**Geco ReactJS Training**

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| ReactJS Assignment |  |
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| Cohort No.: | 27 |
| Week No.: | 1 |
| Daily Task No.: | 2 |

1. var enteredAlphabet = 'd' or "D"

Write a program to check vowel, consonant or non-alphabet using switch case. Change value of enteredAlphabet and check if your code works fine.

// Not sure about consonant

<script>

      var enteredAlphabet = 1;

      switch(enteredAlphabet){

        case 'a':

        case 'e':

        case 'i':

        case 'o':

        case 'u':

          alert("vowel input")

          break;

        case 0:

        case 1:

        case 2:

        case 3:

        case 4:

        case 5:

        case 6:

        case 7:

        case 8:

        case 9:

            alert("numeric input");

            break;

          default:

            alert("input is not vowel, or numeric")

      }

    </script>

1. Write a JavaScript program to create menu driven calculator that performs basic arithmetic operations (add, subtract, multiply and divide) using switch case. The calculator should input two numbers and an operator: +, -, \*, / from the user. It should perform operation according to the operator entered and must take input in given format.

  <form>

    <input type="number" id="num1" name="num1" value="" placeholder="First number" />

    <input type="number" id="num2" name="num2" value="" placeholder="Second number" />

    <input type="text" id="symbol" name="symbol" value="" placeholder="Please enter operation (+,-,\*,/)" />

  </form>

  <button onclick="calculate()">Calculate Value</button>

  <h5> The Result of the calculation is : </h5>

  <p id="displayResult"> </p>

  <script>

    function calculate() {

      var symbol = document.getElementById("symbol").value;

      let num1 = Math.round(document.getElementById("num1").value);

      let num2 = Math.round(document.getElementById("num2").value);

      switch (symbol) {

        case "+":

          let result = num1 + num2;

          document.getElementById("displayResult").innerHTML = result;

          break;

        case "-":

          let result1 = num1 - num2;

          document.getElementById("displayResult").innerHTML = result1;

          break;

        case "\*":

          let result2 = num1 \* num2;

          document.getElementById("displayResult").innerHTML = result2;

          break;

        case "/":

          let result3 = num1 / num2;

          document.getElementById("displayResult").innerHTML = result3;

          break;

        default:

          alert("operation is not found");

          break;

      }

    }

  </script>

1. Write a JavaScript program to input sides of a triangle and check whether a triangle is equilateral, scalene or isosceles triangle using if else.

Properties of triangle:

A triangle is said Equilateral Triangle, if all its sides are equal. If a, b, c are three sides of triangle. Then, the triangle is equilateral only if a == b == c.

A triangle is said Isosceles Triangle, if its two sides are equal. If a, b, c are three sides of triangle. Then, the triangle is isosceles if either a == b or a == c or b == c.

A triangle is said Scalene Triangle, if none of its sides are equal.

<body>

  <form>

    <p>Please Enter the three sides of the triangle </p>

    <input type="number" id="side1" name="side1" value="" placeholder="First side" />

    <input type="number" id="side2" name="side2" value="" placeholder="Second side" />

    <input type="number" id="side3" name="side3" value="" placeholder="Third side" />

  </form>

  <button onclick="calculate()"> Check Triangle Type </button>

  <h5> The triangle is : </h5>

  <p id="displayResult"> </p>

  <script>

    function calculate() {

      let side1 = Math.round(document.getElementById("side1").value);

      let side2 = Math.round(document.getElementById("side2").value);

      let side3 = Math.round(document.getElementById("side3").value);

      if (side1 == side2 && side2==side3){

        document.getElementById("displayResult").innerHTML = "Equilateral";

        }

          else if (side1==side2 || side1==side3 || side2==side3) {

          document.getElementById("displayResult").innerHTML = "isosceles";

          }

            else if (side1 !== side2 && side1 !== side3 && side2 !== side3){

            document.getElementById("displayResult").innerHTML = "Scalene";

            } else {

                    alert("not an Equilateral or Isosceles or Scalene");

                  }

    }

  </script>

</body>

1. Write a JavaScript program to input electricity unit charge and calculate the total electricity bill according to the given condition:

For first 50 units Rs. 0.50/unit

For next 100 units Rs. 0.75/unit

For next 100 units Rs. 1.20/unit

For unit above 250 Rs. 1.50/unit. An additional surcharge of 20% is added to the bill.

