Lab Task 8

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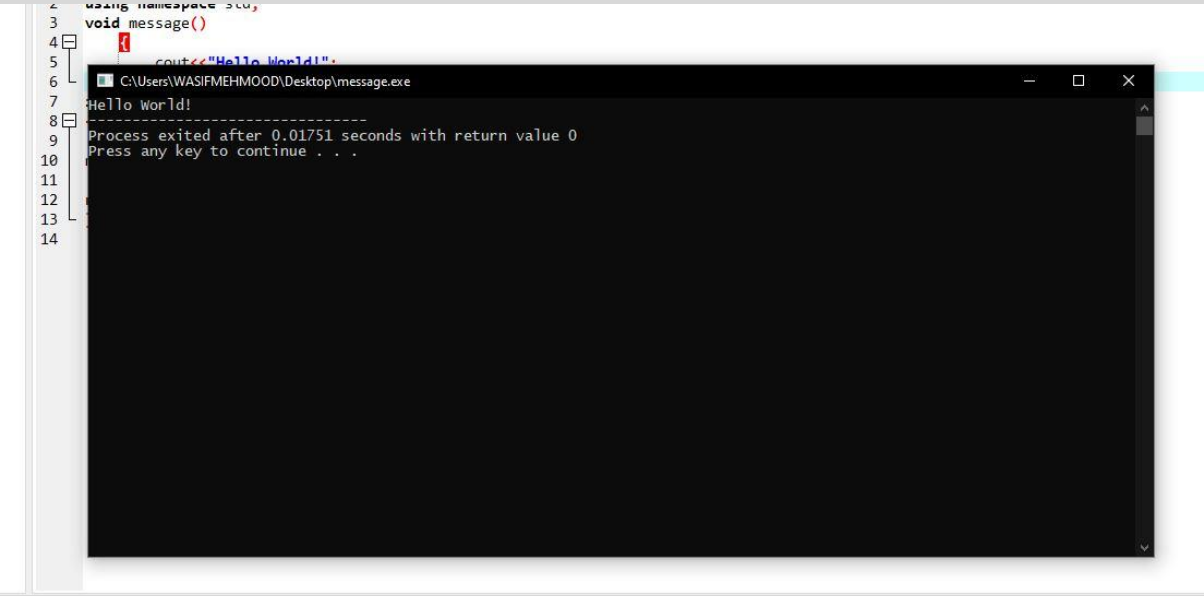
Q.1. Write a C++ function named The function does not receive any parameter and

does not return any value. The function displays the message “Hello World!”; once on the console.

Source Code:

```
#include<iostream>
using namespace std;
void message()
	{
		cout<<"Hello World!";
	}
int main()
{

message();

return 0;
}
```

Output:

