



JAVASCRIPT[®] & JQUERY

interactive front-end
web development



FUNCTIONS and Events



WHAT IS A FUNCTION?



Functions let you group a series of statements together to perform a specific task.



Functions are reusable and save you from writing out the same code over and over.



DECLARING A FUNCTION



function




```
function sayHello()
```




```
function sayHello() {  
    document.write('Hello');  
}
```



KEYWORD



```
function sayHello() {  
    document.write('Hello');  
}
```



FUNCTION NAME

```
function sayHello() {  
    document.write('Hello');  
}
```



```
function sayHello() {  
    document.write('Hello');  
}
```

CODE BLOCK (IN CURLY BRACES)



CALLING A FUNCTION



```
sayHello();
```



FUNCTION NAME



DECLARING A FUNCTION THAT NEEDS INFORMATION



function




```
function getArea()
```




```
function getArea (width, height)
```



```
function getArea(width, height) {  
    return width * height;  
}
```




PARAMETER **PARAMETER**



```
function getArea (width, height) {  
    return width * height;  
}
```



```
function getArea(width, height) {  
    return width * height;  
}
```



**THE PARAMETERS ARE USED LIKE
VARIABLES WITHIN THE FUNCTION**



CALLING A FUNCTION THAT NEEDS INFORMATION



```
getArea (3, 5) ;
```



```
getArea (3, 5) ;
```



ARGUMENTS



WHAT IS AN EVENT?



By running code when an event fires, your website responds to the user's actions.

It becomes **interactive**.



DIFFERENT EVENT TYPES



USER INTERFACE EVENTS

load

unload

error

resize

scroll



KEYBOARD EVENTS

keydown

keyup

keypress



MOUSE EVENTS

click

dblclick

mousedown

mouseup

mouseout



FORM EVENTS

input
change
submit
reset



HOW EVENTS TRIGGER JAVASCRIPT CODE



1

1

Select the
element
node(s) the
script should
respond to



1

Select the
element
node(s) the
script should
respond to

2

1

Select the **element** node(s) the script should respond to

2

Indicate the **event** on the selected node(s) that will trigger a response



1

Select the **element** node(s) the script should respond to

2

Indicate the **event** on the selected node(s) that will trigger a response

3

1

Select the **element** node(s) the script should respond to

2

Indicate the **event** on the selected node(s) that will trigger a response

3

State the code you want to run when the event occurs



BINDING AN EVENT TO AN ELEMENT



There are three ways to bind
an event to an element:

HTML event handler attributes

Traditional DOM event handlers

DOM Level 2 event listeners




```
<input type="button"  
  value="Display"  
  onclick="window.alert( 'Hi' );" />
```

```
<input type="button"  
  value="Display"  
  onclick="sayHi()" />
```

```
function sayHi() {  
  window.alert('Hi');  
}
```



Refrencing Form Elements

```
<input type="text" id="firstName" />
```

In javascript, to look up an element by its id value:

```
document.getElementById("fistName");
```

To change the value of an input using:

```
document.getElementById("fistName").value="John";
```



