Write Program to find longest palindrome in an array

Description

Get an array as the input from the user and find the longest palindrome in that array.

Input

Enter the size of array

3

Enter the elements of array

121 10456 1000001

Output

1000001

C Program

```c
#include<stdio.h>
#include<limits.h>
int check(int n){
    int rev=0, temp = n;
    while(temp>0)
    {
        int rem = temp%10;
        rev = rev*10 + rem;
        temp /= 10;
    }

    if(n==rev)
        return 1;

    return 0;
```

```c
}

int main(){
    int n;
    printf("Enter the size of array: ");
    scanf("%d",&n);
    int arr[n];
    printf("Enter the elements of array: ");
    for(int i=0;i<n;i++)
    scanf("%d",&arr[i]);
    int res = INT_MIN;
    for(int i=0; i<n; i++)
    {
        if(check(arr[i]) && res<arr[i])
            res = arr[i];
    }
    if(res==INT_MIN)
        res = -1;

    printf("Longest palindrome: %d ",res);
}
```

C++ Program

```cpp
#include<iostream>
#include<limits.h>
using namespace std;
int check(int n){
    int rev=0, temp = n;
    while(temp>0)
```

```cpp
    {
        int rem = temp%10;

        rev = rev*10 + rem;

        temp /= 10;

    }


    if(n==rev)

        return 1;


    return 0;

}

int main(){
    int n;
    cout<<"Enter the size of array: ";
    cin>>n;
    int arr[n];
    cout<<"Enter the elements of array: ";
    for(int i=0;i<n;i++)
    cin>>arr[i];
    int res = INT_MIN;
    for(int i=0; i<n; i++)
    {
        if(check(arr[i]) && res<arr[i])
            res = arr[i];
    }
    if(res==INT_MIN)
        res = -1;
```
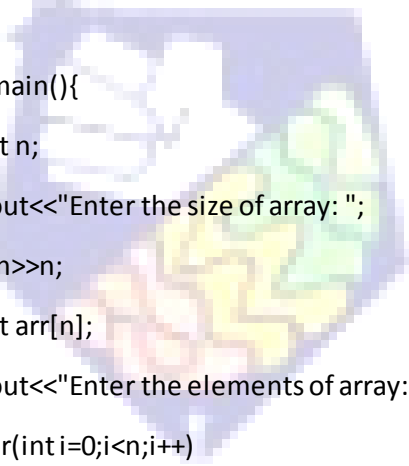
```
    cout<<"Longest palindrome: "<<res;

}


Java

import java.util.*;

class Main

{

    static boolean check(int n)

    {

        int div = 1;

        while (n / div >= 10)

            div *= 10;


        while (n != 0) {

            int x = n / div;

            int y = n % 10;

            if (x != y)

                return false;

            n = (n % div) / 10;

            div = div / 100;

        }

        return true;

    }

    static int largestPal(int []arr, int n)

    {

        int res = -1;


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

        {
```

```java
        if (arr[i] > res && check(arr[i]))

              res = arr[i];

    }

    return res;

 }

public static void main(String []args)

{

    int n;

Scanner sc = new Scanner(System.in);

System.out.println("Enter the size of the array: ");

n = sc.nextInt();

int[]arr = new int[n];

System.out.println("Enter the array elements: ");

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

{

    arr[i] = sc.nextInt();

}

    System.out.println("Longest Palindrome: "+largestPal(arr, n));

}


}
```

Python

```python
def check(n):

  div = 1

  while (int(n / div) >= 10):

    div *= 10

  while (n != 0):

    front = int(n / div)
```

```python
        rear = n % 10
        if (front != rear):
            return False
        n = int((n % div) / 10)
        div = int(div / 100)
    return True


def largestPal(arr, n):
    result = -1


    for i in range(0, n, 1):
        if (arr[i] > result and check(arr[i])):
            result = arr[i]


    return result

n = int(input("Enter size of array: "))
arr = []
print("Enter array elements: ")
for i in range(0,n):
        temp = int(input())
        arr.append(temp)
print("Longest Palindrome: ",largestPal(arr, n))
```