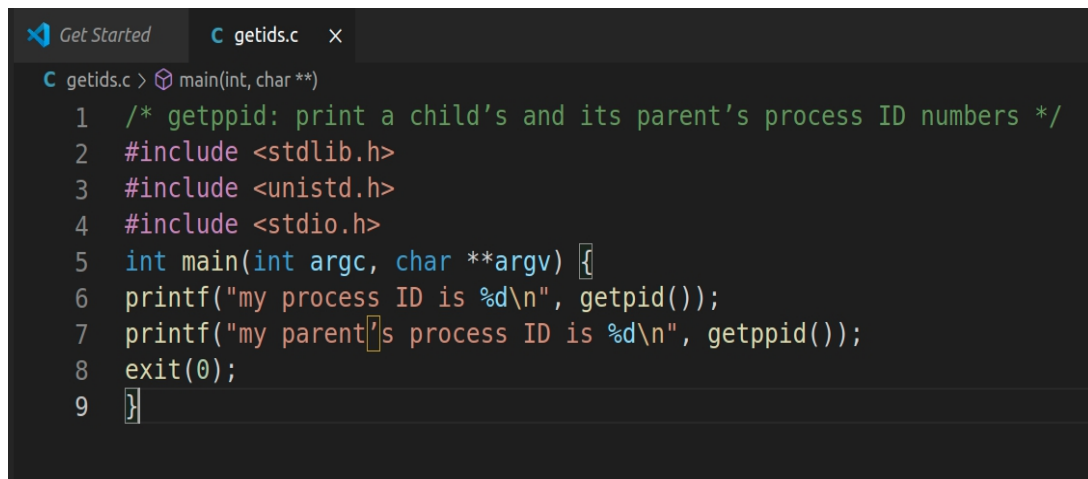


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Roll No : 20P-0149
Section : A

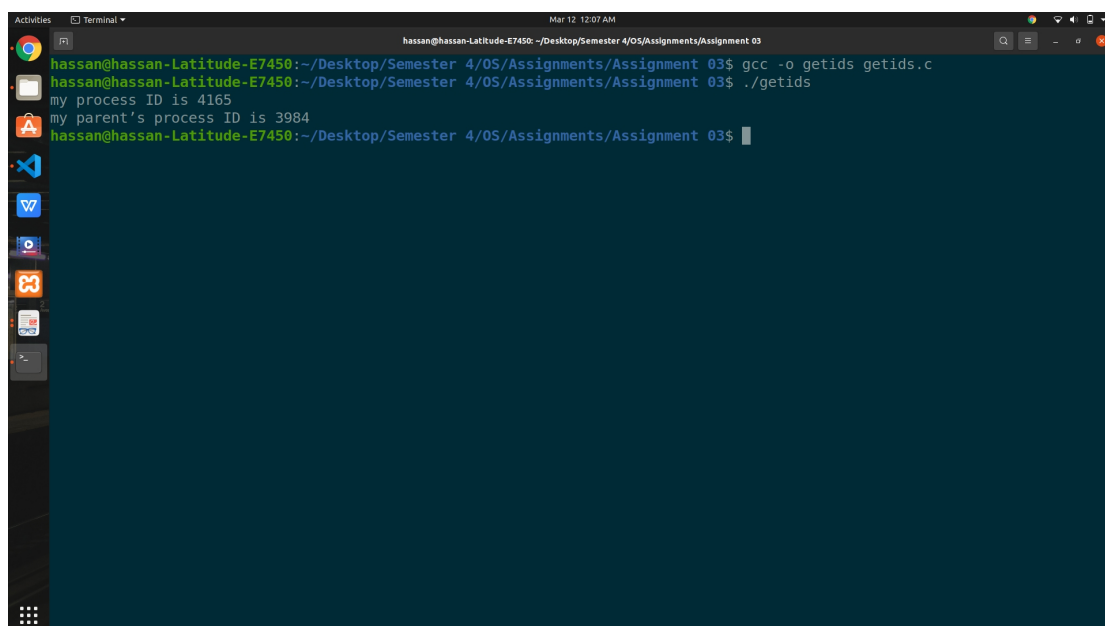
Screenshots:

1.



```
Get Started  C getids.c x
C getids.c > main(int, char **)
1  /* getppid: print a child's and its parent's process ID numbers */
2  #include <stdlib.h>
3  #include <unistd.h>
4  #include <stdio.h>
5  int main(int argc, char **argv) {
6  printf("my process ID is %d\n", getpid());
7  printf("my parent's process ID is %d\n", getppid());
8  exit(0);
9  }
```

