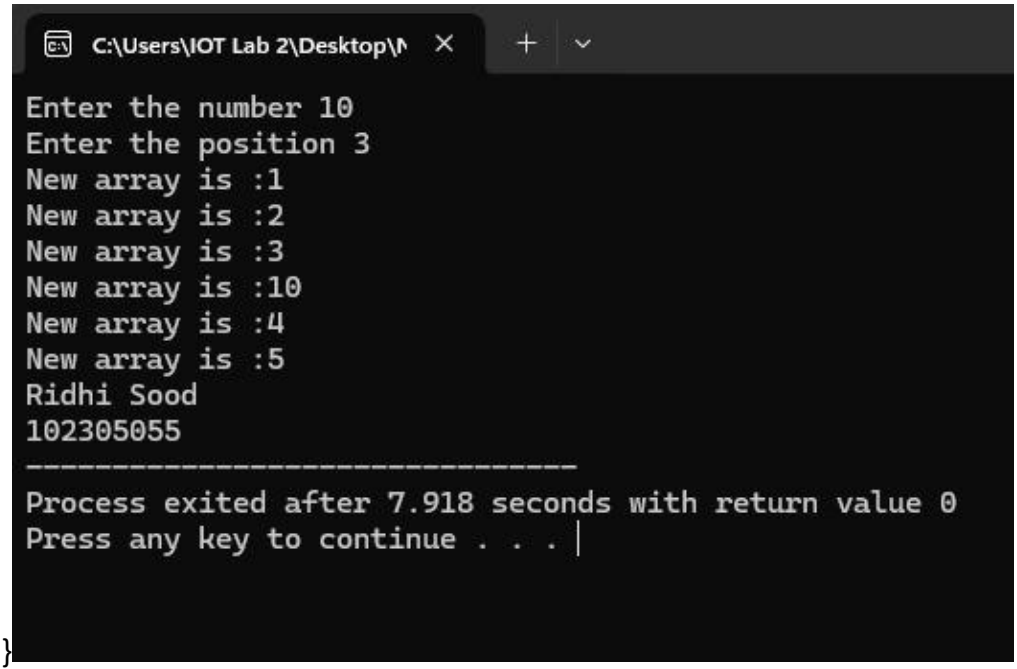
Q1. Implement a program for array operations: insertion,deletion, and traversal.

```
#include <iostream>
using namespace std;
int main(){
        int num1,position;
        int size = 10;
        int arr[size]={1,2,3,4,5};
        cout<<"Enter the number";
        cin>> num1;
        cout<<"Enter the position";
        cin>> position;
        if(position<0||position>size){
                cout<<"invalid position";
        }
        else{
                for(int i=size;i>position;i--){
                        arr[i] = arr[i-1];
                }
                arr[position]=num1;

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

            cout<<"New array is :"<< arr[i]<<endl;
     }
}
 cout<< “Ridhi Sood \n”;
cout<<”102305055”;
```



27. }

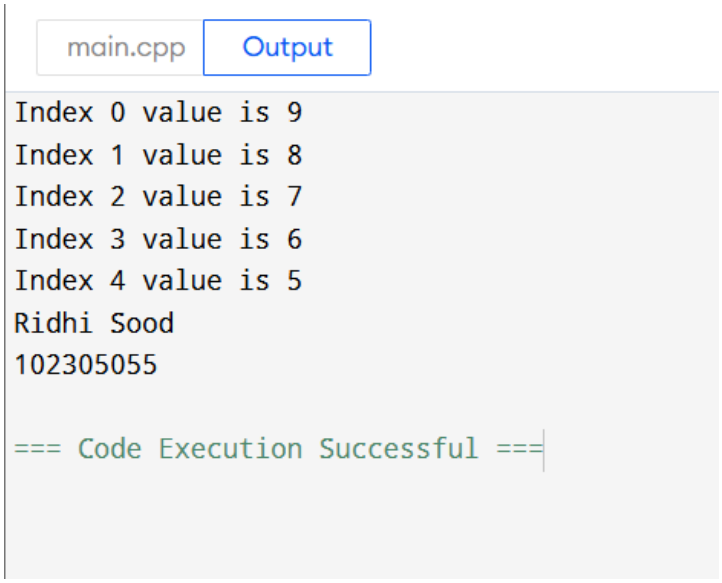
```
# include<iostream>
using namespace std;
int main(){
    int size =5;
    int elementTodelete;
    int arr[size]={1,2,3,4,5};
    cout<<"Enter the element to be deleted : \n";
    cin>>elementTodelete;
    int found =0;
    for(int i =0;i<size;i++){
      if(arr[i]==elementTodelete){
      for(int j =i;j<size-1;j++){
         arr[j]=arr[j+1];
      }
      found =1;
      size--;
      }
    }
    cout<<"After the deletion : \n ";
    for(int i =0;i<size;i++){
       cout<<arr[i]<<endl;
    }
    cout<<"Ridhi Sood \n";
    cout<<"102305055";
}
```

main.cpp | Output

```
Enter the element to be deleted :
3
After the deletion :
 1
2
4
5
Ridhi Sood
102305055

=== Code Execution Successful ===
```

```
#include<iostream>
using namespace std;
int main(){
   int arr[5]={9,8,7,6,5};
   for(int i=0;i<5;i++){
      cout<<"Index " << i << " value is " << arr[i]<<endl;
   }
   cout<<"Ridhi Sood \n";
   cout<<"102305055";
}
```



Q2. **Write a program to reverse a string using arrays**.

```
1.  #include<iostream>
2.  #include<cstring>
3.  using namespace std;
4.  int main(){
5.     char string[100],reverse[100];
6.     int length;
7.     cout<<"Enter the string  \n";
8.     cin>>string;
9.     length = strlen(string);
10.    for(int i=0;i<length;i++){
11.       reverse[i]=string[length-i-1];
12.    }
13.    reverse[length] ='\0';
14.    cout<<"Reversed String : \n";
15.    for(int i =0;i<length;i++){
16.       cout<<reverse[i] ;
17.    }
18.    cout<<"\n Ridhi Sood \n";
19.    cout<<"102305055 \n";
20. }
```

Output

```
Enter the string
RIDHI
Reversed String :
IHDIR
 Ridhi Sood
102305055


=== Code Execution Successful ===
```

Q3. Write a program to merge two sorted arrays.

```
1. #include<iostream>
2. using namespace std;
3. int main(){
4.     const int size =5;
5.     int arr1[size]={1,2,3,4,5};
6.     int arr2[size]={6,7,8,9,10};
7.     int arr3[2*size];
8.     for(int i =0 ; i<size;i++){
9.         arr3[i]=arr1[i];
10.        arr3[i+size]=arr2[i];
11.    }
12.    cout<<"After the Merge \n";
13.    for(int i =0 ; i<2*size;i++){
14.        cout<<arr3[i];
15.    }
16.    cout<<" \n Ridhi Sood \n";
17.    cout<<"102305055 \n";
18. }
```

Output

```
After the Merge
12345678910
 Ridhi Sood
102305055


=== Code Execution Successful ===
```