cslab5-4:~$ cat sh.c
heyyy hello
vit-ap@cslab5-4:~$ gcc sh.c
sh.c: In function 'main':
sh.c:5:1: warning: implicit declaration of function 'fork' [-Wimplicit-function-declaration]
fork();
^~~~
sh.c:6:1: warning: implicit declaration of function 'printf' [-Wimplicit-function-declaration]
printf("hai");
^~~~~~
sh.c:6:1: warning: incompatible implicit declaration of built-in function 'printf'
sh.c:6:1: note: include '<stdio.h>' or provide a declaration of 'printf'
vit-ap@cslab5-4:~$ gcc sh.c
sh.c:1:0: fatal error: conio.h: No such file or directory
#include<conio.h>
^~~~~~~~~
compilation terminated.
vit-ap@cslab5-4:~$ gcc sh.c
vit-ap@cslab5-4:~$ ./a.out
hai 10521hai 10522vit-ap@cslab5-4:~$ gcc sh.c
vit-ap@cslab5-4:~$ ./a.out
hai 10532hai 10534hai 10535vit-ap@cslab5-4:~$ hai 10533
vit-ap@cslab5-4:~$ gcc sh.c
vit-ap@cslab5-4:~$ ./a.out
hai 10548hai 10549hai 10550hai 10549hai 10548vit-ap@cslab5-4:~$ hai 10548hai 10551hai 10505
vit-ap@cslab5-4:~$ gcc sh.c
sh.c: In function 'main':
sh.c:12:1: error: 'p' undeclared (first use in this function)
p=fork();
^
sh.c:12:1: note: each undeclared identifier is reported only once for each function it appears in
sh.c:13:8: warning: unknown escape sequence: '\p'
printf("I am a child having id %d\p",getpid());
^~~~~~~
sh.c:16:28: warning: format '%d' expects a matching 'int' argument [-Wformat=]
printf("My parent's id is %d\n");
~^
%s
sh.c:21:16: warning: implicit declaration of function 'gepid'; did you mean 'getpid'? [-Wimplicit-function-declaration]
printf(" I am parent having id %d\n",gepid());
^~~~~
getpid
vit-ap@cslab5-4:~$ gcc sh.c
sh.c: In function 'main':
sh.c:12:1: error: 'p' undeclared (first use in this function)
p=fork();
^
sh.c:12:1: note: each undeclared identifier is reported only once for each function it appears in
sh.c:13:8: warning: unknown escape sequence: '\p'
printf("I am a child having id %d\p",getpid());
^~~~~~~
sh.c:16:28: warning: format '%d' expects a matching 'int' argument [-Wformat=]


sh.c
#include<stdio.h>
#include<unistd.h>
#include<sys/types.h>
#include<sys/stat.h>
#include<sys/wait.h>
#include<string.h>
#include<fcntl.h>
//int main()
//{
//fork();
//fork();
//fork();
//printf("hai %d",getpid());
//pid_t p;
//printf("before fork\n");
//p=fork();
//if(p==0)
//{
//printf("I am a child having id %d\n",getpid());
//printf("My parent's id is %d\n",getppid());
//}
//else
//{
//printf("My child id is %d\n",getpid());
//printf(" I am parent having id %d\n",getpid());
//}
//printf("common\n");
//}
//void main()
//{
//struct stat buf;
//stat("./sh.c",&buf);
//printf("%ld\n",buf.st_size);
//printf("%ld\n",buf.st_ino);
//printf("%ld\n",buf.st_atime);
//}
//void main()
//{
//pid_t p;
//p=fork();
//int status;
//if(p==0)
//{
//printf("The child");
//sleep(15);
//}
//else
//{
//printf("The parent");
//wait(&status);
//sleep(25);
//printf("completed");





```
sh.c:82:1: error: expected identifier or '(' before 'return'
 return 0;
 ^~~~~~
sh.c:84:1: error: expected identifier or '(' before '}' token
 }
 ^
sh.c:83:1: error: expected identifier or '(' before 'return'
 return 0;
 ^~~~~~
sh.c:84:1: error: expected identifier or '(' before '}' token
 }
 ^
hi
```

```
printf("\nHello\n");
}

void main()
{
struct stat buf;
stat("./sh.c",&buf);
printf("%ld\n",buf.st_size);
printf("%ld\n",buf.st_ino);
printf("%ld\n",buf.st_atime);
}

void main()
{
pid_t p;
p=fork();
int status;
if(p==0)
{
printf("The child");
sleep(10);
}
else
{
printf("The parent");
wait(&status);
sleep(25);
printf("completed");
}
}

void main()
{
execl("/bin/ls","ls","-",NULL);
execl("/bin/date","date","+%a",NULL);
printf("\nhai");
}

int main()
{
int fp;
char buff[128]="Hello";
char mbuff[128];
open("fil1.txt",O_CREAT,S_IRWXU);
fp=open("fil1.txt",O_RDWR);
//write(fp,buff,strlen(buff));
//lseek(fp,-2,SEEK_END);
//lseek(fp,2,SEEK_SET);
read(fp,mbuff,5);
printf("%s\n",mbuff);
close(fp);
return 0;
}
```

```c
#include<stdio.h>
#include<unistd.h>
#include<sys/types.h>
#include<sys/stat.h>
#include<sys/wait.h>
#include<string.h>
#include<fcntl.h>
int main()
{
fork();
fork();
fork();
printf("hai %d",getpid());

pid_t p;
printf("before fork\n");
p=fork();
if(p==0)
{
printf("I am a child having id %d\n",getpid());
printf("My parent's id is %d\n",getppid());
}
else
{
printf("My child id is %d\n",getpid());
printf(" I am parent having id %d\n",getpid());
}
printf("common\n");
}

void main()
{
struct stat buf;
stat("./ch.c",&buf);
printf("%ld\n",buf.st_size);
printf("%ld\n",buf.st_ino);
printf("%ld\n",buf.st_mtime);
}

void main()
{
pid_t p;
p=fork();
int status;
if(p==0)
{
printf("the child");
sleep(15);
}
else
{
printf("the parent");
wait(&status);
sleep(25);
printf("completed");
```