

Javascript Basics

WEEK 8

JAVASCRIPT

JavaScript ("JS" for short) is a full-fledged dynamic programming language that, when applied to an HTML document, can provide dynamic interactivity on websites. It was invented by Brendan Eich, co-founder of the Mozilla project, the Mozilla Foundation, and the Mozilla Corporation.

[**JS Basics from Mozilla >>**](#)

[**W3Schools Reference>>**](#)

JS INTEGRATION

right inside HTML

could be inside <head> or <body>
usually place where you want the script to run

```
<script>
  my JS script goes here
</script>
```

external .js documents

can reuse the scripts in other html documents,
so much more flexible/modular

```
<script src="myScript.js"></script>
```

[W3Schools Reference >>](#)

JavaScript is Case Sensitive

thisItem is different than **thisitem**

Value can be expressed as

Numbers: **10** or **10.50**

or

Strings: **'My name is John'** or **'tree'**

[**W3Schools Reference >>**](#)

JS SYNTAX

**Variables => storing information.
Then you can use it in your scripts**

```
var x; //Statement 1  
  
x = 6; //Statement 2
```

```
var x, y; //Statement 1  
  
x = 5; //Statement 2  
  
y = 6; //Statement 3
```

JS SYNTAX

Operators

arithmetic operators (+ - * /) to compute values

Expressions

a combination of values, variables, and operators, which computes to a value

```
(5 + 6) * 10 //This is an expression
```

```
"John" + " " + "Doe" //This is an expression too
```

Operators

Operator	Description
+	Addition
-	Subtraction
*	Multiplication
**	Exponentiation (ES2016)
/	Division
%	Modulus (Remainder)
++	Increment
--	Decrement

DATA TYPES

Number

integers 10
or decimals 10.5

String

"John"

Boolean

true or false

Object

car = {type:"Fiat",
model:"500", color:"white"}

```
var length = 16;
```

// Number

```
var lastName = "Johnson";
```

// String

```
var inStock = true;
```

// Boolean

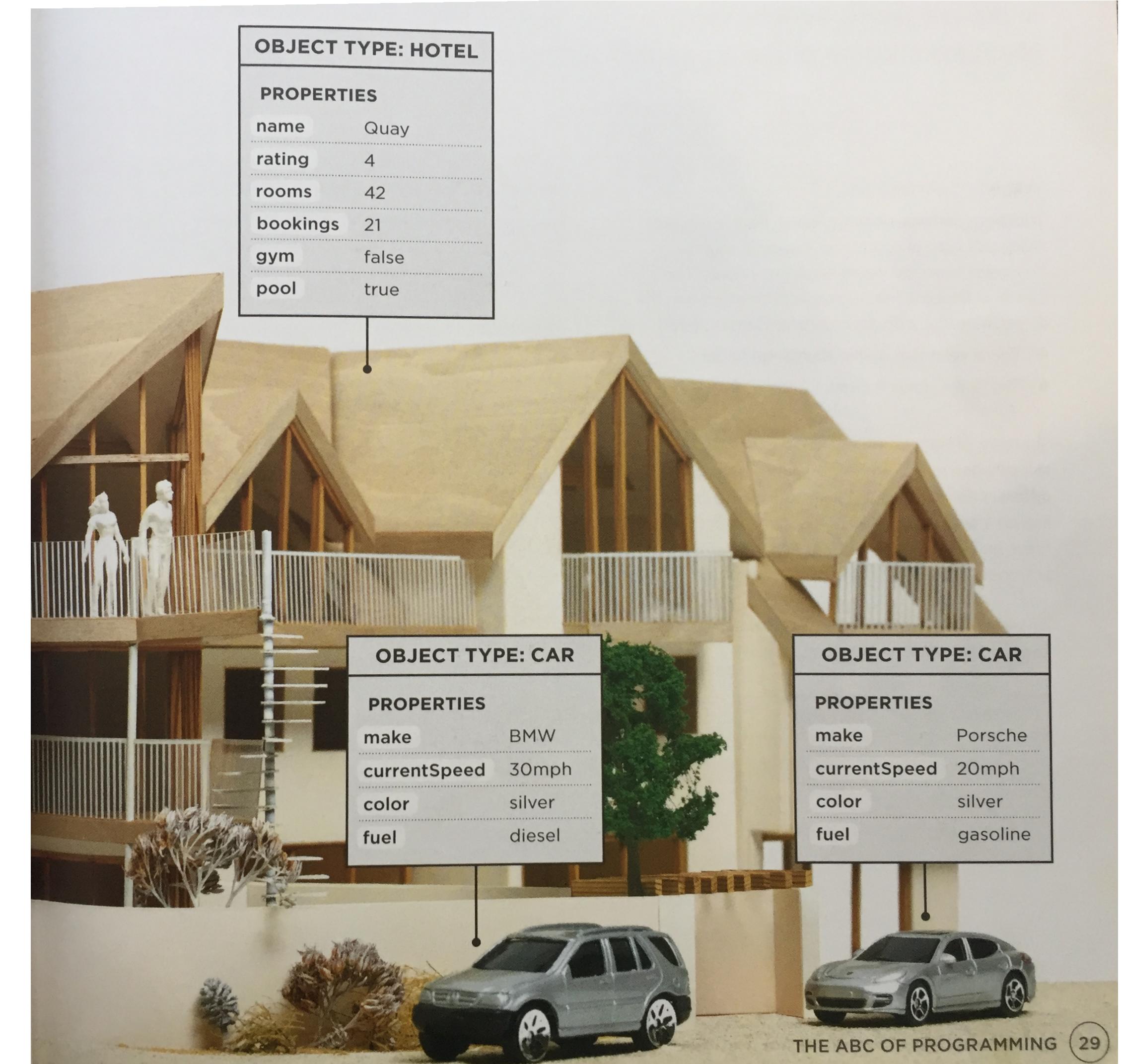
```
var x = {firstName:"John", lastName:"Doe"};
```

