Subject: 20CS2036L – Web Technology Lab   BHARATH KUMAR S

Lab Exercise: 7. Website Design with JQuery Actions   URK22AI1030

Instructions: Odd no's (Q1, Q3, Q5), Even no's (Q2, Q4, Q6)
Note: Apply your creativity to design the templates

Aim:
Create a web application using HTML, CSS, JQuery actions.

Description:

The web application will consist of several interactive features implemented using JQuery to enrich the user experience and provide functionality for performing mathematical operations. Here's a breakdown of the key components and their functionalities:

Heading with Blinking Effect:
- The webpage will feature a heading with a distinctive blinking effect to draw attention and add visual interest.
- This effect will be achieved using JQuery's fadeOut() and fadeIn() functions, creating a seamless transition between visibility states.

Background Color Change:
- A dropdown menu will allow users to select different background colors for the webpage.
- JQuery's change() event handler will detect when the user selects a new color option and dynamically adjust the background color accordingly, providing a personalized browsing experience.
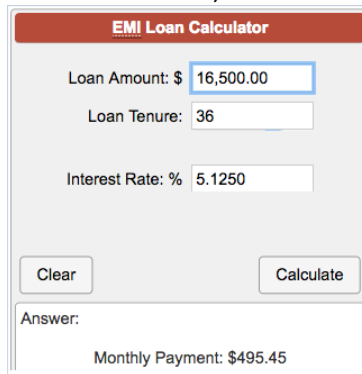
Slide Menu Bar:
- The webpage will incorporate a slide menu bar for navigation or additional functionalities.
- Users can interact with the menu by sliding it in and out of view, enhancing accessibility and user engagement.
- JQuery will manage the animation and behavior of the slide menu bar, ensuring smooth transitions and responsive design.

Dynamic Object Movement:
- An object displayed on the webpage will be movable, with its position and size changing dynamically.
- Users can interact with this object, dragging it across the screen and resizing it as desired.
- JQuery will handle the object's movement and resizing, updating its properties in real-time to reflect user actions.
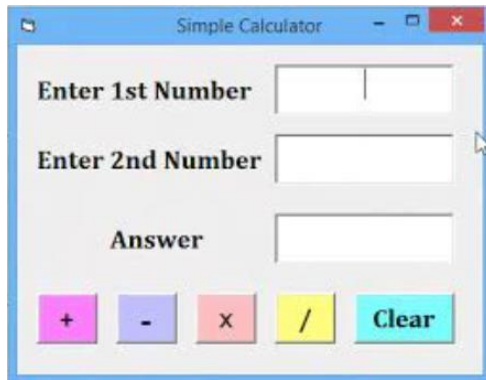
Q1: EMI Loan Calculator
Create a web application to develop the following Bank loan EMI calculator using JQuery. The formula to calculate EMI is P x R x (1+R)^N / [(1+R)^N-1] – where, "P" is the principal loan amount, "N" in tenure in months, and "R" is the prevailing interest rate.

Q2: Simple Calculator
Create a web page with JQuery program to perform basic mathematic operations such as addition, subtraction, multiplication, and division for the two given numbers (input from user).

Q3: Modal window

1) Display the heading of the webpage with blinking effect (fadeOut() & fadeIn())
2) Change the background color of the webpage based on the dropdown selection (change())
3) Design the modal window

Q4: Slide menu bar
1) Display the heading of the webpage with blinking effect (fadeOut() & fadeIn())
2) Change the background color of the webpage based on the dropdown selection (change())
3) Design the slide menu bar

Slide Menu Bar

Select Background Color: green ∨

Accordion 1

Accordion 1- content Mauris interdum fringilla augue vitae tincidunt. Curabitur vitae tortor id eros euismod ultrices. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

Accordion 2
Accordion 3

Q5: Animation
Move the object with changing its position and size.

start

Q6: Animation
Move the object with changing its position and size.

Animate

Source Code:

