IWP CSE3002
Lab Cycle Sheet 2 – Javascript

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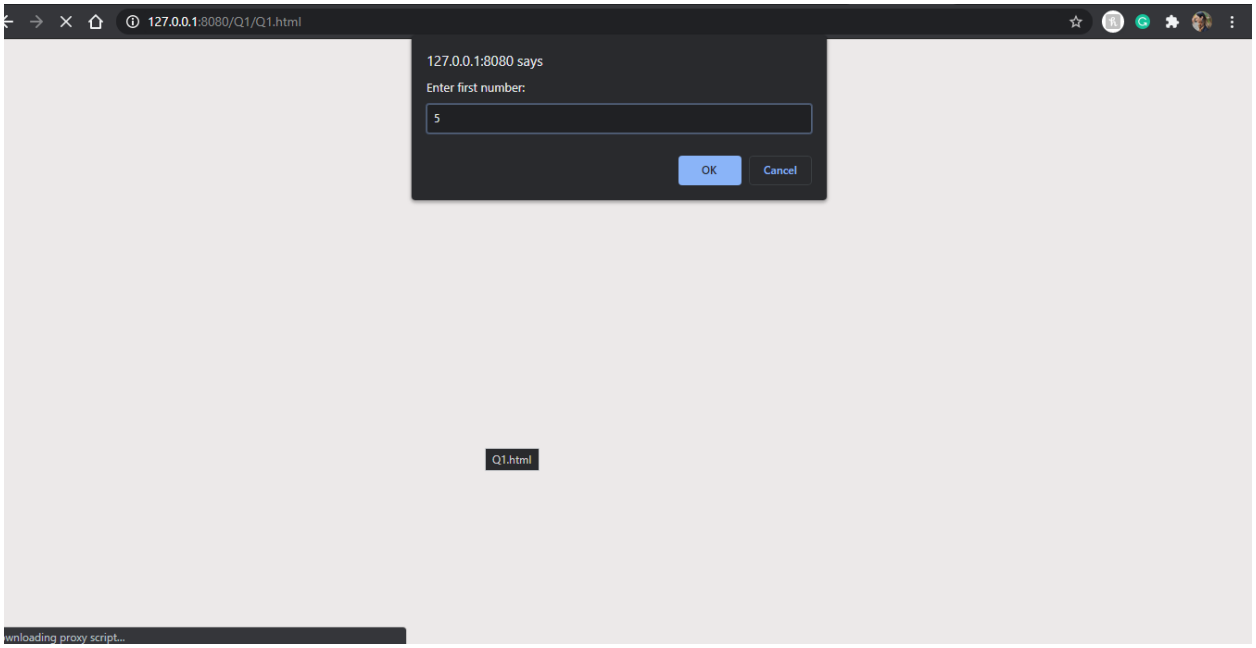
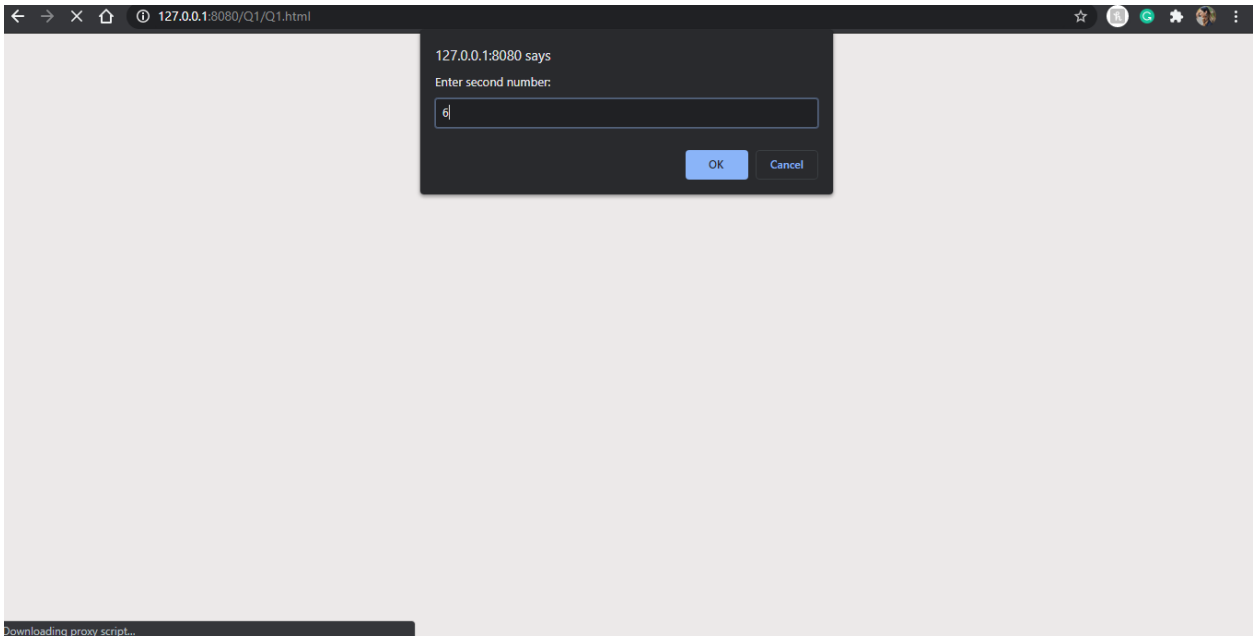
1. Write a script to take three numbers from the user and display the greatest number out of three.

