



# **NATIONAL UNIVERSITY OF SCIENCES AND TECHNOLOGY**

## **CS-114-FUNDAMENTAL OF PROGRAMING LAB MANUAL # 7**

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## TASK # 1

### CODE:

```
#include <iostream>

using namespace std;

int main(){
    int array[10];

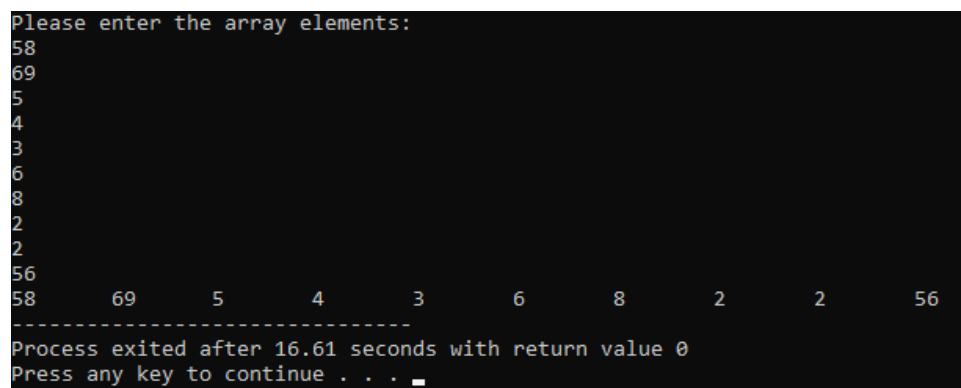
    cout<<"Please enter the array elements:\n";

    for(int i=0;i<10;i++){
        cin>>array[i];
    }

    for(int i=0; i<10;i++){
        cout<<array[i]<<"\t";
    }

    return 0;
}
```

### RESULT:



The screenshot shows a terminal window with a black background and white text. The program prompts the user to enter 10 array elements. The user enters the values: 58, 69, 5, 4, 3, 6, 8, 2, 2, and 56. The program then displays these values in a single line, separated by tabs. Below the output, a dashed line is shown, followed by the message "Process exited after 16.61 seconds with return value 0" and "Press any key to continue . . .".

```
Please enter the array elements:
58
69
5
4
3
6
8
2
2
56
58      69      5      4      3      6      8      2      2      56
-----
Process exited after 16.61 seconds with return value 0
Press any key to continue . . .
```

## TASK # 2

### CODE:

```
#include <iostream>

using namespace std;

int main(){

int array[5];

int sum=0;

int product=1;

cout<<"Please enter any 5 integers:\n";

for(int i=0;i<5;i++){

cin>>array[i];

}

for(int i=0;i<5;i++){

sum=sum+array[i];

}

cout<<"The sum of all integers is "<<sum<<".\n";

for(int i=0;i<5;i++){

product=product*array[i];

}

cout<<"The product of all integers is "<<product<<".\n";

return 0;

}
```

## RESULT:

```
Please enter any 5 integers:
5
5
5
5
5
The sum of all integers is 25.
The product of all integers is 3125.

-----
Process exited after 2.977 seconds with return value 0
Press any key to continue . . .
```

## TASK # 2

### CODE:

```
#include <iostream>

using namespace std;

int main(){

    int size;

    cout<<"Enter The Size Of Diamond:";

    cin>>size;

    int half=size/2;

    char diamond[size];

    for(int i=0;i<size;i++){

        diamond[i]=' ';

    }

    for(int i=0;i<=half;i++){

        for(int j=0;j<=size;j++){

            diamond[half-i]='*';
```

```
diamond[half+i]='*';
cout<<diamond[j];

}
cout<<endl;
}
for (int i=half-1;i>=0;i--){
    for (int j=0;j<size;j++) {
        diamond[half - i]='*';
        diamond[half + i]='*';

        if (j < half - i || j > half + i) {
            cout<<' ';
        } else {
            cout<<diamond[j];
        }
    }
    cout << endl;
}
}
```

**RESULT:**

Enter The Size Of Diamond:7

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

-----  
Process exited after 2.218 seconds with return value 0  
Press any key to continue . . .