

FUNDAMENTALS OF PROGRAMMING

LAB MANUAL 8

HOME TASK 8

ABDUL MOIZ 464834 SECTION B

```
#include<iostream>

using namespace std;

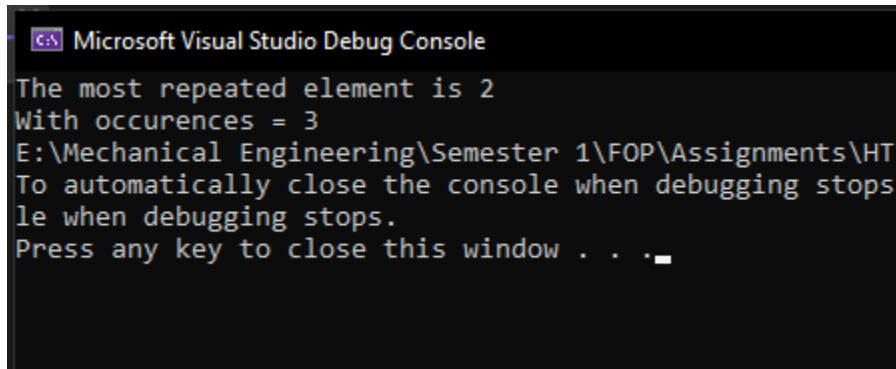
int main()
{
    // Task # 1

    int arr[6] = {2,3,4,2,6,2};
    int MRE = arr[0];
    int max = 1;
    for (int i = 0; i < 6; i++)
    {
        int occurrences = 1;
        for (int j = i + 1; j < 6; j++)
        {
            if (arr[i] == arr[j])
            {
                occurrences++;
            }
        }
        if (occurrences > max)
        {
            max = occurrences;
            MRE = arr[i];
        }
    }
}
```

```

}
}
cout << "The most repeated element is " << MRE << endl;
cout << "With occurrences = " << max;
return 0;
}

```



The screenshot shows the Microsoft Visual Studio Debug Console window. The title bar reads "Microsoft Visual Studio Debug Console". The console output displays the results of the program: "The most repeated element is 2" followed by "With occurrences = 3". Below this, the file path "E:\Mechanical Engineering\Semester 1\FOP\Assignments\HT" is visible. The console also contains standard messages: "To automatically close the console when debugging stops" and "le when debugging stops." (likely a typo for "Leave when debugging stops."). At the bottom, it says "Press any key to close this window . . ." followed by a cursor.

```

{// Task # 2
int arr[8] = { 13,15,17,9,99,77,65,43 };
for (int i = 0; i < 7; i++)
{
for (int j = i + 1; j < 8; j++)
{
if (arr[j] < arr[i])
{
int temp = arr[j];
arr[j] = arr[i];
arr[i] = temp;
}
}
}

cout << "The smallest element in the array is : " << arr[0]<<endl;

```

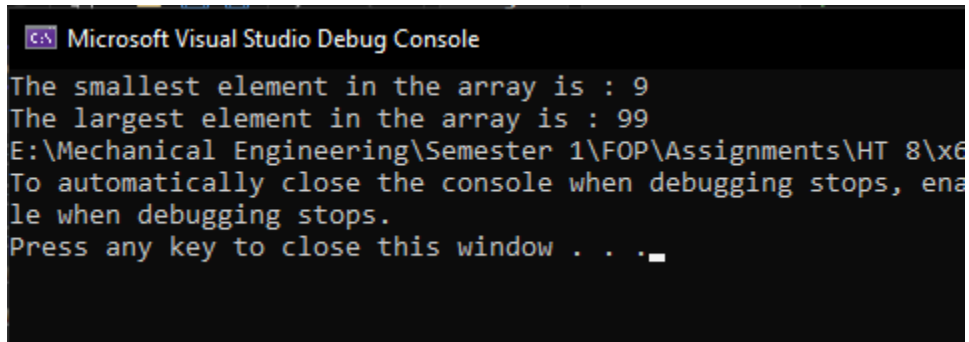
```

cout << "The largest element in the array is : " << arr[7];

return 0;

}

```



The screenshot shows the Microsoft Visual Studio Debug Console with the following text:

```

The smallest element in the array is : 9
The largest element in the array is : 99
E:\Mechanical Engineering\Semester 1\FOP\Assignments\HT 8\6
To automatically close the console when debugging stops, enable
the when debugging stops.
Press any key to close this window . . .

```

```

{// Task # 3

```

```

    int n=5;

    int arr[5];

    cout << "Enter elements in array : ";

    for (int i = 0; i < n; i++)
    {
        cin >> arr[i];
    }

    cout << "Element at position [2] before swapping is : " << arr[2] << endl;
    cout << "Element at position [4] before swapping is : " << arr[4] << endl;

    int temp = arr[4];
    arr[4] = arr[2];
    arr[2] = temp;

    cout << "Element at position [2] after swapping is : " << arr[2] << endl;
    cout << "Element at position [4] after swapping is : " << arr[4] << endl;

    return 0;

}

```

Microsoft Visual Studio Debug Console

Enter elements in array : 4

6

2

3

9

Element at position [2] before swapping is : 2

Element at position [4] before swapping is : 9

Element at position [2] after swapping is : 9

Element at position [4] after swapping is : 2

E:\Mechanical Engineering\Semester 1\FOP\Assignments\HT 8\x64\Debug\HT 8.exe

To automatically close the console when debugging stops, enable Tools->Options->Environment->Close console when debugging stops.

Press any key to close this window . . .