

Character Functions Exercises

Character Functions

- Give some examples of the character functions defined by the C++ standard library
- Which header file needs to be included to use them?

Example of Character Functions

- Write a program which creates a string, iterates over its characters and identifies each character as upper case, lower case, punctuation or whitespace
- Check that your program gives the expected output

Case Sensitivity and String Comparisons

- What is the easiest way to work with strings without having to worry about case sensitivity?
- Which two functions can be used to change the case of a character?

Case Sensitivity and String Comparisons

- Some compilers provide functions which do case-insensitive string comparisons. What are the drawbacks of these functions?

equal_strings function

- Add comments to the code on the following slide, to explain how it works
- What is the purpose of this test?
`if (lit == lhs.end() && rit == rhs.end())`
- Why is this function called `equal_strings` and not the `==` operator?
- Write a program to test the code

equal_strings function

```
bool equal_strings(const string& lhs, const string& rhs) {  
    if (lhs.size() != rhs.size())  
        return false;  
  
    auto lit=lhs.cbegin();  
    auto rit = rhs.cbegin();  
  
    while (lit != lhs.cend() && rit != rhs.cend()) {  
        if (toupper(*lit) != toupper(*rit))  
            return false;  
        ++lit;  
        ++rit;  
    }  
  
    return true;  
}
```