



The Stack

3

Procedure: Write Procedure

Steps:
1: ...

Code Area

2

Program: Extended Hello World

Steps:
1: Call procedure to write 'Extended Hello World' to the Console
2: Call procedure to write ' 1 + 1 = ', and the result of 1 + 1
3: Call procedure to write ' Area of a circle with radius 3 = ',
and the result of $3.1415 * 3 * 3$

1

The Program's
Memory



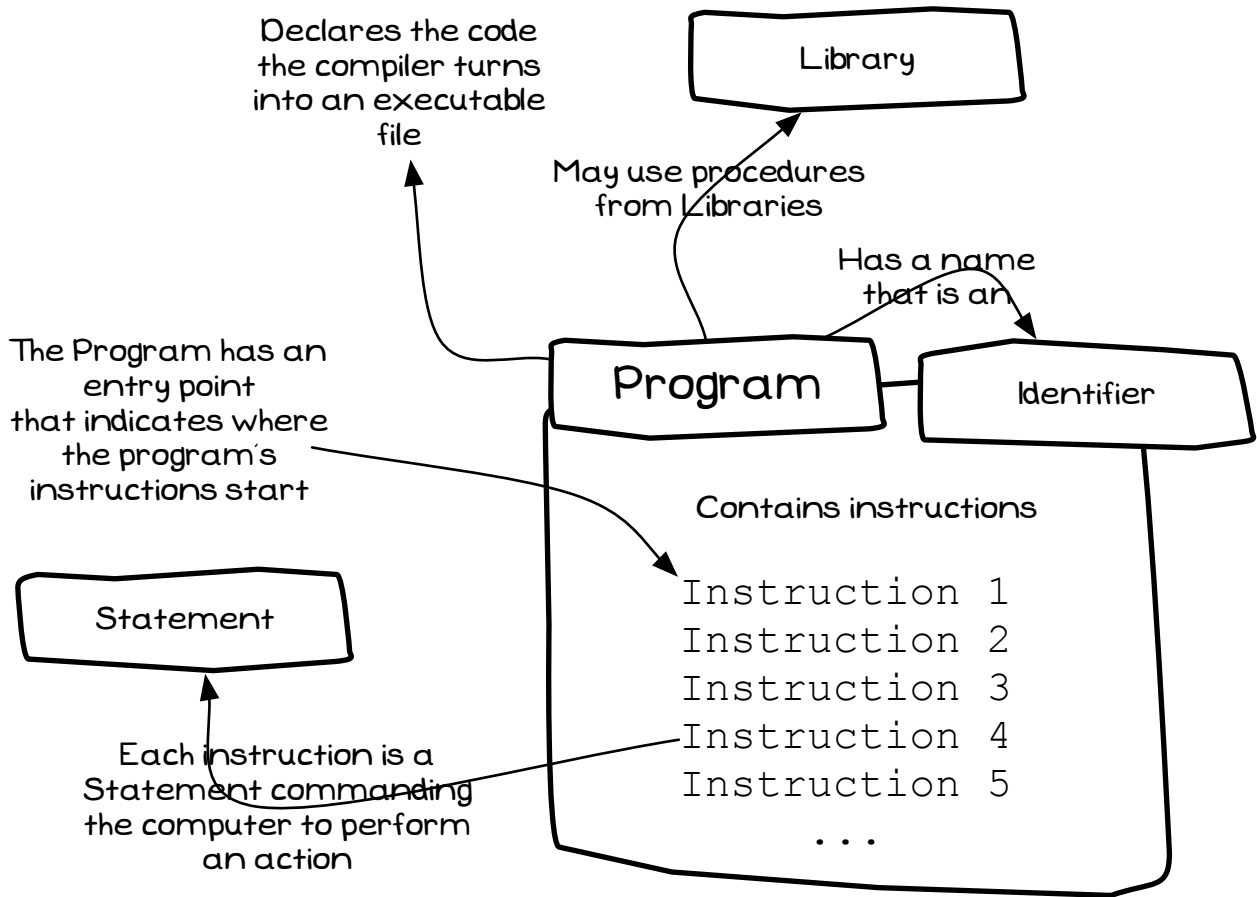
Hard Drive

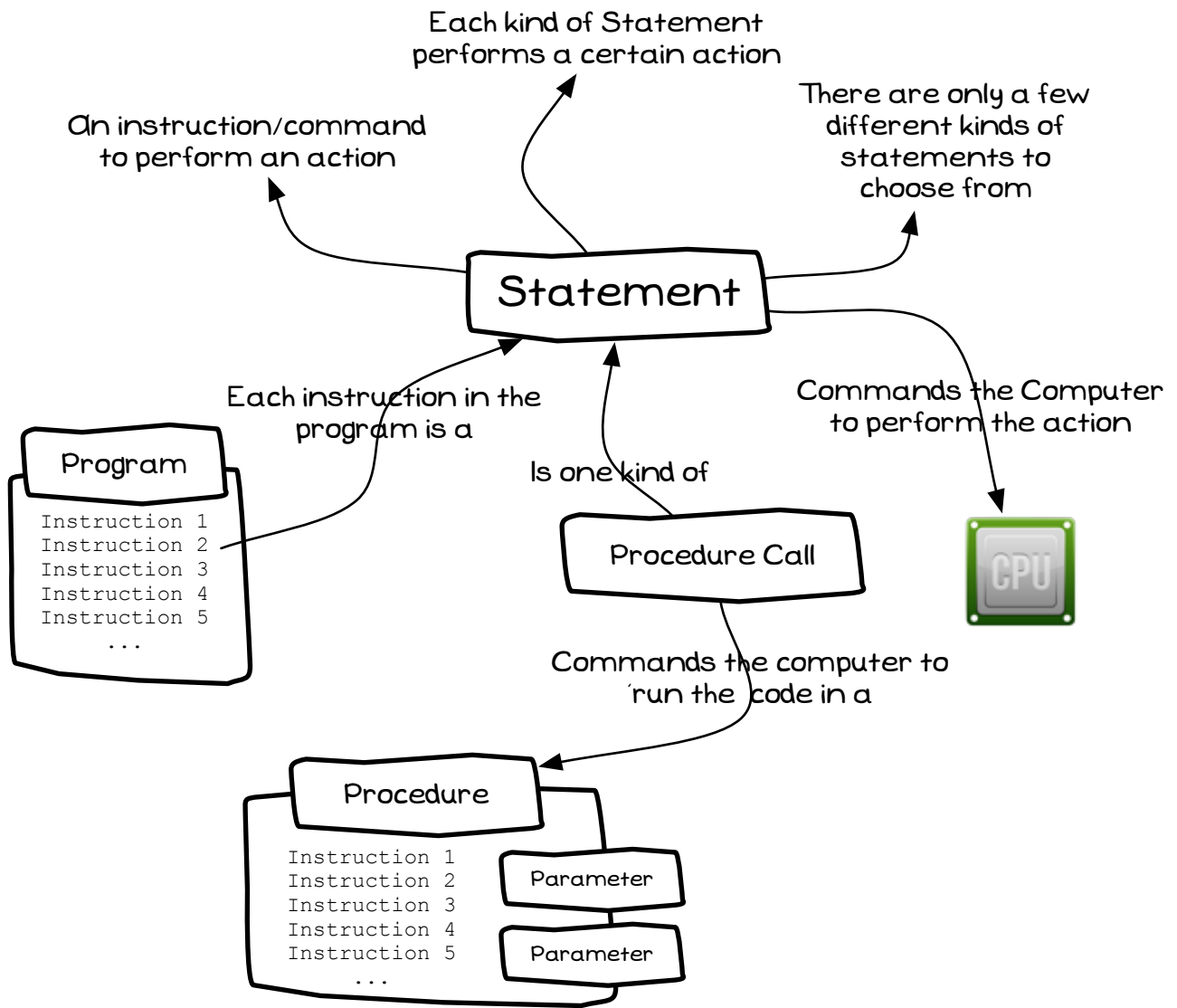


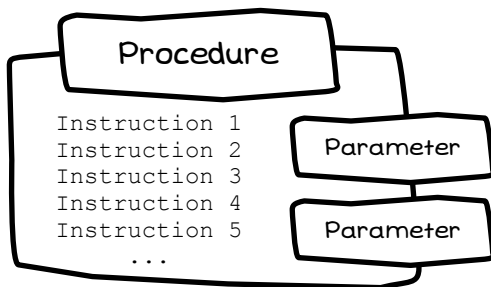
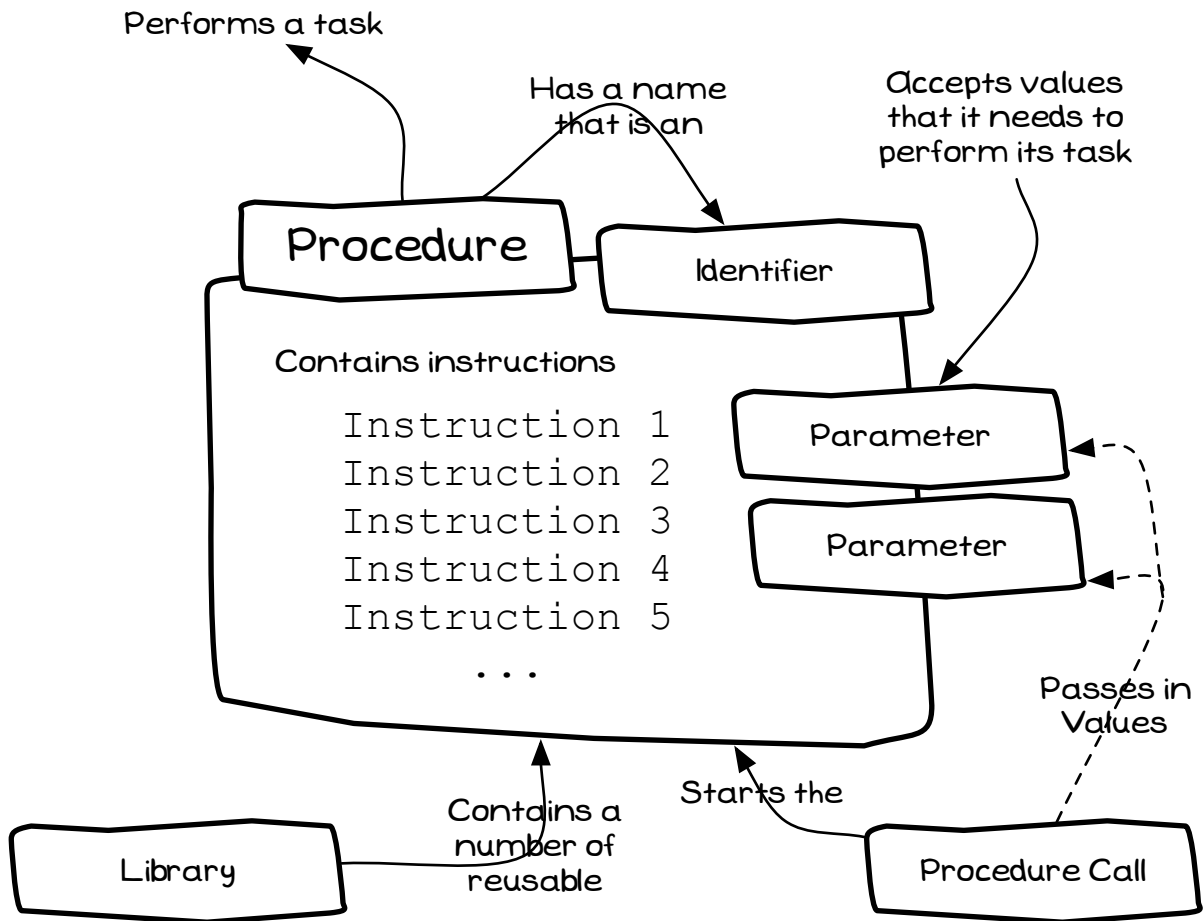
CPU

