

# Wordcount

This question consists of 2 exercises. We recommend you read over both before starting. Write code as you would for a production desktop application. Include in your submission a brief description of how to build and run your code and highlight any decisions and assumptions you have made.

## Exercise 1

The `InputStream` class (declared in `input_stream.h`) allows a stream of text to be read character-by-character. Write code to count the number of occurrences of each word and display the totals. For example:

Input: "The cat sat on the mat."

Output:

```
the : 2
cat : 1
mat : 1
on  : 1
sat : 1
```

The output should be sorted by descending word frequency with ties ordered alphabetically.

## Exercise 2

By passing in a random seed and the 'slow' flag to the constructor, `InputStream` can simulate the delays that might be experienced when reading data over a network.

Write code that takes 10 `InputStream` objects and consumes them in parallel. It should output intermediate word counts every 10 seconds and a final total at the end. The `'kExampleText'` constant provides some example text to test your implementation against.