

Paradigm

A pattern of thinking that is frequently difficult to change.

A world view.

Objective

To learn three major programming models that complement the procedural and OO models:

- Functional paradigm
- Declarative/logic paradigm
- Concurrent paradigm

Programming language

- Functional paradigm — Scheme
- Declarative/logic paradigm — Prolog
- Concurrent paradigm — Java and C++

Motivation

A good background in different programming languages has given me the ability to think outside the box of one language style or another. Without this background, I would not be as valuable to my decidedly practically-minded company—even though we do not generally use theoretically interesting languages.

— *John Prevost*, ArsDigita Corporation

Computer Science and Programming

Demo Scheme

The read – eval – print loop.

Lambda expression

A lambda expression evaluates to a function.

```
(lambda (x) (* x x))
```

Function

Lambda expression

A lambda expression evaluates to a function.

```
(lambda (x) (* x x))
```

Parameter list

Quilt pattern class exercise

