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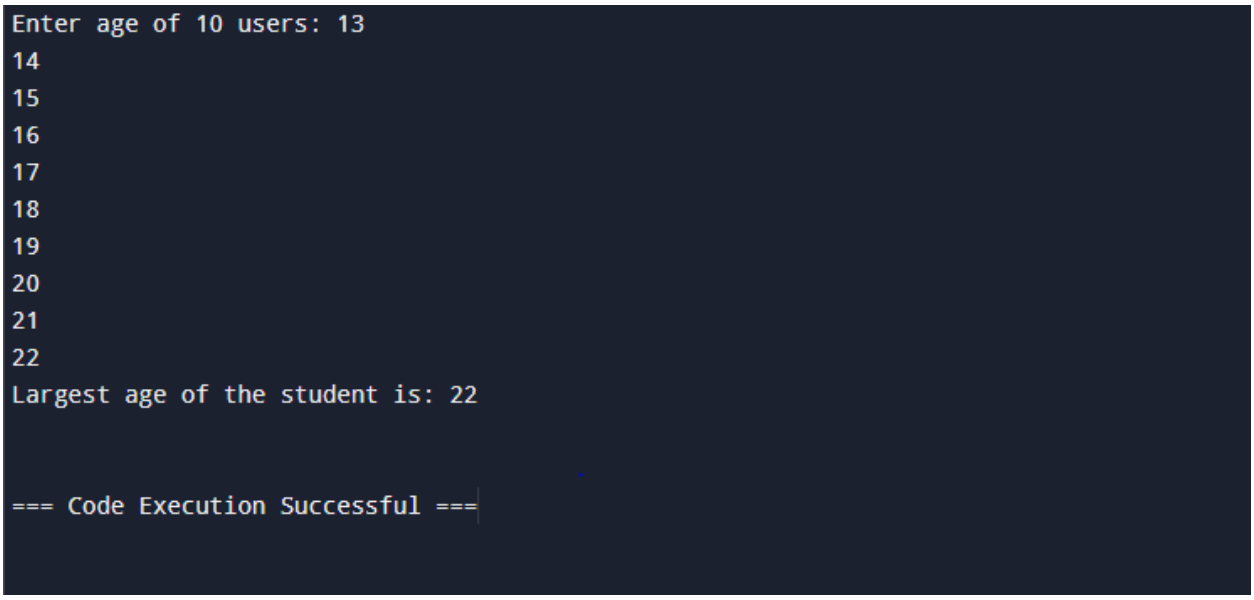
Lab task 02

QUESTION # 01 :

```
#include <iostream>
using namespace std;


int main() {
   int array[10];
   cout << "Enter age of 10 users: ";
   for (int i = 0; i < 10; i++) {
      cin >> array[i];
   }
   int max_age = array[0];
   for (int i = 1; i < 10; i++) {
      if (array[i] > max_age) {
         max_age = array[i];
      }
   }
   cout << "Largest age of the student is: " << max_age << endl;
   return 0;
}
```

OUTPUT



Question no 2

```
#include <iostream>

using namespace std;


int main() {
    int size;
    cout << "Enter the size of the arrays: ";
    cin >> size;

    // Dynamically allocate memory for the arrays
    int* arr1 = new int[size];
    int* arr2 = new int[size];
    int* arr3 = new int[size];
    int* sum_arr = new int[size];

    // Take input for the first array
```

```
cout << "Enter elements for the first array: ";
for (int i = 0; i < size; i++) {
    cin >> arr1[i];
}

// Take input for the second array
cout << "Enter elements for the second array: ";
for (int i = 0; i < size; i++) {
    cin >> arr2[i];
}

// Take input for the third array
cout << "Enter elements for the third array: ";
for (int i = 0; i < size; i++) {
    cin >> arr3[i];
}

// Add the arrays and store the result in sum_arr
for (int i = 0; i < size; i++) {
    sum_arr[i] = arr1[i] + arr2[i] + arr3[i];
}

// Display the sum array
cout << "Sum array: ";
for (int i = 0; i < size; i++) {
    cout << sum_arr[i] << " ";
}
cout << endl;
```

```
    // Deallocate memory
    delete[] arr1;
    delete[] arr2;
    delete[] arr3;
    delete[] sum_arr;

    return 0;
}
```

Output:

```
Enter age of 10 users: 13
14
15
16
17
18
19
20
21
22
Largest age of the student is: 22


=== Code Execution Successful ===
```

Question # 03

```
#include <iostream>
using namespace std;

int main() {
    int size;
```

```
cout << "Enter the size of the array: ";
cin >> size;

// Dynamically allocate memory for the array
int* arr = new int[size];

// Take input for the array
cout << "Enter elements for the array: ";
for (int i = 0; i < size; i++) {
    cin >> arr[i];
}

int item;
cout << "Enter the item to search: ";
cin >> item;

int found = 0;
for (int i = 0; i < size; i++) {
    if (arr[i] == item) {
        cout << "Item found at index " << i << endl;
        found = 1;
        break;
    }
}

if (!found) {
    cout << "Item not found in the array" << endl;
}
```

```
    // Deallocate memory
    delete[] arr;

    return 0;
}
```

Output: