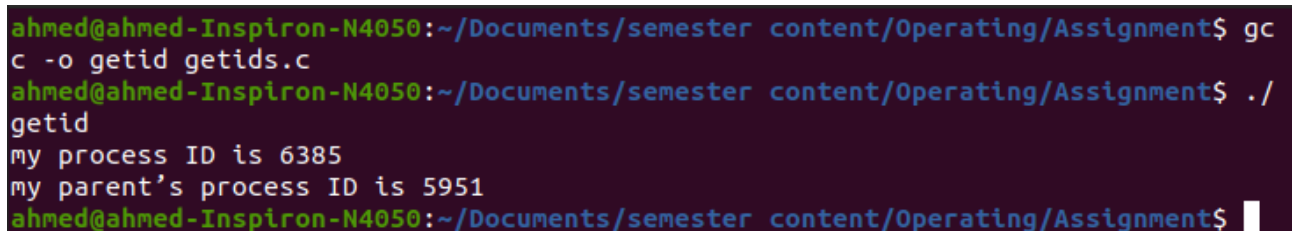


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**ROLL-NO: P19-0042**  
**SECTION: 4B-CS**

**Answer1:**

```
/* getpid: print a child's and its parent's process ID numbers */
#include <stdlib.h>
#include <unistd.h>
#include <stdio.h>
int main(int argc, char **argv) {
    int p_id,P_pid;
    p_id=getpid();
    P_pid=getppid();
    printf("my process ID is %d\n", p_id);
    printf("my parent's process ID is %d\n", P_pid);
    exit(0);
}
```

**SCREENSHOTS:**



```
ahmed@ahmed-Inspiron-N4050:~/Documents/semester content/Operating/Assignment$ gcc -o getid getids.c
ahmed@ahmed-Inspiron-N4050:~/Documents/semester content/Operating/Assignment$ ./getid
my process ID is 6385
my parent's process ID is 5951
ahmed@ahmed-Inspiron-N4050:~/Documents/semester content/Operating/Assignment$
```

## ANSWER 2:

```
#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 == 0) {
        printf("IN CHILD \n");
        printf("Child Process %d",getpid());
    }
    else
    {
        printf("IN Parent\n" );
        printf("Parent Id  %d\n",getppid());
        printf("Child id  %d\n",getpid());
    }
    if (pid == -1) {
        perror("Error");
    }
    sleep(1);
    exit(0);
}
```

## SCREENSHOT 2:



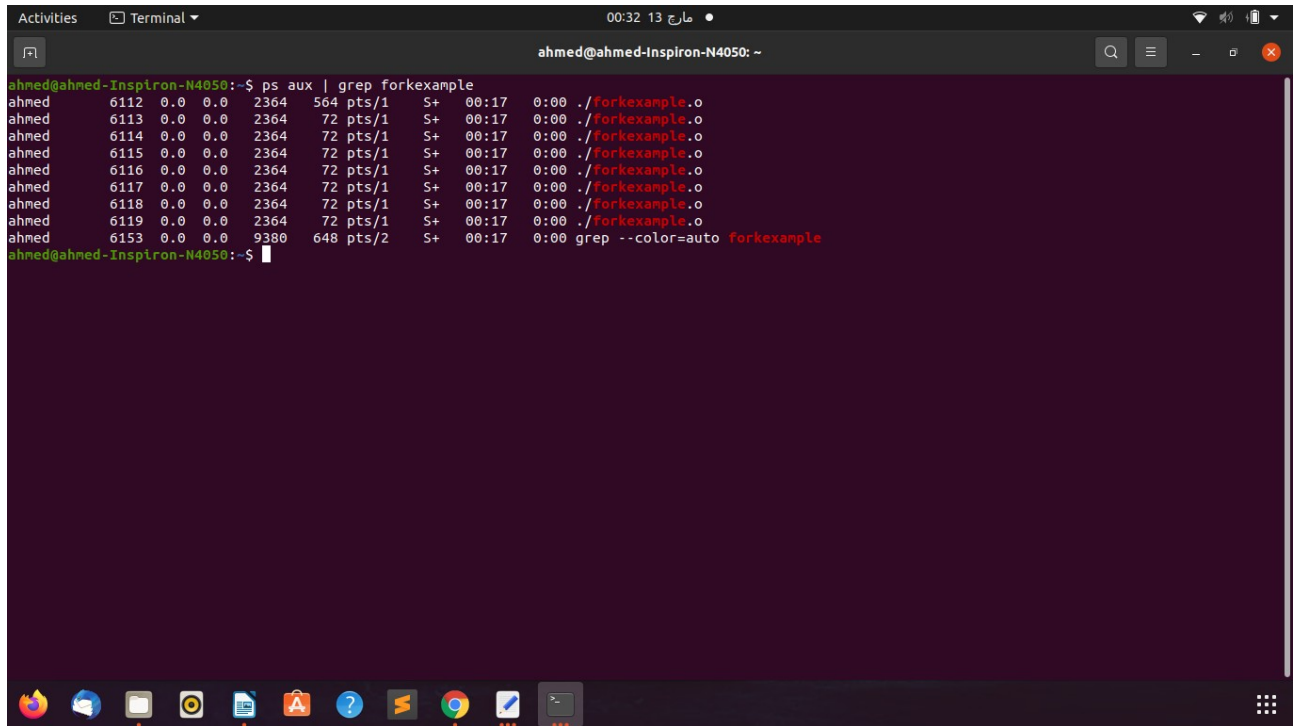
```
ahmed@ahmed-Inspiron-N4050:~/Documents/semester content/Operating/Assignment$ ./
fork.o
IN Parent
Parent Id  5951
Child id  6542
IN CHILD
Child Process 6543ahmed@ahmed-Inspiron-N4050:~/Documents/semester content/Operat
ing/Assignment$
```

## ANSWER 3:

```
/* fork: create a new process */
#include <stdlib.h> /* needed to define exit() */
#include <unistd.h> /* needed for fork() */
#include <stdio.h> /* needed for printf() */
int main(int argc, char **argv) {
    fork();
}
```

```
fork();  
fork();  
sleep(10000);  
exit(0);  
}
```

### SCREENSHOT3:



```
ahmed@ahmed-Inspiron-N4050:~$ ps aux | grep forkexample  
ahmed    6112  0.0  0.0   2364   564 pts/1    S+   00:17   0:00 ./forkexample.o  
ahmed    6113  0.0  0.0   2364    72 pts/1    S+   00:17   0:00 ./forkexample.o  
ahmed    6114  0.0  0.0   2364    72 pts/1    S+   00:17   0:00 ./forkexample.o  
ahmed    6115  0.0  0.0   2364    72 pts/1    S+   00:17   0:00 ./forkexample.o  
ahmed    6116  0.0  0.0   2364    72 pts/1    S+   00:17   0:00 ./forkexample.o  
ahmed    6117  0.0  0.0   2364    72 pts/1    S+   00:17   0:00 ./forkexample.o  
ahmed    6118  0.0  0.0   2364    72 pts/1    S+   00:17   0:00 ./forkexample.o  
ahmed    6119  0.0  0.0   2364    72 pts/1    S+   00:17   0:00 ./forkexample.o  
ahmed    6153  0.0  0.0   9380   648 pts/2    S+   00:17   0:00 grep --color=auto forkexample  
ahmed@ahmed-Inspiron-N4050:~$
```