

**EXAMPLE 16: CREATE AN OBJECT USING A
CONSTRUCTOR FUNCTION**

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WE JUST LEARNT HOW CREATE AN OBJECT THE “JSON” WAY

“JSON” = JavaScript Object Notation

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THE USE OF A SPECIAL FUNCTION CALLED AN OBJECT
CONSTRUCTOR

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**IF YOU HAVE ENCOUNTERED CONSTRUCTORS IN PYTHON, JAVA, OR C++,
THESE ARE SIMILAR, BUT SUBTLY DIFFERENT, SO PAY CLOSE ATTENTION :-)**

AN OBJECT CONSTRUCTOR

**IS A FUNCTION THAT CREATES OBJECTS, ALL OF
WHICH HAVE THE SAME PROPERTIES**

**THIS FUNCTION 'LOOKS' LIKE ANY OTHER
FUNCTION, BUT IT IS SPECIAL IN A FEW WAYS**

AN OBJECT CONSTRUCTOR

**'LOOKS' LIKE ANY OTHER FUNCTION, BUT IT IS
SPECIAL IN A FEW WAYS**

**IT MAGICALLY 'KNOWS' WHAT OBJECT IT IS CREATING,
AND ACCESS IT VIA A VARIABLE CALLED `this`**

**IT MUST BE CALLED IN A SPECIFIC WAY, USING THE
KEYWORD `new`**

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**THESE ARE THE BITS THAT MATTER ABOUT USING
OBJECT CONSTRUCTORS, SO LET'S DIG INTO THEM.**

WRITING AN OBJECT CONSTRUCTOR

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```
function Rectangle(length, breadth, color) {  
    this.length = length;  
    this.breadth = breadth;  
    this.color = color;  
}
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THE CONSTRUCTOR USES **this** TO SPECIFY, AND INITIALISE THE PROPERTIES OF THE OBJECT BEING CREATED

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THAT'S HOW AN OBJECT CONSTRUCTOR ACTS LIKE
A BLUEPRINT FROM WHICH OBJECTS ARE CREATED.

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BTW, NOTICE THAT THE OBJECT CONSTRUCTOR NEITHER TAKES IN **this** AS AN ARGUMENT, NOR RETURNS **this**. IT JUST MAGICALLY KNOWS WHAT **this** IS.

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WRITING AN OBJECT CONSTRUCTOR

USING AN OBJECT CONSTRUCTOR

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```
var rectangle = new Rectangle(3.3,  
2.5, "Blue");
```

AN OBJECT CONSTRUCTOR MUST BE CALLED IN A
SPECIFIC WAY, USING THE KEYWORD **new**

THIS IS THE ONLY DIFFERENCE BETWEEN CALLING A
CONSTRUCTOR, AND CALLING ANY OTHER FUNCTION

```
var rectangle = new Rectangle(3.3,  
2.5, "Blue");
```



THAT **new** KEYWORD IS A SIGN TO THE JAVASCRIPT
INTERPRETER..

TO CREATE AN EMPTY OBJECT, AND PASS IT INTO
THE FUNCTION (SECRETLY) AS THE **this**..

..IN ADDITION TO THE OTHER FUNCTION
ARGUMENTS

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var this = {};
```

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TO CREATE AN EMPTY OBJECT, AND **PASS IT INTO**
THE FUNCTION (SECRETLY) AS THE `this`..

```
function Rectangle(length, breadth, color)  
  this.length = length;  
  this.breadth = breadth;  
  this.color = color;  
}
```

```
function Rectangle(this, length, breadth, color) {  
  var this = {};  
  this.length = length;  
  this.breadth = breadth;  
  this.color = color;  
  return this;  
}
```

```
var rectangle = Rectangle(this,  
3.3, 2.5, "Blue");
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**TO CREATE AN EMPTY OBJECT, AND PASS IT INTO
THE FUNCTION (SECRETLY) AS THE **this**..**

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ARGUMENTS**

```
var rectangle = new Rectangle(3.3,  
2.5, "Blue");
```

IS LOGICALLY EQUIVALENT TO

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function Rectangle(this, length, breadth, color)  
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  this.length = length;  
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  this.color = color;  
  return this;  
}  
var rectangle = Rectangle(  
3.3, 2.5, "Blue");
```

WRITING AN OBJECT CONSTRUCTOR

REMEMBER THE MAGICAL ROLE OF `this`

USING AN OBJECT CONSTRUCTOR

REMEMBER THE MAGICAL ROLE OF `new`