Lab Manual 8

Home Task

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Class: ME-15 C

Q1. Take an array and find the most repeated element in that array.

```cpp
1    #include <iostream>
2    using namespace std;
3
4    int main()
5    {int x,repeat,num,repeatnum;
6    repeat=0;
7        cout << "how many values do you want in your array" << endl;
8        cin>>x;
9        int array[x];
10       for (int i=0;i<x;i++){
11       cout<<"enter value "<<i+1<<endl;
12       cin>>array[i];
13       }
14       for (int i=0;i<x;i++){
15           int num=1;
16         for (int j=0;j<x;j++){
17             if(j==i){
18                 continue;
19             }
20           if(array[j]==array[i]){
21           num++;
22           }
23
24       }
25        if(num>repeat){
26            repeatnum=array[i];
27            repeat=num;
28            }
29
30       }
31       cout<<"the most repeated element is "<<repeatnum<<endl;
32       return 0;
33   }
34
```

```
how many values do you want in your array
4
enter value 1
4
enter value 2
7
enter value 3
3
enter value 4
4
the most repeated element is 4

Process returned 0 (0x0)    execution time : 8.637 s
Press any key to continue.
```

Q2. Let's say an array is a[8] = {13, 15, 17, 9, 99, 77, 65, 43}. Find the largest and smallest element.

```cpp
#include <iostream>

using namespace std;

int main()
{int array[8]={13,15,17,9,99,77,65,43};
int smallest,largest,pointer;
pointer=0;
smallest=array[pointer];
    largest=array[pointer];
for(int i=0;i<8;i++){
    if(array[i]<smallest){
    smallest=array[i];
    }
     if(array[i]>largest){
     largest=array[i];


    }



}
    cout << "largest value is"<<largest << endl;
     cout << "smallest value is"<<smallest << endl;
    return 0;
}
```

```
largest value is99
smallest value is9

Process returned 0 (0x0)    execution time : 0.064 s
Press any key to continue.
```

Q3. Develop a program that takes 5 array elements from user. Swap position [2] element with position [4] element.

```cpp
#include <iostream>

using namespace std;

int main()
{int array[5],temp;
for (int i=0;i<5;i++){
    cout<<"enter value"<<i+1<<endl;
    cin>>array[i];
    }
    cout<<endl;
    temp=array[2];
    array[2]=array[4];
    array[4]=temp;
    cout<<"your new array is "<<endl;
    for (int i=0;i<5;i++){
    cout<<array[i]<<endl;
    }

    return 0;
}
```

```
enter value1
4
enter value2
2
enter value3
3
enter value4
1
enter value5
0

your new array is
4
2
0
1
3

Process returned 0 (0x0)    execution time : 4.959 s
Press any key to continue.
```