



OBJECTS



Objects

Objects are the foundation for everything you do and everything you will be able to do with Javascript



Objects

An **object** is nothing more than a **memory reference**, that points (links) to other memory

At its core, **JavaScript** is an “**object-oriented language**”

There are many ways to **define objects** and the association amongst them in JavaScript.



Objects

for **one-time use** a simple **object literal**
is probably the best and quickest approach



Objects

Creating **multiple objects** with the **same shape**, then it's best to use a function, like **Object.create** to act as a factory of objects

also use your **own functions as object factories** when combined with the **new** keyword (**function constructor**)

classes have become quite popular in recent years



Objects

objects are nothing more than references (links) to other objects

JavaScript lets you compose multiple small objects using the object spread operator or `Object.assign`

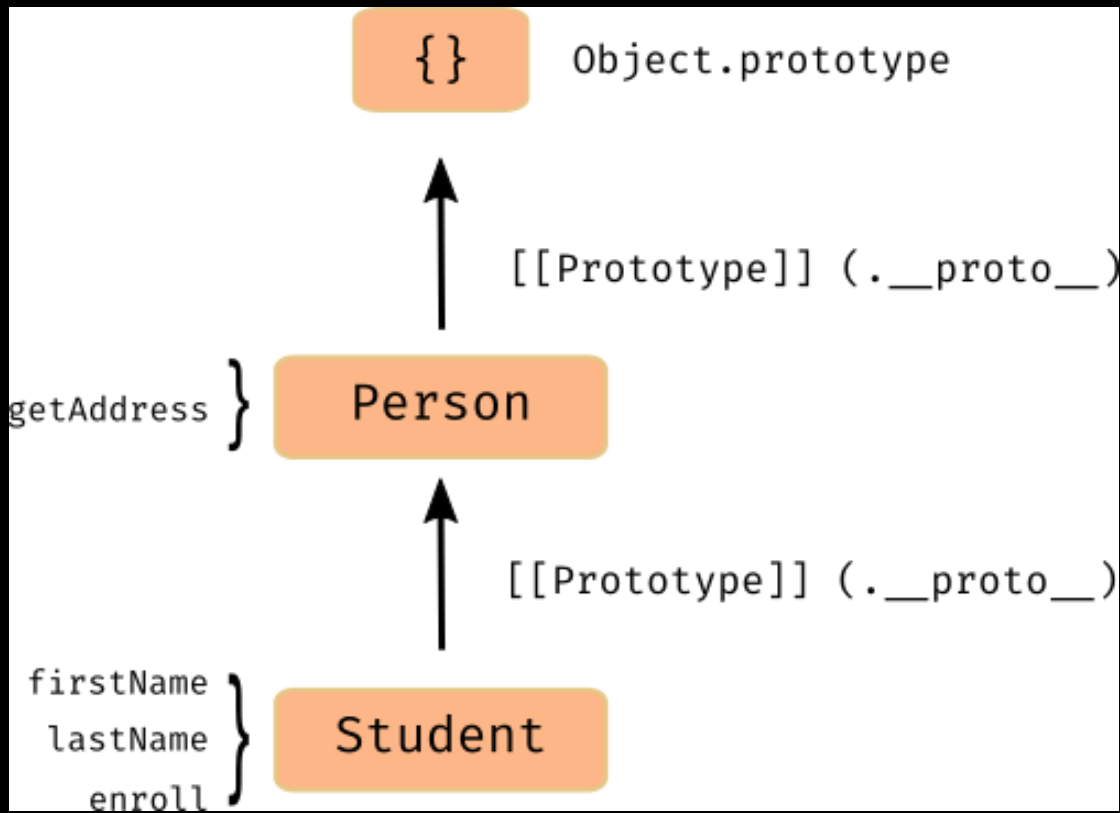


Objects

JavaScript uses the object's internal prototype reference as a path to navigate an object hierarchy during property resolution



Objects - differential inheritance



objects constructed from **Student** inherit from objects constructed from **Person**

all **Student instances** have at their disposal the **data** and **methods** defined in **Person**

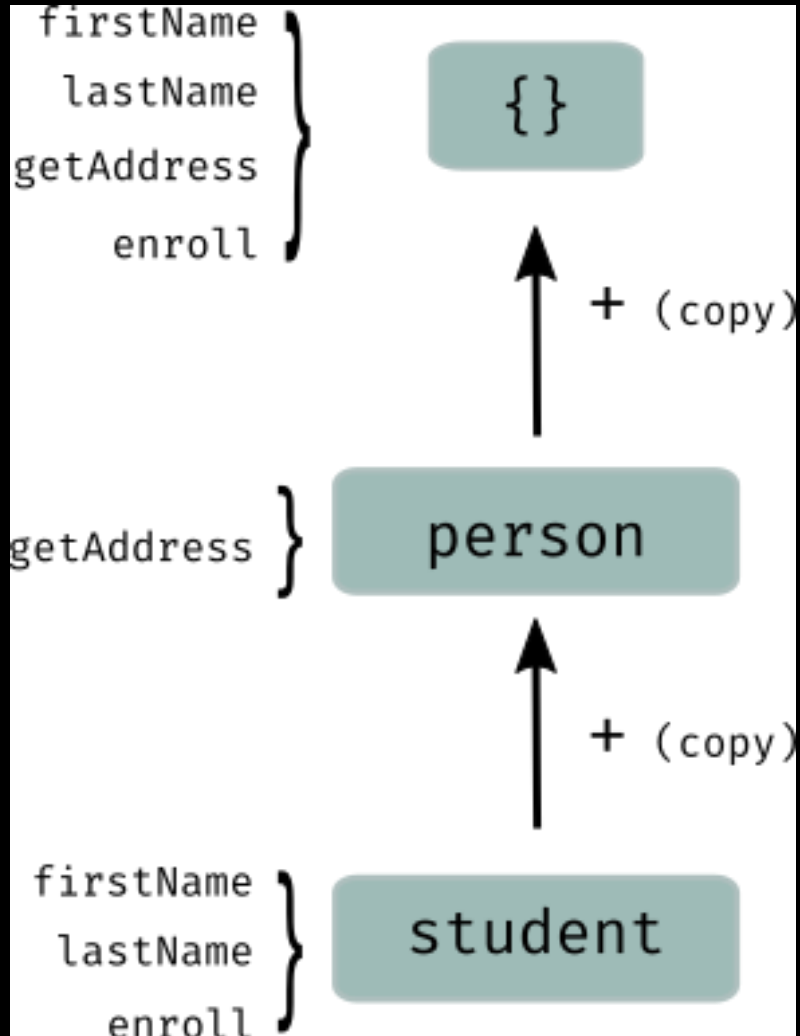
calling **getAddress** uses JavaScript's property lookup mechanism to **traverse the prototype hierarchy**

Objects

we can obtain the same shape by composing object
literals describing a person and student
(Object.assign)



Objects - Composition



the **main difference** is that we replaced prototype references with a “**copy**”

essentially taking all of the properties of student and person, and **copying** them (actually assigning them) into an **empty object**

instead of objects linking together, now we've created **separate objects** altogether with the same shape



Objects

Object design is used to make sense of your domain, how to instantiate it, how all of its pieces relate and pass messages to one another



Objects

we can catalog them based on two groups:
prototypal and delegation



Objects

Prototypal inheritance enables some nice object-oriented techniques to construct objects using either Object APIs, constructor functions, and classes.



Objects

compositional , object links are clearly demarcated to make your object models a bit more maintainable.

OLOO (Objects Linked to Other Objects) and Functional Mixins.



Objects

Exemplos...

