

The screenshot shows the Eclipse IDE interface. The top toolbar contains various icons for file operations, editing, and running. The editor window displays the source code for `H34086149_hw13_1.cpp`. The code includes a header section with file metadata, followed by the `main` function. It defines a `data` array of type `double` with dimensions `[12][2]`. The `getData` function prompts the user to input the highest and lowest temperatures for each of the 12 months. The `averageHigh` and `averageLow` functions calculate the average of the high and low temperatures, respectively. The `main` function calls these functions and prints the results.

```
1 //=====
2 // Name      : H34086149_hw13_1.cpp
3 // Author    : mr. NTD
4 // Version   :
5 // Copyright : Your copyright notice
6 // Description: Hello World in C++, Ansi-style
7 //=====
8
9 #include <iostream>
10 using namespace std;
11
12 double data[12][2];
13 void getData()
14 {
15     for(int i = 0; i < 12; i++)
16     {
17         cout << "Please input the highest temperature of " << i + 1 << " month\n";
18         cin >> data[i][0];
19         cout << "Please input the lowest temperature of " << i + 1 << " month\n";
20         cin >> data[i][1];
21     }
22 }
23 double averageHigh()
24 {
25     double sum = 0.0;
26     for(int i = 0; i < 12; i++)
27         sum += data[i][0];
28     return sum / 12.0;
29 }
30 double averageLow()
31 {
32     double sum = 0.0;
33     for(int i = 0; i < 12; i++)
34         sum += data[i][1];
35     return sum / 12.0;
36 }
37
38 int main()
39 {
40     getData();
41     double avgHigh = averageHigh();
42     double avgLow = averageLow();
43     int indexHigh = 0;
44     int indexLow = 0;
45     for(int i = 0; i < 12; i++)
46     {
47         if(data[i][0] > data[indexHigh][0])
48             indexHigh = i;
49         if(data[i][1] < data[indexLow][1])
50             indexLow = i;
51     }
52     cout << "The index of the highest month = " << indexHigh << endl;
53     cout << "The index of the lowest month = " << indexLow << endl;
54     return 0;
55 }
```

The bottom pane shows the Console output:

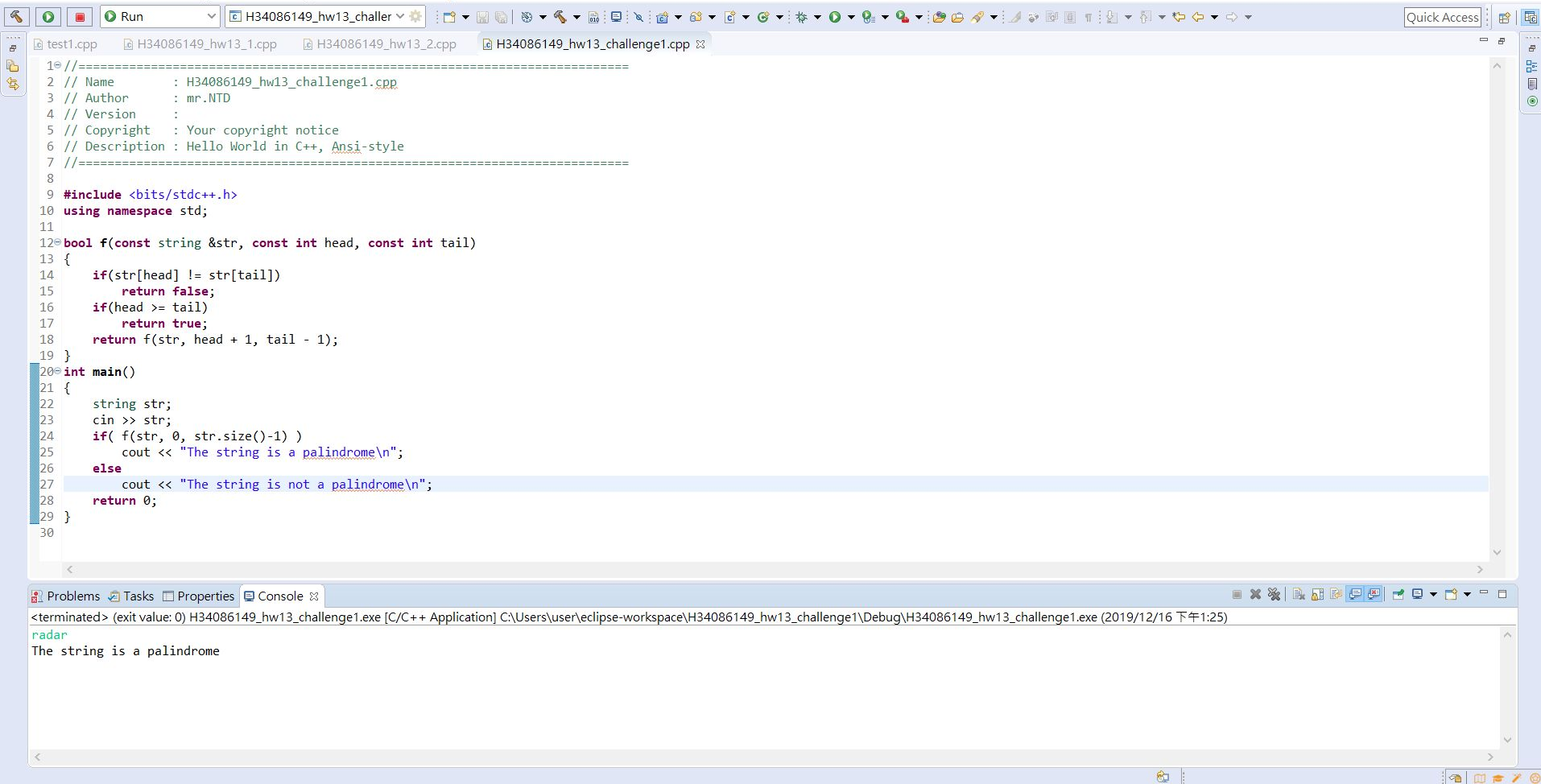
```
<terminated> (exit value: 0) H34086149_hw13_1.exe [C/C++ Application] C:\Users\user\eclipse-workspace\H34086149_hw13_1\Debug\H34086149_hw13_1.exe (2019/12/16 下午1:23)
Please input the highest temperature of 12 month
Please input the lowest temperature of 12 month
averageHigh = 30.5
averageLow = 14.5
The index of the highest month = 11
The index of the lowest month = 11
```