For example, input: 20 units then bill is Rs10

Total Units: 300

50 \* 0.5 = 25

100 \* 0.75 = 75

100 \* 1.2 = 120

50 \* 1.5 = 75

Total = 295 + 20% surcharge on 295

Result = INR 354

<body>

  <form>

    <input type="number" id="num1" name="num1" value="" placeholder="Total Electricity Unit" />

  </form>

  <button onclick="calculate()"> Total Cost </button>

  <h5> The total cost of the Electricity Bill is : </h5>

  <p id="displayResult"> </p>

  <script>

    function calculate() {

      let num1 = Math.round(document.getElementById("num1").value);

      if (num1 < 50) {

        let cost = num1 \* 0.5;

        document.getElementById("displayResult").innerHTML = cost;

      }

        else if (num1 > 50) {

        let balance1 = num1 - 50;

        if (balance1 <= 100) {

          let cost = ((balance1 \* 0.75) + (50 \* 0.5));

          document.getElementById("displayResult").innerHTML = cost;

          } else if (balance1 > 100) {

            let balance2 = balance1 - 100;

            if (balance2 <= 100) {

            let cost = ((balance2 \* 1.2) + (100 \* 0.75) + (50 \* 0.5));

            document.getElementById("displayResult").innerHTML = cost;

          } else if (balance2 > 100) {

            let balance3 = balance2 - 100;

            let surcharge = ((balance3 \* 1.5) + (100 \* 1.2) + (100 \* 0.75) + (50 \* 0.5)) \* 20 / 100;

            let cost = ((balance3 \* 1.5) + (100 \* 1.2) + (100 \* 0.75) + (50 \* 0.5)) + surcharge;

            document.getElementById("displayResult").innerHTML = cost;

          }

        }

      }

    }

  </script>

1. Create parametized method/function to multiply 3 numbers

   <script>

    function calculate(a,b,c) {

      let result = (a \* b \* c);

      return result;

    }

    var cost = calculate(10,10,10);

    document.getElementById("displayResult").innerHTML = cost;

      </script>

1. Create parametized method to divide 2 numbers

<body>

   <h5> The sum of the three numbers is: </h5>

   <p id="displayResult"> </p>

   <script>

    function calculate(a,b) {

      let result = (a / b);

      return result;

    }

    var cost = calculate(100,10);

    document.getElementById("displayResult").innerHTML = cost;

      </script>

 </body>

1. Find the biggest of 3 numbers  (89, 78, 56)

   <script>

    function calculate(a,b,c) {

      let result = Math.max(a,b,c);

      return result;

    }

    var cost = calculate(100,10,20);

    document.getElementById("displayResult").innerHTML = cost;

  </script>

1. Take user input: value is even or odd

  <form>

    <input type="number" id="num" name="num" value=""" placeholder="Input number"/>

  </form>

  <br>

  <button onclick="calculate()"> Check Even or Odd</button>

   <script>

      function calculate(numbers) {

      var numbers = document.getElementById('num').value;

      console.log(numbers);

      let result = numbers % 2;

      if (result == 0){

        document.getElementById("displayResult").innerHTML ="Input is even";

      }else if (result === 1) {

        document.getElementById("displayResult").innerHTML ="Input is odd";

      }

    }

   </script>

 </body>

1. Take user input: given number is multiple of 3 or not e.g.10900

<script>

    function calculate() {

      var value = Math.round(document.getElementById("num").value);

      var valueDivide = parseInt(value/3);

      if((valueDivide \* 3) === value){

        document.getElementById("display").innerHTML = "Number is divisible by 3"

