**Learning Objectives**

* To become familiar with basic uses of objects in JavaScript

**Learning Contents**

* Thinking back JavaScript data types we talked, there are seven data types totally. Six of them are called primitive data, as their value contains a single attribute (a string, a number and so on); there is another data type, which will be discussed in this section – Object. JavaScript objects are similar to objects in real world. They have different attributes and behaviors. In other words, JavaScript objects are a collection of **attributes** and **method (function)**。 An object needs to be stored with a variable. Then we can access to attributes and methods of the object through (.).
* For example, a person has name and age and can talk and walk. Name and age are **attributes** of the person. Talking and walking are behaviors of the person. Of course, he may have other more complex behaviors. These behaviors are called **methods**.
* In JavaScript, the syntax with braces can create an object. For example:
* **var person = {**
* **name: "Ming",**
* **age: 17,**
* **talk: function () {**
* **console.log("another... Sky... walk...");**
* **}**
* **};**
* In this case, we defined a person of 17 years old 'Ming'. He can talk. Name and age are the **attribute** and talking is the **method**.
* We can access to his attributes and methods through (.):
* **var name = person.name; *// 'Ming'***
* **var age = person.age; *// 17***
* **person.talk(); *// 'another... Sky... walk...'***
* Of course we can easily modify his attributes or add new attributes and methods for him. For example:
* **person.name = 'Jackie';**
* **console.log(person.name); // 'Jackie' - edited**
* **person.gender = 'male';**
* **console.log(person.gender); // 'male' - added**
* Attributes of an object can be any data type. For example, we can modify name of the person into another object as below:
* **person.name = {**
* **first: 'Jeanne',**
* **last: 'Calment'**
* **};**
* Thus, person.name is also an object. Similarly, we can also use operator (.) to access attributes of the object as below:
* **console.log(person.name.first); // 'Jeanne'**
* **console.log(person.name.last); // 'Calment'**

**Recommended Resources**

* JavaScript Object Basics(<https://developer.mozilla.org/zh-CN/docs/Learn/JavaScript/Objects/Basics>)
* JavaScript Object Basics Explanation (<http://www.codexiu.cn/javascript/blog/40328/>)
* JavaScript Object Basics(<http://wanwu.tech/2017/06/03/object-basics/>)