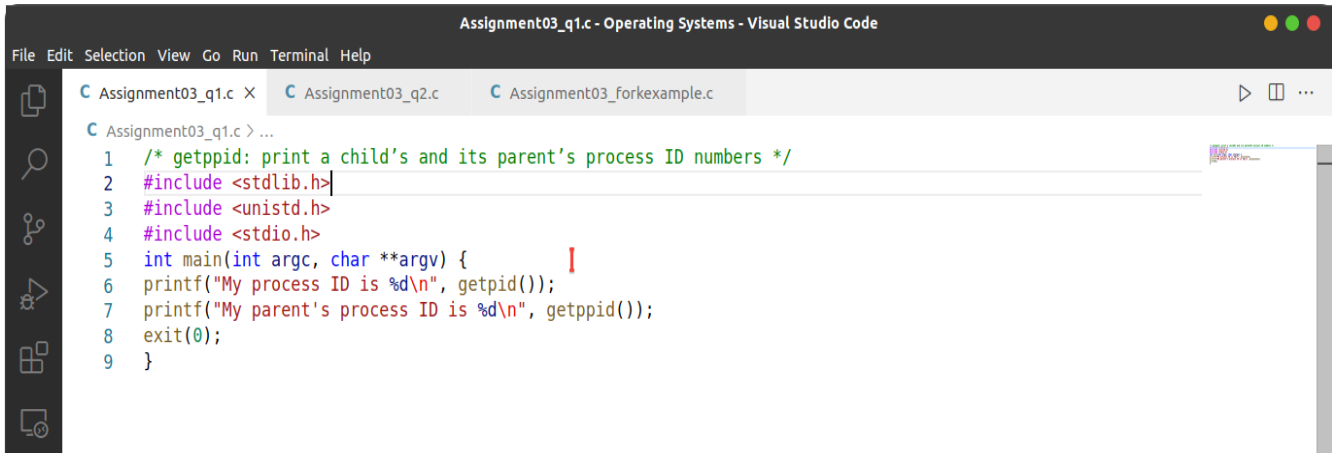


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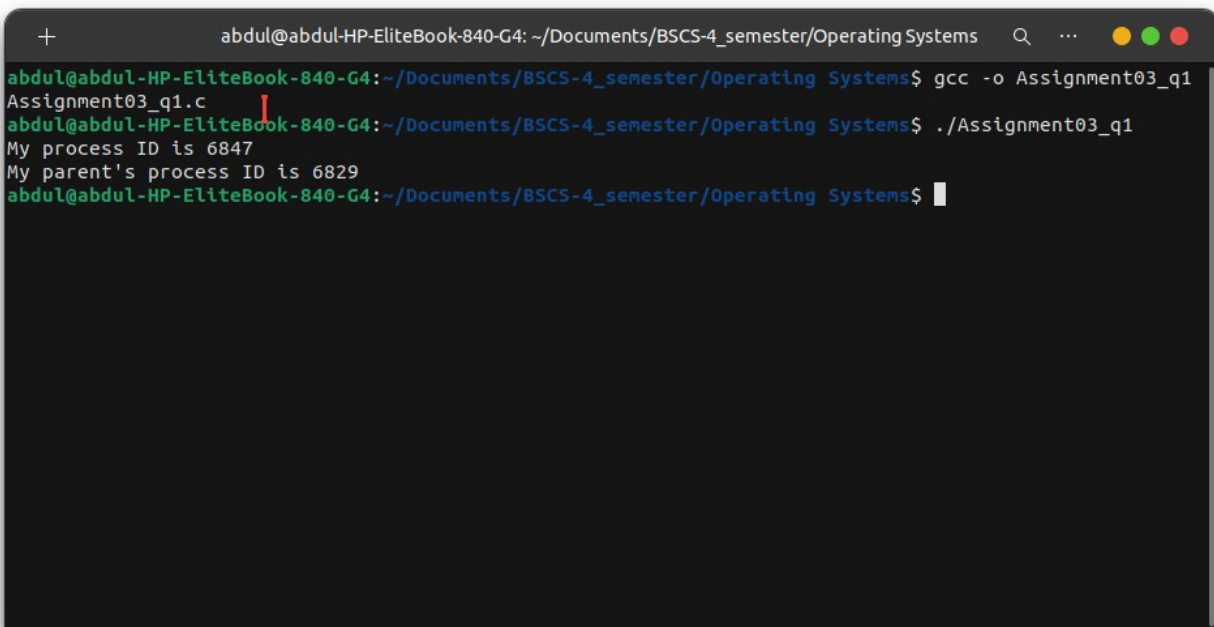
## QNO1



```
Assignment03_q1.c - Operating Systems - Visual Studio Code
