# String Comparison in C++

In C++, there are several ways to compare strings for equality or order. Here are a few common approaches:

1. Using the == operator: The == operator can be used to compare two strings for equality. For example:

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

int main()
{
    std::string str1 = "hello";
    std::string str2 = "world";

    if (str1 == str2)  // compare str1 and str2 for equality
    {
        std::cout << "The strings are equal." << std::endl;
    }
    else
    {
        std::cout << "The strings are not equal." << std::end.
    }

    return 0;
}
```

**Output**

```
The strings are not equal.
```

2. Using the **compare** function: The **compare** function is a member function of the **std::string** class that can be used to compare two strings for equality or order. The **compare** function returns an integer value indicating the result of the comparison:

   - If the strings are equal, **compare** returns 0.

- If the first string is lexicographically less than the second string, **compare** returns a negative value.

- If the first string is lexicographically greater than the second string, **compare** returns a positive value.

For example:

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

int main()
{
    std::string str1 = "hello";
    std::string str2 = "world";

    int result = str1.compare(str2);  // compare str1 and str

    if (result == 0)  // check if the strings are equal
    {
        std::cout << "The strings are equal." << std::endl;
    }
    else if (result < 0)  // check if str1 is lexicographical
    {
        std::cout << "str1 is lexicographically less than str
    }
    else  // if none of the above conditions are met, str1 mu
    {
        std::cout << "str1 is lexicographically greater than
    }

    return 0;
}

str1 is lexicographically less than str2.
```

3. Using the **strcmp** function: The **strcmp** function is a C-style string comparison function that can be used to compare two strings for equality or order. The

**strcmp** function takes two **const char\*** arguments and returns an integer value indicating the result of the comparison:

- If the strings are equal, **strcmp** returns 0