Homework 0

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1 Obtain a copy of SICP

SICP is available both in physical and electronic forms. The latter is freely available and is licensed under a Creative Commons NonCommercial License.

Download (or order!) a copy of the text, and read the introduction to Section 1.

2 Set up your development environment

Lisp has many dialects, e.g. Common Lisp, Clojure (Lisp on the JVM), GOOL (developed at Naughty Dog and used in the development of the Crash Bandicoot series of games) and Scheme, the dialect used in this course. Scheme itself comes in many different flavours, and each flavour has its own quirks and installation process.

The suggested flavour of Scheme used in this course is MIT/GNU Scheme, though Racket is also a popular choice. Both have their own associated development environments, and this part of the homework is to get you set-up with one of them. Alternatively, both Emacs and Vim support integration with a running MIT/GNU Scheme or Racket process.

2.1 MIT/GNU Scheme

- Download MIT/GNU Scheme for your development platform.
- Install and open the MIT/GNU Scheme implementation either from the installed Application or by running

  ```
  mit-scheme --edit
  ```

  at the command line.

- You are now in Edwin, the MIT/GNU Scheme editor. It is very similar to Emacs, though written in Scheme. If this is the first time in an Emacs-like environment, enter and complete the interactive tutorial by executing the key-chord `Ctrl-h t` (Emacs and Edwin abbreviate this to `C-h t`.

2.2 Racket

- Download Racket for your development platform.
- Open the installed DrRacket application for a Racket development environment.
- **Important**: Racket departs from Scheme in certain ways that make some of the exercises in SICP impossible. This can be remedied by adding

  ```
  #lang planet neil/sicp
  ```

  to the top of any Scheme file you're editing (cf. Neil Van Dyke's page for more details). The first time you run a program with this header, DrRacket will download the required packages.