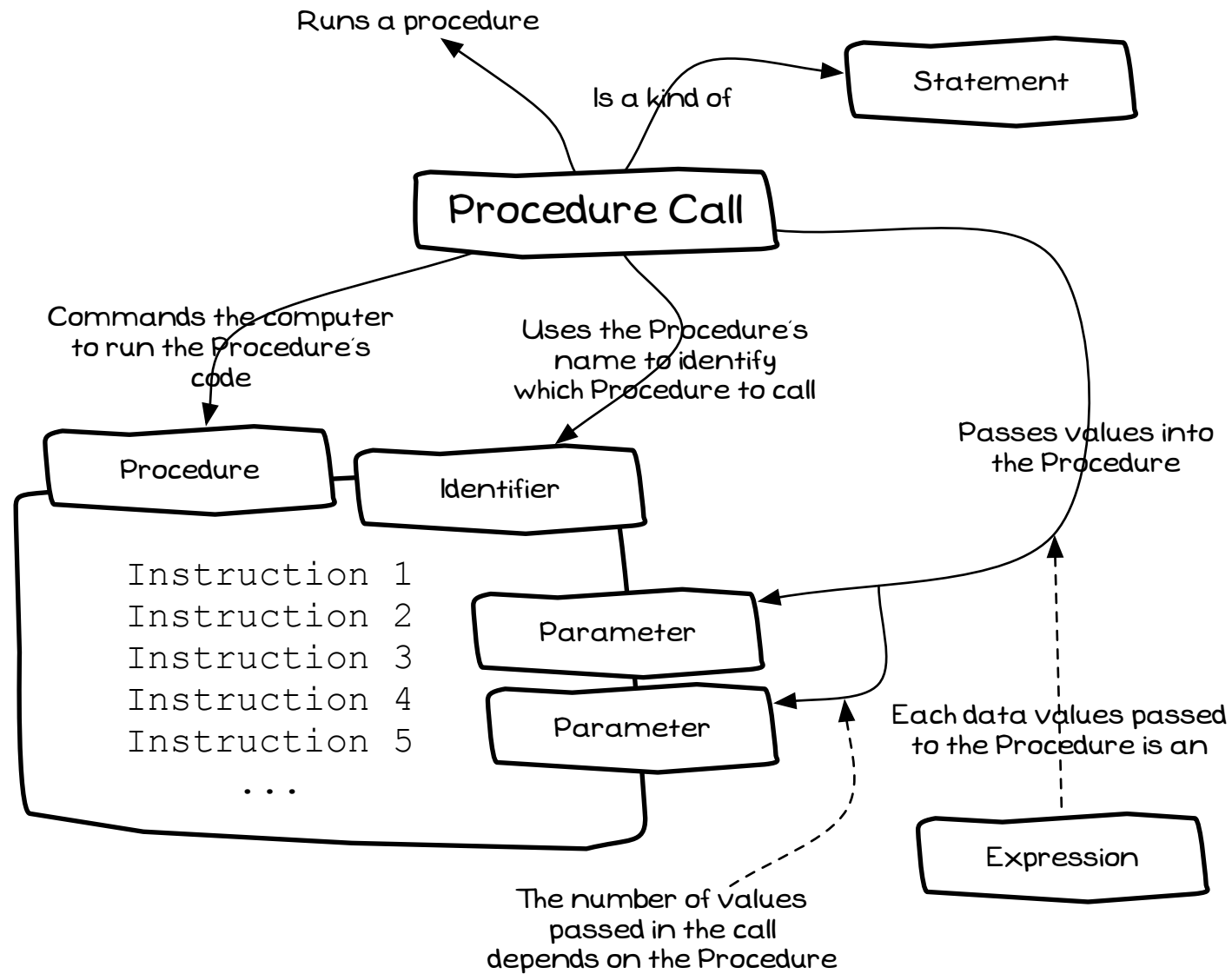


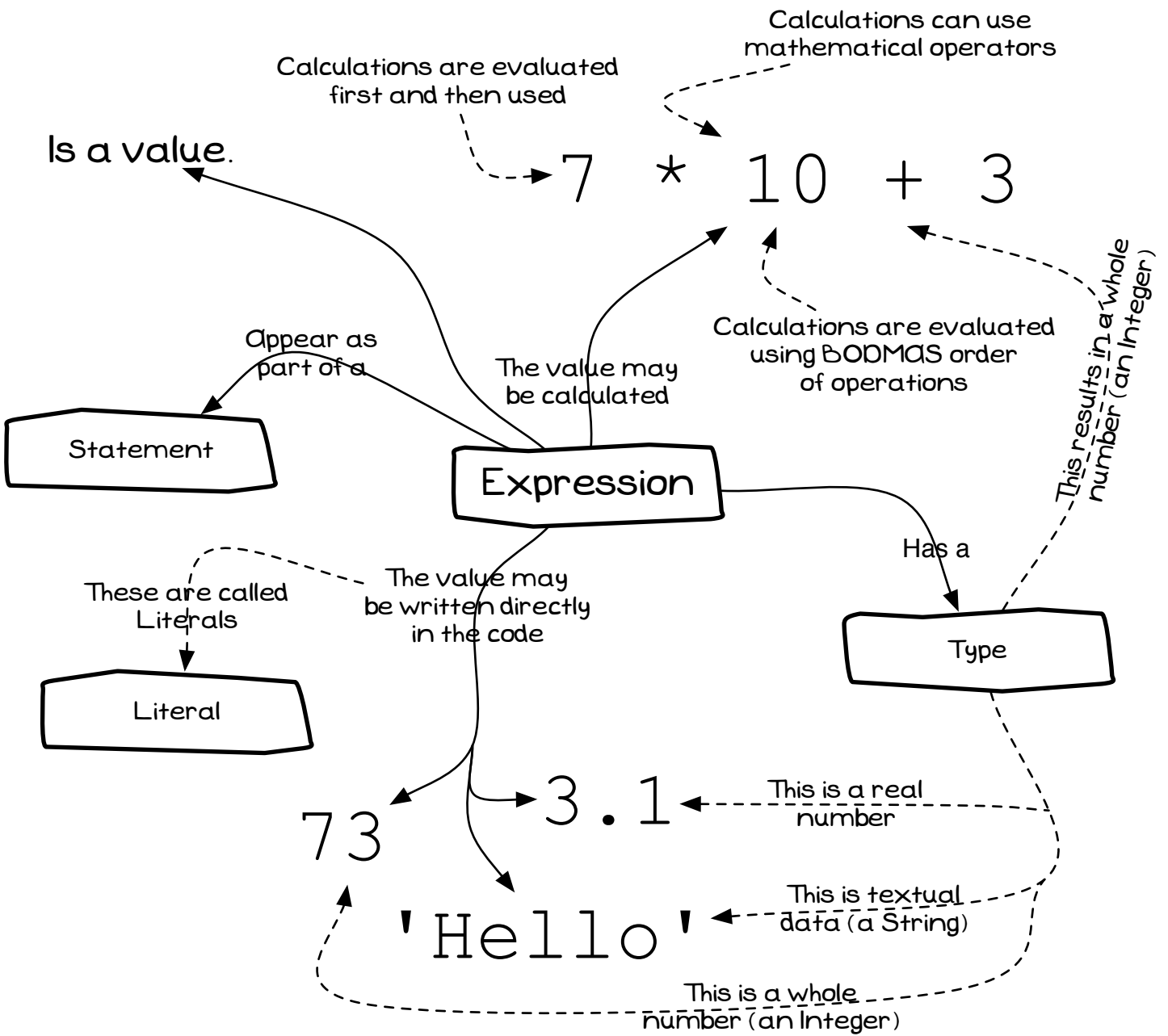
Console











Types include ...

Indicates a kind
of data

Determines the
operations that are
permitted with the type

... textual data

'Hello'

May allow ... +
but definitely not ... - * /

... whole numbers

73

You can use ... + - * /

Type

... real numbers