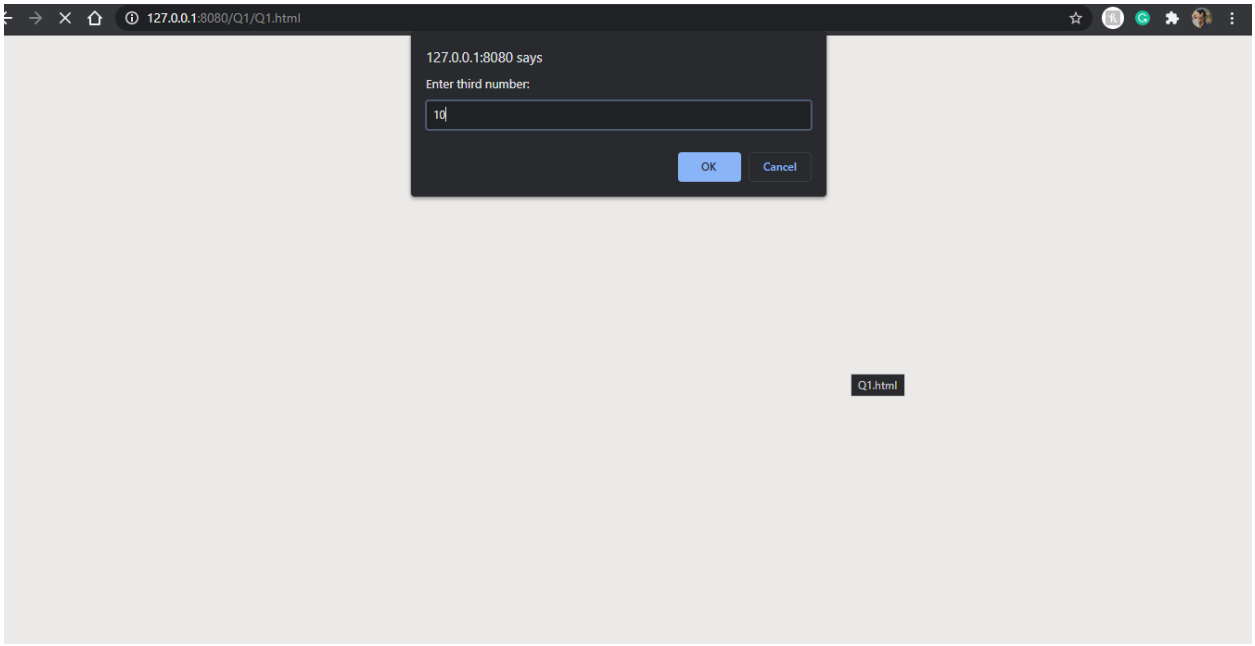
   Javascript code:

