

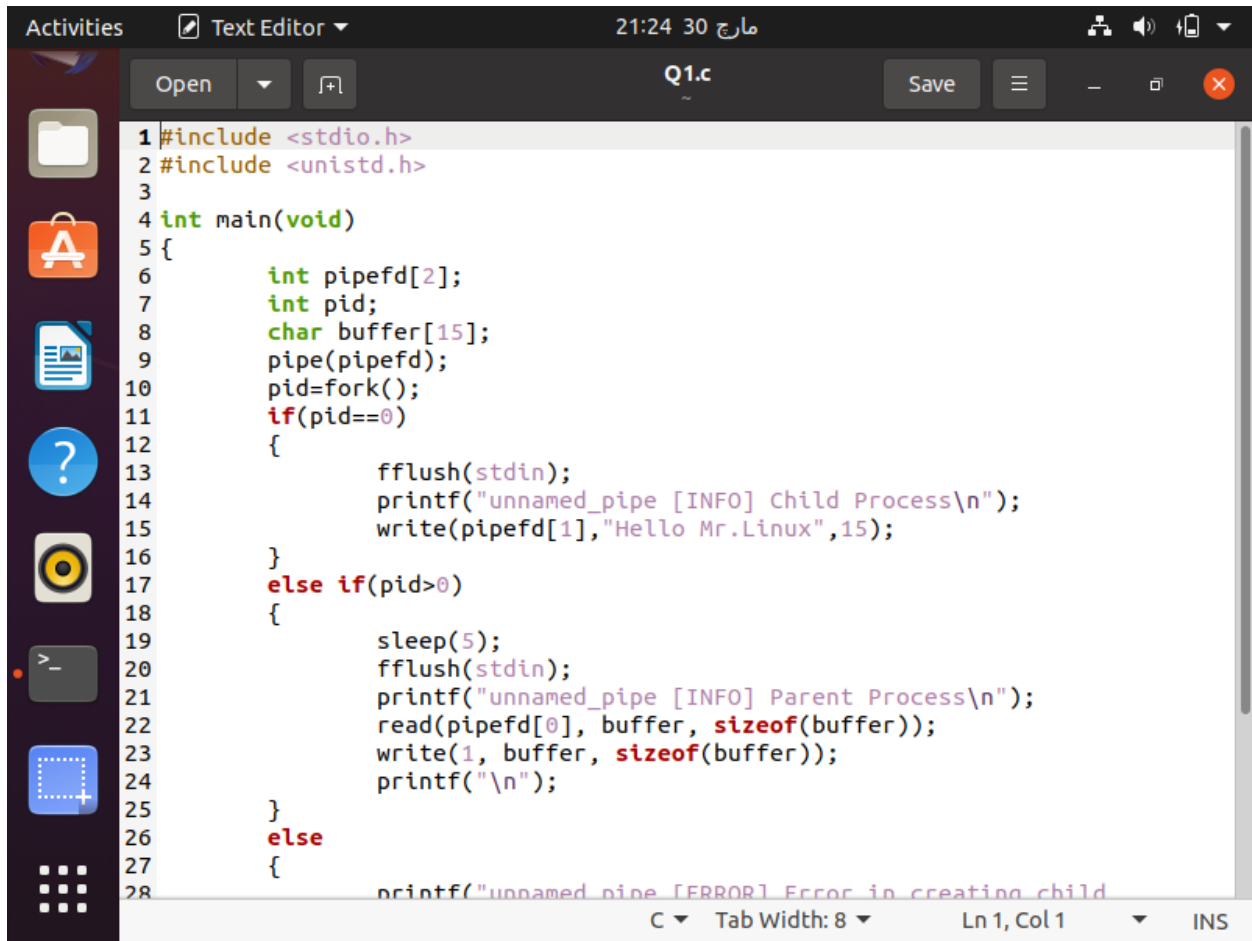
OS LAB TASKS

Name: Saman Khan

ID: 19K-0354

Section: H

Question#01:



