

Experiment-09

Develop jQuery script (with HTML/CSS) for:

- a. Appends the content at the end of the existing paragraph and list.
- b. Change the state of the element with CSS style using animate() method
- c. Change the color of any div that is animated.

Program:

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
  <meta charset="UTF-8">
```

```
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
  <title>jQuery Append, Animate, and Color Change Demo</title>
```

```
  <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
```

```
  <style>
```

```
    body {
```

```
      font-family: Arial, sans-serif;
```

```
      line-height: 1.6;
```

```
      margin: 0;
```

```
padding: 20px;

background-color: #f4f4f4;

}

.container {

    max-width: 800px;

    margin: auto;

    background: white;

    padding: 20px;

    border-radius: 5px;

    box-shadow: 0 0 10px rgba(0,0,0,0.1);

}

h1, h2 {

    color: #333;

}

.box {

    width: 100px;

    height: 100px;

    background-color: #3498db;

    margin: 20px 0;
```

```
}  
  
button {  
  
    padding: 10px 15px;  
  
    background-color: #2ecc71;  
  
    color: white;  
  
    border: none;  
  
    border-radius: 5px;  
  
    cursor: pointer;  
  
    margin-right: 10px;  
  
}  
  
button:hover {  
  
    background-color: #27ae60;  
  
}  
  
</style>  
  
</head>  
  
<body>  
  
    <div class="container">  
  
        <h1>jQuery Demonstration</h1>
```

<h2>a. Append Content</h2>

<p id="existingParagraph">This is an existing paragraph. </p>

<ul id="existingList">

Existing item 1

Existing item 2

<button id="appendButton">Append Content</button>

<h2>b. Animate Element</h2>

<div id="animateBox" class="box"></div>

<button id="animateButton">Animate Box</button>

<h2>c. Change Color of Animated Div</h2>

<div id="colorBox" class="box"></div>

<button id="colorAnimateButton">Animate and Change
Color</button>

</div>

<script>

```
$(document).ready(function() {
```

```
// a. Append content
```

```
$("#appendButton").click(function() {
```

```
    $("#existingParagraph").append("This content is appended.");
```

```
    $("#existingList").append("<li>Appended item</li>");
```

```
});
```

```
// b. Animate element
```

```
$("#animateButton").click(function() {
```

```
    $("#animateBox").animate({
```

```
        width: "200px",
```

```
        height: "200px",
```

```
        opacity: 0.5
```

```
    }, 1000);
```

```
});
```

```
// c. Animate and change color
```

```
$("#colorAnimateButton").click(function() {
```

```
    $("#colorBox").animate({
```

```
width: "200px",  
  
height: "200px"  
  
}, {  
  
duration: 1000,  
  
step: function(now, fx) {  
  
    if (fx.prop === "width") {  
  
        $(this).css("background-color", `rgb(${Math.round(now)},  
52, 219)`);  
  
        }  
  
    }  
  
});  
  
});  
  
});  
  
</script>  
</body>  
</html>
```

Explanation

Purpose of the webpage:

This is a demonstration page showing how to use jQuery, a popular JavaScript library, to manipulate web page elements dynamically. It includes examples of appending content, animating elements, and changing colors.

Structure of the page:

The page is divided into three main sections, each demonstrating a different jQuery functionality:

- a) Append Content
- b) Animate Element
- c) Change Color of Animated Div

Technologies used:

HTML: For structuring the webpage

CSS: For styling the page elements

jQuery: A JavaScript library for easier DOM manipulation and animations

Key components and their functions:

- a) Append Content:

This section has an existing paragraph and a list.

When you click the "Append Content" button, it adds text to the paragraph and a new item to the list.

How it works: jQuery selects the elements by their IDs and uses the .append() method to add new content.

b) Animate Element:

This section has a blue square (box).

Clicking the "Animate Box" button makes the box grow larger and more transparent.

How it works: jQuery uses the .animate() method to gradually change the box's width, height, and opacity over 1 second (1000 milliseconds).

c) Change Color of Animated Div:

This section also has a blue square.

Clicking the "Animate and Change Color" button makes the box grow larger while changing its color from blue to red.

How it works: jQuery animates the box's size and simultaneously updates its background color based on the current width during the animation.

jQuery setup:

The script uses \$(document).ready(function() { ... }) to ensure that the jQuery code only runs after the page has fully loaded.

Event handling:

Each button has a click event handler set up using jQuery's .click() method.

When a button is clicked, it triggers the corresponding function to perform the animation or content append.