

Lab 5

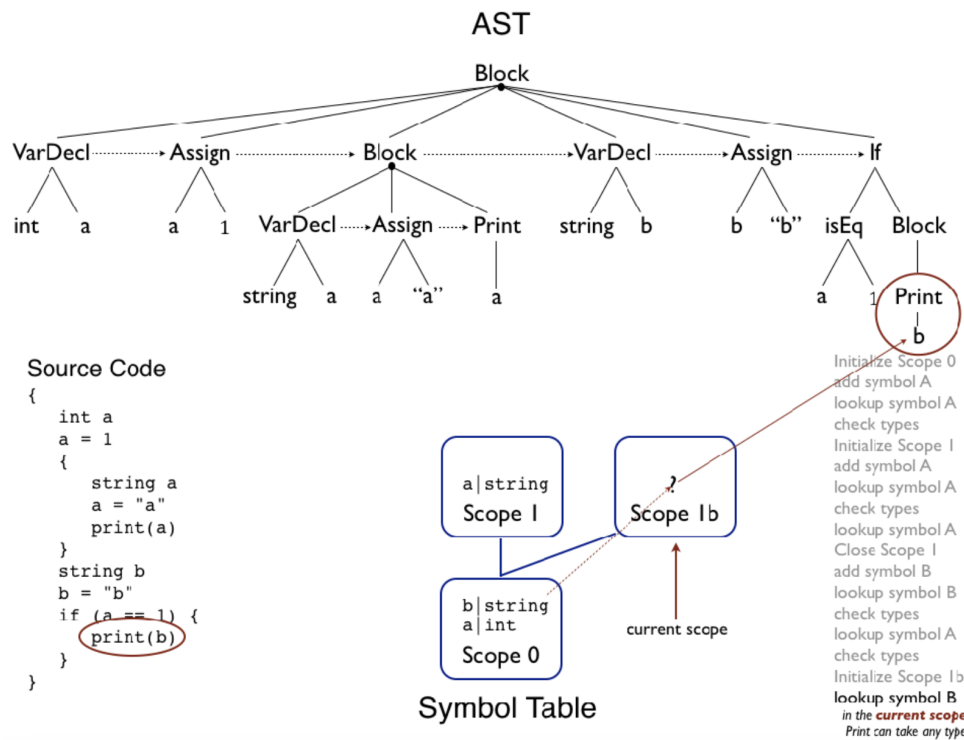
CMPT 432 - Spring 2023 | Dr. Labouseur

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1 ALAN QUESTION

Describe in detail what is happening in the diagram below.



In the diagram, the semantic analyzer is determining if *b* is a valid variable within the print statement in scope 1b. To make this determination, the semantic analyzer will look at the hashmap for scope 1b to find *b*. Unfortunately, *b* was not declared in the scope, so the semantic analyzer then has to check the parent of scope 1b, which is scope 0. Fortunately, *b* was declared in scope 0, so the print statement is valid. However, if *b* was not in scope 0, then an undeclared variable error would have to be thrown.