      }else{

        document.getElementById("display").innerHTML = "Number is not divisible by 3"

      }

    }

  </script>

1. Take user input: calculate simple interest ((p/r \* t) \* 100 )

<body>

   <h5> The sum of the three numbers is: </h5>

   <p id="displayResult"> </p>

  <form>

    <input type="number" id="num1" name="num1" value=""" placeholder="Principal Rate"/>

    <input type="number" id="num2" name="num2" value=""" placeholder="Rate"/>

    <input type="number" id="num3" name="num3" value=""" placeholder="Time"/>

  </form>

  <br>

  <button onclick="calculate()"> Calculate Interest Rate </button>

   <script>

      function calculate() {

      var num1 = document.getElementById('num1').value;

      var num2 = document.getElementById('num2').value;

      var num3 = document.getElementById('num3').value;

      let result = ((num1/num2 \* num3) \* 100);

      document.getElementById("displayResult").innerHTML =result;

      }

    </script>

 </body>

1. Take user input: 0-6 display day week depending upon what user is entering (0-> sunday) : using switch

<body>

   <h5> The sum of the three numbers is: </h5>

   <p id="displayResult"> </p>

  <form>

    <input type="number" id="num1" name="num1" value=""" placeholder="Input value"/>

      </form>

  <br>

  <button onclick="calculate()"> Check the Day </button>

   <script>

      function calculate() {

      var num1 = Math.round(document.getElementById('num1').value);

         switch (num1){

        case 0:

        result = "Sunday";

        break;

        case 1:

        result = "Monday";

        break;

        case 2:

        result = "Tuesday";

        break;

        case 3:

        result = "Wednesday";

        break;

        case 4:

        result = "Thursday";

        break;

        case 5:

        result = "Friday";

        break;

        case 6:

        result = "Saturday";

        break;

      }

      document.getElementById("displayResult").innerHTML =result;

   }

    </script>

 </body>

1. Use loops, conditional statements, take input from user
   * 1. Multiplication table (ask number from user)

<body>

   <h5> The Multiplication Table: </h5>

   <p id="displayResult"> </p>

  <form>

    <input type="number" id="num" name="num" value="" placeholder="Input value"/>

      </form>

  <br>

  <button onclick="calculate()"> Multiplication Table </button>

   <script>

      function calculate() {

      var num = Math.round(document.getElementById('num').value);

      for (let i=1;i<=10;i++){

      let result = (i \* num);

      document.getElementById("displayResult").innerHTML +=result + " ";

      }

  }

    </script>

 </body>

* + 1. Sum of digits: e.g. (123: 1 + 2 + 3 = 6) or (1234 : 1 + 2 + 3 + 4 = 10) : hint - loops, divisor and modulus

<body>

  <h5> Sum of Digit </h5>

  <p id="displayResult"> </p>

  <form>

    <input type="number" id="num" name="num" value="" placeholder="Input value" />

  </form>

  <br>

  <button onclick="calculate()"> Sum Number </button>

  <script>

    function calculate() {

      var num = document.getElementById('num').value;

      var numSplit = num.split('');

      var sum =0;

      for (let i = 0; i < numSplit.length; i++) {

        var value = Math.round(numSplit[i]);

        sum += value;

      }

      document.getElementById("displayResult").innerHTML = sum;

    }

  </script>

* + 1. Pallindrome string (aca: aca(reverse) is a pallindrome, abc: cba is not a Pallindrome)

<body>

  <h5> Pallindrome String </h5>

  <p id="displayResult"> </p>

  <form>

    <input type="text" id="str" name="str" value="" placeholder="Input String" />

  </form>

  <br>

  <button onclick="calculate()"> Check Pallindrome </button>

  <script>

    function calculate() {

      var inputStr = document.getElementById('str').value;

      var reverseStr = inputStr.split('').reverse().join('') ;

       if(reverseStr === inputStr){

        document.getElementById("displayResult").innerHTML = "The String is Pallindrome";

