

From Beginners to Professional



Advanced JavaScript

(Object- Oriented JS)

Book From

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Advance JavaScript: Object Oriented Js

The developers who hail from object-oriented programming background like C++, JAVA, C# or PHP might be aware that even you want to write a simple 'Hello World' message, you need to start with 'Class' and inside class only you can write rest of the code.

But the language pattern of JavaScript is different from other object oriented programming languages. In JavaScript, you don't have to start with Class. And that's the reason most of the developers get confused with JavaScript as compared to other programming languages like JAVA or C#.

Before we proceed ahead, let's have a look at features of Object Oriented Programming languages

- ✓ **Encapsulation** – Is the feature in which details of the data are hidden, and only the essential features are highlighted. Data security is implemented through this technique.
- ✓ **Aggregation** - One object can reference another object.
- ✓ **Inheritance** – Is the mechanism in which the features of parent's class are inherited by child class.
- ✓ **Polymorphism**: - Polymorphism is the method of implementation in which same entity behaves differently in different situations.

Any programming languages which have all the above mentioned features are called Object Oriented programming language.

Interesting thing is that JavaScript has all these features. But implementation of the above features is not same as other object-oriented languages because there is no concept of Class in JavaScript. The entire task can be achieved by JavaScript also but in other way, which we will cover in later part of this book.

If you see JavaScript code, it may look like traditional procedural programming language, but if you deep down inside, you will find that it great features of object-oriented also.

For example, we can write function and pass it some variables; you have a working script that may look like it has no objects. But, if you look the code carefully, you will find that the object is present which is connected through dot notation.

JavaScript is not the first language which use dot notation, but there are several other programming languages which access the properties and functions through dot notation

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But, as mentioned above, in JavaScript, you don't have to write a class definition, import a package, or include a header file etc. You can just declare variable, with data types that you want, and you can put together in any number of ways.

But once again don't be confused that JavaScript's procedural way is same as what you might have learnt in that 'C or other such programming languages in olden school and college days.

Remember, the concept of procedural languages is not same in JavaScript.

One major difference that you will see between JavaScript and other procedural programming language is that, JavaScript is a loosely typed interpreted language while other procedural languages like 'C is compiled and statically typed language.

Super thing about JavaScript is that you can start coding without planning the classes that you need ahead of.

In further chapters, you'll learn the unique way that JavaScript approaches object-oriented programming. Forget about the theory of classes and class-based inheritance and learn about **prototype-based inheritance** and constructor functions. These works similar to class object approach. You'll learn how to create objects, define your own types, use inheritance, and otherwise manipulate objects to get the most out of them. In other words, you'll learn everything you need to know to understand and write JavaScript professionally.

Target Audience

This tutorial is not for JavaScript beginners who have never written JavaScript or knows very basic. You will need a good understanding of how to write and execute JavaScript code to follow.

This tutorial is targeted as a guide for those who already understand object-oriented programming but want to know exactly how the concept works in JavaScript. Familiarity with Java, C#, or object-oriented programming in other languages is a strong indicator that this book is for you. |

In particular, this book is aimed at three groups of readers:

- Website programmers who already know about object-oriented programming concepts and want to apply them to JavaScript.
- Web application and Node.js developers trying to structure their code more effectively.
- New JavaScript developers who wants to learn more about JavaScript

This is sample chapter, and the complete book will be provided with the course.