File Edit Selection View Go Run Terminal Help

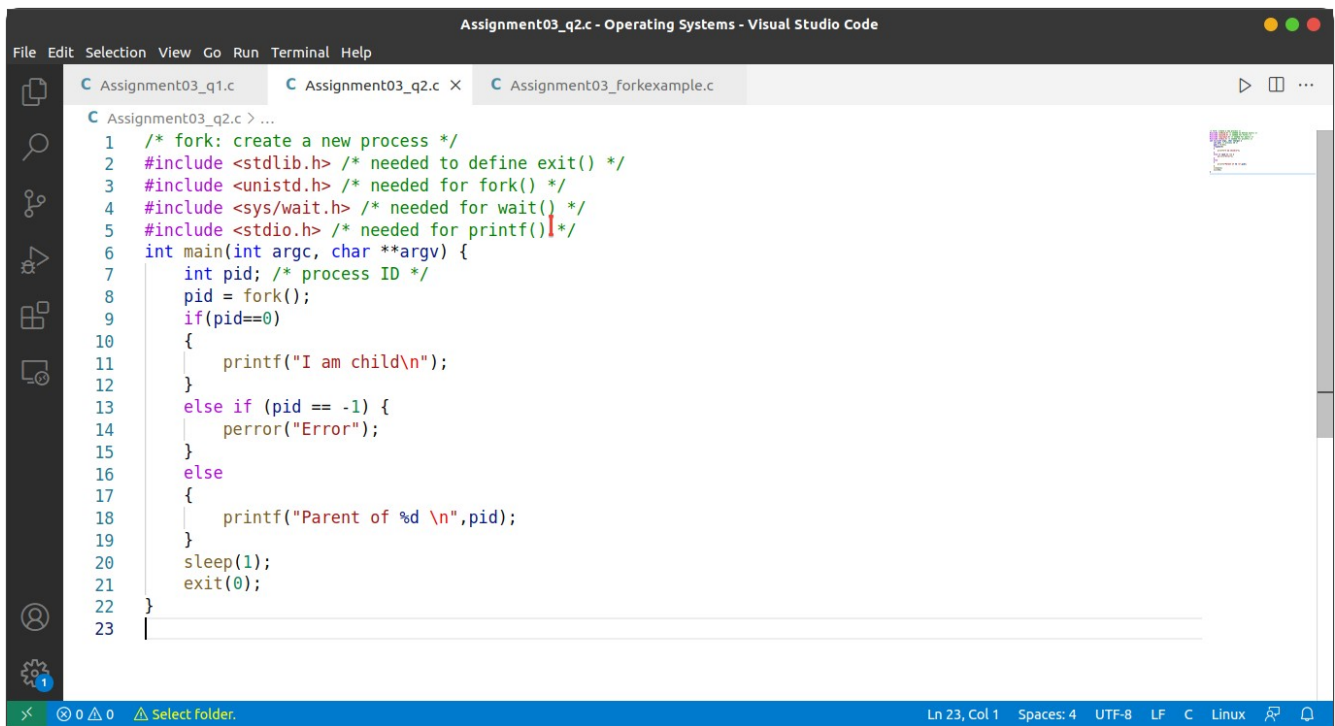
C Assignment03_q1.c X C Assignment03_q2.c C Assignment03_forkexample.c
C Assignment03_q1.c > ...
