

Programming with Objects

In this lesson, we will formally start programming with objects.
Let's begin!

WE'LL COVER THE FOLLOWING

- Accessing properties
 - The dot notation
 - The indexed notation
- **Listing 8-10:** When to not use the dot notation
- Quiz time! :)



Programming with Objects



Objects are fundamental concepts in JavaScript. You can create and setup objects in several ways, as this code snippet illustrates:

JS main.js

```
// "Manual" setup
var car = new Object();
car.manufacturer = "Honda";
```



```

car.type = "FR-V";

// Setup with constructor function
var Car = function (manuf, type) {
  this.manufacturer = manuf;
  this.type = type;
}
var car1 = new Car("Honda", "FR-V");

// Setup with JSON
var car2 = {
  manufacturer: "Honda",
  type: "FR-V"
};

```



Each mode of setup results the same object semantically, a `car` that has a `manufacturer` and a `type` property. It is time to look at what properties are and how JavaScript represents them.

Accessing properties

By now, you perceive an object as a bag that may hold properties and each property is a name associated with a value.

The dot notation

You learned the dot notation that allows accessing property values such as `car2.type` in this code snippet:

JS main.js

```

var car2 = {
  manufacturer: "Honda",
  type: "FR-V"
};
console.log(car2.type); // FR-V

```



The indexed notation

To access a property, you can use the indexed notation, as shown in this code snippet:

```
var car2 = {  
  manufacturer: "Honda",  
  type: "FR-V"  
};  
console.log(car2["type"]); // FR-V
```



This notation allows using property names that were otherwise not allowed with the dot notation; for example, properties starting with numbers or containing spaces and other punctuation characters or symbols.

Listing 8-10 shows an example that cannot be written with the dot notation.

Listing 8-10: When to not use the dot notation

```
<!DOCTYPE html>  
<html>  
<head>  
  <title>Indexed notation</title>  
  <script>  
    var license = {  
      "1 unit": 122,  
      "2 units": 238,  
      "3 units": 350  
    }  
    license["over 3"] = 400;  
  
    var unit2 = "2 units";  
    console.log(license["1 unit"]); // 122  
    console.log(license[unit2]);    // 238  
    console.log(license["3 units"]); // 350  
    console.log(license["over 3"]); // 400  
  </script>  
</head>  
<body>  
  Listing 8-10: View the console output  
</body>  
</html>
```

Quiz time! :)

It's time to test how much we've learned in this lesson with a short quiz!

Q

How would you access the `score2` value in the `player` object shown below?

```
var player= {  
  name: "Scott",  
  age: 25,  
  scores: {  
    score1: 8,  
    score2: 9,  
    score3: 7  
  }  
}
```

COMPLETED 0%

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In the *next lesson*, we'll learn about properties of JavaScript objects.

