9. jQuery Effects - Animation

The jQuery animate() method lets you create custom animations.

The jQuery stop() method is used to stop animations or effects before it is finished.

9.1. jQuery Animations - The animate() Method

The jQuery animate() method is used to create custom animations.

Syntax:

```
$(selector).animate({params},speed,callback);
```

The required params parameter defines the CSS properties to be animated.

The optional speed parameter specifies the duration of the effect. It can take the following values: "slow", "fast", or milliseconds.

The optional callback parameter is a function to be executed after the animation completes.

The following example demonstrates a simple use of the animate() method; it moves a <div> element to the left, until it has reached a left property of 250px:

Example

```
$("button").click(function(){
  $("div").animate({left:'250px'});
});
```

By default, all HTML elements have a static position, and cannot be moved.
To manipulate the position, remember to first set the CSS position property of the element to relative, fixed, or absolute!

9.2. jQuery animate() - Manipulate Multiple Properties

Notice that multiple properties can be animated at the same time:

Example

```
$("button").click(function(){
  $("div").animate({
    left:'250px',
    opacity:'0.5',
    height:'150px',
    width:'150px'
  });
});
```

Is it possible to manipulate ALL CSS properties with the animate() method?

Yes, almost! However, there is one important thing to remember: all property names must be camel-cased when used with the animate() method: You will need to write paddingLeft instead of padding-left, marginRight instead of margin-right, and so on.

Also, color animation is not included in the core jQuery library.
If you want to animate color, you need to download the Color Animations plugin from jQuery.com.

9.3. jQuery animate() - Using Relative Values

It is also possible to define relative values (the value is then relative to the element's current value). This is done by putting += or -= in front of the value:

Example

```
$("button").click(function(){
  $("div").animate({
    left:'250px',
    height:'+=150px',
    width:'+=150px'
  });
});
```

9.4. jQuery animate() - Using Pre-defined Values

You can even specify a property's animation value as "show", "hide", or "toggle":

Example

```
$("button").click(function(){
  $("div").animate({
    height:'toggle'
  });
});
```

9.5. jQuery animate() - Uses Queue Functionality

By default, jQuery comes with queue functionality for animations.

This means that if you write multiple animate() calls after each other, jQuery creates an "internal" queue with these method calls. Then it runs the animate calls ONE by ONE.

So, if you want to perform different animations after each other, we take advantage of the queue functionality:

Example 1

```
$("button").click(function(){
  var div=$("div");
  div.animate({height:'300px',opacity:'0.4'},"slow");
  div.animate({width:'300px',opacity:'0.8'},"slow");
  div.animate({height:'100px',opacity:'0.4'},"slow");
  div.animate({width:'100px',opacity:'0.8'},"slow");
});
```

The example below first moves the <div> element to the right, and then increases the font size of the text:

Example 2

```
$("button").click(function(){
  var div=$("div");
  div.animate({left:'100px'},"slow");
  div.animate({fontSize:'3em'},"slow");
});
```

9.6. Examples Stop Animations.

a) jQuery stop() sliding. Demonstrates the jQuery stop() method.

```
<!DOCTYPE html>
<html>
<head>
<script
src="http://ajax.googleapis.com/ajax/libs/jquery/1.10.1/
jquery.min.js">
</script>
<script>
$(document).ready(function(){
  $("#flip").click(function(){
    $("#panel").slideDown(5000);
  });
  $("#stop").click(function(){
    $("#panel").stop();
  });
});
</script>

<style type="text/css">
#panel,#flip
{
padding:5px;
text-align:center;
background-color:#e5eecc;
border:solid 1px #c3c3c3;
}
#panel
{
padding:50px;
display:none;
}
</style>
</head>
<body>

<button id="stop">Stop sliding</button>
<div id="flip">Click to slide down panel</div>
<div id="panel">Hello world!</div>

</body>
</html>
```

b) jQuery stop() animation (with parameters). Demonstrates the jQuery stop() method.

```
<!DOCTYPE html>
<html>
<head>
<script
src="http://ajax.googleapis.com/ajax/libs/jquery/1.10.1/
jquery.min.js">
</script>
<script>
$(document).ready(function(){
  $("#start").click(function(){
    $("div").animate({left:'100px'},5000);
    $("div").animate({fontSize:'3em'},5000);
  });

  $("#stop").click(function(){
    $("div").stop();
  });

  $("#stop2").click(function(){
    $("div").stop(true);
  });

  $("#stop3").click(function(){
    $("div").stop(true,true);
  });

});
</script>
</head>
<body>

<button id="start">Start</button>
<button id="stop">Stop</button>
<button id="stop2">Stop all</button>
<button id="stop3">Stop but finish</button>
<p>The "Start" button starts the animation.</p>
<p>The "Stop" button stops the current active animation,
but allows the queued animations to be performed
afterwards.</p>
<p>The "Stop all" button stops the current active
animation and clears the
animation queue; so all animations on the element is
stopped.</p>
<p>The "Stop but finish" rushes through the current
active animation, then it stops.</p>
```

```
<div
style="background:#98bf21;height:100px;width:200px;posit
ion:absolute;">HELLO</div>

</body>
</html>
```

9.7. jQuery stop() Method

The jQuery stop() method is used to stop an animation or effect before it is finished.

The stop() method works for all jQuery effect functions, including sliding, fading and custom animations.

Syntax:

```
$(selector).stop(stopAll,goToEnd);
```

The optional stopAll parameter specifies whether also the animation queue should be cleared or not. Default is false, which means that only the active animation will be stopped, allowing any queued animations to be performed afterwards.

The optional goToEnd parameter specifies whether or not to complete the current animation immediately. Default is false.

So, by default, the stop() method kills the current animation being performed on the selected element.

The following example demonstrates the stop() method, with no parameters:

Example

```
$("#stop").click(function(){
  $("#panel").stop();
});
```

9.8. jQuery Effects Reference

For a complete overview of all jQuery effects, please go to our jQuery Effect Reference.