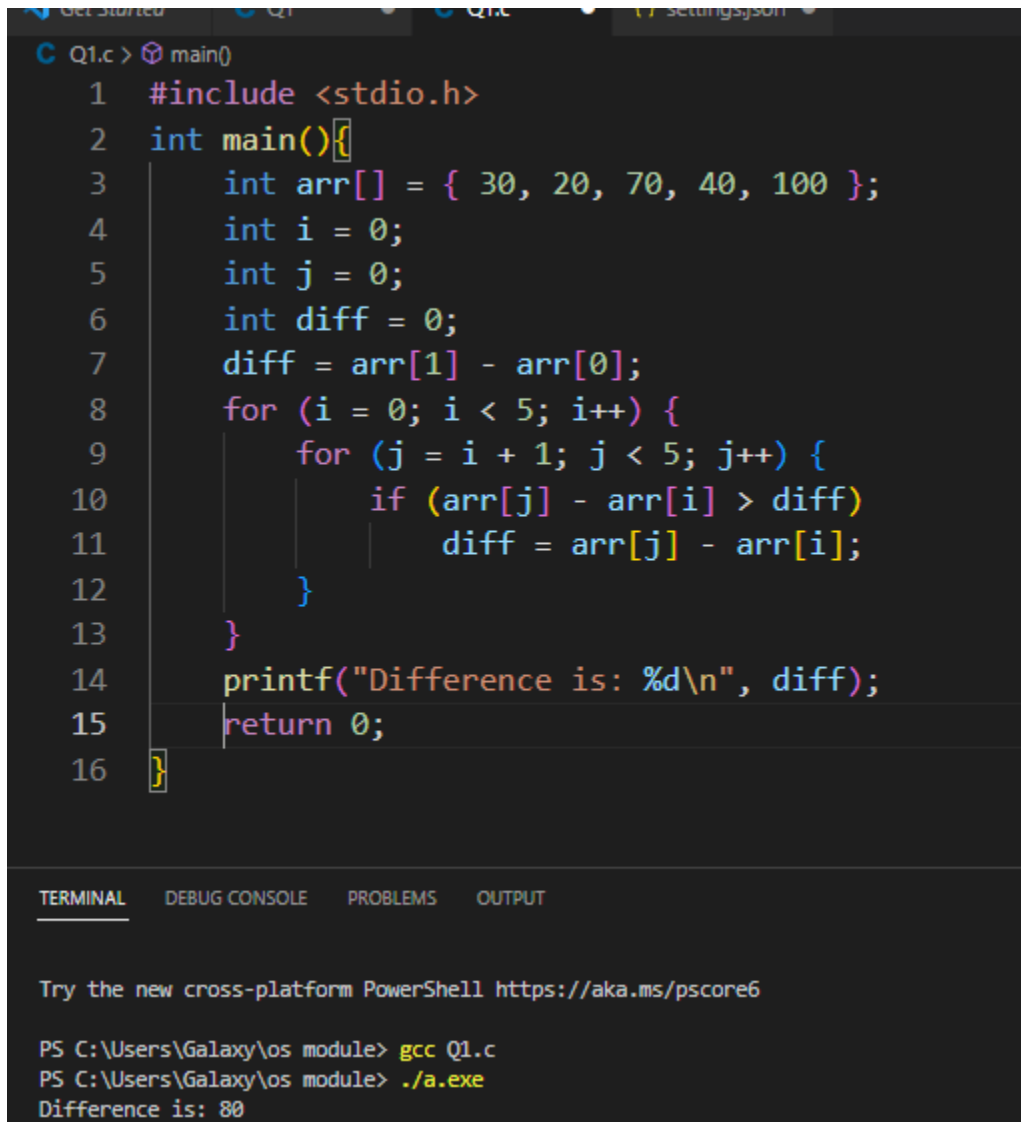


**Q1. Write a program to find the difference between the largest and smallest values in an array of integers.**

**Ans:**



```
Q1.c > main()
1  #include <stdio.h>
2  int main(){
3      int arr[] = { 30, 20, 70, 40, 100 };
4      int i = 0;
5      int j = 0;
6      int diff = 0;
7      diff = arr[1] - arr[0];
8      for (i = 0; i < 5; i++) {
9          for (j = i + 1; j < 5; j++) {
10             if (arr[j] - arr[i] > diff)
11                 diff = arr[j] - arr[i];
12         }
13     }
14     printf("Difference is: %d\n", diff);
15     return 0;
16 }
```

Try the new cross-platform PowerShell <https://aka.ms/pscore6>

```
PS C:\Users\Galaxy\os module> gcc Q1.c
PS C:\Users\Galaxy\os module> ./a.exe
Difference is: 80
```

**Q2. Write a C program to create a parent process which terminates after the child finishes printing the contents of array.**

**Ans:**

```

#include <stdio.h>
#include <sys/wait.h>
#include <stdlib.h>
#include <unistd.h>

void main()
{
    pid_t id;
    id = fork();
    if(id>0)
    {
        printf("Parent Started Executing \n");
        printf("Waiting for child to finish \n");
        wait(NULL);
        printf("Parent Exiting \n");
    }
    else
    {
        printf("Child Executing \n ");
        sleep(5);
        printf("Child Finished \n");
        exit(0);
    }
}

```

Output:

```

(kali@kali)-[~/Desktop]
$ nano pro_child.c

(kali@kali)-[~/Desktop]
$ gcc pro_child.c -o pro_child

(kali@kali)-[~/Desktop]
$ ./pro_child
Parent Started Executing
Waiting for child to finish
Child Executing
Child Finished
Parent Exiting

```