

In Javascript, every thing is represented as an object. And functions and methods execute inside the context of these objects.

In JS, we have two contexts -:

1. A global context
2. A local context (function)

The `this` keyword is a reference to the current object (context), and is used to refer the properties and methods of the current context.

From a background like Java, PHP or other standard language, this is the instance of the current object in the class method. `this` cannot be used outside the method and such a simple approach does not create confusion.

Let us break down how to determine the value of `this` in different scenarios. Consider this as a rule of thumb for determining the value of `this` -:

A. For regular functions

I. When **regular functions are executed in the global scope**, the value of **this** is the **window object**.

II. When **regular functions are methods of objects**, the value of **this** is the **object itself**.

III. When **regular functions are called inside another function**, the value of **this** is the **window object**.

IV. When **in strict mode**, the value of **this** in **regular function** is **undefined**.

V. **Inside a constructor function**, the value of **this** is the **newly created object**.

VI. **When using call, bind or apply with regular function**, the value of **this** is the **newly created binding**.

B. For arrow functions

I. When arrow functions are executed in the global scope, this points to the window object.

If the arrow function is defined in the topmost scope (outside any function), the context is always the global object (window in a browser)

II. When **arrow functions are executed as methods, they always point to the window object**. Even if the functions are nested inside the object, it will always point to the window object.

III. When arrow functions are **invoked using call, bind and apply, the context does not change and the value of this still points to the old this value**.

Don't use arrow functions to call constructor functions, as the constructor will never bind to the object created from the class.

For a more detailed explanation of the this keyword, read through the below article (Reading time ~ 20 min)

<https://dmitripavlutin.com/gentle-explanation-of-this-in-javascript/#41-this-in-a-constructor-invocation>

This topic is extremely important for JS interviews.