**Objects And Its Internal Representation In JavaScript**

Objects, in JavaScript, is it’s most important data-type and forms the building blocks for modern JavaScript. These objects are quite different from JavaScript’s primitive data-types(Number, String, Boolean, null, undefined and symbol) in the sense that while these primitive data-types all store a single value each (depending on their types).

objects in JavaScript may be defined as an unordered collection of related data, of primitive or reference types, in the form of “key: value” pairs. These keys can be variables or functions and are called properties and methods, respectively, in the context of an object.

In simple terms. “A JavaScript object is a collection of named values having state and behavior (properties and method)”.

For Eg. If your object is a student, it will have properties like name, age, address, id, etc and methods like updateAddress, updateNam, etc.

# ****Objects and properties****

A JavaScript object has properties associated with it. A property of an object can be explained as a variable that is attached to the object. Object properties are basically the same as ordinary JavaScript variables, except for the attachment to objects. The properties of an object define the characteristics of the object. You access the properties of an object with a simple dot-notation:

objectName.propertyName

Like all JavaScript variables, both the object name (which could be a normal variable) and property name are case sensitive. You can define a property by assigning it a value. For example, let’s create an object named myCar and give it properties named make, model, and year as follows:

var myCar = new Object();  
myCar.make = 'Audi';  
myCar.model = 'R8';  
myCar.year = 1979;

Unassigned properties of an object are undefined (and not null).

Properties of JavaScript objects can also be accessed or set using a bracket notation .Objects are sometimes called associative arrays, since each property is associated with a string value that can be used to access it. So, for example, you could access the properties of the myCar object as follows:

myCar['make'] = 'Ford';  
myCar['model'] = 'Mustang';  
myCar['year'] = 1969;

# ****Creating Objects In JavaScript :****

# Create JavaScript Object with Object Literal

One of easiest way to create a javascript object is object literal, simply define the property and values inside curly braces as shown below:

let bike = {name: 'SuperSport', maker:'Ducati', engine:'937cc'};

# Create JavaScript Object with Constructor

Constructor is nothing but a function and with help of new keyword, constructor function allows to create multiple objects of same flavor as shown below:

function Vehicle(name, maker) {  
this.name = name;  
this.maker = maker;  
}  
let car1 = new Vehicle(’Fiesta’, 'Ford’);  
let car2 = new Vehicle(’Santa Fe’, 'Hyundai’)  
console.log(car1.name); //Output: Fiesta  
console.log(car2.name); //Output: Santa Fe

# Using the JavaScript Keyword new

The following example also creates a new JavaScript object with four properties:

Example

var person = new Object();  
person.firstName = “John”;  
person.lastName = “Doe”;  
person.age = 50;  
person.eyeColor = “blue”;

# Using the Object.create method

Objects can also be created using the Object.create() method. This method can be very useful, because it allows you to choose the prototype object for the object you want to create, without having to define a constructor function.