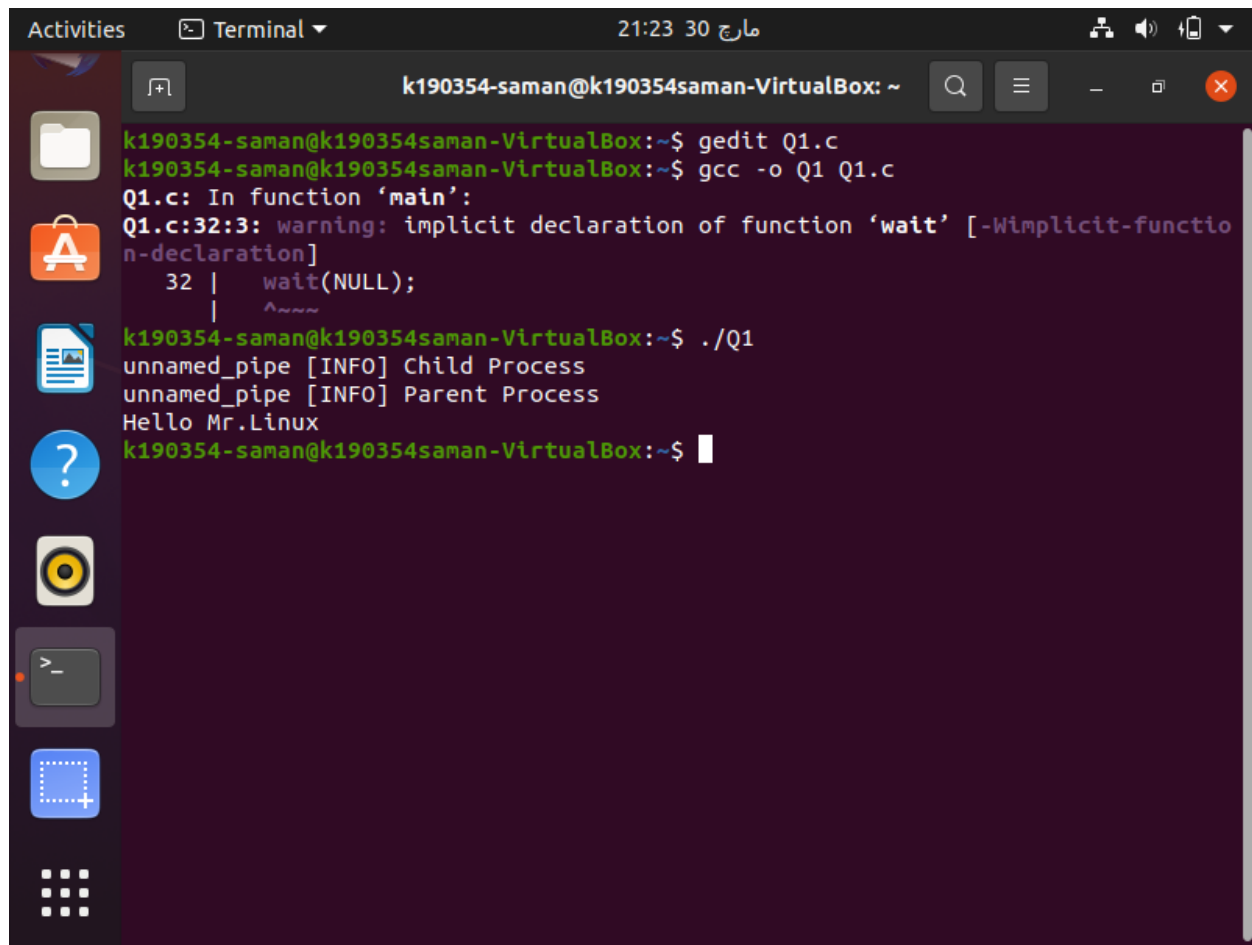
```
1#include <stdio.h>
2#include <unistd.h>
3
4int main(void)
5{
6    int pipefd[2];
7    int pid;
8    char buffer[15];
9    pipe(pipefd);
10   pid=fork();
11   if(pid==0)
12   {
13       fflush(stdin);
14       printf("unnamed_pipe [INFO] Child Process\n");
15       write(pipefd[1],"Hello Mr.Linux",15);
16   }
17   else if(pid>0)
18   {
19       sleep(5);
20       fflush(stdin);
21       printf("unnamed_pipe [INFO] Parent Process\n");
22       read(pipefd[0], buffer, sizeof(buffer));
23       write(1, buffer, sizeof(buffer));
24       printf("\n");
25   }
26   else
27   {
28       printf("unnamed_pipe [ERROR] Error in creating child
```