The screenshot shows the Eclipse IDE interface. The top toolbar contains icons for file operations, editing, and running. The editor window displays a C++ file named `H34086149_hw13_2.cpp` with the following code:

```
10 #define arraySize 100
11 using namespace std;
12
13 unsigned int linearSearch(const int [], const int, const unsigned int);
14
15 int main()
16 {
17     int arr[arraySize];
18     int searchKey;
19
20     for(int i = 0; i < arraySize; i++)
21         arr[i] = (i < 1);
22
23     cin >> searchKey;
24     const int element = linearSearch(arr, searchKey, 0);
25     if(element != -1)
26         cout << "Found value in element " << element << '\n';
27     else
28         cout << "Value not found\n";
29     return 0;
30 }
31
32 unsigned int linearSearch(const int arr[], const int key, const unsigned int index)
33 {
34     if(index >= arraySize)
35         return -1;
36     if(arr[index] == key)
37         return index;
38     return linearSearch(arr, key, index + 1);
39 }
40
```

The bottom panel shows the 'Console' tab with the following output:

```
<terminated> (exit value: 0) H34086149_hw13_2.exe [C/C++ Application] C:\Users\user\eclipse-workspace\H34086149_hw13_2\Debug\H34086149_hw13_2.exe (2019/12/16 下午1:25)
20
Found value in element 10
```



```
1 //=====
2 // Name      : H34086149_hw13_challenge1.cpp
3 // Author    : mr.NTD
4 // Version   :
5 // Copyright : Your copyright notice
6 // Description: Hello World in C++, Ansi-style
7 //=====
8
9 #include <bits/stdc++.h>
10 using namespace std;
11
12 bool f(const string &str, const int head, const int tail)
13 {
14     if(str[head] != str[tail])
15         return false;
16     if(head >= tail)
17         return true;
18     return f(str, head + 1, tail - 1);
19 }
20 int main()
21 {
22     string str;
23     cin >> str;
24     if( f(str, 0, str.size()-1) )
25         cout << "The string is a palindrome\n";
26     else
27         cout << "The string is not a palindrome\n";
28     return 0;
29 }
30
```

Problems Tasks Properties Console

<terminated> (exit value: 0) H34086149_hw13_challenge1.exe [C/C++ Application] C:\Users\user\eclipse-workspace\H34086149_hw13_challenge1\Debug\H34086149_hw13_challenge1.exe (2019/12/16 下午1:25)

radar

The string is a palindrome