

Lab-10

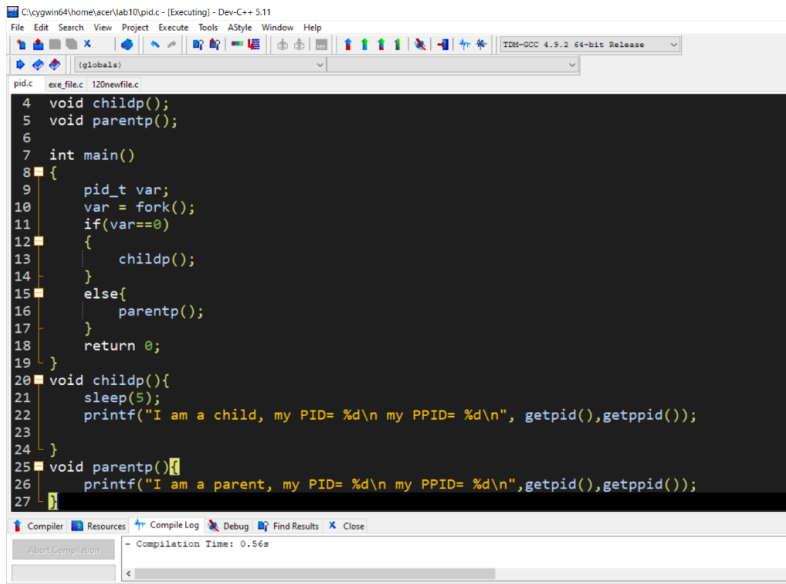
Friday, October 23, 2020 12:00 PM

Date: 23-10-20

Aim: Observe Orphan and Zombie process.

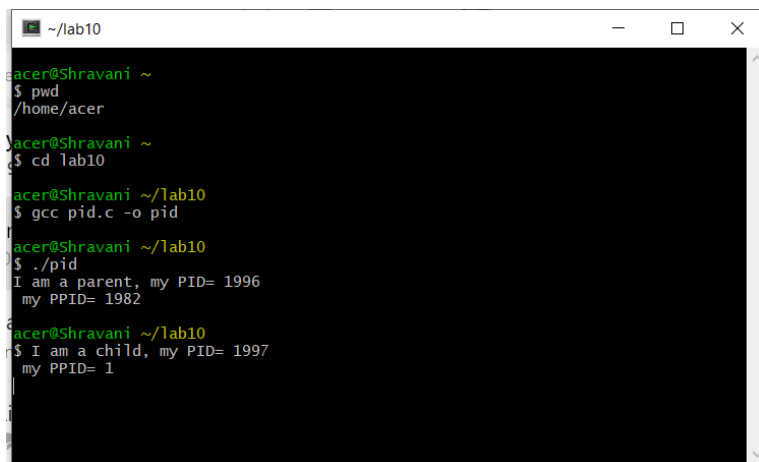
Source code:

Understood parent, child, orphan child and zombie process
C file:



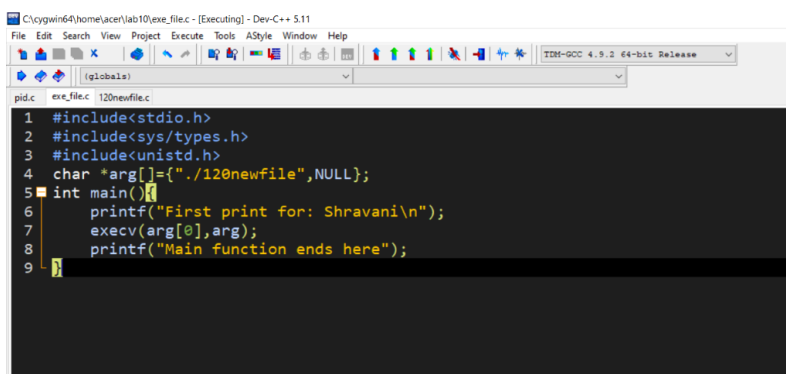
```
1 void childp();
2 void parentp();
3
4 int main()
5 {
6     pid_t var;
7     var = fork();
8     if(var==0)
9     {
10         childp();
11     }
12     else{
13         parentp();
14     }
15     return 0;
16 }
17 void childp(){
18     sleep(5);
19     printf("I am a child, my PID= %d\n my PPID= %d\n", getpid(),getppid());
20 }
21 void parentp(){
22     printf("I am a parent, my PID= %d\n my PPID= %d\n",getpid(),getppid());
23 }
```

