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Compiler Construction

Homework #3 Regular Expressions

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1. Slic variable names:

$$[a-zA-Z][a-zA-Z0-9]^*$$

2. Slic reserved word while:

$$(w|W)(h|H)(i|I)(l|L)(e|E)$$

3. Slic floating-point constants (allowing scientific notation e.g. $8.9e-3$):

$$(-|+)?[0-9]^+(\cdot[0-9]^+)?((e|E)((-|+)?)[0-9]^+)?$$

4. Slic character string constants:

$$"([\^"]^*("\{2\})^*[\^"]^*)^*"$$

5. Over the alphabet $\{0, 1\}$, all non-negative binary integers that are divisible by four. Assume six-digit signed integers with two's complement.

$$0(0|1)(0|1)(0|1)00$$