1  /* getpid: print a child's and its parent's process ID numbers */
2  #include <stdlib.h>
3  #include <unistd.h>
4  #include <stdio.h>
5  int main(int argc, char **argv) {
6      printf("My process ID is %d\n", getpid());
7      printf("My parent's process ID is %d\n", getppid());
8      exit(0);
9  }
```

## Output:



```
+
abdul@abdul-HP-EliteBook-840-G4: ~/Documents/BSCS-4_semester/Operating Systems
abdul@abdul-HP-EliteBook-840-G4:~/Documents/BSCS-4_semester/Operating Systems$ gcc -o Assignment03_q1 Assignment03_q1.c
abdul@abdul-HP-EliteBook-840-G4:~/Documents/BSCS-4_semester/Operating Systems$ ./Assignment03_q1
My process ID is 6847
My parent's process ID is 6829
abdul@abdul-HP-EliteBook-840-G4:~/Documents/BSCS-4_semester/Operating Systems$
```

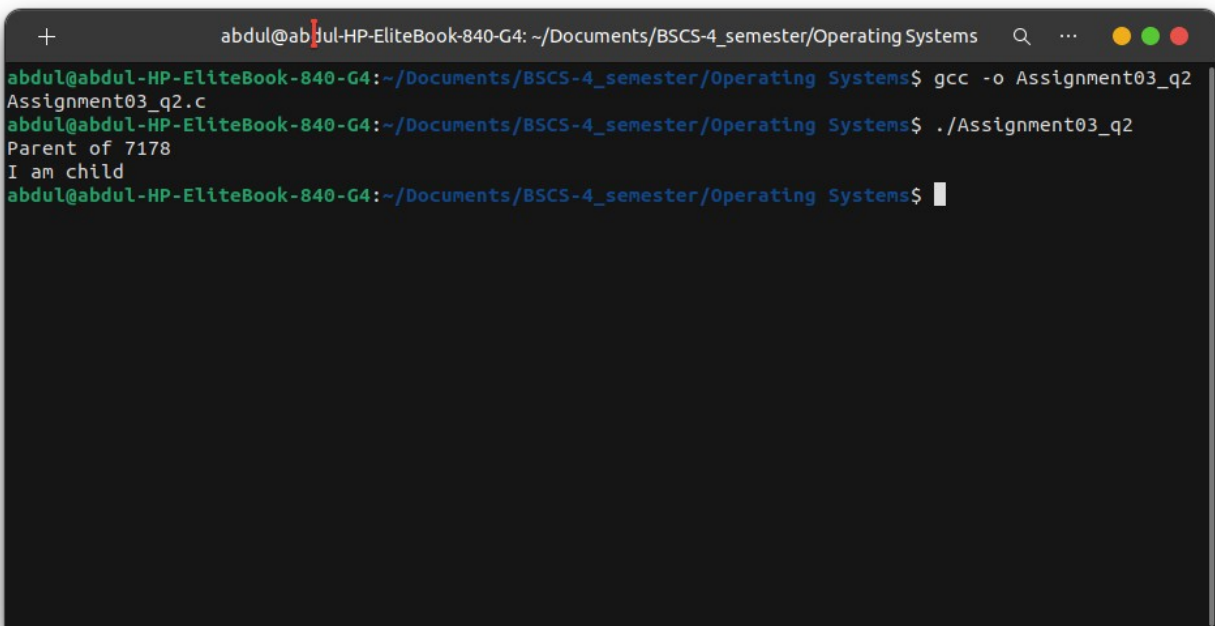
# QNO2



```
Assignment03_q2.c - Operating Systems - Visual Studio Code
File Edit Selection View Go Run Terminal Help

C Assignment03_q1.c C Assignment03_q2.c X C Assignment03_forkexample.c
C Assignment03_q2.c > ...
