# OOJS - Protótipos e Classes

DIGITAL INNOVATION ONE

## Protótipos

Todos os objetos Javascript herdam propriedades e métodos de um prototype.
O objeto Object.prototype está no topo desta cadeia.

```
> const objeto = {}
< undefined
> objeto
< ▼{} i
    ▼__proto__:
      ▶constructor: ƒ Object()
      ▶hasOwnProperty: ƒ hasOwnProperty()
      ▶isPrototypeOf: ƒ isPrototypeOf()
      ▶propertyIsEnumerable: ƒ propertyIsEnumerable()
      ▶toLocaleString: ƒ toLocaleString()
      ▶toString: ƒ toString()
      ▶valueOf: ƒ valueOf()
      ▶__defineGetter__: ƒ __defineGetter__()
      ▶__defineSetter__: ƒ __defineSetter__()
      ▶__lookupGetter__: ƒ __lookupGetter__()
      ▶__lookupSetter__: ƒ __lookupSetter__()
      ▶get __proto__: ƒ __proto__()
      ▶set __proto__: ƒ __proto__()
```

```
> array
< ▼[] i
    length: 0
  ▼__proto__: Array(0)
    ▶concat: ƒ concat()
    ▶constructor: ƒ Array()
    ▶copyWithin: ƒ copyWithin()
    ▶entries: ƒ entries()
    ▶every: ƒ every()
    ▶fill: ƒ fill()
    ▶filter: ƒ filter()
    ▶find: ƒ find()
    ▶findIndex: ƒ findIndex()
    ▶flat: ƒ flat()
    ▶flatMap: ƒ flatMap()
    ▶forEach: ƒ forEach()
    ▶includes: ƒ includes()
    ▶indexOf: ƒ indexOf()
    ▶join: ƒ join()
    ▶keys: ƒ keys()
    ▶lastIndexOf: ƒ lastIndexOf()
     length: 0
```

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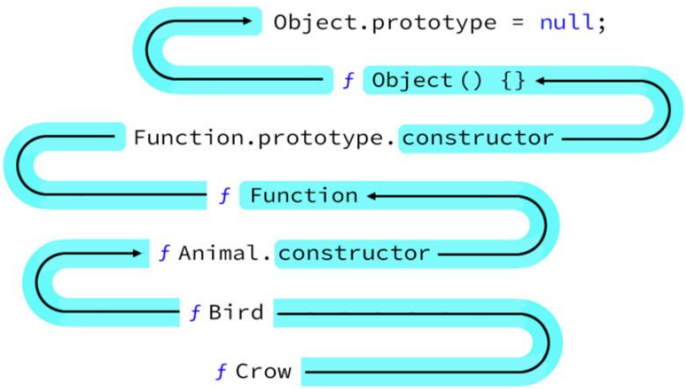
## Protótipos

Cadeia de protótipos (prototype chain)



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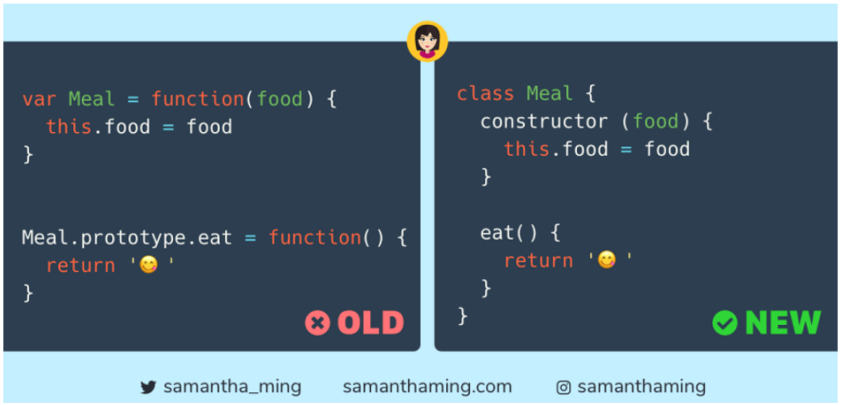
# Classes

**Syntatic sugar:** uma sintaxe feita para facilitar a escrita

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# Classes

Javascript não possui classes nativamente. Todas as classes são objetos e a herança se dá por protótipos.