



NUST
NATIONAL UNIVERSITY
OF SCIENCES & TECHNOLOGY

Computer Programming Lab

Manual #7

Submitted by:

Shah Jahan khan

469192 (section C)

Submitted to:

Sir Affan Tariq

1. Take 10 integer inputs from user and store them in an array and print them on screen.

```
#include<iostream>
using namespace std;
int main(){
    int integer_array[10];
    cout<<" Enter ten numbers:"<<endl;
    for(int i=0; i<10; i++){
        cout<<" Enter integer"<<i+1<<":";
        cin>>integer_array[i];
    }

    cout<<" The numbers you entered are:";
    for(int i=0; i<10; i++){
        cout<<integer_array[i];

    }
    return 0;
}
```



```
1 #include<iostream>
2 using namespace std;
3 int main(){
4     int integer_array[10];
5     cout<<" Enter ten numbers:"<<endl;
6     for(int i=0; i<10; i++){
7         cout<<" Enter integer"<<i+1<<":";
8         cin>>integer_array[i];
9     }
10
11     cout<<" The numbers you entered are:";
12     for(int i=0; i<10; i++){
13         cout<<integer_array[i];
14     }
15     return 0;
16 }
```

Enter ten numbers:
Enter integer1:1
Enter integer2:2
Enter integer3:3
Enter integer4:4
Enter integer5:5
Enter integer6:6
Enter integer7:7
Enter integer8:8
Enter integer9:9
Enter integer10:10
The numbers you entered are:12345678910

2. Write a program to find the sum and product of all elements of an array with 5 integer elements

```
#include<iostream>
using namespace std;
int main (){
    int integer_array[5];int sum=0, product=1;
    cout<<" Enter 5 numbers"<<endl;
    for(int i=0; i<5; i++){
        cout<<" Enter your number"<<i+1<<":";
        cin>>integer_array[i];

    sum+=integer_array[i];
    product*=integer_array[i];
}
```

```

}

cout<<" The sum of numbers in the array are:"<<sum<<endl;
cout<<" The product of numbers in the array are:"<<product<<endl;
return 0;
}

```

```

1 #include<iostream>
2 using namespace std;
3 int main (){
4     int integer_array[5];int sum=0, product=1;
5     cout<<" Enter 5 numbers"<<endl;
6     for(int i=0; i<5; i++){
7         cout<<" Enter your number"<<i+1<<" ";
8         cin>>integer_array[i];
9
10
11         sum+=integer_array[i];
12         product*=integer_array[i];
13     }
14
15     cout<<" The sum of numbers in the array are:"<<sum<<endl;
16     cout<<" The product of numbers in the array are:"<<product<<endl;
17     return 0;
18 }

```

Enter 5 numbers:
 Enter your number1:1
 Enter your number2:2
 Enter your number3:3
 Enter your number4:4
 Enter your number5:5
 The sum of numbers in the array are:15
 The product of numbers in the array are:120

3. Print diamond pattern using a single array.

```

#include<iostream>
using namespace std;
int main(){
    int n=3;
    for(int i=0; i<3; i++){
        for(int j=0; j<n-i-1; j++){
            cout<<" ";
        }
        for(int j=0; j<2*i+1; j++){
            cout<<"*";
        }
        cout<<endl;
    }
    for(int i=n-2;i>=0; i--){
        for(int j=0;j<n-i-1; j++){
            cout<<" ";
        }
        for(int j=0; j<2*i+1; j++){
            cout<<"*";
        }
        cout<<endl;
    }
    return 0;
}

```

```
1 #include<iostream>
2 using namespace std;
3 int main(){
4     int n=3;
5     for(int i=0; i<3; i++){
6         for(int j=0; j<n-i-1; j++){
7             cout<<" ";
8         }
9         for(int j=0; j<2*i+1; j++){
10             cout<<"*";
11         }
12         cout<<endl;
13     }
14     for(int i=n-2; i>=0; i--){
15         for(int j=0; j<n-i-1; j++){
16             cout<<" ";
17         }
18         for(int j=0; j<2*i+1; j++){
19             cout<<"*";
20         }
21         cout<<endl;
22     }
23     return 0;
24 }
```

/tmp/NO
*

*