

1.

```
#include <iostream>
using namespace std;


int main(){
    int n, sum=0, i=0;

    cout<<"Insert a number: ";
    cin>>n;

    for(i=1; i<=n; i++){
        sum=sum+i;
    }

    cout<<"Sum of the first "<<n<<" numbers: "<<sum;

    return 0;
}
```

 C:\Users\bit005.STUDENT\Desktop\Practical4\Q1.exe

```
Insert a number: 4
Sum of the first 4 numbers: 10
-----
Process exited after 2.109 seconds with return value 0
Press any key to continue . . .
```

2.

```
#include <iostream>
using namespace std;

int main(){
    int i, j;

    cout<<"\t";

    for(j=1; j<=10; j++){
        cout<< j << "\t";
    }
    cout<<endl;

    for(i=1; i<=10; i++){
        cout<< i << "\t";
        for(j=1; j<=10; j++){
            cout<< i*j << "\t";
        }
        cout<<endl;
    }
    return 0;
}
```

Select C:\Users\bit005.STUDENT\Desktop\Practical4\Q2.exe

	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Process exited after 0.08634 seconds with return value 0
Press any key to continue . . .

3.

```
#include <iostream>
using namespace std;

int main(){
    int i, j;

    for(i=1; i<=5; i++){
        for(j=1; j<=i; j++){
            cout<< "*";
        }
        cout<<endl;
    }
    return 0;
}
```

 C:\Users\bit005.STUDENT\Desktop\Practical4\Q3.exe

```
*
**
***
****
*****

-----
Process exited after 0.04397 seconds with return value 0
Press any key to continue . . .
```

4.

```
#include <iostream>
using namespace std;

int main(){
    int i, j;

    for(i=1; i<=5; i++){
        for(j=1; j<=i; j++){
            cout<< j;
        }
        cout<<endl;
    }
    return 0;
}
```

Select C:\Users\bit005.STUDENT\Desktop\Practical4\Q4.exe

```
1
12
123
1234
12345
```

```
-----
Process exited after 0.09385 seconds with return value 0
Press any key to continue . . .
```

C++ Class and Objects

1.

```
#include <iostream>
using namespace std;

class car{
public:
    string brand;
    string model;
    int year;
};

int main(){

    car car1;

    car1.brand = "Land Rover";
    car1.model = "MSPR";
    car1.year = 2019;

    cout<<"Brand of the car1: "<< car1.brand << endl;
    cout<<"Model of the car1: "<< car1.model << endl;
    cout<<"Year of the car1: "<< car1.year << endl;

    return 0;
}
```

Select C:\Users\bit005.STUDENT\Desktop\Practical4\C++ Class & Objects\Q1.exe

Brand of the car1: Land Rover

Model of the car1: MSPR

Year of the car1: 2019

Process exited after 0.04349 seconds with return value 0

Press any key to continue . . .

2.

```
#include <iostream>
using namespace std;

class room{
public:
    int length;
    int width;
    int height;
};

int main(){

    room room1;

    room1.length = 13;
    room1.width = 12;
    room1.height = 9;

    int area = room1.length * room1.width;
    int vol = room1.length * room1.width * room1.height;

    cout<<"Area of the room (In square feet): "<< area << endl;
    cout<<"Volume of the room (In cubic feet): "<< vol << endl;

    return 0;
}
```

Select C:\Users\bit005.STUDENT\Desktop\Practical4\C++ Class & Objects\Q2.exe

```
Area of the room (In square feet): 156
Volume of the room (In cubic feet): 1404
```

```
-----
Process exited after 0.09874 seconds with return value 0
Press any key to continue . . .
```