

Basic Types

elixir supports types like

- integer's
- float's
- booleans
- atoms
- strings
- lists
- tuples

Integers

integers in elixir can be represented as 1 elixir can even be entered as binary, octal or hexadecimal numbers

```
iex> 0b11
3
iex> 0o12
10
iex> 0x1a
26
```

Floats

floats in elixir are represented 5.0 instead of 5

operators such as `/` always returns a float.

if you want integer division and remainder you can use `div` and `rem` functions

```
iex> 3/5
0.6
iex> div(3,5)
0
iex> rem(3,5)
3
```

Atoms

atoms are constants in elixir whose values are their own name they are denoted with the `:` Character.

atoms are most commonly used to display the state of an operation with atoms such as `:ok` and `:error`

Two atoms are equal if their names are equal

```
iex> a = :elixir
:elixir
iex> b = :phoenix
:phoenix
iex> a == b
false
iex> a == :elixir
true
```

Strings

- Strings in elixir are a sequence of characters that are written in double quotes
- In Elixir strings are linked lists of characters
- Elixir supports things like string interpolation which allow you to insert a value into the middle of a string using `#{}` and string concatenation using `<>`

```
iex> hi = "Hello "  
"Hello "  
iex> elixir = "World!"  
"World!"  
iex> hi <> elixir  
"Hello World!"  
iex> "#{hi}User!"  
"Hello User!"
```