

The Reference Manual for \mathfrak{E}

Version 3.14

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Chapter 1

Language Guide

§1.1 types

\mathfrak{L} provides fundamental types, including `Int` for integers, `Double` for floating-point values, `String` for textual data, and `Bool` for Boolean value. \mathfrak{L} also provides `Tuple` and `List` as described in §1.3, §1.4.

§1.2 constants

You cannot use variable in \mathfrak{L} -world. Alternatively, \mathfrak{L} provides constant. The value of a constant cannot be changed once it is set in the future. This constraint ensures referential transparency.

§1.3 list

§1.4 tuple

§1.5 function

§1.6 control flow

Chapter 2

Usage

§2.1 declare constants

§2.2 declare function

Listing 2.1 function *fibonacci*

```
1  fibo(n) :: Int -> Int
2    = 0 [n == 0]
3    = 1 [n == 1]
4    = fibo(n-1) + fibo(n-2)
```

§2.3 pattern match

§2.4 Input and Output

§2.5 sample code

Here is the sample code, which returns a fibonacci number.

Listing 2.2 sample code

```
1  fibo(n) :: Int -> Int
2    = 0 [n == 0]
3    = 1 [n == 1]
4    = fibo(n-1) + fibo(n-2)
5  where
6    who :: Int
7    =5
8    hoge :: Int
9    =6
10
11  m :: Double
12  =2
```