



FOP

LAB MANUAL 08

HOME TASKS

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CLASS ME-15 C

Q 01 Take an array and find the most repeated element in that array.

CODE:

```
#include<iostream>
```

```
using namespace std;
```

```
int main() {
```

```
    int result=0,a=0,b=1, n;
```

```
    cout<<"ENTER THE NUMBER OF ELEMENTS IN THE ARRAY! ";
```

```
    cin>>n;
```

```
    cout<<"ENTER THE ARRAY: ";
```

```
    int array[n];
```

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

```
        cin>>array[i];
```

```
    }
```

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

```
        b=1;
```

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

```
            if(array[i]==array[j]){
```

```
                b++;
```

```
            }
```

```
    }

    if(b>a){

        a=b;

        result=array[i];

    }

}

if(result!=0){

    cout<<"THE MOST REPEATED NUMBER IN THE ARRAY WAS: "<<result;

}

else{

    cout<<"NO! REPEATED NUMBERS FOUND.";

}

return 0;

}
```

RESULT:

```
ENTER THE NUMBER OF ELEMENTS IN THE ARRAY! 5
ENTER THE ARRAY: 1
2
2
32
55
THE MOST REPEATED NUMBER IN THE ARRAY WAS: 2
-----
Process exited after 24.18 seconds with return value 0
Press any key to continue . . .
```

Q 02 Let's say an array is $a[8] = \{13, 15, 17, 9, 99, 77, 65, 43\}$. Find largest and smallest element.

CODE:

```
#include<iostream>
```

```
using namespace std;
```

```
int main() {
```

```
    int n;
```

```
        int temp;
```

```
        cout<<"ENTER THE TOATAL NUMBERS IN YOUR ARRAY: ";
```

```
        cin>>n;
```

```
        int array[n];
```

```
        cout<<"ENTER THE ARRAY: ";
```

```
        for(int k=0;k<n;k++){
```

```
            cin>>array[k];
```

```

    }

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

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

            if(array[i]<array[j]){

                temp=array[i];

                array[i]=array[j];

                array[j]=temp;

            }

        }

    }

    cout<<"THE LARGEST NUMBER IS: "<<array[0]<<endl;

    cout<<"THE SMALLEST NUMBER IS: "<<array[n-1]<<endl;

    return 0;

}

```

RESULT:

```
ENTER THE TOTAL NUMBERS IN YOUR ARRAY: 5
ENTER THE ARRAY: 12
123
223
12
21
THE LARGEST NUMBER IS: 223
THE SMALLEST NUMBER IS: 12

-----
Process exited after 12.95 seconds with return value 0
```

Q 03 Develop a program that takes 5 array elements from user. Swap position [2] element with position [4] element. (Hint: Use the same method of swapping values we used for variables using a third variable temp)

CODE

```
#include<iostream>

using namespace std;

int main(){

    int array[5]={1,2,3,4,5};

    int temp;

    cout<<"THE PREVIOUS ARRAY WAS: ";

    for(int i=0;i<5;i++){

        cout<<array[i]<<" ";

    }

    cout<<endl;
```

```
temp=array[1];

array[1]=array[3];

array[3]=temp;

cout<<"THE NEW ARRAY IS: ";

for(int j=0;j<5;j++){

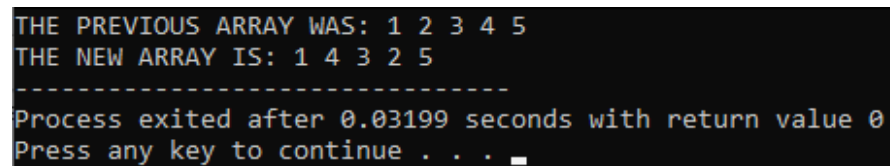
    cout<<array[j]<<" ";

}

return 0;

}
```

RESULT:



```
THE PREVIOUS ARRAY WAS: 1 2 3 4 5
THE NEW ARRAY IS: 1 4 3 2 5
-----
Process exited after 0.03199 seconds with return value 0
Press any key to continue . . .
```