Activities Text Editor 21:24 30 مارچ

Open Q1.c Save

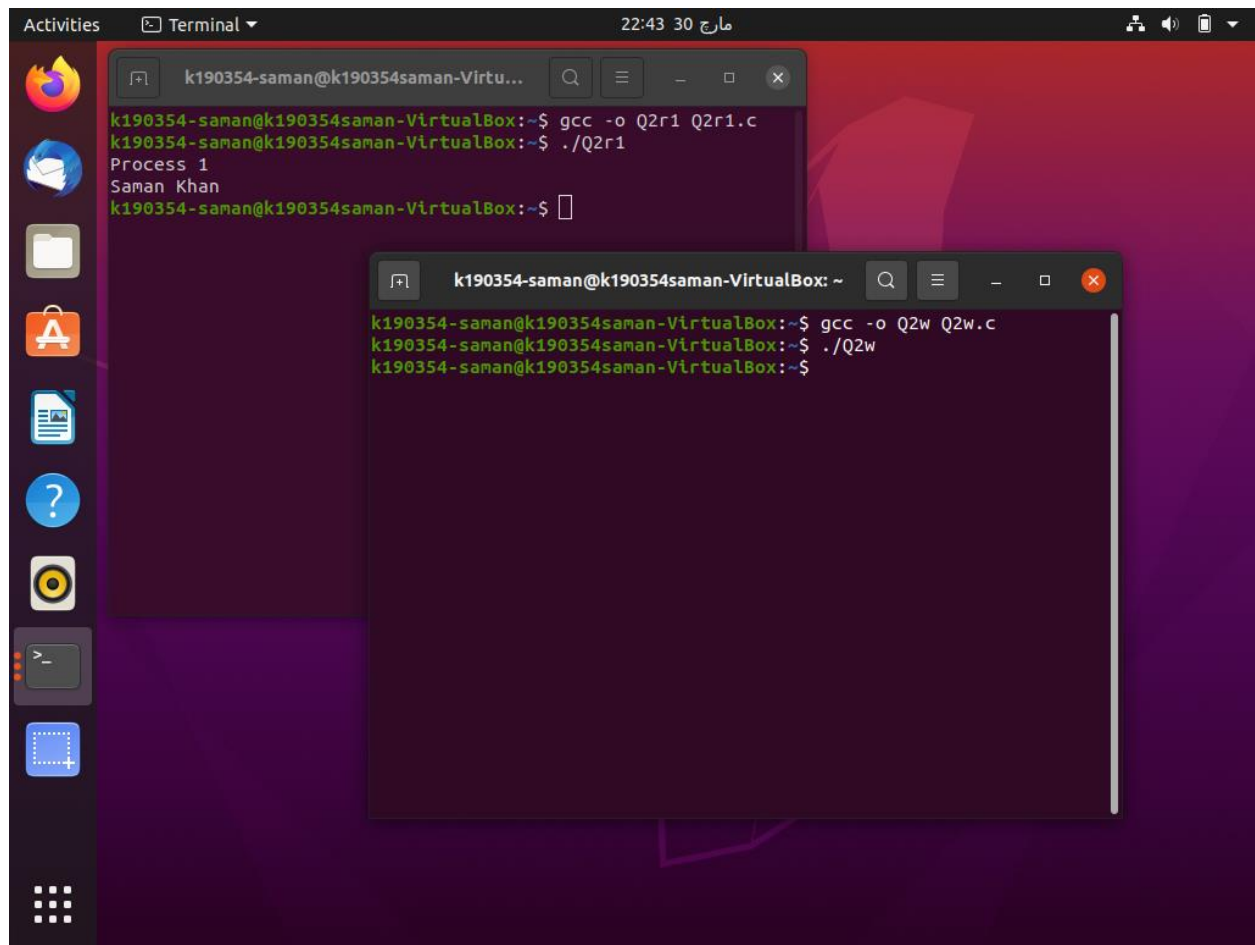
```
9 pipe(pipefd);
10 pid=fork();
11 if(pid==0)
12 {
13     fflush(stdin);
14     printf("unnamed_pipe [INFO] Child Process\n");
15     write(pipefd[1],"Hello Mr.Linux",15);
16 }
17 else if(pid>0)
18 {
19     sleep(5);
20     fflush(stdin);
21     printf("unnamed_pipe [INFO] Parent Process\n");
22     read(pipefd[0], buffer, sizeof(buffer));
23     write(1, buffer, sizeof(buffer));
24     printf("\n");
25 }
26 else
27 {
28     printf("unnamed_pipe [ERROR] Error in creating child
29 process\n");
30 }
31 if(pid>0)
32 {
33     wait(NULL);
34 }
35 return 0;
36 }
```

