

LUA - DATA TYPES

http://www.tutorialspoint.com/lua/lua_data_types.htm

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Lua is a dynamically typed language, so the variables don't have types, only the values have types. Values can be stored in variables, passed as parameters and returned as results.

In Lua, though we don't have variable data types, but we have types for the values. The list of data types for values are given below.

Value Type	Description
nil	Used to differentiate the value from having some data or <i>nonil</i> data.
boolean	Includes true and false as values. Generally used for condition checking.
number	Represents <i>realdoubleprecisionfloatingpoint</i> numbers.
string	Represents array of characters.
function	Represents a method that is written in C or Lua.
userdata	Represents arbitrary C data.
thread	Represents independent threads of execution and it is used to implement coroutines.
table	Represent ordinary arrays, symbol tables, sets, records, graphs, trees, etc., and implements associative arrays. It can hold any value <i>except nil</i> .

Type Function

In Lua, there is a function called 'type' that enables us to know the type of the variable. Some examples are given in the following code.

```
print(type("What is my type"))    --> string
t=10

print(type(5.8*t))                 --> number
print(type(true))                  --> boolean
print(type(print))                 --> function
print(type(type))                  --> function
print(type(nil))                   --> nil
print(type(type(ABC)))              --> string
```

When you build and execute the above program, it produces the following result on Linux –

```
string
number
boolean
function
function
nil
string
```

By default, all the variables will point to nil until they are assigned a value or initialized. In Lua, zero and empty strings are considered to be true in case of condition checks. Hence you have to be careful when using Boolean operations. We will know more using these types in the next chapters.

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