Printed the PID and PPID for the child process



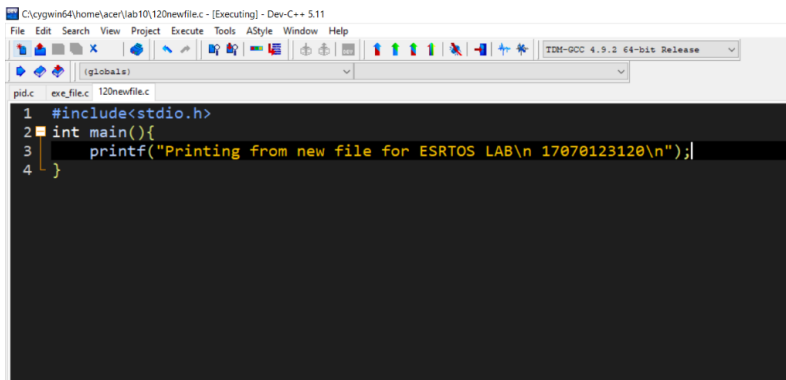
```
acer@Shravani ~
$ pwd
/home/acer
acer@Shravani ~
$ cd lab10
acer@Shravani ~/lab10
$ gcc pid.c -o pid
acer@Shravani ~/lab10
$ ./pid
I am a parent, my PID= 1996
my PPID= 1982
acer@Shravani ~/lab10
$ I am a child, my PID= 1997
my PPID= 1
```

Main C file:



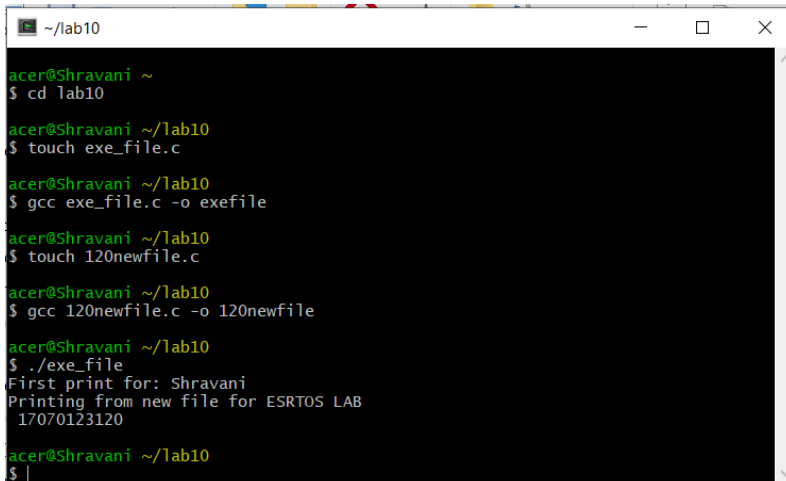
```
1 #include<stdio.h>
2 #include<sys/types.h>
3 #include<unistd.h>
4 char *arg[]={"/.120newFile",NULL};
5 int main()
6 {
7     printf("First print for: Shravani\n");
8     execv(arg[0],arg);
9     printf("Main function ends here");
10 }
```

New C file:



```
1 #include<stdio.h>
2 int main(){
3     printf("Printing from new file for ESRTOS LAB\n 17070123120\n");
4 }
```

Understood printing through one c program to another. By using Pointer.



```
acer@Shravani ~
$ cd lab10

acer@Shravani ~/lab10
$ touch exe_file.c

acer@Shravani ~/lab10
$ gcc exe_file.c -o exe_file

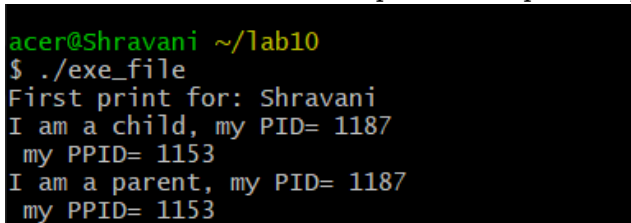
acer@Shravani ~/lab10
$ touch 120newfile.c

acer@Shravani ~/lab10
$ gcc 120newfile.c -o 120newfile

acer@Shravani ~/lab10
$ ./exe_file
First print for: Shravani
Printing from new file for ESRTOS LAB
 17070123120

acer@Shravani ~/lab10
$ |
```

We can observe both the file print same pid and ppid.



```
acer@Shravani ~/lab10
$ ./exe_file
First print for: Shravani
I am a child, my PID= 1187
my PPID= 1153
I am a parent, my PID= 1187
my PPID= 1153
```

Inference:

Learnt different terms like orphan process, zombie process which we need to take care and avoid while coding.

Also saw how to print through one file to another. By using a pointer.