

CS 311 - Programming Language Concepts

Programming Assignment #6

Read Chapter 5 – Names, Binding, Type Checking and Scopes

Answer the following questions:

1. Some programming languages are type-less. What are the obvious advantages and disadvantages of having no types in a language?
2. Write a simple assignment statement with one arithmetic operator in some language you know. For each component of the statement, list the various bindings that are required to determine the semantics when the statement is executed. For each binding, indicate the binding time used for the language.
3. Dynamic type binding is closely related to implicit heap-dynamic variables. Explain this relationship.
4. Describe a situation when a history-sensitive variable in a subprogram is useful.
5. What is the general problem with static scoping?