

JavaScript Prototypes and Inheritance



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```
function Person(firstName, lastName) {  
  this.firstName = firstName;  
  this.lastName = lastName;  
  prototype:  
}
```

```
Person.prototype.age = 29;
```

```
let jim = new Person('Jim', 'Cooper');
```

```
let sofia = new Person('Sofia', 'Cooper');
```

```
console.log(jim.age); // 29
```

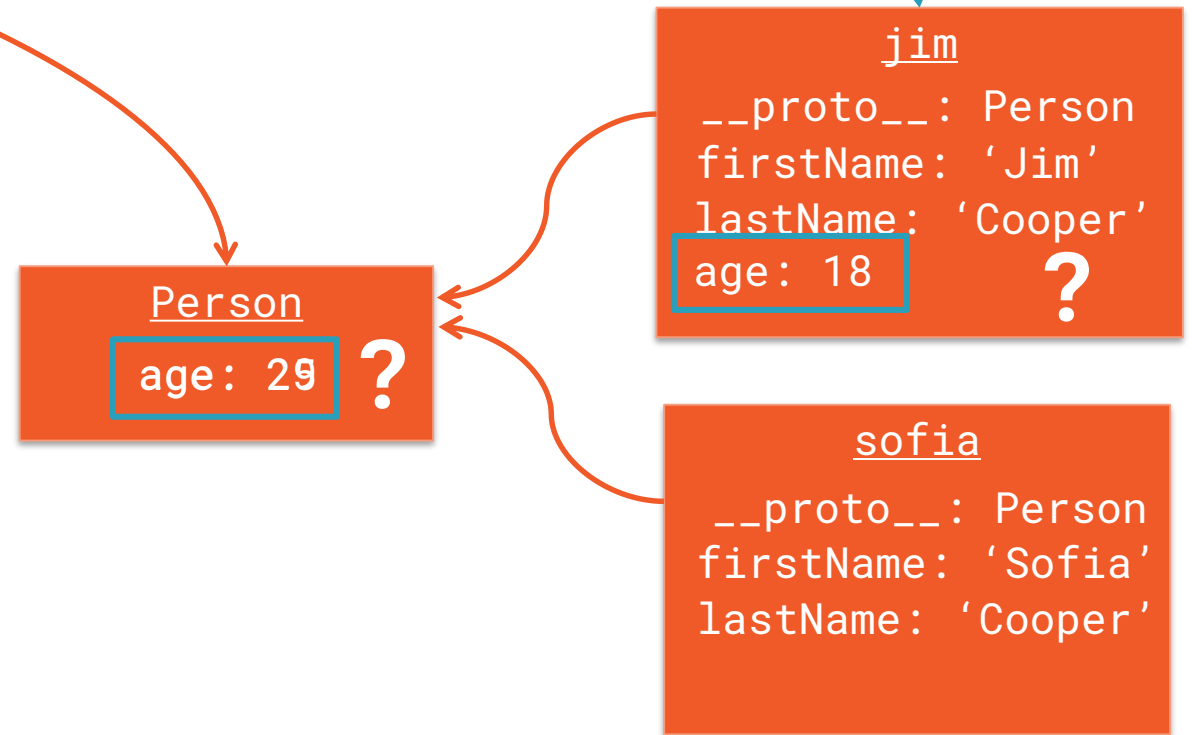
```
Console.log(jim.age); // 18
```

```
Person.prototype.age = 25;
```

```
jim.__proto__.age = 25;
```

```
Console.log(jim.age); // 18
```

```
Console.log(sofia.age); // 25
```



```
function Person(firstName, lastName) {  
  this.firstName = firstName;  
  this.lastName = lastName;  
  prototype:  
}
```

A function's prototype: The object instance that will become the prototype for all objects created using this function as a constructor.

An object's prototype: The object instance from which the object is inherited.

