JavaScript Functions

JavaScript functions are used to perform operations. We can call JavaScript function many times to reuse the code.

Advantage of JavaScript function

There are mainly two advantages of JavaScript functions.

1. **Code reusability**: We can call a function several times so it save coding.
2. **Less coding**: It makes our program compact. We don't need to write many lines of code each time to perform a common task.

JavaScript Function Syntax

The syntax of declaring function is given below.

1. function functionName([arg1, arg2, ...argN]){
2. //code to be executed
3. }

JavaScript Functions can have 0 or more arguments.

JavaScript Function Example

Let's see the simple example of function in JavaScript that does not has arguments.

1. **<script>**
2. function msg(){
3. alert("hello! this is message");
4. }
5. **</script>**
6. **<input** type="button" onclick="msg()" value="call function"**/>**

JavaScript Function Arguments

We can call function by passing arguments. Let's see the example of function that has one argument.

1. **<script>**
2. function getcube(number){
3. alert(number*number*number);
4. }
5. **</script>**
6. **<form>**
7. **<input** type="button" value="click" onclick="getcube(4)"**/>**
8. **</form>**

```
<html>
<body>
<script>
function getcube(number){
alert(number*number*number);
}
</script>
<form>
<input type="button" value="click" onclick="getcube(4)"/>
</form>
</body>
</html>
```

Function with Return Value

We can call function that returns a value and use it in our program. Let's see the example of function that returns value.

1. **<script>**
2. function getInfo(){
3. return "hello javatpoint! How r u?";
4. }
5. **</script>**
6. **<script>**
7. document.write(getInfo());
8. **</script>**

```
<html>
<body>
<script>
function getInfo(){
return "hello javatpoint! How r u?";
}
</script>
<script>
document.write(getInfo());
</script>
</body>
</html>
```

JavaScript Function Object

In JavaScript, the purpose of **Function constructor** is to create a new Function object. It executes the code globally. However, if we call the constructor directly, a function is created dynamically but in an unsecured way.

Syntax

1. new Function ([arg1[, arg2[, ...argn]],] functionBody)

Parameter

arg1, arg2, ... , argn - It represents the argument used by function.

functionBody - It represents the function definition.

JavaScript Function Methods

Let's see function methods with description.

Method	Description
apply()	It is used to call a function contains this value and a single array of arguments.
bind()	It is used to create a new function.
call()	It is used to call a function contains this value and an argument list.
toString()	It returns the result in a form of a string.

JavaScript Function Object Examples

Example 1

Let's see an example to display the sum of given numbers.

```
1.  <script>
2.  var add=new Function("num1","num2","return num1+num2");
3.  document.writeln(add(2,5));
4.  </script>
```

```
<!DOCTYPE html>
<html>
<body>

<script>
var add=new Function("num1","num2","return num1+num2");
document.writeln(add(2,5));
</script>

</body>
</html>
```

Example 2

Let's see an example to display the power of provided value.

1. **<script>**
2. var pow=new Function("num1","num2","return Math.pow(num1,num2)");
3. document.writeln(pow(2,3));
4. **</script>**

```
<!DOCTYPE html>
<html>
<body>

<script>
var pow=new Function("num1","num2","return Math.pow(num1,num2)");
document.writeln(pow(2,3));
</script>

</body>
</html>
```