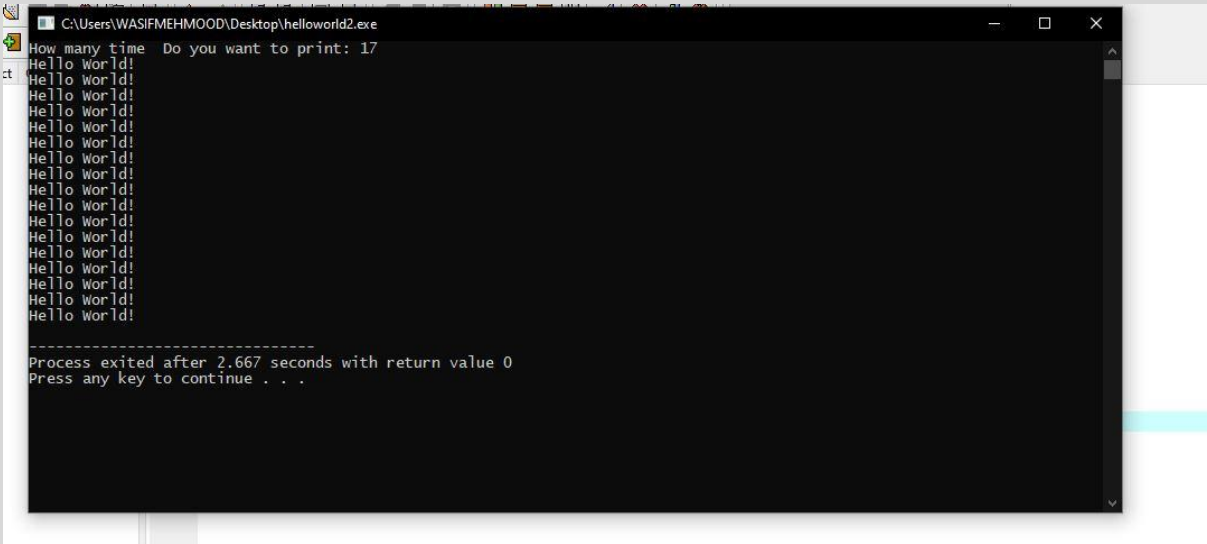


Q.2. Modify the function of Q 1 so that it receives a number from the user, and displays the message "Hello World!" the required number of times.

Source Code:

```
#include<iostream>
using namespace std;
void message(int a)
	{
		for(int i=0;i<a;i++)
		cout<<"Hello World! \n";
	}
int main()
{
	int x;
	cout<<"How many time  Do you want to print: ";
	cin>>x;
message(x);

return 0;
}
```

Output:



Q.3. Write a function which inputs two numbers from the user, and returns the sum of all numbers in the range (inclusive of both numbers). Assume that first number should always be lesser than the second number. Give your function an appropriate name.

A typical output should look like following;

Enter the 1st number : 1

Enter the 2nd number : 4

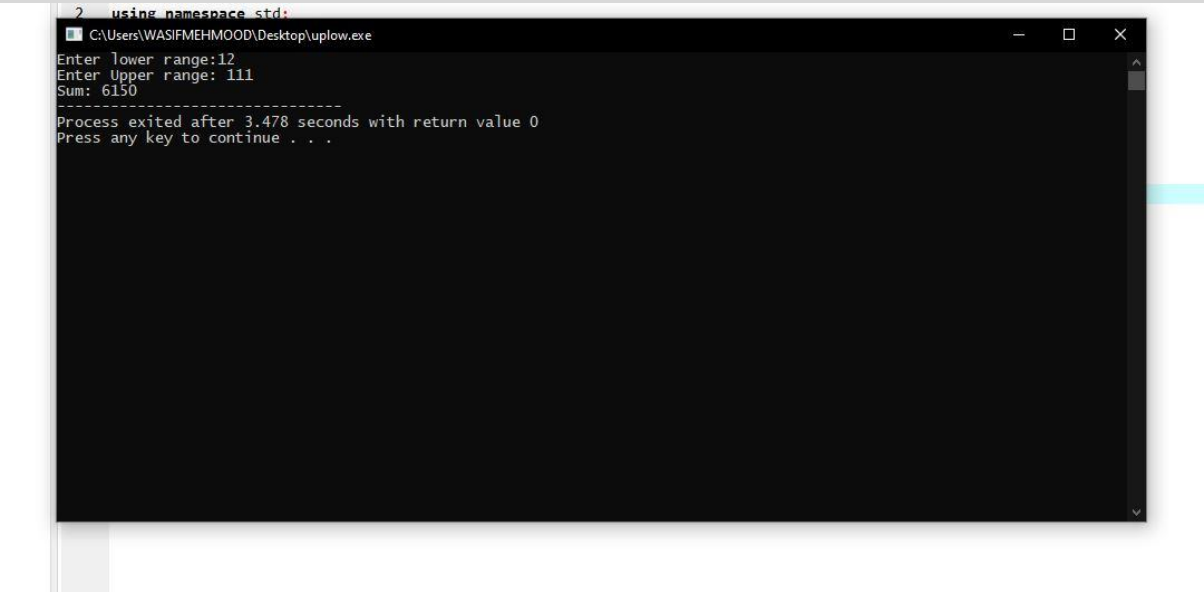
Sum of all numbers : 10

Source Code:

```
#include<iostream>
using namespace std;
int sum(int a, int b)
{
	int sum=0;
	for(int i=a;i<=b;i++)
	{
		sum+=i;
```

```
        }
        cout<<sum;
}

int main()
{
        int x,y;
        cout<<"Enter lower range:";
        cin>>x;
        cout<<"Enter Upper range: ";
        cin>>y;
        sum(x,y);

return 0;
}
```