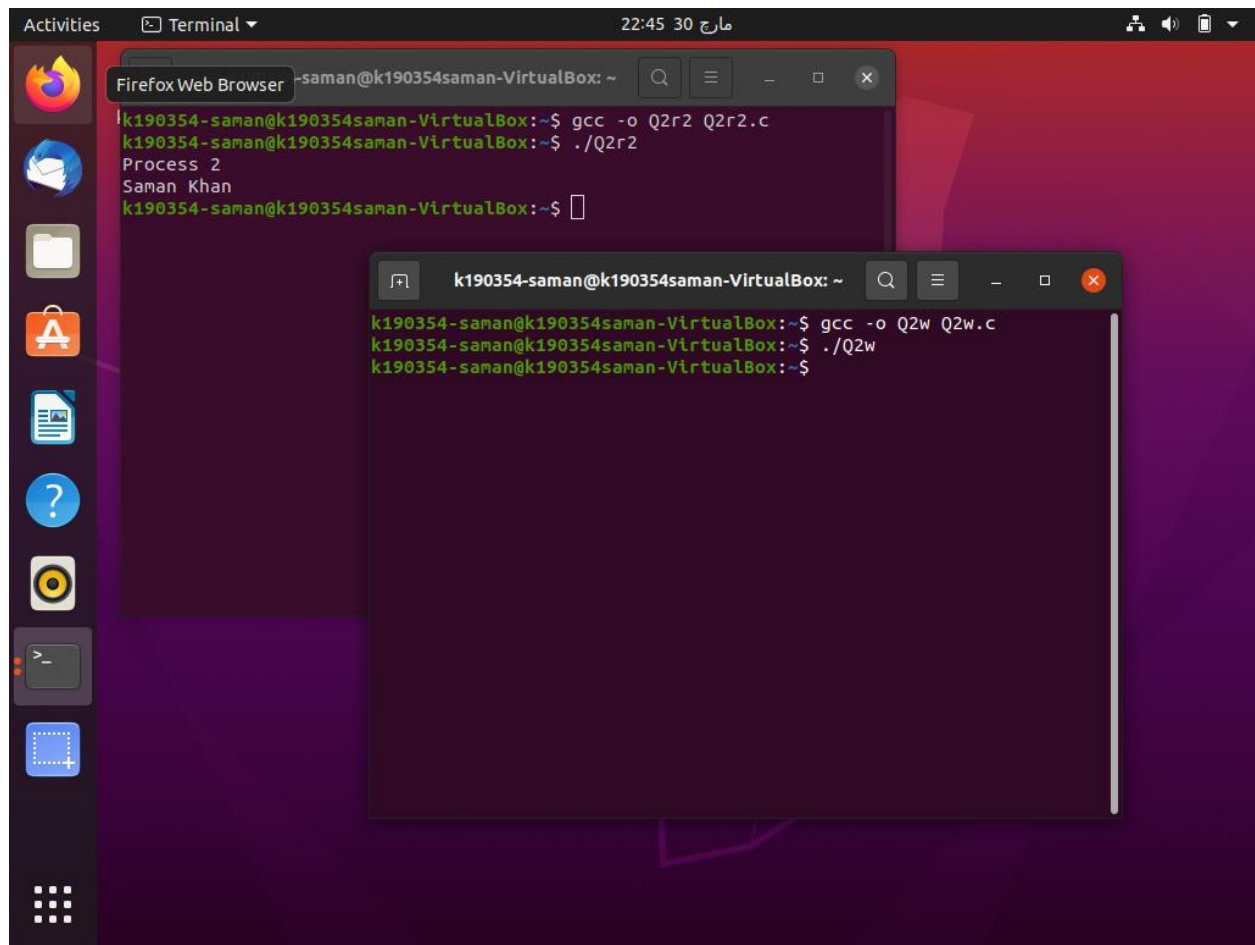
C Tab Width: 8 Ln 1, Col 1 INS

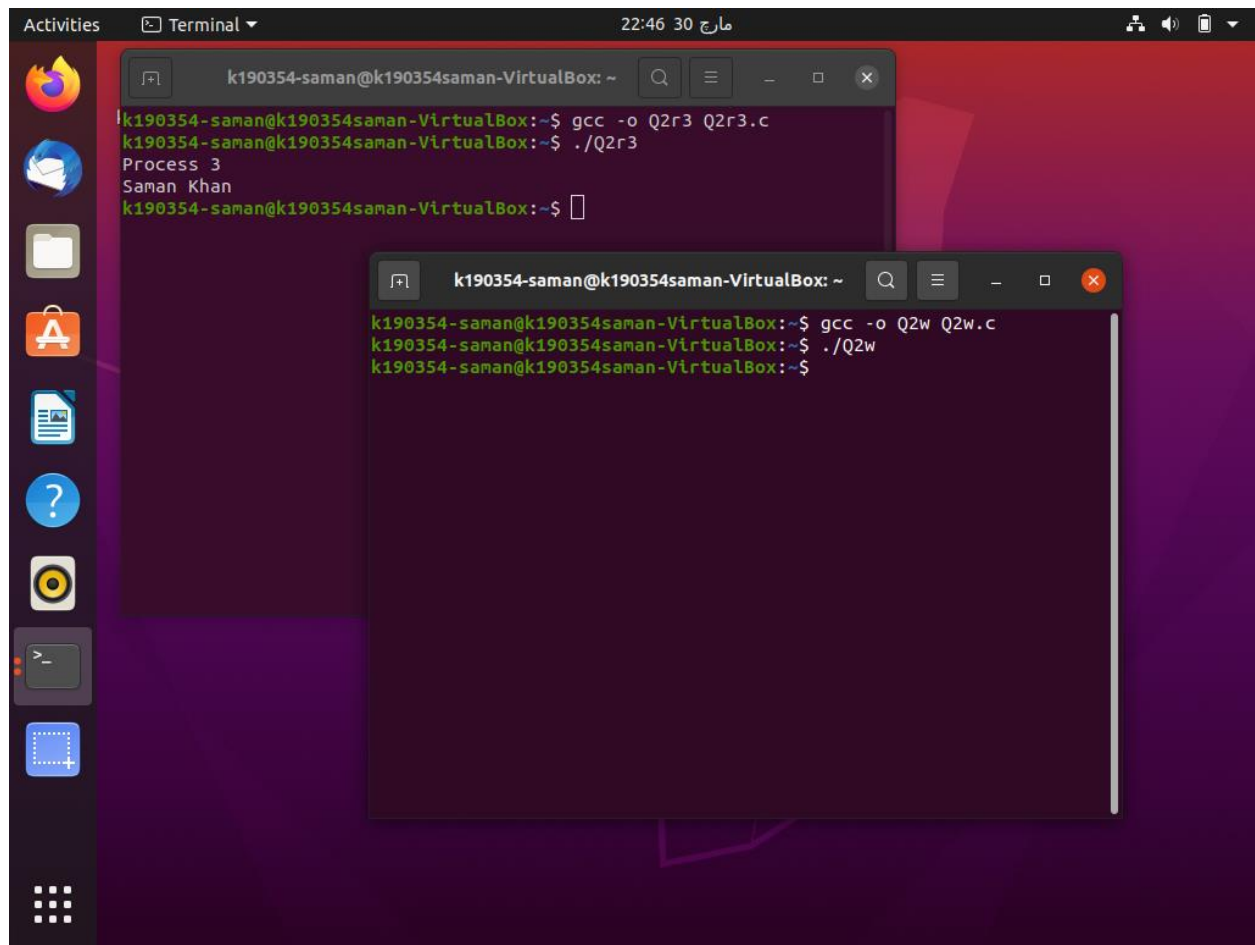


```
Activities Terminal 21:23 30 مارچ
k190354-saman@k190354saman-VirtualBox: ~
k190354-saman@k190354saman-VirtualBox:~$ gedit Q1.c
k190354-saman@k190354saman-VirtualBox:~$ gcc -o Q1 Q1.c
Q1.c: In function 'main':
Q1.c:32:3: warning: implicit declaration of function 'wait' [-Wimplicit-function-declaration]
   32 |     wait(NULL);
      |     ^~~~~
k190354-saman@k190354saman-VirtualBox:~$ ./Q1
unnamed_pipe [INFO] Child Process
unnamed_pipe [INFO] Parent Process
Hello Mr.Linux
k190354-saman@k190354saman-VirtualBox:~$
```

