Compiler Theory and Practice

Coursework

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A coursework submitted in fulfilment of study unit CPS2000.
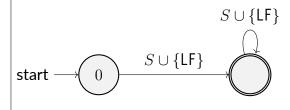
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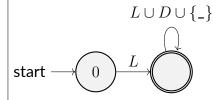So, we'll be using the following micro-syntax:

So, we'll also be using a set of categories as our language. Some categories are complete types in their own right. These types will be the following:
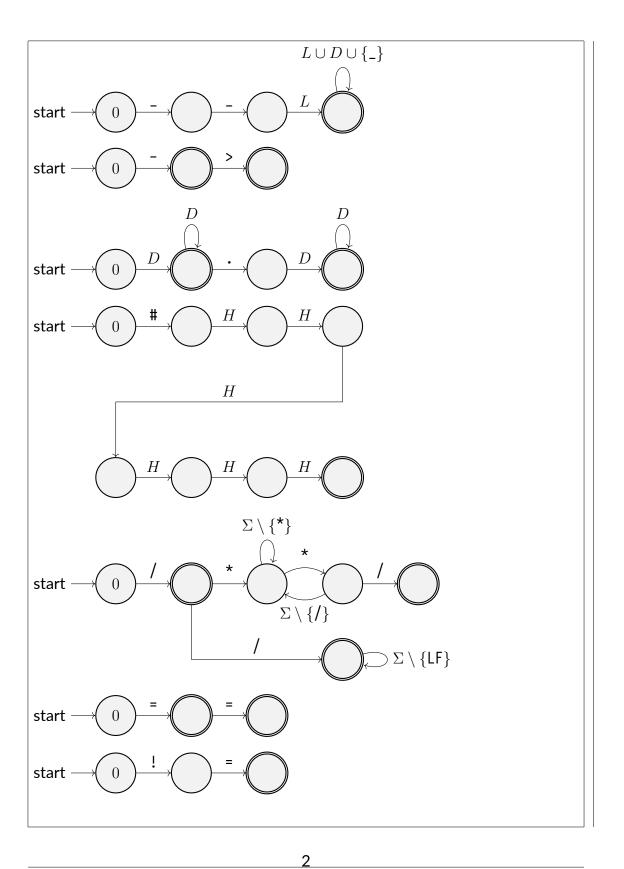
Let $\mathfrak{U}$ be the set of all unicode characters.

- $L := \{\mathsf{A}, \ldots, \mathsf{Z}, \mathsf{a}, \ldots, \mathsf{z}\}$

- $D := \{\mathsf{0}, \ldots, \mathsf{9}\}$

- $H := \{\mathsf{A}, \ldots, \mathsf{F}, \mathsf{a}, \ldots, \mathsf{f}\} \cup D$

- $S := \{\alpha \in \mathfrak{U} \colon \alpha \text{ is whitespace}\} \setminus \{\mathsf{LF}\}$

$$\Sigma = L \cup D \cup S \cup \{\,\mathsf{.}, \mathsf{\#}, \mathsf{\_}, \mathsf{(}, \mathsf{)}, \mathsf{[}, \mathsf{]}, \mathsf{\{}, \mathsf{\}}, \mathsf{*}, \mathsf{/}, \mathsf{+}, \mathsf{-}, \mathsf{<}, \mathsf{>}, \mathsf{=}, \mathsf{!}, \mathsf{,}, \mathsf{:}, \mathsf{;}, \mathsf{LF}\}$$