Simple Calculator:

```html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Simple Calculator</title>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<style>
  body {
    font-family: Arial, sans-serif;
    background-color: #f0f0f0;
  }
  h2 {
    text-align: center;
  }
  form {
    max-width: 400px;
    margin: 0 auto;
    background-color: #fff;
    padding: 20px;
    border-radius: 8px;
    box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1);
  }
  input[type="number"], input[type="text"] {
    width: calc(50% - 10px);
    padding: 10px;
    margin: 5px;
    border: 1px solid #ccc;
    border-radius: 4px;
    box-sizing: border-box;
  }
  button {
    width: calc(25% - 10px);
    padding: 10px;
    margin: 5px;
    border: none;
    border-radius: 4px;
    cursor: pointer;
    background-color: #154871;
    color: white;
    font-size: 18px;
    transition: background-color 0.3s;
  }
  button:hover {
    background-color: #0d97bd;
```
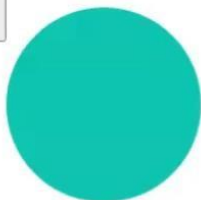
```
        }
    #result {
        text-align: left;
        margin-top: 20px;
        font-size: 20px;
    }
    #answer {
        width: calc(50% - 10px);
        padding: 10px;
        margin: 5px;
        border: 1px solid #ccc;
        border-radius: 4px;
        box-sizing: border-box;
    }
</style>
</head>
<body>

<h2>Simple Calculator</h2>
<form id="calculatorForm">
    <label for="num1">Enter 1 number</label>
    <input type="number" id="num1">
    <br>
    <label for="num2">Enter 2 number</label>
    <input type="number" id="num2">
    <br>
    <div id="result">Result: <input type="text" id="answer" readonly></div>

    <button type="button" class="operator" data-operation="+">+</button>
    <button type="button" class="operator" data-operation="-">-</button>
    <button type="button" class="operator" data-operation="*">x</button>
    <button type="button" class="operator" data-operation="/">/</button>
    <button type="button" id="clear">Clear</button>
</form>

<script>
    $(document).ready(function() {
        $('.operator').click(function() {
            var num1 = parseFloat($('#num1').val());
            var num2 = parseFloat($('#num2').val());
            var operation = $(this).text();

            switch (operation) {
                case '+':
                    $('#answer').val(num1 + num2);
                    break;
                case '-':
                    $('#answer').val(num1 - num2);
                    break;
```

```
            case 'x':
                $('#answer').val(num1 * num2);
                break;
            case '/':
                if (num2 === 0) {
                    alert("Division by zero is not allowed");
                    return;
                }
                $('#answer').val(num1 / num2);
                break;
        }
    });

    $('#clear').click(function() {
        $('#num1, #num2, #answer').val('');
    });
    });
</script>

</body>
</html>
```

Object Moving

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Animation</title>
<style>
    body {
        margin: 0;
        padding: 0;
        height: 100vh;
        display: flex;
        justify-content: center;
        align-items: center;
        background-color: #f0f0f0;
    }

    #object {
        width: 100px;
        height: 100px;
        background-color: blue;
        position: absolute;
        top: 50%;
        left: 50%;
        transform: translate(-50%, -50%);
    }
```

```html
    </style>
    </head>
    <body>

    <div id="object"></div>

    <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
    <script>
    $(document).ready(function() {

      var positionX = 50;
      var positionY = 50;
      var size = 100;

      function animateObject() {
        var newPositionX = Math.floor(Math.random() * 90);
        var newPositionY = Math.floor(Math.random() * 90);
        var newSize = Math.floor(Math.random() * 150) + 50;

        $('#object').animate({
          top: newPositionY + '%',
          left: newPositionX + '%',
          width: newSize,
          height: newSize
        }, 1000);
      }


      setInterval(animateObject, 2000);
    });
    </script>

    </body>
    </html>
```

Slide Menu bar:

```html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Combined Example</title>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<style>
  body {
    font-family: Arial, sans-serif;
    margin: 0;
    padding: 0;
    transition: background-color 0.5s ease;
  }
```

```css
.header {
    background-color: #333;
    color: #fff;
    text-align: center;
    padding: 20px 0;
    font-size: 24px;
}

.menu-container {
    width: 250px;
    height: 100%;
    position: fixed;
    top: 0;
    left: 0;
    background-color: #f4f4f4;
    padding: 20px;
    transition: left 0.3s ease;
}

.menu-container ul {
    list-style-type: none;
    padding: 0;
}

.menu-container ul li {
    padding: 10px 0;
    cursor: pointer;
}

.menu-btn {
    position: absolute;
    top: 20px;
    left: 20px;
    cursor: pointer;
    z-index: 999;
}

.menu-btn i {
    font-size: 24px;
}

.container {
    text-align: center;
    margin-top: 100px;
}

select {
    padding: 10px;
    font-size: 16px;
}
```

```css
  h1 {
    text-align: center;
    margin-top: 100px;
    font-size: 36px;
    color: #333;
  }

  .menu-detail {
    display: none;
    padding: 10px;
    background-color: #ccc;
    margin-top: 20px;
  }

  .menu-container:hover .menu-detail {
    display: block;
  }

  .menu-container input[type="checkbox"]:checked + .menu-container ul li label {
    color: blue;
  }

  #panel, #flip {
 padding: 5px;
 text-align: center;
 background-color: #e5eecc;
 border: solid 1px #c3c3c3;
}

#panel {
 padding: 50px;
 display: none;
}

#panel1, #flip1 {
 padding: 5px;
 text-align: center;
 background-color: #e5eecc;
 border: solid 1px #c3c3c3;
}

#panel1 {
 padding: 50px;
 display: none;
}

#panel2, #flip2 {
 padding: 5px;
 text-align: center;
 background-color: #e5eecc;
```

