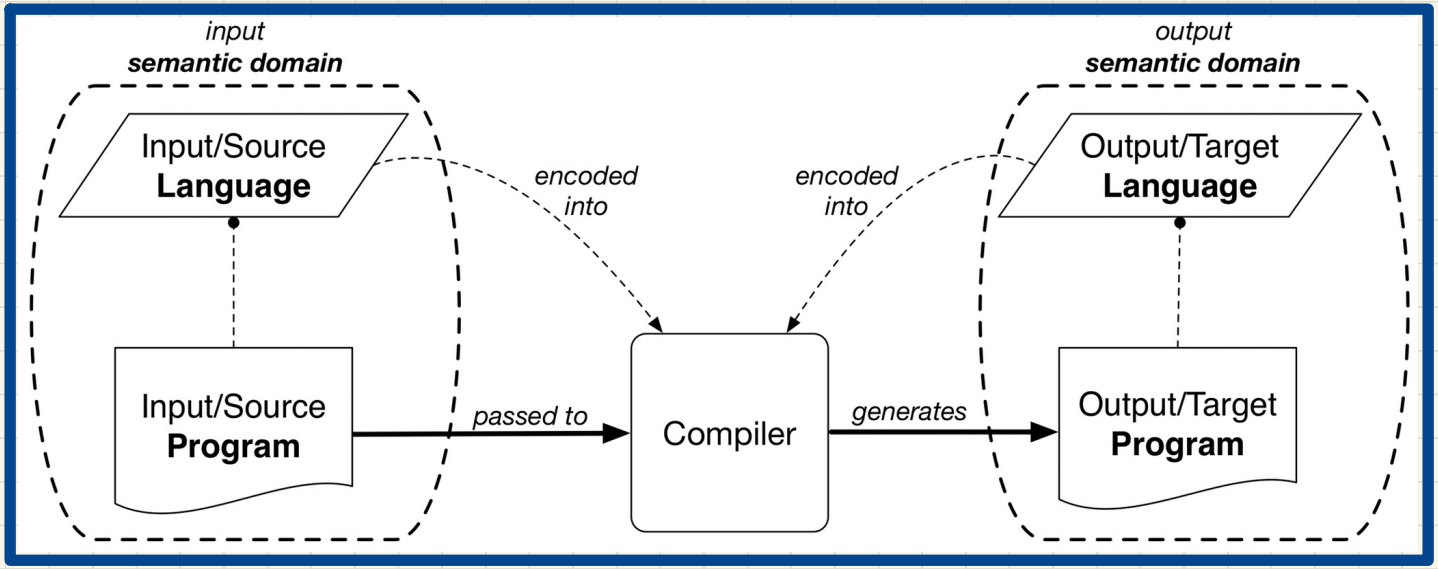
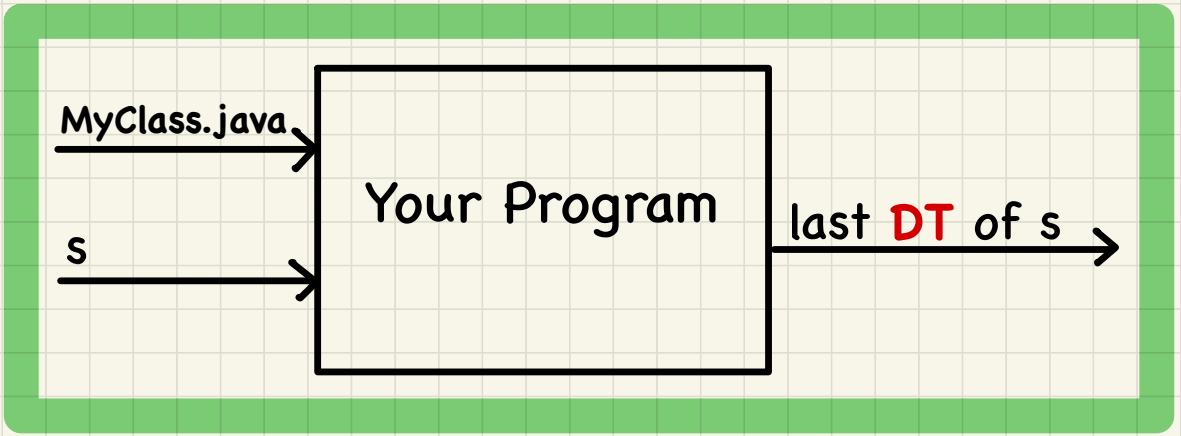
What is a Compiler?

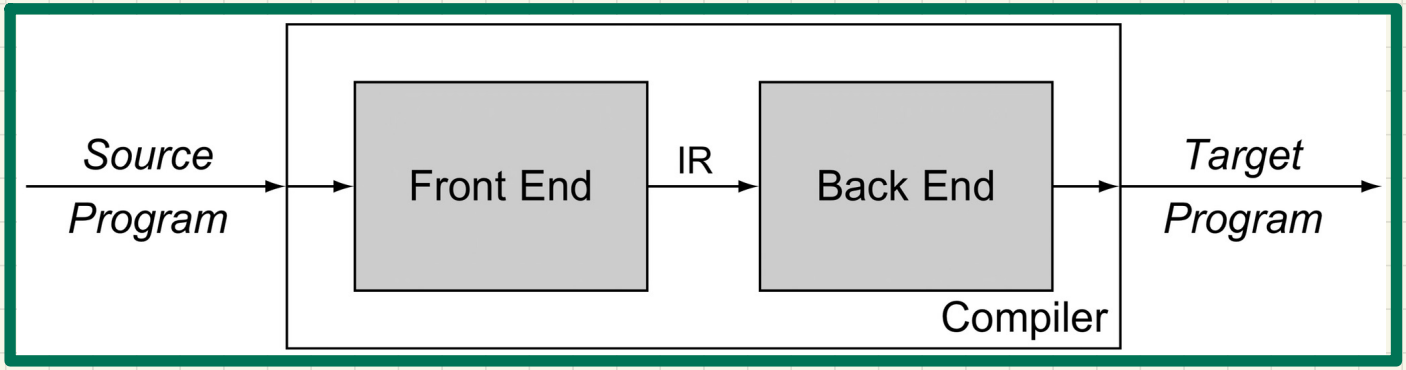


An A+ Challenge: Inferring the DT of a Variable




```
class MyClass {
   main (...)
      Student s = ...;
      ...
      s = new ResidentStudent(...);
   }
}
```

Compiler: Typical Infrastructure (1)



Concrete Syntax vs. Abstract Syntax

Q. How many IRs are necessary to build a number of compiler to transform between Java, C, C#, C++, and Python?

Hint: # of Permutations