// Object

OBJECTS AND PROPERTIES

OBJECTS = THINGS
have their own properties

PROPERTIES = CHARACTERISTICS
Each property has a name and a value

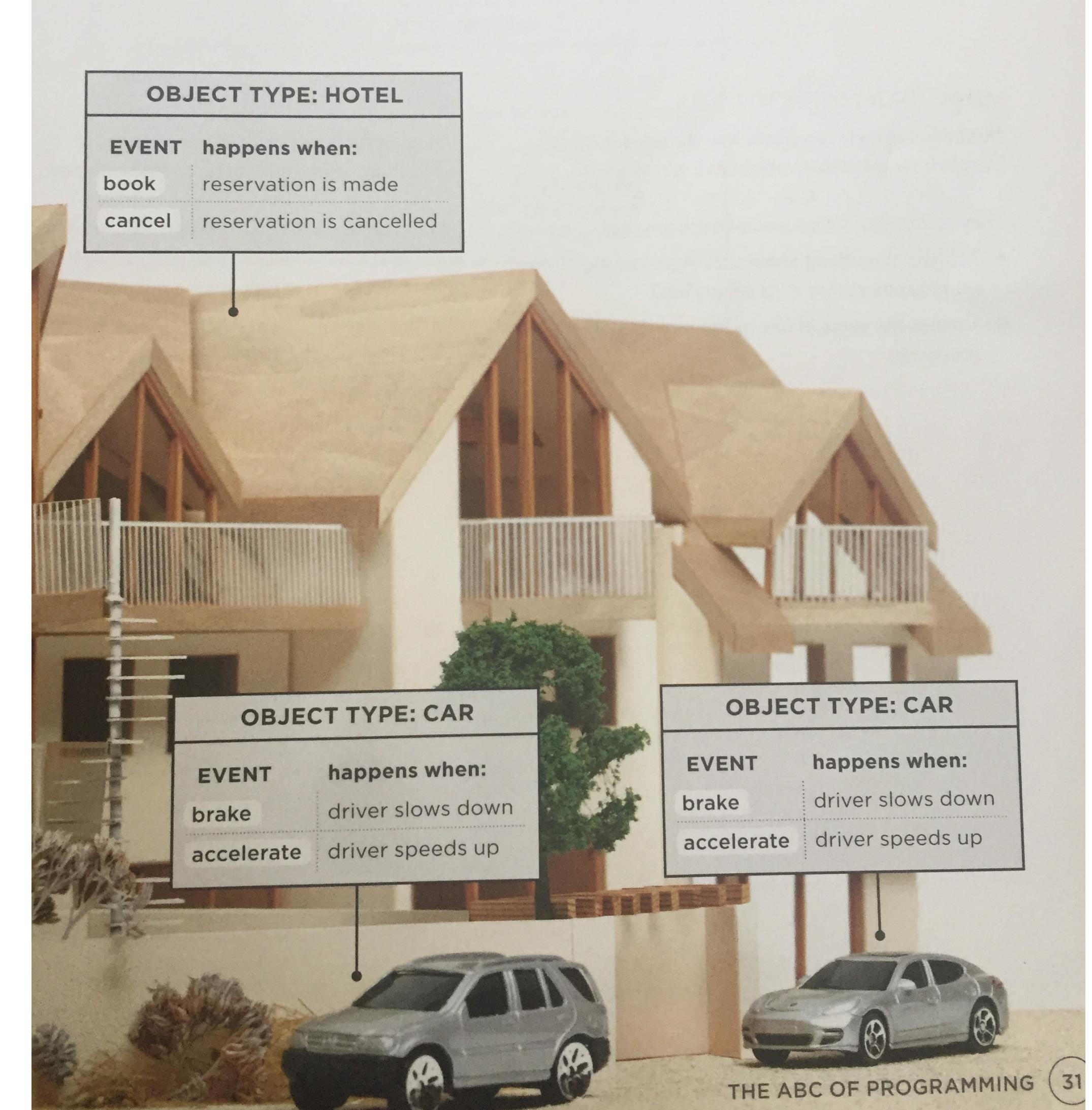


EVENTS

EVENTS = SOMETHING HAPPENS

To the browser, or a user does it

- An HTML web page has finished loading
- An HTML input field was changed
- An HTML button was clicked

