C Syntax

- Page 1 of the C vs C++ document
    - Keyboard input
    - Console output
    - File handles
    - File I/O

Character Functions

- Table 10-1
- Table 10-2
- What the functions return, the arguments to pass in, the library it is in

C-Strings

- What the functions return, the arguments to pass in, the library it is in
    - Strlen
    - Strcpy
    - Strncpy
    - Strcat
    - Strncat
    - Strcmp
    - Strstr
    - Atoi
    - Atof
- Reading/writing C-strings
- Initializing C-strings

Random Access Files

- Creating file handles
- File access flags
- Error testing
- File pointer manipulation

Recursion

- Recursion vs. iteration
- Examples

Counting Characters

Write a function to read a file and count the number of uppercase letters, lowercase letters and digits in the file.

Add Spaces

Write a function that takes a C-string (char pointer) as an argument. The C-string is a sentence where all of the words run together (no spaces), but each word is capitalized. Convert the C-string such that there are spaces between each word and only the first word in the sentence is capitalized. NOTE: use of C-string functions is important here!

Example: "It'sDangerousToGoAlone!" becomes "It's dangerous to go alone!"

Palindrome
Write a bool function that uses recursion to determine if a character array argument contains a palindrome. The function should return true if the argument reads the same forward and backward.

Challenge: Ignore punctuation and spaces when determining the palindrome