      } else {

        document.getElementById("displayResult").innerHTML = "The String is not a Pallindrome";

      }

    }

  </script>

</body>

* + 1. display even numbers up to n number (ask user for number)

<body>

   <h5> The Number Display </h5>

   <p id="displayResult"> </p>

  <form>

    <input type="number" id="num" name="num" value="" placeholder="Input value"/>

      </form>

  <br>

  <button onclick="calculate()"> Even Number </button>

  <script>

      function calculate() {

      var num = Math.round(document.getElementById('num').value);

      let result =0;

      for (let i=1;i<=num;i++){

      result += 2 ;

      document.getElementById("displayResult").innerHTML +=result + " ";

      }

  }

 </script>

 </body>

* + 1. Count of even and odd number from 1 to 999

<body>

  <h5> Count of even and odd number between 1 to 999 </h5>

  Even: <p id="displayEven"> </p>

  Odd: <p id="displayOdd"> </p>

  <br>

  <button onclick="calculate()"> Calculate Even and Odd </button>

  <script>

    function calculate() {

      var countEven = 0;

      var countOdd = 0;

      for (let num=1;num <1000;num++ ){

        if(num % 2 ==0 ){

          countEven++;

        }else countOdd++

      }

      document.getElementById("displayEven").innerHTML = countEven;

      document.getElementById("displayOdd").innerHTML = countOdd;

    }

  </script>

</body>

* + 1. Count occurrence of a particular character in a string (hello: count of l is 2)

<script>

    function calculate() {

      var count = 0;

      var str = document.getElementById("str").value;

      var search = document.getElementById("strSearch").value;

      var strArray = str.split("");

      for (let i=0; i<strArray.length; i++){

        strWord = strArray[i];

        if(strWord.indexOf(search) != -1 ){

          count++;

        } document.getElementById("display").innerHTML = count;

      }

    }

   </script>

* + 1. Sum and average of array elements [1, 9, 8];

<script>

    function calculate() {

      var array = [1, 9, 8];

      var value = "";

      var sum= 0;

      var average =0;

      for (let i=0; i<array.length; i++){

        value = array[i];

        sum += value;

        }

        average = (sum / array.length)

        document.getElementById("display").innerHTML = average;

      }

   </script>

* + 1. Largest number in an array (do with loops)

<script>

    var array = [1,8,3,9,5,6,7];

    var big = 0;

    function calculate() {

      for(let i=0;i<array.length;i++){

        big = array[i];

        for(let j=0;j<array.length;j++)

        {

            if (big < array[j+1]){

            big = array[j+1];

           }

        }

      }console.log(big);

      }

   </script>

1. From 1 to 100, print "foo" if multiple of 3, "bar" if multiple of 5, if multiple of both

display "hello" or else print the number

e.g.

1

2

foo

4

bar

foo

 <script>

    function calculate() {

      for (let i = 1; i <= 100; i++) {

        var mult3 = parseInt(i / 3);

        var res3 = mult3 \* 3;

        var mult5 = parseInt(i / 5);

        var res5 = mult5 \* 5;

        if (res3 === i) {

          console.log("foo");

        } else if (res5 === i) {

          console.log("bar");

        } else if (res3 === i && res5 === i) {

          console.log("hello");

        } else {

          console.log(i);

        }

      }

    }

  </script>

1. Using selectors: create a list in html: ask user any item from list display 'item' found.

// Not sure

  <script>

    function calculate() {

      var list = document.getElementsByClassName("item");

      var str = document.getElementById("str").value;

      for (let i = 0; i < list.length; i++) {

        var value = list[i].innerHTML;

          if (value == str) {

            console.log("exist");

          } else{

            console.log("does not exist");

          }

        }

      }

  </script>