



CSE 3302

Programming Languages

Semantics (cont.)

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Symbol Table



- Symbol Table: maintain bindings. Can be viewed as functions that map names to their attributes.



Static vs. Dynamic Scope



- **Static scope (lexical scope):**
 - scope maintained statically (during compilation)
 - follow the layout of source codes
 - used in most languages
- **Dynamic scope:**
 - scope maintained dynamically (during execution)
 - follow the execution path
 - few languages use it (The bindings cannot be determined statically, may depend on user input).
 - Lisp: considered a bug by its inventor.
 - Perl: can choose lexical or dynamic scope