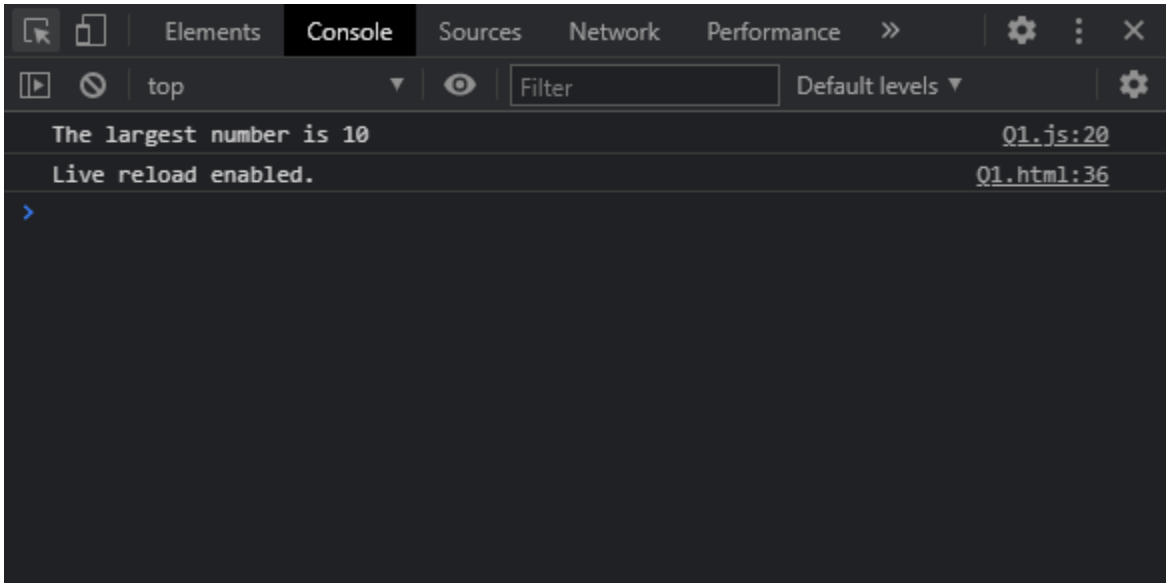
```
// take input from the user
const num1 = parseFloat(prompt("Enter first number: "));
const num2 = parseFloat(prompt("Enter second number: "));
const num3 = parseFloat(prompt("Enter third number: "));
let largest;

// Find largest number
if(num1 >= num2 && num1 >= num3) {
    largest = num1;
}
else if (num2 >= num1 && num2 >= num3) {
    largest = num2;
}
else {
    largest = num3;
}

// display answer
console.log("The largest number is " + largest);
```

   Output:


127.0.0.1:8080/Q1/Q1.html
127.0.0.1:8080 says
Enter first number:
5
OK
Cancel
Q1.html
wnloading proxy script...


127.0.0.1:8080/Q1/Q1.html
127.0.0.1:8080 says
Enter second number:
6
OK
Cancel
Downloading proxy script...





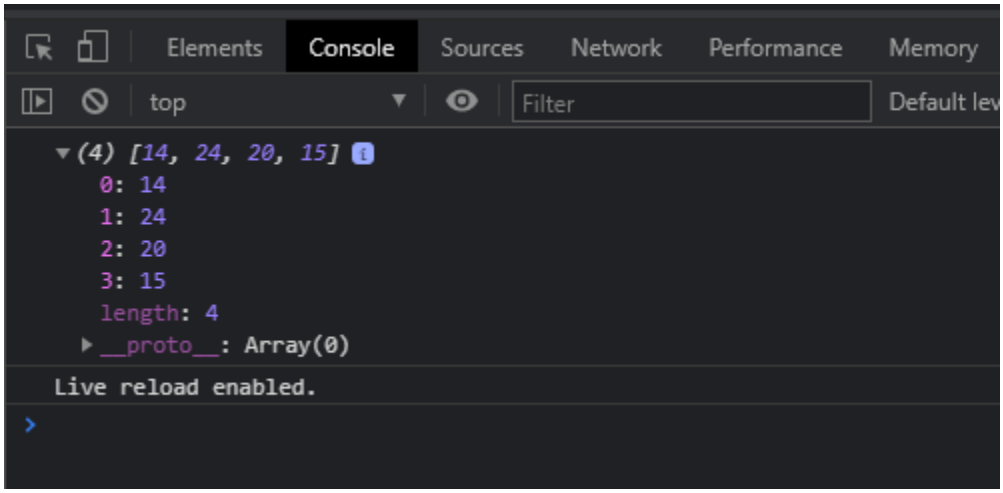
2. Complete the following function called count that takes an array of integers and the size of the array, and return the number of items in the array that is greater than 13 and less than 29.