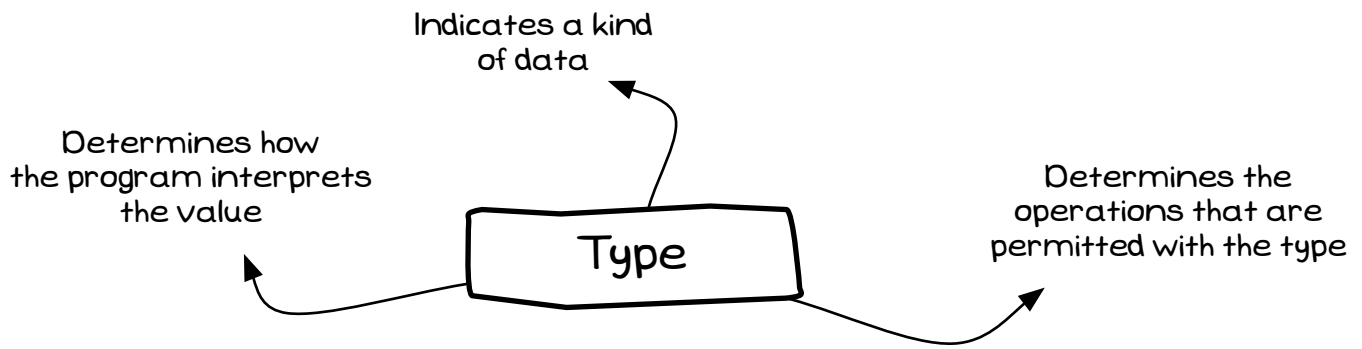
3.1

You can use ...
+ - * /

and other types...

Determines how
the program interprets
the value

Each language will
have a range of
different Types



2387226039927203144

If this is a whole number
its value is...

4.186633e-149

If this is a real number
its value is...

'Hello!!!'

If this is textual data
its value is...

001000010010000100100000100100001011101111
01101100011011000110010101001001000

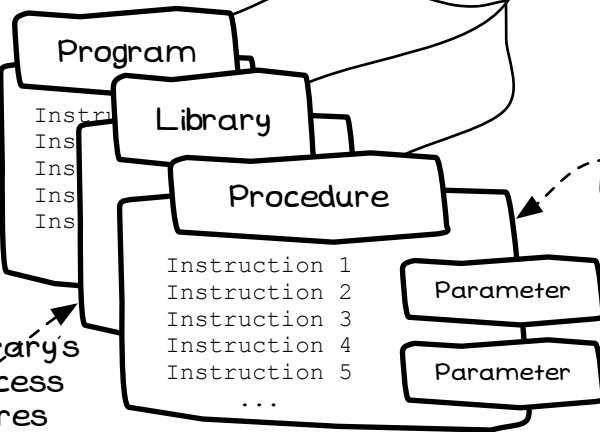
Is the name of something

Identifier

Is a kind of Identifier that has special meaning to the language

Keyword

Have a name that is an



Uses the procedure's name to determine which procedure to call

Procedure Call

Uses the Library's name to access its procedures