```css
      border: solid 1px #c3c3c3;
}


#panel2 {
  padding: 50px;
  display: none;
}

</style>
</head>
<body>
```

```html
<div class="container">
    <h1 id="blinking-heading">Blinking BK Effects</h1>
    <label for="color-selector">Select Background Color:</label>
    <select id="color-selector">
       <option value="white">White</option>
       <option value="lightblue">Light Blue</option>
       <option value="lightgreen">Light Green</option>
       <option value="lightpink">Light Pink</option>
    </select>
    <br>
    <br>
    <div id="flip">Accordian 1</div>
    <div id="panel">Hey </div>
    </div>
    <br>
    <div id="flip1">Accordian 2</div>
    <div id="panel1">This is </div>
    </div>
    <br>
    <div id="flip2">Accordian 3</div>
    <div id="panel2">BK's Coding </div>
    </div>
</div>
```

```javascript
<script>
$(document).ready(function() {
   $('.menu-container ul li').click(function() {
      var id = $(this).attr('id');
      $('#' + id + '-detail').slideToggle();
   });

   function blinkHeading() {
      $('#blinking-heading').fadeOut(500, function() {
         $(this).fadeIn(500);
      });
```

```javascript
      }

      $(document).ready(function() {
      $('.menu-item').click(function() {
         var target = $(this).data('target');
         $('#' + target).slideDown();
      });
   });

      setInterval(blinkHeading, 1000);

      $('#color-selector').change(function() {
         var selectedColor = $(this).val();
         $('body').css('background-color', selectedColor);
      });

      $(document).ready(function(){
    $("#flip").click(function(){
     $("#panel").slideToggle("slow");
    });
   });

   $(document).ready(function(){
    $("#flip1").click(function(){
     $("#panel1").slideToggle("slow");
    });
   });

   $(document).ready(function(){
    $("#flip2").click(function(){
     $("#panel2").slideToggle("slow");
    });
   });

   });
   </script>

   </body>
   </html>
```

OUTPUT :

SIMPLE CALCULATOR:
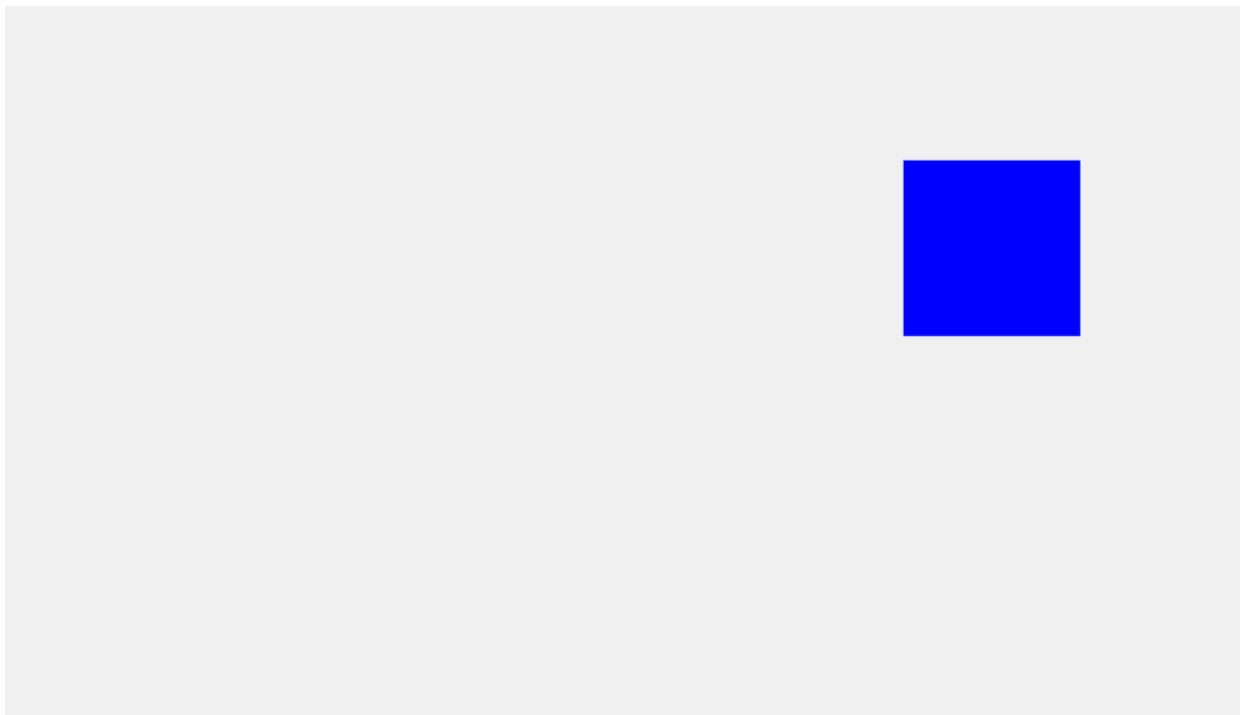
Simple Calculator

Enter 1 number   `2`

Enter 2 number   `2`

Result: `4`

+	-	X
/	Clear	

MOVING OBJECT:

SLIDE MENU BAR:

RESULT:

        Successfully Create a web application using HTML, CSS, JQuery actions.