



C++ Assignments | Arrays - 1 | Week 5

1. Calculate the product of all the elements in the given array.

Code :-

```
#include<iostream>
```

```
Using namespace std;
```

```
Int main()
```

```
{  
Int n;
```

```
cout<<"Enter the array size: ";
```

```
cin>>n;
```

```
Int arr[n];
```

```
fora(int i = 0; i < n; i++)
```

```
{
```

```
cin>>arr[i];
```

```
}  
  
int sum = 1;  
  
for(int i = 0; i < n; i++)  
{  
    sum = sum * arr[i];  
}  
  
cout<<"total : "<<sum;  
  
return 0;  
}
```

2. Find the second largest element in the given Array in one pass.

```
#include<iostream>  
using namespace std;  
int main()  
{
```

```
int n;

cout<<"enter the size of the array:";

cin>>n;

int arr[n];

int i = arr[n]; //1 2 3 4 5

for (int i = 0; i <= n-1; i++)
{
    cin>>arr[i];
}

//display array
cout<<"array:"<<endl;

for (int i = 0; i < n; i++)
{
    cout<<" "<<arr[i];
}

// //output
// // largest element

int max = arr[0];

for (int i = 1; i <n ; i++)
{
    if ( max < arr[i]) max = arr[i];
}

cout<<"largest no is :"<<max<<endl;
```

```

    // output
    // second largest number
    int smax1 = arr[0];
    for (int i = 1; i < n; i++)
    {
        if ( smax1 < arr[i] && arr[i] != max ) smax1=arr[i];
    }
    cout<<"second largest no is :"<<smax1<<endl;
    return 0;
}

```

3. Find the minimum value out of all elements in the array.

```

#include<iostream>
using namespace std;

int main()
{
    int n;
    cout<<"enter the size of array:"<<endl;
    cin>>n;

    //array
    int arr[n];

```

```
//input
for (int i = 0; i < n; i++)
{
    cin>>arr[i];
}
//display array:
cout<<"array is :";
for (int i = 0; i<n; i++)
{
    cout<<arr[i]<<" ";
}
cout<<endl;

//min value
int min = arr[0];
for (int i = 1; i < n; i++)
{
    if (arr[i] < min ) min = arr[i];
}
cout<<"min value is :"<<min<<endl;
return 0;
}
```

4. Given an array, predict if the array contains duplicates or not.

```
// imp      // Given an array, predict if the array contains duplicates
or not.

#include <iostream>
using namespace std;

int main()
{
    int n;
    cout << "Enter the size of array:";
    cin >> n;

    int arr[n];
    // input
    for (int i = 0; i < n; i++)
    {
        cin >> arr[i];
    }

    // display array
    for (int i = 0; i < n; i++)
    {
        cout << arr[i] << " ";
    }
}
```

```
cout << endl;

// duplicates or not

bool flag = false;
for (int i = 0; i < n; i++)
{
    for (int j = i + 1; j < n; j++)
    {
        if (arr[i] == arr[j])
        {
            flag = true;
            cout << "duplicates : "<< arr[i];
            break;
        }
    }
}

if (flag == false)
    cout << "No duplicate";

return 0;
}
```

5. WAP to find the smallest missing positive element in the sorted Array that contains only positive elements.

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

int main()
{
    int n;
    cout<<"enter the size of the array:";
    cin>>n;

    int arr[n];
    cout<<"note only contain the positive elements : ";
    for (int i = 0; i < n; i++)
    {
        cin>>arr[i];
    }
    // display
    cout<<"array:";
    for (int i = 0; i < n; i++)
    {
        cout<<" "<<arr[i];
    }
    cout<<endl;
```



```

    for (int i = 0; i < n; i++)
    {
        if (arr[i] <= 0) continue;

        else if (arr[i] != arr[i] + 1){
            cout<<"this is the missing smallest element :
"<<arr[i]+1;
            break;

        }

    }

    return 0;

```

6. Predict the output.

```

int main()
{
    int sub[50], i ;
    for ( i = 0 ; i <= 48 ; i++ ) ;
    {
        sub[i] = i ;
    }
}

```

```
cout<<sub[i]<<endl ;  
}  
return 0;  
}
```

Ans is 49.