C++ Assignments | Arrays - 1 | Week 5

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

```cpp
#include <iostream>

using namespace std;

int main(){

    int n;

    cout<<"Enter no of array: ";

    cin>>n;

    int arr [n];

    cout<<"Enter values : ";

    for (int i = 1; i <= n; i++){

        cin>>arr [i];

    }

    int product=1;

    for (int i = 1; i <= n; i++){
```

```
        product *= arr [i];




    }

    cout<<product;




}
```

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

```cpp
#include <iostream>
#include <climits>
using namespace std;
int main(){
    int n;
    cout<<"Enter no of array: ";
    cin>>n;
    int arr [n];
    cout<<"Enter values : ";
    int mx=INT_MIN;
    int smx=INT_MIN;
    for (int i = 1; i <= n; i++){
```

```
        cin>>arr [i];
    }
    for (int i = 1; i <= n; i++){
        if(arr[i]>mx){
            smx = mx;
            mx = arr[i];
        }


    }
    cout<<mx<<endl;
    cout<<smx<<endl;
}
```

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

```
#include <iostream>
using namespace std;
int main(){
    int n;
    cout<<"Enter no of array: ";
    cin>>n;
    int arr [n];
    cout<<"Enter values : ";
```

```cpp
    int mn=arr[1];

    for (int i = 1; i <= n; i++){

        cin>>arr [i];

    }

    for (int i = 1; i <= n; i++){

        mn=min(mn,arr[i]);


    }

    cout<<mn;


}
```

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

```cpp
#include<iostream>

using namespace std;

int main(){

    int arr[]= {9,3,4,5,6,7,8,1};

    int n = sizeof(arr)/4;

    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;
```

```
                break;
            }
        }
    if (flag==true) break;
    }
    if(flag==true)          cout<<"contain duplicate ";
    else            cout<<"All elements are unique";
}
```

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() {
cout<<"enter 5 elements of the array"<<endl;
int a[5];
for(int i=0;i<5;i++){
cin>>a[i];
}
int x=0;
bool flag=false;
for(int i=0;i<n;i++){
if(a[i]!= x){
cout<<x<<endl;
```

```
flag=true;
break;
}
else x++;
}
if(flag==false) cout<<x<<endl;
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;
}
```

Solution:

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