**6)Develop a simple calculator to perform arithmetic (addition, subtraction, multiplication and division) operations on given two numbers.**

<!DOCTYPE html>

<html>

<head>

<title>Simple Calculator</title>

</head>

<body>

<h1>Simple Calculator</h1>

<input type="number" id="num1" placeholder="Enter first number"><br><br>

<input type="number" id="num2" placeholder="Enter second number"><br><br>

<button onclick="calculate('add')">Add</button>

<button onclick="calculate('subtract')">Subtract</button>

<button onclick="calculate('multiply')">Multiply</button>

<button onclick="calculate('divide')">Divide</button><br><br>

<p>Result: <span id="result"></span></p>

<script>

function calculate(operator) {

var num1 = parseFloat(document.getElementById("num1").value);

var num2 = parseFloat(document.getElementById("num2").value);

var resultElement = document.getElementById("result");

let result;

switch (operator) {

case "add":

result = num1 + num2;

break;

case "subtract":

result = num1 - num2;

break;

case "multiply":

result = num1 \* num2;

break;

case "divide":

result = num1 / num2;

break;

default:

resultElement.textContent = "Unknown operation.";

return;

}

resultElement.textContent = result;

}

</script>

</body>

</html>

1. **Develop and demonstrate using jQuery to solve the following:**
   1. **Fade in and fade out all division elements.**
   2. **Animate an element, by changing its height and width.**

<!DOCTYPE html>

<html>

<head>

<title>jQuery Fade Example</title>

<script src="https://code.jquery.com/jquery.js"></script>

<style>

div {

width: 150px;

height: 100px;

background-color: lightgreen;

margin: 10px;

}

</style>

</head>

<body>

<h3>Fade In / Fade Out Example</h3>

<div>Box 1</div>

<div>Box 2</div>

<button id="fadeBtn">Fade In/Out</button>

<script>

$(document).ready(function() {

$("#fadeBtn").click(function() {

$("div").fadeToggle(1000);

});

});

</script>

</body>

</html>

* 1. **Animate an element, by changing its height and width.**

<!DOCTYPE html>

<html>

<head>

<title>jQuery Animate Example</title>

<script src="https://code.jquery.com/jquery.js"></script>

<style>

#box {

width: 100px;

height: 100px;

background-color: lightcoral;

margin: 20px auto;

}

</style>

</head>

<body>

<h3>Animate Box Example</h3>

<div id="box">Box</div>

<button id="animateBtn">Animate</button>

<script>

$(document).ready(function() {

$("#animateBtn").click(function() {

$("#box").animate({

width: "200px",

height: "150px"

}, 1000);

});

});

</script>

</body>

</html>

1. **Develop and demonstrate using jQuery to solve the following:**
   1. **Limit character input in the text area including count.**
   2. **Based on check box, disable/enable the form submit button.**

<!DOCTYPE html>

<html>

<head>

<title>Limit Text</title>

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

</head>

<body>

<textarea id="txt" rows="5" cols="50"></textarea><br>

<span id="count">0</span>/15

<script>

$(document).ready(function(){

let max = 15;

$("#txt").on("input", function(){

let len = $(this).val().length;

if(len > max) $(this).val($(this).val().substring(0,max));

$("#count").text($(this).val().length);

});

});

</script>

</body>

</html>

**Based on check box, disable/enable the form submit button.**

<!DOCTYPE html>

<html>

<head>

<title>Enable Button</title>

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

</head>

<body>

<input type="checkbox" id="chk"> I agree<br><br>

<button id="btn" disabled>Submit</button>

<script>

$(document).ready(function(){

$("#chk").change(function(){

$("#btn").prop("disabled", !this.checked);

});

});

</script>

</body>

</html>

1. Write a program to convert lowercase string to uppercase string.

<!DOCTYPE html>

<html>

<head>

<title>Lowercase to Uppercase</title>

</head>

<body>

<h3>Convert Lowercase to Uppercase</h3>

<input type="text" id="textInput" placeholder="Enter lowercase text">

<button onclick="convertToUpper()">Convert</button>

<p>Uppercase: <span id="result"></span></p>

<script>

function convertToUpper() {

let str = document.getElementById("textInput").value;

let upperStr = str.toUpperCase();

document.getElementById("result").textContent = upperStr;

}

</script>

</body>

</html>