

Code :

// Ques. 1) Program to find the largest element of a given array of integer

```
#include<iostream>
using namespace std;
int main()
{
    int n, arr[n],i;
    cout<<"Enter the no. of elements of array : ";
    cin >> n;
    cout<<"Enter elements of array : "<<endl;
    for(i =0; i < n; i++)
    {
        cin >> arr[i];
    }
    int max = arr[0];
    for(i= 1; i < n;i++)
    {
        if(arr[i] >= max)
        {
            max = arr[i];
        }
    }
    cout <<"Maximum element is : "<<max<< endl;
    return 0;
}
```

// Ques. 2) Program to find the largest three elements in an array

```
#include<bits/stdc++.h>
using namespace std;
int main(){
int n;
cout<<"Enter the no. of elements of array : ";
cin >> n;
int arr[n];
cout<<"Enter elements of array : "<<endl;
for(int i = 0; i < n; i++){
cin >> arr[i];
}
sort(arr, arr+n);
cout<<"Largest three elements are : ";
for(int i = n -1; i >= n - 3; i--){
cout<<arr[i]<<" ";
}
}
```

// Ques. 3) Program to find second largest element in a given array of integers

```
#include<bits/stdc++.h>
using namespace std;
int main(){
int n;
cout<<"Enter the no. of elements of array : ";
cin >> n;
int arr[n];
cout<<"Enter elements of array : "<<endl;
for(int i = 0; i < n; i++){
cin >> arr[i];
}
sort(arr, arr+n);
cout<<"Second largest element is : ";
cout << arr[n-2];
}
```

// Ques. 4) Program to find k largest elements in a given array of integers

```
#include<bits/stdc++.h>
using namespace std;
int main(){
int n;
cout<<"Enter the no. of elements of array : ";
cin >> n;
int arr[n];
cout<<"Enter elements of array :";
for(int i = 0; i < n; i++)
{
cin >> arr[i];}
sort(arr, arr+n);
int k;
cout <<"Enter the value of K : " << endl;
cin >> k;
{
if(k <= n-1){
for(int i = n-1; i >= n-k; i--)
{cout << arr[i] <<" "};
}
else
{
cout <<"You cannot print " << endl;
}}
}
```

// Ques. 5) Program to find the most occurring element in an array of integers

```
#include<bits/stdc++.h>
using namespace std;
int main(){
int n;
cout<<"Enter the no. of elements of array : ";
cin >> n;
int arr[n];
cout<<"Enter elements of array : "<<endl;
for(int i = 0; i < n; i++){
cin >> arr[i];
}
int maxi = INT_MIN;
int count = 1;
int ele = arr[0];
sort(arr, arr+n);
for(int i=0; i<n-1; i++){
if(arr[i] == arr[i+1]){
count++;
maxi = max(maxi, count);
ele = arr[i];
}
else{
count = 1;
}
}
cout<<"count of maximum element is : " <<maxi<<endl;
cout<<"max element is : "<<ele<<endl;
}
```

The screenshot shows the Visual Studio Code interface with the file `assignment1_qes1.cpp` open. The Explorer sidebar on the left lists various files, including `lec9_Structure_Union.cpp`, `assignment1_qes1.cpp`, `assignment1_qes2.cpp`, and several executable files. The main editor displays the C++ code for finding the largest element in an array. The code includes `<iostream>` and `<string>`, uses the `std` namespace, and defines a `main` function that takes an array size `n` and an array `arr` as input. It iterates through the array to find the maximum value and prints it.

```
1 // Ques. 1) Program to find the largest element of a given array of integer
2
3 #include<iostream>
4 using namespace std;
5 int main()
6 {
7     int n, arr[n], i;
8     cout<<"Enter the no. of elements of array : ";
9     cin >> n;
10    cout<<"Enter elements of array : "<<endl;
11    for(i = 0; i < n; i++)
12    {
13        cin >> arr[i];
14    }
15    int max = arr[0];
16    for(i = 1; i < n; i++)
17    {
18        if(arr[i] >= max)
19        {
20            max = arr[i];
21        }
22    }
23    cout <<"Maximum element is : "<<max<< endl;
24    return 0;
25 }
```

The TERMINAL window on the right shows the command prompt output for running the program. It prompts the user to enter the number of elements (5) and the elements themselves (6, 7, 8, 1, 3), resulting in a maximum element of 8.

```
code(c++) cd "C:\Users\Raghav Gupta\Desktop\myperfctice_extension-main\myperfctice_extension-main\vscode\c++\"; if ($?) { g++ assignment1_qes1.cpp -o assignment1_qes1.exe; if ($?) { .\assignment1_qes1.exe } }
Enter the no. of elements of array : 5
Enter elements of array : 6
7
8
1
3
Maximum element is : 8
PS C:\Users\Raghav Gupta\Desktop\myperfctice_extension-main\myperfctice_extension-main\vscode\c++>
```

The screenshot shows the Visual Studio Code interface with the file `assignment1_qes2.cpp` open. The Explorer sidebar on the left lists various files, including `lec9_Structure_Union.cpp`, `assignment1_qes1.cpp`, `assignment1_qes2.cpp`, and several executable files. The main editor displays the C++ code for finding the largest three elements in an array. The code includes `<bits/stdc++.h>` and uses the `std` namespace. It defines a `main` function that takes an array size `n` and an array `arr` as input. It sorts the array and prints the last three elements.

```
1 // Ques. 2) Program to find the largest three elements in an array
2
3 #include<bits/stdc++.h>
4 using namespace std;
5 int main(){
6     int n;
7     cout<<"Enter the no. of elements of array : ";
8     cin >> n;
9     int arr[n];
10    cout<<"Enter elements of array : "<<endl;
11    for(int i = 0; i < n; i++){
12        cin >> arr[i];
13    }
14    sort(arr, arr+n);
15    cout<<"Largest three elements are : ";
16    for(int i = n - 1; i >= n - 3; i--){
17        cout<<arr[i]<<" ";
18    }
19 }
```

