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CS 481 HW3

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1. Identification is the first task of contextual analyzers. It identifies the corresponding declaration, and if a declaration doesn’t exist, it throws an error. Type checking is the second task. It ensures that the source has no type errors. In a statically typed language, all the types can be checked without running the program. Identification and type checking is usually interleaved in a single pass over the source code.
2. Monolithic block structure has a global scope. It has simple rules like no identified may be declared more than once. For every occurrence of an identifier there must be a matching declaration. The identification table will contain entries for all declarations in the source program. Flat block structure can be disjointed into several pieces. Some declarations are in local scope, some can be defined in global scope.
3. The identifier name and the attribute that is associated with it, and possibly a scope level.
4. The visitor method separated the design pattern from the object structure it operates on. It enables you to add new operations to an existing structure. You wouldn’t want to add the functionality to your nodes because those could potentially be visited in a different order. This method is a more systematic design.