Week 2

Readings

Chapter 4

Chapter 5

Don’t worry about the section “Persistent, Private Variables” in chapter 4 and “Output with Say in chapter 5. These cover issues with Perl 5.10 which are not available on lab machines but may be available if you installed Perl yourself. These will not be required knowledge. Consequently don’t worry about exercises 4.4 and 4.5.

Key notes to keep in mind (AKA: how Perl differs)

- When calling a subroutine (user-defined function) prefix the name with **&** (page 56 – “Invoking a Subroutine”)
  - This can be omitted if it is syntactically obvious, when the subroutine is declared before invocation or the parameter list is enclosed in parenthesis
  - But you must use the **&** if there is a built-in function of the same name (page 66 – “Omitting the Ampersand”)
- ALL subroutines return a value, the value of the last expression that was evaluated(pages 56-58 – ‘Return Values”)
  - You can also explicitly return a value and exit the subroutine using **return** (page 65 – “The return Operator”)
- Values are passed to the subroutine and accessible via **@_** which is an array(pages 58-59)
  - These values are saved internally whenever a new subroutine is called so there is no worry about recursion
  - **@_** is a reference so if you modify it within the subroutine the original arguments will also be modified
- Use **my** keyword to create lexical (private) variables (page 60 – “Private Variables in Subroutines”)
- Keep in mind the distinction of **while** and **foreach** regarding reading input, it WILL come in useful (pages 72-73)
- **@ARGV** contains the list of parameters passed at run time to the program (pages 75-76 – “The Invocation Arguments”)

Exercises

Book exercises from Chapter 4: 1-3 and Chapter 5.

Write a program to read in a given file, use a subroutine to add the line number followed by a space to the beginning of each line and return the new array, and then write to another given file. The filenames should be read off the command line using the **@ARGV** array, input file listed first, then output file.

Some caveats:

- remember that arrays start their index at **0** while people like to start counting at **1**