

Textbook Assignment #2: Names, Scopes, and Bindings

Issued: Thursday, March 4

Due: Thursday, March 25

Purpose

This assignment asks you to think about the management of names in programming languages: scope (aka, visibility), extent (aka, lifetime), and binding (i.e., meaning).

Be careful to answer all of an exercise's questions.

Some of the textbook's code fragments are split across two pages, making indentation difficult to discern. I recommend you arrange such a fragment on a single page.

Textbook Exercises

Edition 4: question 3.2, page 167.

Consider variable allocation. Give only Pascal/Java and Scheme examples. They don't need to compile/execute.

Edition 4: question 3.4, page 167.

Consider live, but invisible, variables. Your examples need not compile/execute.

Edition 4: question 3.5, page 167.

Consider declaration order. Consider only the C and Modula-3 sets of rules.

Edition 4: question 3.7, page 169.

Analyze memory bugs. Figure 3.16 is within the exercise.

Edition 4: question 3.14, page 171.

Consider static and dynamic scope.

Edition 4: question 3.18, page 173.

Consider shallow and deep binding.