Result:



```
hassan@hassan-Latitude-E7450:~/Desktop/Semester 4/OS/Assignments/Assignment 03
hassan@hassan-Latitude-E7450:~/Desktop/Semester 4/OS/Assignments/Assignment 03$ gcc -o getids getids.c
hassan@hassan-Latitude-E7450:~/Desktop/Semester 4/OS/Assignments/Assignment 03$ ./getids
my process ID is 4165
my parent's process ID is 3984
hassan@hassan-Latitude-E7450:~/Desktop/Semester 4/OS/Assignments/Assignment 03$
```

2.

```
prted  C getids.c  C fork.c  x
> main(int, char **)
/* fork: create a new process */
#include <stdlib.h> /*needed to define exit() */
#include <unistd.h> /* needed for fork()*/
#include <sys/wait.h> /* needed for wait()*/
#include <stdio.h> /*needed for printf() */
int main(int argc, char **argv)
{
    int pid; /* process ID */
    pid = fork();

    if (pid == -1)
    {
        perror("Error");
    }

    else if (pid == 0)
    {
        printf("In Child\n");
        printf("Child process ID => %d\n", getpid());
    }
    else
    {
        wait(NULL);
        printf("\n");
        printf("\n");
        printf("IN Parent \n");
        printf("Parent's process ID => %d\n", getpid());
        printf("Child process ID => %d\n", pid);
    }

    sleep(1);
    exit(0);
}
```

Result:

```
Activities  Terminal  Mar 12 12:15 AM
hassan@hassan-Latitude-E7450: ~/Desktop/Semester 4/OS/Assignments/Assignment 03
hassan@hassan-Latitude-E7450:~/Desktop/Semester 4/OS/Assignments/Assignment 03$ gcc -o fork fork.c
hassan@hassan-Latitude-E7450:~/Desktop/Semester 4/OS/Assignments/Assignment 03$ ./fork
In Child
Child process ID => 4561

IN Parent
Parent's process ID => 4560
Child process ID => 4561
hassan@hassan-Latitude-E7450:~/Desktop/Semester 4/OS/Assignments/Assignment 03$
```

Result2:

```
Activities Terminal Mar 12, 12:40 AM
hassan@hassan-Latitude-E7450: ~/Desktop/Semester 4/OS/Assignments/Assignment 03
hassan@hassan-Latitude-E7450:~/Desktop/Semester 4/OS/Assignments/Assignment 03$ gcc -o forkexample forkexample.c
hassan@hassan-Latitude-E7450:~/Desktop/Semester 4/OS/Assignments/Assignment 03$ ./forkexample
```

```
Activities Terminal Mar 12, 12:41 AM
hassan@hassan-Latitude-E7450:~/Desktop/Semester 4/OS/Assignments/Assignment 03$ ps aux | grep forkexample
hassan 7166 0.0 0.0 2364 516 pts/0 T 00:39 0:00 ./forkexample
hassan 7167 0.0 0.0 2364 76 pts/0 T 00:39 0:00 ./forkexample
hassan 7168 0.0 0.0 2364 76 pts/0 T 00:39 0:00 ./forkexample
hassan 7169 0.0 0.0 2364 76 pts/0 T 00:39 0:00 ./forkexample
hassan 7170 0.0 0.0 2364 76 pts/0 T 00:39 0:00 ./forkexample
hassan 7171 0.0 0.0 2364 76 pts/0 T 00:39 0:00 ./forkexample
hassan 7172 0.0 0.0 2364 76 pts/0 T 00:39 0:00 ./forkexample
hassan 7173 0.0 0.0 2364 76 pts/0 T 00:39 0:00 ./forkexample
hassan 7204 0.0 0.0 2364 576 pts/0 S+ 00:40 0:00 ./forkexample
hassan 7205 0.0 0.0 2364 72 pts/0 S+ 00:40 0:00 ./forkexample
hassan 7206 0.0 0.0 2364 72 pts/0 S+ 00:40 0:00 ./forkexample
hassan 7207 0.0 0.0 2364 72 pts/0 S+ 00:40 0:00 ./forkexample
hassan 7208 0.0 0.0 2364 72 pts/0 S+ 00:40 0:00 ./forkexample
hassan 7209 0.0 0.0 2364 72 pts/0 S+ 00:40 0:00 ./forkexample
hassan 7210 0.0 0.0 2364 72 pts/0 S+ 00:40 0:00 ./forkexample
hassan 7211 0.0 0.0 2364 72 pts/0 S+ 00:40 0:00 ./forkexample
hassan@hassan-Latitude-E7450:~/Desktop/Semester 4/OS/Assignments/Assignment 03$
```