

Types and Values



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- ⦿ Lua is a dynamically-typed language.

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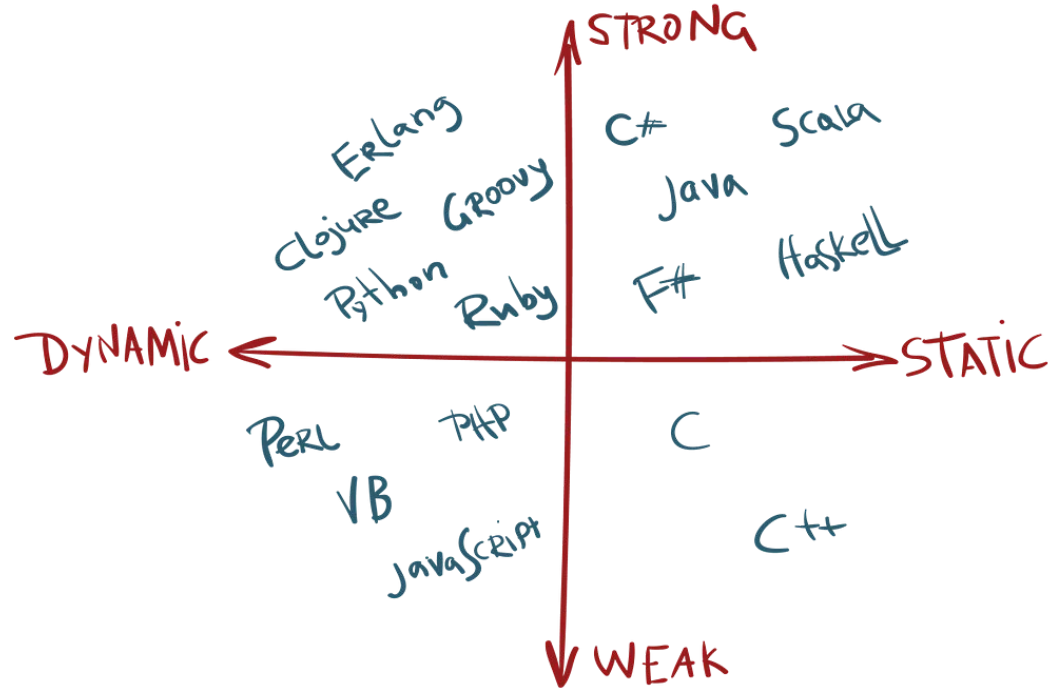
- ⦿ Lua is a dynamically-typed language.
- ⦿ A language is dynamically-typed if the type of a variable is checked during run-time.
- ⦿ On the other hand, A language is statically-typed if the type of a variable is known at compile-time instead of at run-time.

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- ⦿ Lua is also a weak-typed language.
- ⦿ A programming language is weakly typed, when it does not require the explicit specification of different types of objects and variables.
- ⦿ On the other hand, a language is strongly typed if it demands the specification of data types.

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- ⦿ There are no type definitions in the language, each value carries its own type.

```
> type(nil)           --> nil
> type(true)          --> boolean
> type(10.4 * 3)       --> number
> type("Hello world") --> string
> type(io.stdin)       --> userdata
> type(print)          --> function
> type(type)           --> function
> type({})             --> table
> type(type(X))        --> string
```

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- ⦿ There are eight basic types in Lua: `nil`, `Boolean`, `number`, `string`, `userdata`, `function`, `thread`, and `table`.
The function type gives the type name of any given value:

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