```
Person.prototype = {}  
  
let jim = new Person('Jim', 'Cooper')  
let sofia = new Person('Sofia', 'Cooper')  
  
jim.age = 18  
sofia.age = 25  
  
console.log(jim.age) // 18  
console.log(sofia.age) // 25  
  
Person.prototype.age = 25  
  
jim.__proto__.age = 25  
console.log(jim.age) // 18  
console.log(sofia.age) // 25
```

jim

__proto__: Person

name: 'Jim'

lastName: 'Cooper'

?

sofia

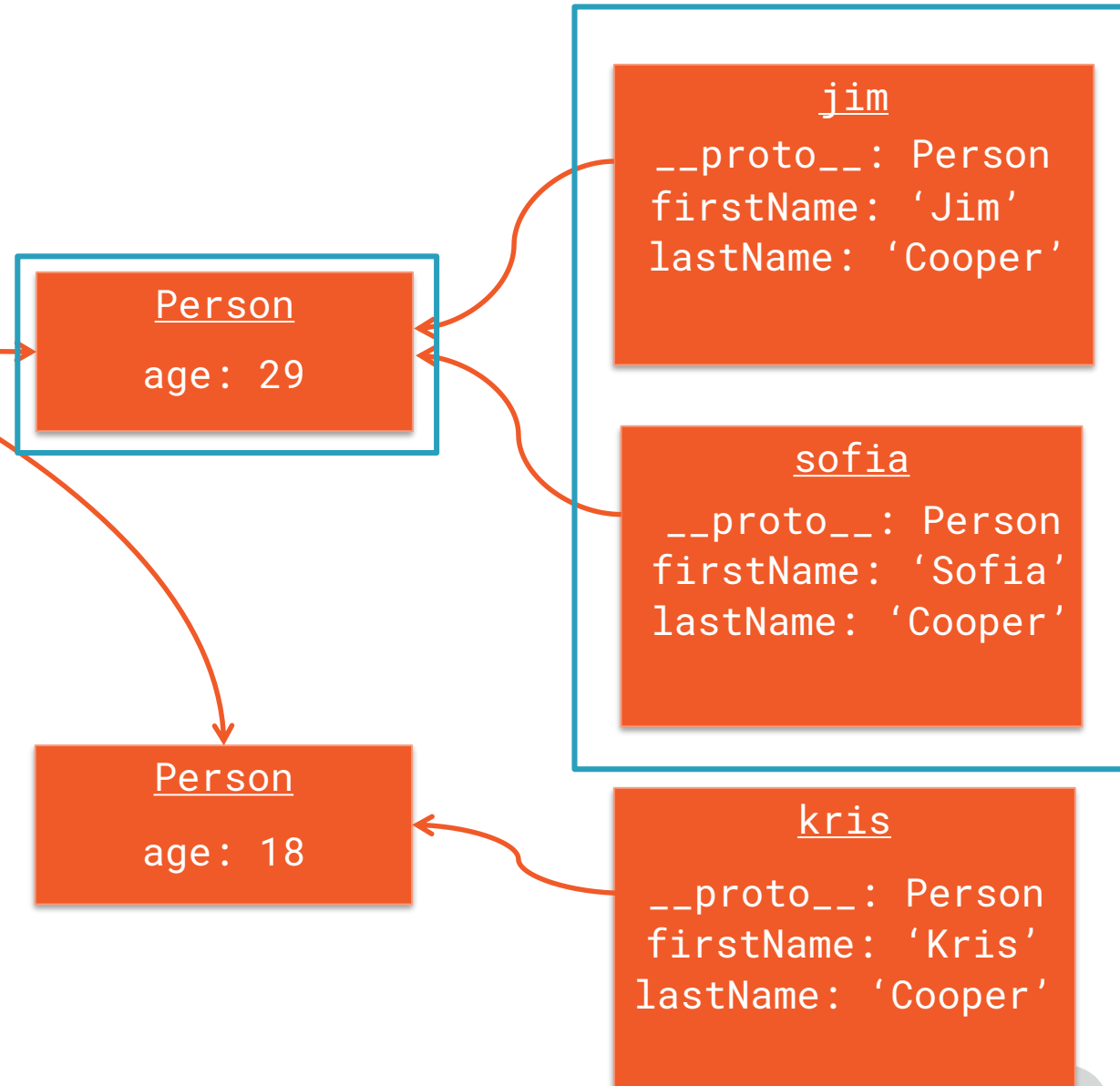
__proto__: Person

name: 'Sofia'

lastName: 'Cooper'



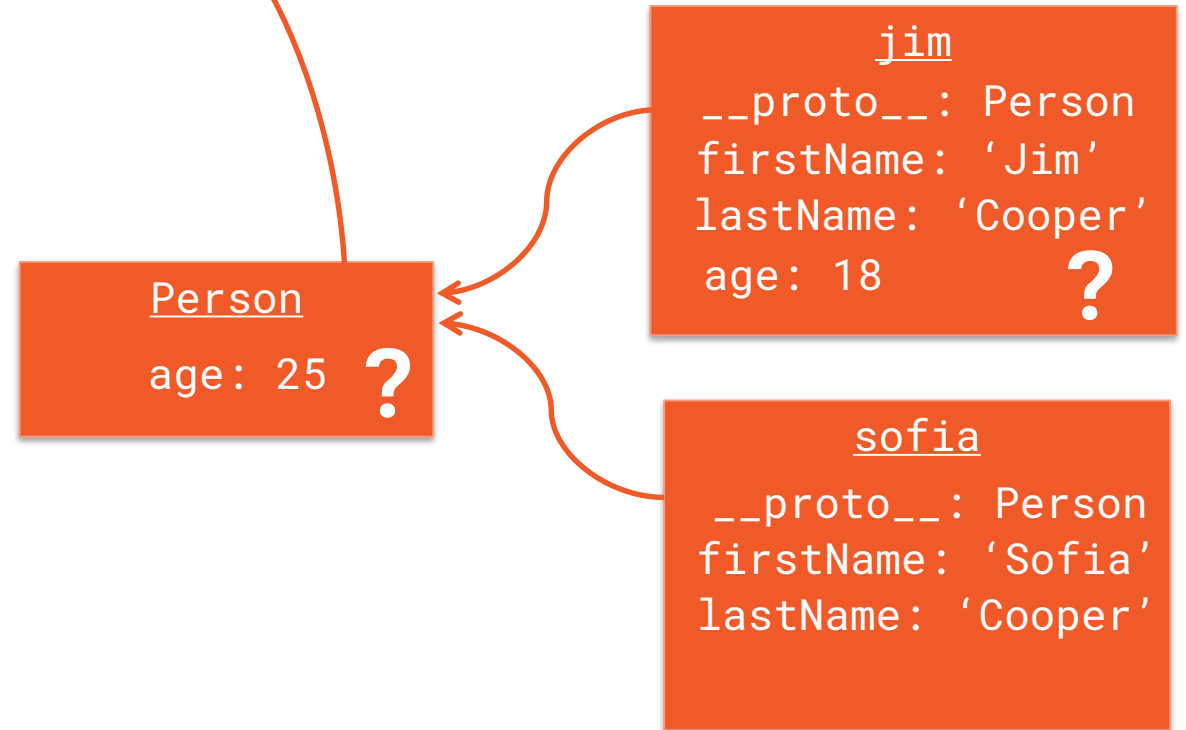
```
function Person(firstName, lastName) {  
  this.firstName = firstName;  
  this.lastName = lastName;  
  prototype:  
}  
  
Person.prototype.age = 29;  
  
let jim = new Person('Jim', 'Cooper');  
let sofia = new Person('Sofia', 'Cooper');  
  
Person.prototype = { age: 18 };  
  
let Kris = new Person('Kris', 'Cooper');
```



Summary



```
function Person(firstName, lastName) {  
  this.firstName = firstName;  
  this.lastName = lastName;  
  prototype:  
}
```



Summary



```
function Person() {  
  
}
```

```
function Student() {  
    Person.call(this, ...);  
}
```

```
Student.prototype =  
    Object.create(Person.prototype);
```