Question#02:







Activities Text Editor 22:47 30 مارچ Q2r1.c Save

```
1#include<stdio.h>
2#include<sys/stat.h>
3#include<sys/types.h>
4#include<fcntl.h>
5#include<unistd.h>
6
7int main(void)
8{
9    int fd, retval;
10   char buffer[11] = "";
11
12   fd = open("/tmp/myfifo",O_RDONLY);
13   retval = read(fd,buffer,sizeof(buffer));
14   fflush(stdin);
15   printf("Process 1\n");
16   printf("%s\n",buffer);
17   close(fd);
18   return 0;
19 }
```

C Tab Width: 8 Ln 18, Col 18 INS

Activities Text Editor 22:47 30 مارچ Q2r2.c Save

```
1#include<stdio.h>
2#include<sys/stat.h>
3#include<sys/types.h>
4#include<fcntl.h>
5#include<unistd.h>
6
7int main(void)
8{
9    int fd, retval;
10   char buffer[11] = "";
11
12   fd = open("/tmp/myfifo",O_RDONLY);
13   retval = read(fd,buffer,sizeof(buffer));
14   fflush(stdin);
15   printf("Process 2\n");
16   printf("%s\n",buffer);
17   close(fd);
18   return 0;
19}
```

C Tab Width: 8 Ln 8, Col 1 INS

Activities Text Editor 22:47 30 مارچ

Firefox Web Browser Q2r3.c Save

```
1 #include<stdio.h>
2 #include<sys/stat.h>
3 #include<sys/types.h>
4 #include<fcntl.h>
5 #include<unistd.h>
6
7 int main(void)
8 {
9     int fd, retval;
10    char buffer[11] = "";
11
12    fd = open("/tmp/myfifo",O_RDONLY);
13    retval = read(fd,buffer,sizeof(buffer));
14    fflush(stdin);
15    printf("Process 3\n");
16    printf("%s\n",buffer);
17    close(fd);
18    return 0;
19 }
```

C Tab Width: 8 Ln 8, Col 1 INS

Activities Text Editor 22:46 30 مارچ

Q2w.c Save

```
1#include<stdio.h>
2#include<sys/stat.h>
3#include<sys/types.h>
4#include<fcntl.h>
5#include<unistd.h>
6
7int main(void)
8{
9    int fd, retval;
10   char buffer[] = "Saman Khan";
11   fflush(stdin);
12   retval = mkfifo("/tmp/myfifo",0666);
13   fd = open("/tmp/myfifo",O_WRONLY);
14   write(fd,buffer,sizeof(buffer));
15   close(fd);
16   return 0;
17}
```

C Tab Width: 8 Ln 17, Col 2 INS