Find Maximum difference between two elements such that the larger element appears after the smaller element in array

#include<iostream>

using namespace std;

int main()

{

int a[10],n,diff=0,min;

cout<<"Enter the number of elements in the array: ";

cin>>n;

cout<<"Enter the array elements\n";

for(int i=0;i<n;i++)

cin>>a[i];

min = a[0];

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

{

if(a[i]<min)

min = a[i];

else if((a[i] - min)>diff)

{

diff = a[i] - min;

}

}

cout<<"The maximum difference between two numbers is "<<diff;

return 0;

}