Output:



Q.4. Rewrite Q 3, so that the assumption that the first number should always be lesser than the second number is no more required. The program should still display the sum of numbers if

the order is not correct.

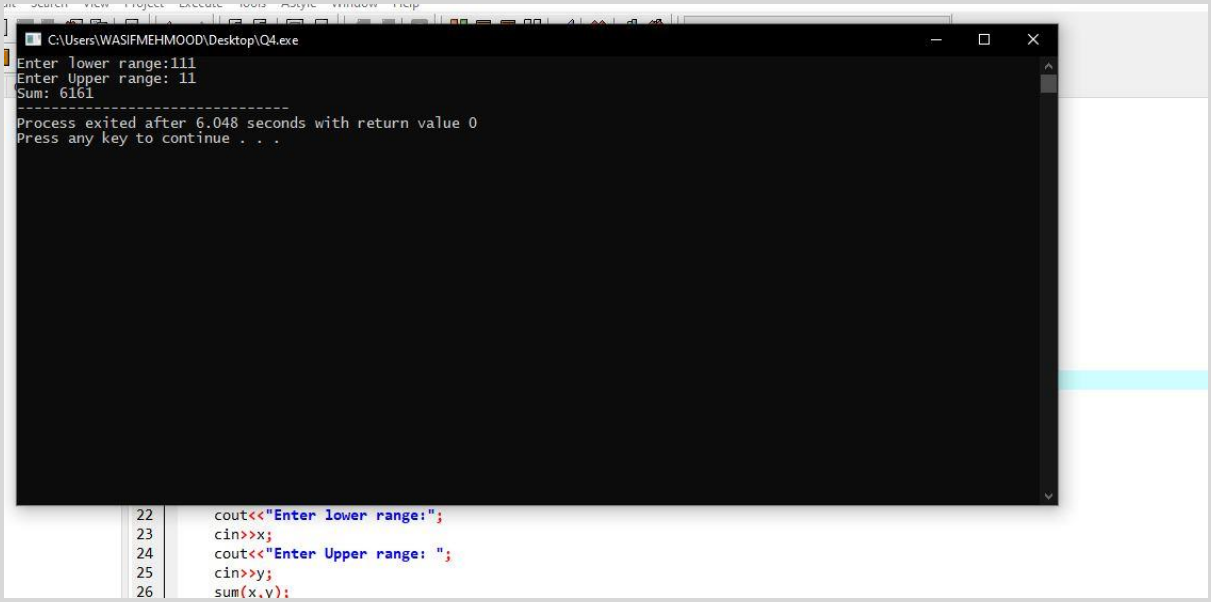
Source Code:

```
#include<iostream>
using namespace std;
int sum(int a, int b)
{
	int sum=0;
	if(a>b)
	{
		int n1=b;
		int n2=a;
	for(int i=n1;i<=n2;i++)
	{
		sum+=i;

	}
	cout<<"Sum: "<<sum;
}
}

int main()
{
	int x,y;
	cout<<"Enter lower range:";
	cin>>x;
	cout<<"Enter Upper range: ";
	cin>>y;
	sum(x,y);
```

return 0;

}

Output:



Q.5. Write a function to find factorial of a given number.

Source Code:

```
#include<iostream>

using namespace std;

double long fact(int a)

{

        double long i=1;

        double long factorial=1;


        while(i<=a)

        {

                factorial*=i;

                i++;

        }

        cout<<factorial;
```

```
}
int main()
{
int x;
cout<<"Enter the number: ";
cin>>x;
fact(x);
return 0;
}
```

Output: