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Programme :- BSCS 3-1

Assignment #1

Q1

```
#include <iostream>
```

```
using namespace std;
```

```
int main() {
```

```
    int ages[10];
```

```
    int largest;
```

```
    cout << "Enter the ages of 10 students:" << endl;
```

```
    for (int i = 0; i < 10; i++) {
```

```
        cout << "Student [" << i + 1 << "]: ";
```

```
        cin >> ages[i];
```

```
    }
```

```
    largest = ages[0];
```

```
    for (int i = 1; i < 10; i++) {
```

```
        if (ages[i] > largest) {
```

```

        largest = ages[i];
    }

}

cout << "The largest age is: " << largest << endl;

return 0;
}

```

// output

The screenshot shows a web browser window with the URL `programiz.com/cpp-programming/online-compiler/`. The page features the Programiz logo and a banner for "Premium Coding Courses by Programiz". Below the banner is a code editor with a file named `main.cpp`. The code in the editor is as follows:

```

10+ for (int i = 0; i < 10; i++) {
11     cout << "Student [" << i + 1 << "]: ";
12     cin >> ages[i];
13 }
14
15 largest = ages[0]; // Assuming the first age is the largest
16
17+ for (int i = 1; i < 10; i++) {
18+     if (ages[i] > largest) {
19         largest = ages[i]; // Update largest if we find a
           bigger age
20     }
21 }
22
23 cout << "The largest age is: " << largest << endl;
24
25 return 0;
26 }
27

```

To the right of the code editor is an "Output" window. It displays the following text:

```

/tmp/58wflvZyUK.o
Enter the ages of 10 students:
Student [1]: 11
Student [2]: 10
Student [3]: 19
Student [4]: 18
Student [5]: 15
Student [6]: 22
Student [7]: 18
Student [8]: 9
Student [9]: 11
Student [10]: 17
The largest age is: 22

=== Code Execution Successful ===

```

The bottom of the screenshot shows a Windows taskbar with various application icons and a system clock indicating 9:05 PM on 9/20/2024.

Q2

```
#include <iostream>

using namespace std;

int main() {

    int size;


    cout << "Enter the size of the arrays: ";
    cin >> size;


    int* array1 = new int[size];
    int* array2 = new int[size];
    int* array3 = new int[size];
    int* sumArray = new int[size];
    cout << "Enter elements for Array 1:" << endl;
    for (int i = 0; i < size; i++) {
        cout << "Element [" << i << "]: ";
        cin >> array1[i];
    }


    cout << "Enter elements for Array 2:" << endl;
    for (int i = 0; i < size; i++) {
        cout << "Element [" << i << "]: ";
        cin >> array2[i];
    }
```

```
cout << "Enter elements for Array 3:" << endl;
for (int i = 0; i < size; i++) {
    cout << "Element [" << i << "]: ";
    cin >> array3[i];
}

for (int i = 0; i < size; i++) {
    sumArray[i] = array1[i] + array2[i] + array3[i];
}

cout << "Sum Array:" << endl;
for (int i = 0; i < size; i++) {
    cout << "Element [" << i << "]: " << sumArray[i] << endl;
}

delete[] array1;
delete[] array2;
delete[] array3;
delete[] sumArray;

return 0;
}
```

```
main.cpp
38+ for (int i = 0; i < size; i++) {
39     sumArray[i] = array1[i] + array2[i] + array3[i];
40 }
41
42 // Output the sum array
43 cout << "Sum Array:" << endl;
44+ for (int i = 0; i < size; i++) {
45     cout << "Element [" << i << "]: " << sumArray[i] <<
        endl;
46 }
47
48 // Freeing up memory (delete arrays)
49 delete[] array1;
50 delete[] array2;
51 delete[] array3;
52 delete[] sumArray;
53
54 return 0;
55 }
56
```

Output

```
/tmp/fKgMJGmg4N.o
Enter the size of the arrays: 1
Enter elements for Array 1:
Element [0]: 2
Enter elements for Array 2:
Element [0]: 2
Enter elements for Array 3:
Element [0]: 1
Sum Array:
Element [0]: 5

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

Q3

#include <iostream>

using namespace std;

int main() {

int size;

cout << "Enter the size of the array: ";

cin >> size;

int* array = new int[size]; // Creating the array

cout << "Enter elements of the array:" << endl;

```
for (int i = 0; i < size; i++) {  
    cout << "Element [" << i << "]: ";  
    cin >> array[i];  
}  
  
int item;  
cout << "Enter the item to search for: ";  
cin >> item;  
  
bool found = false;  
for (int i = 0; i < size; i++) {  
    if (array[i] == item) {  
        found = true;  
        cout << "Item found at index: " << i << endl;  
        break;  
    }  
}  
if (!found) {  
    cout << "Item not found in the array." << endl;  
}  
delete[] array;  
  
return 0;  
}
```

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programiz.com/cpp-programming/online-compiler/

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main.cpp

Run

Share

Clear

27

28

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41

42

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45

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

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

// Cleaning up memory
delete[] array;

return 0;
}
```

Output

/tmp/2B3LCUkuaf.o

Enter the size of the array: 2

Enter elements of the array:

Element [0]: 2

Element [1]: 3

Enter the item to search for: 3

Item found at index: 1

=== Code Execution Successful ===

Windows Taskbar

9:12 PM 9/20/2024