

Lab manual 07

Lab task submission

Task 01

```
#include <iostream>

using namespace std;

int main()
{
    int array [10];
    int i;
    cout<<"enter 10 numbers \n";
    for (i=0;i<10;i++){
        cin>>array[i];
    }
    cout<<"you entered \n";
    for(i=0;i<10;i++){
        cout<<array[i]<<endl;
    }
}
```

```
C:\Users\TALHA SANGRASID\  ×  +  ∨

enter 10 numbers

12
2
32
324
34
5
5
54
5
45
you entered
12
2
32
324
34
5
5
54
5
45

-----
Process exited after 27.14 seconds with return value 0
Press any key to continue . . . |
```

Task 02

```
#include <iostream>

using namespace std;

int main()
{
    int n;

    int array[n];
```

```

int sum(0),product(1),i;

cout<<"enter the number of elements \n";

cin>>n;

cout<<"enter the numbers \n";

for(i=0;i<n;i++){

    cin>>array[i];

}

for(i=0;i<n;i++){

    sum+=array[i];

    product*=array[i];

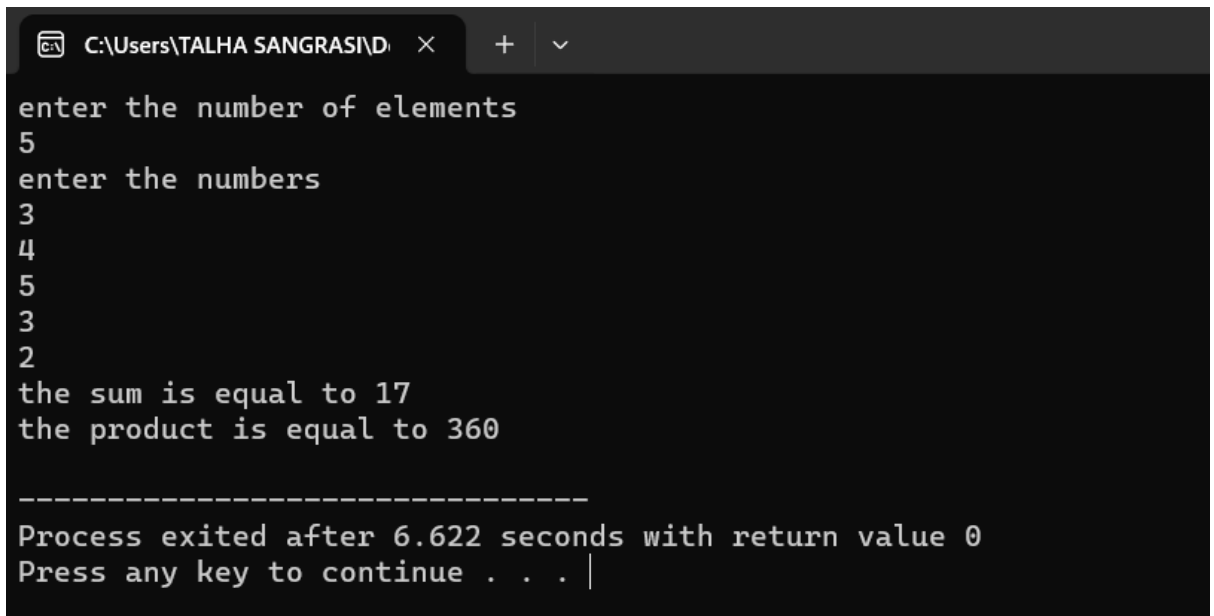
}

cout<<"the sum is equal to "<<sum<<endl;

cout<<"the product is equal to "<<product<<endl;

}

```



```

C:\Users\TALHA SANGRASID>
enter the number of elements
5
enter the numbers
3
4
5
3
2
the sum is equal to 17
the product is equal to 360

-----
Process exited after 6.622 seconds with return value 0
Press any key to continue . . . |

```

Task 03

```
#include<iostream>

#include<string>

using namespace std;

int main() {
    int size;

    cout << "Enter the size of the diamond: ";

    cin >> size;

    const int MAX_SIZE = 2 * size - 1;
    string diamond[MAX_SIZE];

    // Upper part of the diamond
    for (int row = 1; row <= size; row++) {
        string line = "";

        for (int space = 1; space <= size - row; space++) {
            line += " ";
        }

        for (int star = 1; star <= 2 * row - 1; star++) {
            line += "* ";
        }

        diamond[row - 1] = line;
    }

    // Lower part of the diamond
    for (int row = size - 1; row >= 1; row--) {
        string line = "";

        for (int space = 1; space <= size - row; space++) {
```

```

        line += " ";
    }
    for (int star = 1; star <= 2 * row - 1; star++) {
        line += "* ";
    }
    diamond[MAX_SIZE - row] = line;
}

// Print the diamond from the array
for (int i = 0; i < MAX_SIZE; i++) {
    cout << diamond[i] << endl;
}

}

```

```

Enter the size of the diamond: 6
    *
  * * *
 * * * * *
* * * * * * *
* * * * * * * * *
* * * * * * * * * *
* * * * * * * * *
 * * * * * * *
  * * * * *
   * * *
    *

-----
Process exited after 1.888 seconds with return value 0
Press any key to continue . . .

```