

Running Scheme

15CSE220 :: SICP

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1 Introduction

There are more than one way to run the **Scheme** program. In this brief note, we will discuss them one by one.

2 Dr. Racket

We will be using **Dr.Racket** as our development environment.

2.1 Using REPL

This is the normal way, we will be interacting with **Scheme**. We have seen that in one of our previous videos. However, when the program goes beyond 4 lines, we may prefer to type it as a program. This is also **important** as you have to submit your assignments.

2.1.1 Method 1

1. Type the program in **Program Area**
2. Click the run button.
3. The results will be shown in the REPL area.

Note: The REPL is refreshed when you click. So all the definitions and code you have written will go once you click **Run**.

2.1.2 Method 2 (preferred)

1. Type the program in **Program Area**.
2. Save the file in the desired location with **.scm** extension.
3. Use `(load "/path/to/dir/file.scm")`
4. Now, your procedure is ready for use.
5. Whenever you modify the code in program, use Step.3.

Note: The advantage is that your file is saved for future use, you can modify it accordingly and the global environment is never lost.

2.2 From Shell

If you have properly installed **Dr.Racket**, you will get **racket** command line tool. All you need is just run

```
$ racket file.scm
```

but remember that, you need to tell which programming language it is using. For our convenience, we type

```
#lang racket
(define (square x)
  (* x x))
```

Notice that, we have added `#lang racket` at the top. This is not required when we are working within Scheme.

3 From Emacs

This is an assignment for the people who are interested. Please figure out yourself. In case of help, please contact me at sreekumar@am.amrita.edu.