The TERMINAL window on the right shows the command prompt output for running the program. It prompts the user to enter the number of elements (5) and the elements themselves (8, 45, 78, 41, 36), resulting in the largest three elements being 78, 45, and 41.

```
code(c++) cd "C:\Users\Raghav Gupta\Desktop\myperfctice_extension-main\myperfctice_extension-main\vscode\c++\"; if ($?) { g++ assignment1_qes2.cpp -o assignment1_qes2.exe; if ($?) { .\assignment1_qes2.exe } }
Enter the no. of elements of array : 5
Enter elements of array : 8
45
78
41
36
Largest three elements are : 78 45 41
PS C:\Users\Raghav Gupta\Desktop\myperfctice_extension-main\myperfctice_extension-main\vscode\c++>
```

assignment1_qes3.cpp - Untitled (Workspace) - Visual Studio Code

EXPLORER

OPEN EDITORS

UNTITLED (WORKSPACE)

vscode

c++

assignment1_qes1.cpp

assignment1_qes1.exe

assignment1_qes2.cpp

assignment1_qes2.exe

assignment1_qes3.cpp

assignment1_qes3.exe

assignment1_qes5.cpp

assignment1_qes5.exe

assignment1_qes4.cpp

assignment1_qes4.exe

lec1.cpp

lec2.cpp

lec2.exe

lec3.cpp

lec3.exe

lec4_if-else_Switch.cpp

lec4_if-else_Switch.exe

lec5_Loops.cpp

lec5_Loops.exe

lec6_Break_Continue.cpp

lec6_Break_Continue.exe

OUTLINE

TIMELINE

vscode > c++ > G: assignment1_qes3.cpp > main()

```
1 // Ques. 3) Program to find second largest element in a given array of
2
3 #include<bits/stdc++.h>
4 using namespace std;
5 int main(){
6     int n;
7     cout<<"Enter the no. of elements of array : ";
8     cin >> n;
9     int arr[n];
10    cout<<"Enter elements of array : "<<endl;
11    for(int i = 0; i < n; i++){
12        cin >> arr[i];
13    }
14    sort(arr, arr+n);
15    cout<<"Second largest element is : ";
16    cout << arr[n-2];
17 }
```

TERMINAL

code[c++] cd "c:\Users\Raghav Gupta\Desktop\myperfctice_extension-main\myperfctice_extension-main\vscode\c++\"; if (\$?) { g++ assignment1_qes3.cpp -o assignment1_qes3.exe; if (\$?) { .\assignment1_qes3.exe } } Enter the no. of elements of array : 5 Enter elements of array : 86 41 25 67 84\ Second largest element is : 84 PS C:\Users\Raghav Gupta\Desktop\myperfctice_extension-main\myperfctice_extension-main\vscode\c++>

Ln 10, Col 41 Spaces: 4 UTF-8 CRLF C++ Go Live Win32

assignment1_qes4.cpp - Untitled (Workspace) - Visual Studio Code

EXPLORER

OPEN EDITORS

UNTITLED (WORKSPACE)

vscode

c++

assignment1_qes1.cpp

assignment1_qes1.exe

assignment1_qes2.cpp

assignment1_qes2.exe

assignment1_qes3.cpp

assignment1_qes3.exe

assignment1_qes5.cpp

assignment1_qes5.exe

assignment1_qes4.cpp

assignment1_qes4.exe

lec1.cpp

lec2.cpp

lec2.exe

lec3.cpp

lec3.exe

lec4_if-else_Switch.cpp

lec4_if-else_Switch.exe

lec5_Loops.cpp

lec5_Loops.exe

lec6_Break_Continue.cpp

lec6_Break_Continue.exe

OUTLINE

TIMELINE

vscode > c++ > G: assignment1_qes4.cpp > main()

```
1 // Ques. 4) Program to find k largest elements in a given array of
2 integers
3
4 #include<bits/stdc++.h>
5 using namespace std;
6 int main(){
7     int n;
8     cout<<"Enter the no. of elements of array : ";
9     cin >> n;
10    int arr[n];
11    cout<<"Enter elements of array : ";
12    for(int i = 0; i < n; i++){
13        cin >> arr[i];
14    }
15    sort(arr, arr+n);
16    int k;
17    cout <<"Enter the value of K : " << endl;
18    cin >> k;
19    {
20        if(k <= n-1){
21            for(int i = n-1; i >= n-k; i--){
22                cout << arr[i] << " ";
23            }
24        }
25        else {
26            cout <<"You cannot print " << endl;
27        }
28    }
```

TERMINAL

code[c++] cd "c:\Users\Raghav Gupta\Desktop\myperfctice_extension-main\myperfctice_extension-main\vscode\c++\"; if (\$?) { g++ assignment1_qes4.cpp -o assignment1_qes4.exe; if (\$?) { .\assignment1_qes4.exe } } Enter the no. of elements of array : 84 Enter elements of array : 84 74 79 25 61 Enter the value of K : 3 84 79 74 PS C:\Users\Raghav Gupta\Desktop\myperfctice_extension-main\myperfctice_extension-main\vscode\c++>

Ln 18, Col 2 Spaces: 4 UTF-8 CRLF C++ Go Live Win32