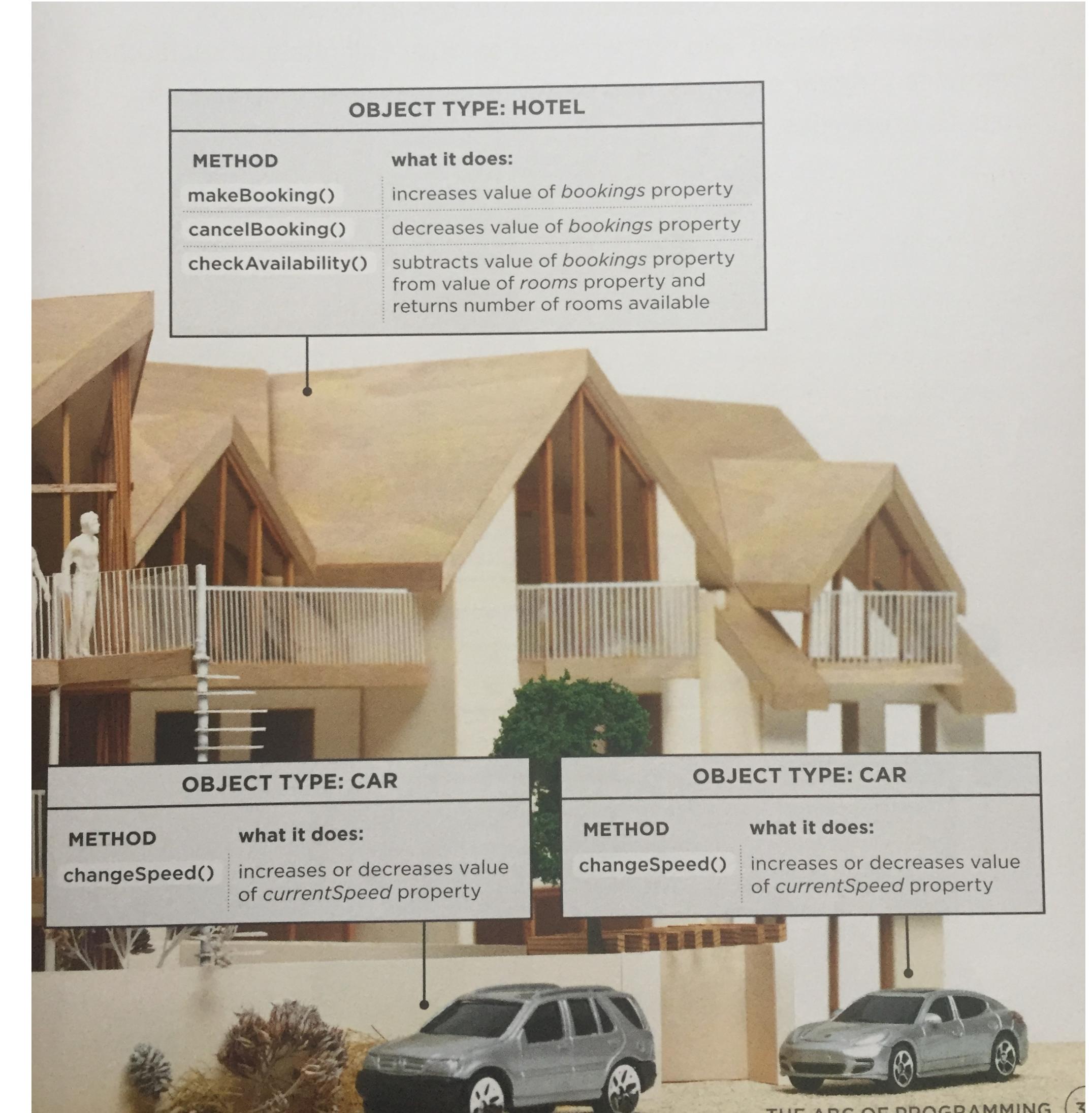


METHODS

METHOD = SOMETHING DONE TO OBJECT

Pre-set things for a type of object

- String methods: **indexOf()**, and **lastIndexOf()**
- Number methods: **toString()**



FUNCTIONS

FUNCTION

a block of code designed to perform a particular task

this is a function

take two values and multiply

executes the function and

```
function myFunction(p1, p2) {  
    return p1 * p2;  
}  
  
document.getElementById("demo").innerHTML =  
myFunction(4, 3);
```

FUNCTIONS

FUNCTION

a block of code designed to perform a particular task

states the variable



```
var msg = "Sign up for newsletter";
```

this is the function itself



```
function updateMessage() {
```

```
    var el = document.getElementById('message');
```

```
    el.textContent = msg;
```

```
}
```

executes the function



```
updateMessage();
```