Check for Pangram

A pangram is a sentence or phrase that uses every letter of a given alphabet at least once. In other words, it is a sentence that contains every letter of the alphabet. In this article, we will explore an approach to check whether a given string is a pangram or not in C++.

There are a few different ways you could check if a string is a pangram, but one common approach is to use an array or a data structure to keep track of the letters that have been seen in the input string. We will use an array of integers to accomplish this. Each element in the array represents a letter of the alphabet, and the value of each element corresponds to the number of times that letter has been seen in the input string.

```
#include <iostream>
#include <string>

using namespace std;

bool isPangram(string s) {
    // create an array of integers to keep track of the lette
    int lettersSeen[26] = {0};
    // change the input string to lower case
    for (int i = 0; i < s.size(); i++) {
        s[i] = tolower(s[i]);
    }
    //iterate through each character in the input string
    for (int i = 0; i < s.size(); i++) {
        if (isalpha(s[i])) {
            lettersSeen[s[i] - 'a']++;
        }
    }
    //iterate through the array, and check if all elements ar
    for (int i = 0; i < 26; i++) {
        if (lettersSeen[i] == 0) {
            return false;
        }
    }
```

```
    return true;
}
```

The function first initializes an array of 26 integers, one for each letter of the alphabet. Then, it iterates through each character in the input string. For each character that is a letter, the function increments the corresponding element of the lettersSeen array. In the next step, it checks all elements if they are non-zero, which means that every alphabet is present. If any of the elements is zero, it means that the string is not a pangram and it returns false. If all elements are non-zero, it returns true.

Here is an example of how you can use this function in your code:

```
int main() {
    string s = "The quick brown fox jumps over the lazy dog";
    if (isPangram(s)) {
        cout << s << " is a pangram" << endl;
    } else {
        cout << s << " is not a pangram" << endl;
    }
    return 0;
}
```

OUTPUT:

```
The quick brown fox jumps over the lazy dog is a pangram
```