

Char Functions

Solutions

- Give some examples of the character functions defined by the C++ standard library
 - `isdigit`, `islower`, `isupper`, `isspace`, `ispunct`
- Which header file needs to be included to use them?
 - `<cctype>`

- Write a program which creates a string, iterates over its characters and identifies each character as upper case, lower case, punctuation or whitespace
- Add tests for `isdigit()` to your code
 - If necessary, change the string so it contains numbers
- Check that your program gives the expected output

- What is the easiest way to work with strings without having to worry about case sensitivity?
 - Convert all strings to a single case (if a string contains important data, make a copy instead of overwriting it)
- Which two functions can be used to change the case of a character?
 - toupper and tolower
- Which header file needs to be included to use them?
 - <cctype>

- 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())
```

- It checks if we have reached the end of either string
- Why is this function called `equal_strings` and not the `==` operator?
 - The `==` operator is already defined in the Standard Library
- Write a program to test the code

- Some compilers provide functions which do case-insensitive string comparisons. What are the drawbacks of these functions?
 - Not standard, not portable and do not directly support `std::string`