Fundamentals of Programming

Home Task: 8

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Task:1

Code:

```
#include <iostream>
using namespace std;
Int main ()
{
 int x;
 cout << "Enter Lenght of Array" << endl;
 cin >> x;
 int arr[x];
 for (int i = 0; i < x; i++)
   {
    cout << "Enter the number at offset " << i << endl;
    cin >> arr[i];
   }
 int mostRepeatedNumber = arr[0];
 int maxCount = 1;
 for (int i = 0; i <= 4; i++)
   {
    int temp = arr[i];
    int count = 1;
    for (int j = i + 1; j <= 4; j++)
        {
         if (arr[j] == temp)
           {
            count++;
           }
        }
    if (count > maxCount)
        {
         maxCount = count;
         mostRepeatedNumber = temp;
        }
   }
 cout << mostRepeatedNumber << " is the most repeated number appearing " <<
  maxCount << " times" << endl;
 return 0;}
```

Output:

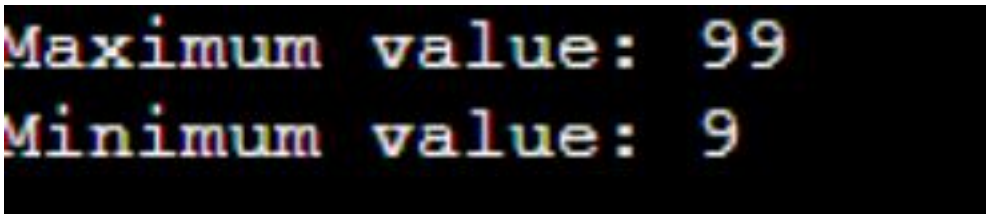
```
Enter Lenght of Array
5
Enter the number at offset 0
2
Enter the number at offset 1
4
Enter the number at offset 2
5
Enter the number at offset 3
6
Enter the number at offset 4
2
2 is the most repeated number appearing 2 times
```

Task: 2

Code:

```
#include <iostream>
using namespace std;
int main() {
int a[8] = {13, 15, 17, 9, 99, 77, 65, 43};
int max = a[0];
int min = a[0];
for (int i = 1; i < 8; ++i) {
if (a[i] > max) {
max = a[i];
}
if (a[i] < min) {
min = a[i];
}
}
cout << "Maximum value: " << max << endl;
cout << "Minimum value: " << min << endl;
return 0;
}
```

Output:



Task: 3

Code:

```
#include <iostream>
using namespace std;
Int main ()
{
  int x=5;
  int arr[x];
  for (int i = 0; i < x; i++)
    {
      cout << "Enter the number at offset " << i << endl;
      cin >> arr[i];
    }
 cout << "Before:" << endl;
for (int i = 0; i < 5; ++i) {
cout << arr[i] << " ";
}
cout << endl;
int temp = arr[2];
arr[2] = arr[4];
arr[4] = temp;
cout << "After:" << endl;
for (int i = 0; i < 5; ++i) {
cout << arr[i] << " ";
}
cout << endl;
return 0;
}
```

Output:

```
Enter the number at offset 0
4
Enter the number at offset 1
7
Enter the number at offset 2
2
Enter the number at offset 3
8
Enter the number at offset 4
3
Before:
4 7 2 8 3
After:
4 7 3 8 2
```