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

array1 > assignment1.cpp > ...

```cpp
#include<iostream>
using namespace std;
int main(){
    int n;
    cout<<"enter the number: ";
    cin>>n;
    int arr[n];
    for(int i=0;i<=n-1;i++){
        cin>>arr[i];
    }
    int product=1;
    for(int i=0;i<=n-1;i++){
        product = product * arr[i];
    }
    cout<<product;
}
```

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

array1 > assignment2.cpp > ...

```cpp
#include<iostream>
#include<climits>
using namespace std;
int main(){
    cout<<"enter the number : ";
    int n;
    cin>>n;
    int arr[n];
    int max=INT_MIN;
    int smax=INT_MIN;
    for(int i=0;i<=n-1;i++){
        cin>>arr[i];
    }
    for(int i=0;i<=n-1;i++){
        if(max<arr[i])   max=arr[i];
    }
    for(int i=0;i<=n-1;i++){
        if( smax< arr[i] && arr[i]!=max ) smax=arr[i];
    }
    cout<<max<<" is maximum value.";
    cout<<smax<<" is second maximum value.";
}
```

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

array1 > assignment3.cpp > ...

```cpp
#include<iostream>
#include<climits>
using namespace std;
int main(){
    cout<<"enter the number : ";
    int n;
    cin>>n;
    int arr[n];
    int min=INT_MAX;
    for(int i=0;i<=n-1;i++){
        cin>>arr[i];
    }
    for(int i=1;i<=n-1;i++){
        if(min>arr[i])   min=arr[i];
    }
    cout<<min<<" is minimum value.";
}
```

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

array1 > assignment4.cpp > ...

```cpp
#include<iostream>
using namespace std;
int main(){
    int n;
    cout<<"enter the number: ";
    cin>>n;
    int arr[n];
    for(int i=0;i<=n-1;i++){
     cin>>arr[i];
    }
    bool flag = false;
    for(int i=0;i<=n-1;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<<"the array contains duplicate.";
    else   cout<<"the array not contains duplicate.";
}
```

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

array1 > assignment5.cpp > ...

```cpp
#include<iostream>
using namespace std;
int main(){
    int n;
    cout<<"enter the number: ";
    cin>>n;
    int arr[n];
    for(int i=0;i<=n-1;i++){
        cin>>arr[i];
    }
    bool flag = false;
   for(int i=0;i<=n-1;i++){
        if(arr[i]!=i+1)   flag =  true;
    }
    if(flag==true)   cout<<"the array contains shorted value.";
  else   cout<<"the array not contains shorted value.";
}
```