Dickinson Language Reference

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0.1 Introduction

Dickinson is a language for generative literature targeting English. This reference specifies the syntax and semantics of the language.

0.2 Syntax

0.2.1 Lexical Structure

Dickinson programs have the following lexical structure:

$$
\begin{aligned}
comment &=: ;.^*\$ \\
identifier &=: [\mathtt{a}-\mathtt{z}][\mathtt{a}-\mathtt{zA}-\mathtt{Z0}-\mathtt{9}]^* \\
typeIdentifier &=: [\mathtt{A}-\mathtt{Z}][\mathtt{a}-\mathtt{zA}-\mathtt{Z0}-\mathtt{9}]^* \\
moduleIdentifier &=: (identifier.)^* identifier \\
include &=: :\mathtt{include} \\
let &=: :\mathtt{let} \\
match &=: :\mathtt{match} \\
branch &=: :\mathtt{branch} \\
oneof &=: :\mathtt{oneof} \\
def &=: :\mathtt{def} \\
lambda &=: :\mathtt{lambda} \\
flatten &=: :\mathtt{flatten} \\
text &=: \mathtt{text} \\
tydecl &=: \mathtt{tydecl} \\
arrow &=: (\rightarrow |- >) \\
probability &=: ([\mathtt{0}-\mathtt{9}]^+ | [\mathtt{0}-\mathtt{9}]^+.[\mathtt{0}-\mathtt{9}]^*)
\end{aligned}
$$

0.2.2 Syntax Tree

$$
\begin{aligned}
expression =: &((: \mathtt{let} identifier expression) \\
&|string \\
&)
\end{aligned}
$$