Javascript code:

```
function NumberBetween(val, val1)
   {
```

```
    return function(evalue, index, array)
    {
    return (evalue > val && evalue < val1);
    };
  }
var result = [14, 24, 4, 20, 29, 15].filter(NumberBetween(13, 29));
console.log(result);
```

Output:



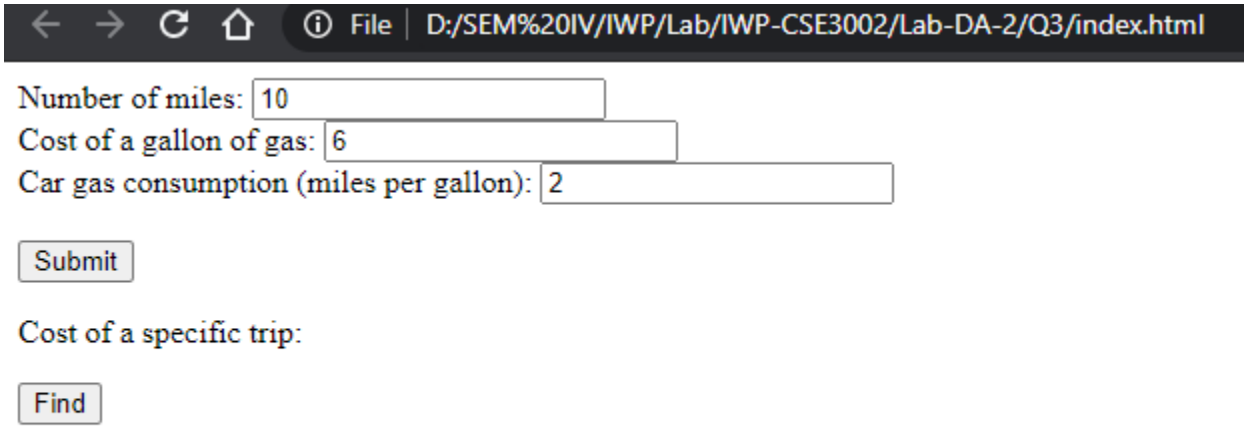
3. Write a program that reads the number of miles, cost of a gallon of gas, and car gas consumption (miles per gallon) and then determines the cost of a specific trip. The output should be displayed using document.writeln.

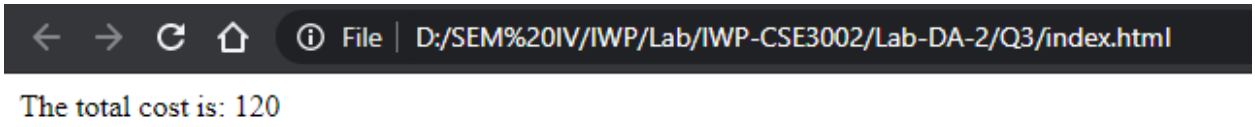
Javascript code:

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

<form id="frm1" action="/action_page.php">
  Number of miles: <input type="text" name="miles"><br>
  Cost of a gallon of gas: <input type="text" name="cost" ><br>
  Car gas consumption (miles per gallon): <input type="text"
name="consumption"><br>
  <br>
```

```
  <input type="submit" value="Submit">
</form>

<p>Cost of a specific trip: </p>

<button onclick="myFunction()">Find</button>

<script>
function myFunction() {
  var x = document.getElementById("frm1");
  var text = 1;
  var i;
  for (i = 0; i < x.length-1;i++) {
    text *= x.elements[i].value;
  }
  document.writeln("The total cost is: " );
  document.writeln(text);
}
</script>

