Web Designing Assignment

Module (JQuery Basic, Effects & Advanced) – 5

1. What is jQuery?

jQuery is a lightweight, "write less, do more", JavaScript library.

The purpose of jQuery is to make it much easier to use JavaScript on your website.

jQuery takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code.

jQuery also simplifies a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.

The jQuery library contains the following features:

- HTML/DOM manipulation
- CSS manipulation
- HTML event methods
- Effects and animations
- AJAX
- Utilities

2. How to Apply CSS Using JQuery, How to Add Class and Remove Class in Jquery , JQuery Animation?

❖ **jQuery css() Method**

The css() method sets or returns one or more style properties for the selected elements.

❖ **Return a CSS Property**

To return the value of a specified CSS property, use the following syntax:

css("propertyname");

The following example will return the background-color value of the FIRST matched element:

Example

```html
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
    $(document).ready(function(){
        $("button").click(function(){
        alert("Background color = " + $("p").css("background-color"));
        });
    });
</script>
</head>
<body>
    <h2>This is a heading</h2>

    <p style="background-color:#ff0000">This is a paragraph.</p>
    <p style="background-color:#00ff00">This is a paragraph.</p>
    <p style="background-color:#0000ff">This is a paragraph.</p>

    <button>Return background-color of p</button>
</body>
</html>
```

❖ Set a CSS Property

To set a specified CSS property, use the following syntax:

css("propertyname","value");

The following example will set the background-color value for ALL matched elements:

Example

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

```
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
   $(document).ready(function(){
     $("button").click(function(){
     $("p").css("background-color", "yellow");
     });
   });
</script>
</head>
<body>
   <h2>This is a heading</h2>

   <p style="background-color:#ff0000">This is a paragraph.</p>
   <p style="background-color:#00ff00">This is a paragraph.</p>
   <p style="background-color:#0000ff">This is a paragraph.</p>
   <p>This is a paragraph.</p>

   <button>Set background-color of p</button>
</body>
</html>
```

❖ **Set Multiple CSS Properties**

To set multiple CSS properties, use the following syntax:

css({"propertyname":"value","propertyname":"value",...});

The following example will set a background-color and a font-size for ALL matched elements:

Example

```
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
```

```
$(document).ready(function(){
  $("button").click(function(){
  $("p").css({"background-color": "yellow", "font-size": "200%"});
  });
 });
</script>
</head>
<body>
  <h2>This is a heading</h2>

  <p style="background-color:#ff0000">This is a paragraph.</p>
  <p style="background-color:#00ff00">This is a paragraph.</p>
  <p style="background-color:#0000ff">This is a paragraph.</p>
  <p>This is a paragraph.</p>

  <button>Set multiple styles for p</button>
</body>
</html>
```

❖ **jQuery Manipulating CSS**

jQuery has several methods for CSS manipulation. We will look at the following methods:

- addClass() - Adds one or more classes to the selected elements
- removeClass() - Removes one or more classes from the selected elements
- toggleClass() - Toggles between adding/removing classes from the selected elements
- css() - Sets or returns the style attribute

The following stylesheet will be used for all the examples on this page:

```
.important {
 font-weight: bold;
 font-size: xx-large;
}
.blue {
 color: blue;
}
```

❖ **jQuery addClass() Method**

The following example shows how to add class attributes to different elements. Of course you can select multiple elements, when adding classes:

Example

```html
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
  $(document).ready(function(){
    $("button").click(function(){
    $("h1, h2, p").addClass("blue");
    $("div").addClass("important");
    });
  });
</script>
<style>
.important {
 font-weight: bold;
 font-size: xx-large;
}

.blue {
 color: blue;
}
</style>
</head>
<body>
  <h1>Heading 1</h1>
  <h2>Heading 2</h2>
  <p>This is a paragraph.</p>
  <p>This is another paragraph.</p>

  <div>This is some important text!</div>
```

```
<br>
    <button>Add classes to elements</button>
</body>
</html>
```

You can also specify multiple classes within the addClass() method:

Example

```
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
    $(document).ready(function(){
        $("button").click(function(){
        $("#div1").addClass("important blue");
        });
    });
</script>
<style>
.important {
font-weight: bold;
font-size: xx-large;
}

.blue {
color: blue;
}
</style>
</head>
<body>
    <div id="div1">This is some text.</div>
    <div id="div2">This is some text.</div>
    <br>

    <button>Add classes to first div element</button>
</body>
</html>
```

❖ **jQuery removeClass() Method**

The following example shows how to remove a specific class attribute from different elements:

Example

```html
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
  $(document).ready(function(){
    $("button").click(function(){
    $("h1, h2, p").removeClass("blue");
    });
  });
</script>
<style>
.blue {
 color: blue;
}
</style>
</head>
<body>
   <h1 class="blue">Heading 1</h1>
   <h2 class="blue">Heading 2</h2>

   <p class="blue">This is a paragraph.</p>
   <p>This is another paragraph.</p>

   <button>Remove class from elements</button>
</body>
</html>
```

❖ **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 right, until it has reached a left property of 250px:

Example

```
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
  $(document).ready(function(){
    $("button").click(function(){
    $("div").animate({left: '250px'});
    });
  });
</script>
</head>
<body>
  <button>Start Animation</button>

  <p>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!</p>

  <div style="background:#98bf21;height:100px;width:100px;position:absolute;"></div>
</body>
</html>
```

Web Designing Assignment

3. How to create slider with animation?

In jQuery, we can produce various types of animation using the animate() method. This method can produce simple to complex animation in the web page. Using animation, we can change the properties of HTML elements such as background colour, changing border styles, changing navigation properties, formatting the font properties, etc.

We apply changes to the properties by providing the styles rules in the params parameter of the method.

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

where

- params parameter specifies the CSS property to be changed during execution of animate() method . It is the required parameter.
- speed parameter specifies the speed at which the effect is applied .They can accept only these values : "slow", "fast" or milliseconds.
- call back parameter specifies the function to be executed after the execution of animate() method.