

CSE 4713 / 6713 – Programming Languages

Programming in Clojure

Assignment #4

Clojure (<http://clojure.org>) is a functional programming language based on LISP. Clojure programs run on the Java Virtual Machine. Read the following chapters of **Clojure for the Brave and True** (available online at <http://www.braveclojure.com>):

Part I: Environment Setup

- Chapter 1: Building, Running, and the REPL
- Chapter 2: How to Use Emacs, an Excellent Clojure Editor (**optional**)

Part II: Language Fundamentals

- Chapter 3: Do Things: A Clojure Crash Course
- Chapter 4: Core Functions in Depth
- Chapter 5: Functional Programming

When I set up Emacs to use Clojure, it was complicated, and didn't quite work the way claimed in the chapter. But, Emacs is a cool thing to learn! However, you are not required to use Emacs as your editor, so Chapter 2 is optional. NightCode (<https://sekaonet.net/nightcode/>) is an open source IDE that can be used to develop programs in Clojure. Other editors are discussed in Chapter 1.

Complete the following end of chapter exercises for assignment #4:

- Chapter 3: 2, 3, 5 ← still required!
- Chapter 4: 2, 3, 4 ← not required (but cool)
- Chapter 5: 2, 3, 5 ← not required (but cool)

Each Chapter's code (function definitions and calls to demonstrate the functions) should be placed in a single source file named for the chapter (example: chapter03.clj). Your code will be graded for correctness, style, and use of functional programming paradigms.