</body>
</html>
```

Output:





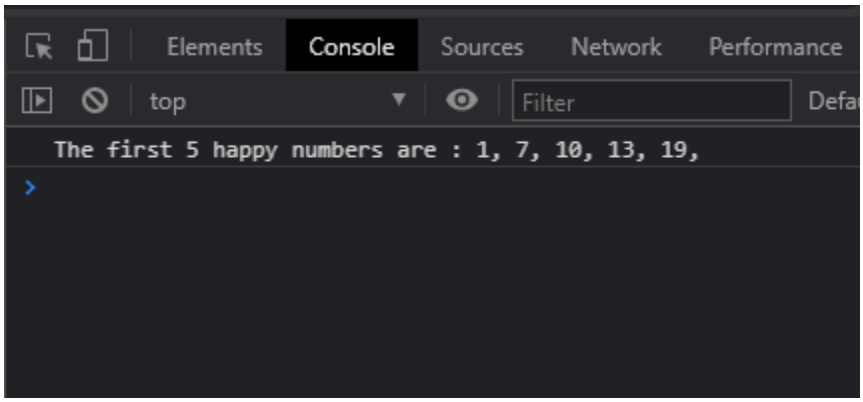
4. According to Wikipedia, a happy number is defined by the following process: "Starting with any positive integer, replace the number by the sum of the squares of its digits, and repeat the process until the number equals 1 (where it will stay), or it loops endlessly in a cycle which does not include 1. Those numbers for which this process ends in 1 are happy, while those that do not end in 1 are unhappy numbers (or sad numbers). Write a JavaScript program to find and print the first 5 happy numbers.

   Javascript code:

```
function happy_number(num)
{
    var m, n ;
    var c = [] ;

    while(num != 1 && c[num] !== true)
    {
        c[num] = true ;
        m = 0 ;
        while (num > 0) {
            n = num % 10 ;
            m += n * n ;
            num = (num  - n) / 10 ;
        }
        num = m ;
    }
    return (num == 1) ;
```

```
}

var cnt = 5;
var num = 1;
var f5 = '';
while(cnt-- > 0)
{
    while(!happy_number(num))
        num++ ;
    f5 = f5+(num + ", ") ;

    num++ ;
}

console.log("The first 5 happy numbers are : " + f5);
```

Output:



5. Develop an Online Greetings Designer using Javascript and CSS. Add options to
    a. change the image
    b. Position the image (left, background, right)
    c. Edit text
    d. Change font size
    e. Change font color

HTML Code:

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

```
  <head>
    <link rel="stylesheet" href="styles.css" />
    <script defer>
      const imgArray = [
        "images/1.jpg",
        "images/2.jpg",
        "images/3.jpg",
        "images/4.jpg",
        "images/5.jpg",
        "images/unknown.jpg",
      ];
      function changeImagePosition(position) {
        if (position == "right") {
          var gtimage = document.getElementById("gtimage");
          gtimage.style.display = "block";
          gtimage.style.float = "right";
          document.getElementById("bodybg").style.backgroundImage = null;
        } else if (position == "left") {
          var gtimage = document.getElementById("gtimage");
          gtimage.style.display = "block";
          gtimage.style.float = "left";
          document.getElementById("bodybg").style.backgroundImage = null;
        } else if (position == "bg") {
          var gtimage = document.getElementById("gtimage");
          gtimage.style.display = "none";
          var imgpaths =
imgArray[document.getElementById("img-select").value];
          document.getElementById("bodybg").style.backgroundImage =
            "url('" + imgpaths + "')";
        } else {
          var gtimage = document.getElementById("gtimage");
          gtimage.style.display = "block";
          gtimage.style.float = null;
          document.getElementById("bodybg").style.backgroundImage = null;
        }
      }
      function addText() {
        var textenter = document.getElementById("textenter").value;
        var textval = document.getElementById("textval");
        textval.innerHTML = textenter;
      }
      function addImage() {
        // var imgpaths = document.getElementById("imgpaths").value;
```

