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

main.cpp

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

int main(){
    int n;
    cin>>n;
    int arr[n];
    for(int i=0;i<n;i++){
        cin>>arr[i];
    }
    int product =1;
    for(int i=0;i<n;i++){
        product= product*arr[i];
    }
    cout<<product;
}
```

Output

```
/tmp/c8LtEAeWwF.o
5
1 2 3 4 5
120

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

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

main.cpp

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

int main(){
    int n;
    cin>>n;
    int arr[n];
    for(int i=0;i<n;i++){
        cin>>arr[i];
    }
    int max=INT_MIN;
    int s_max =INT_MIN;
    for(int i=0;i<n;i++){
        if(arr[i]>max){
            s_max = max;
            max = arr[i];
        }

        else if(arr[i]>s_max && arr[i] != max){
            s_max = arr[i];
        }
    }
    cout<<max<<endl<<s_max;
}
```

Output

```
/tmp/1IM4rQrkoc.o
6
3 4 2 5 7 4
7
5

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

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

main.cpp

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

int main(){
    int arr[5] = {1,2,3,4,5};
    int min=INT_MAX;
    for(int i=0;i<5;i++){
        if(arr[i]<min){
            min = arr[i];
        }
    }
    cout<<min;
}
```

Output

```
/tmp/XwTmnVFbff.o
1

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

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

main.cpp

Share Run

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

int main(){
    int arr[5] = {1,2,3,3,5};
    bool flag =false;
    for(int i=0;i<5;i++){
        for(int j =i+1;j<5;j++){
            if(arr[i] == arr[j]){
                flag = true;
                cout<<"Duplicate element present :"<<arr[i];
                break;
            }
        }
    }
    if(flag == false){
        cout<<"Duplicate element not present";
    }
}
```

Output

```
/tmp/yMVWgh661B.o
Duplicate element present :3

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

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

main.cpp

Share Run

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

int main(){
    int n;
    cin>>n;
    int arr[n];
    for(int i=0;i<n;i++){
        cin>>arr[i];
    }
    bool flag = true;
    for(int i=0;i<n;i++){
        if(arr[i] != i+1){
            flag = false;
            cout<<i+1;
            break;
        }
    }
    if(flag == true){
        cout<<"array is prefect";
    }
}
```

Output

```
/tmp/pGsivx6xr3.o
5
1 2 3 4 4
5

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

6.Predict the output.

```cpp
int main()
{
int sub[50], i ;
for ( i = 0 ; i <= 48 ; i++ ) ;
{
sub[i] = i ;
cout<<sub[i]<<endl ;
}
return
```

Output: **49**