

Anonymous functions are functions that are dynamically declared at runtime. They're called anonymous functions because they aren't given a name in the same way as normal functions.

Anonymous functions are declared using the [function operator instead of the function declaration](#). You can use the function operator to create a new function wherever it's valid to put an expression. For example, you could declare a new function as a parameter to a function call or to assign a property of another object.

Here's a typical example of a named function:

```
function Hello(name)
{
    alert("Hello, " + name);
}
Hello("Manish");
```

Here's the same example created as an anonymous function:

```
var Hello = function (name)
{
    alert("Hello, " + name);
}
Hello("Manish");
```

Now, if you are creating function using above syntax, there is no benefit by giving a name, as you will not be able to use the name to access the method.

Why you may need a syntax like that, some examples are:

### 1. Used in callbacks

```
function Display(cb) {
    var res = cb(2, 3);
    console.log(res);
}

function Multiply(a, b) {
    return a * b;
}

Display(Multiply);

Display(function (a, b) { return a * b; }); //Anonymous Function
```

If you consider the above example, we have a Display() Method, which takes a parameter, which is supposed to be a function, now we have two choices i.e. either create a named function and pass it or create an inline function with the call (Anonymous Function).

### 2. Handling Events

When we handle events in JavaScript or jQuery, we use anonymous Functions

JavaScript

```
document.getElementById("btn").addEventListener("click", function (evt) {
    alert("Click Handled...");
});
```

jQuery

```
$(document).ready(function () {  
    $("#btn").click(function (evt) {  
        alert("Click Handled...");  
    });  
})
```

### 3. IIFE (Immediately Invoked Function Expression)

IIFE, is one of the most utilized features of JavaScript, using it we can implement patterns like Module Pattern and Revealing Module Pattern.

Normal Function Definition and Call

```
function Hello(name)  
{  
    alert("Hello, " + name);  
}  
Hello("Manish");
```

IIFE

```
(function (name) {  
    alert("Hello, " + name);  
})("Manish");
```

Module and Revealing Module Pattern - <https://toddmotto.com/mastering-the-module-pattern/>