1  /* fork: create a new process */
2  #include <stdlib.h> /* needed to define exit() */
3  #include <unistd.h> /* needed for fork() */
4  #include <sys/wait.h> /* needed for wait() */
5  #include <stdio.h> /* needed for printf() */
6  int main(int argc, char **argv) {
7      int pid; /* process ID */
8      pid = fork();
9      if(pid==0)
10     {
11         printf("I am child\n");
12     }
13     else if (pid == -1) {
14         perror("Error");
15     }
16     else
17     {
18         printf("Parent of %d \n",pid);
19     }
20     sleep(1);
21     exit(0);
22 }
23 |
```

## Output:



```
+
abdul@abduHP-EliteBook-840-G4: ~/Documents/BSCS-4_semester/Operating Systems
abdul@abduHP-EliteBook-840-G4:~/Documents/BSCS-4_semester/Operating Systems$ gcc -o Assignment03_q2 Assignment03_q2.c
abdul@abduHP-EliteBook-840-G4:~/Documents/BSCS-4_semester/Operating Systems$ ./Assignment03_q2
Parent of 7178
I am child
abdul@abduHP-EliteBook-840-G4:~/Documents/BSCS-4_semester/Operating Systems$
```

# QNO3

```
Assignment03_forkexample.c - Operating Systems - Visual Studio Code
File Edit Selection View Go Run Terminal Help

C Assignment03_q1.c C Assignment03_q2.c C Assignment03_forkexample.c X
C Assignment03_forkexample.c > main(int, char **)
1  /* fork: create a new process */
2  #include <stdlib.h> /* needed to define exit() */
3  #include <unistd.h> /* needed for fork() */
4  #include <stdio.h> /* needed for printf() */
5  int main(int argc, char **argv) {
6      fork();
7      fork();
8      fork();
9      sleep(10000);
10     exit(0);
11 }
```

## Output

```
abdul@abdul-HP-EliteBook-840-G4: ~/Documents/BSCS-4_semester/Operating Systems
abdul@abdul-HP-EliteBook-840-G4: ~/Documents/BSCS-4_semester/Operating Systems$ gcc -o Assignment03_forkexample Assignment03_forkexample.c
abdul@abdul-HP-EliteBook-840-G4: ~/Documents/BSCS-4_semester/Operating Systems$ ./Assignment03_forkexample

↓

abdul@abdul-HP-EliteBook-840-G4: ~/Documents/BSCS-4_semester/Operating Systems$ ps aux | grep Assignment03_forkexample
abdul      7407  0.0  0.0   2620    92 pts/3    S+   02:12   0:00 ./Assignment03_forkexample
abdul      7408  0.0  0.0   2620    92 pts/3    S+   02:12   0:00 ./Assignment03_forkexample
abdul      7409  0.0  0.0   2620    92 pts/3    S+   02:12   0:00 ./Assignment03_forkexample
abdul      7410  0.0  0.0   2620    92 pts/3    S+   02:12   0:00 ./Assignment03_forkexample
abdul      7411  0.0  0.0   2620    92 pts/3    S+   02:12   0:00 ./Assignment03_forkexample
abdul      7412  0.0  0.0   2620    92 pts/3    S+   02:12   0:00 ./Assignment03_forkexample
abdul      7413  0.0  0.0   2620    92 pts/3    S+   02:12   0:00 ./Assignment03_forkexample
abdul      7414  0.0  0.0   2620    92 pts/3    S+   02:12   0:00 ./Assignment03_forkexample
abdul      7447  0.0  0.0   9288   2316 pts/4    S+   02:13   0:00 grep --color=auto Assignment03_forkexample
abdul@abdul-HP-EliteBook-840-G4: ~/Documents/BSCS-4_semester/Operating Systems$
```