```
      // var gtimage = document.getElementById("gtimage");
      let imgSelect = document.querySelector("#img-select");
      img = imgSelect.value;
      // console.log(img);
      gtimage.setAttribute("src", imgArray[img]);
      changeImagePosition(null);
    }
    function Textcolor() {
      var textcolor = document.getElementById("textcolor").value;
      var textval = document.getElementById("textval");
      textval.style.color = textcolor;
    }
    function Textsize() {
      var textsize = document.getElementById("textsize").value;
      var textval = document.getElementById("textval");
      textval.style.fontSize = textsize + "px";
    }
  </script>
</head>
<body id="bodybg">
  <div>
    <h2>
      Image
      <!-- <input type="text" id="imgpaths" /> -->
      <select name="img-select" id="img-select">
        <option value="0">Img 1</option>
        <option value="1">Img 2</option>
        <option value="2">Img 3</option>
        <option value="3">Img 4</option>
        <option value="4">Img 5</option>
        <option value="5">Img 6</option>
      </select>
      <button class="button button1" type="text" onclick="addImage()">
        Add Image
      </button>
    </h2>
    <h2>
      Enter Text: <input type="text" id="textenter" />
      <button class="button button1" type="text" onclick="addText()">
        Add Text
      </button>
    </h2>
    <h2>
```

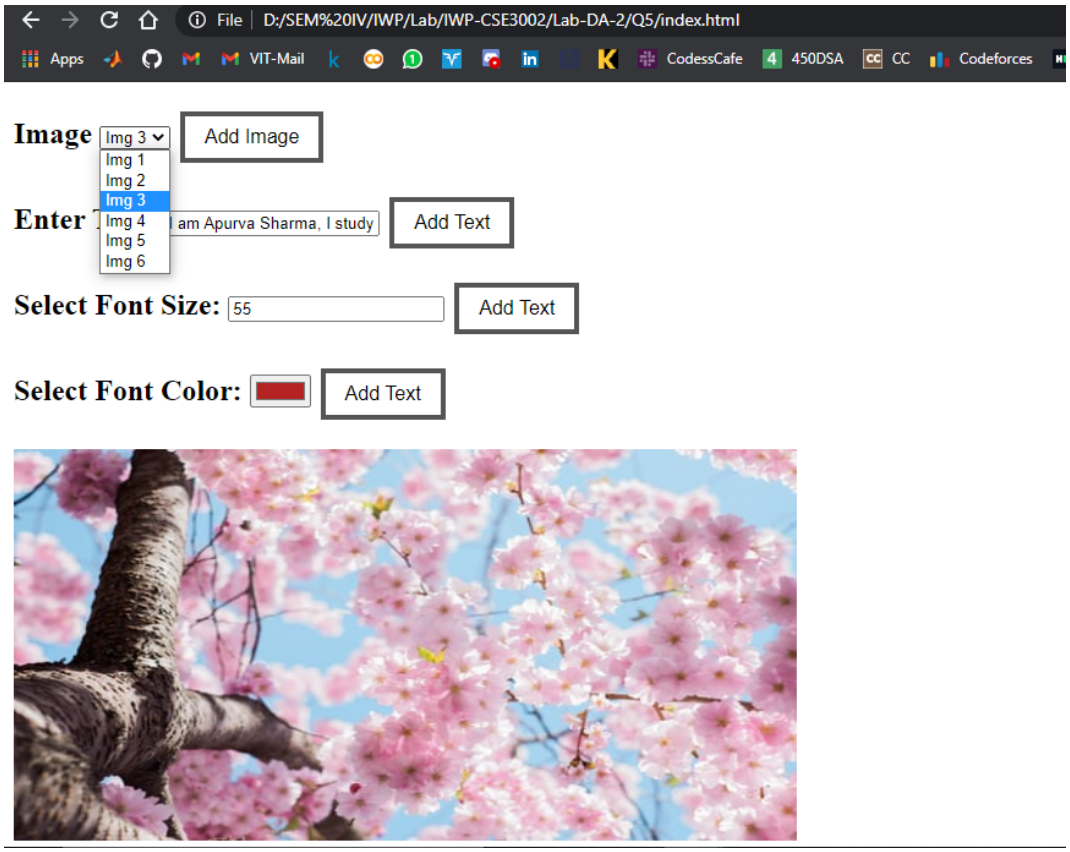
```
        Select Font Size: <input type="number" id="textsize" />
        <button class="button button1" type="text" onclick="Textsize()">
          Add Text
        </button>
      </h2>
      <h2>
        Select Font Color: <input type="color" id="textcolor" />
        <button class="button button1" type="text" onclick="Textcolor()">
          Add Text
        </button>
      </h2>
    </div>
    <div>
      <img src="images/1.jpg" id="gtimage" style="height: 20em; width: 40em"
/>
    </div>
    <div>
      <h3 id="textval" style="">This is Text.</h3>
    </div>
    <button
      class="button button1"
      type="button"
      onclick="changeImagePosition('right')"
    >
      Right Image
    </button>
    <button
      class="button button1"
      type="button"
      onclick="changeImagePosition('left')"
    >
      Left Image
    </button>
    <button
      class="button button1"
      type="button"
      onclick="changeImagePosition('bg')"
    >
      Background
    </button>
  </body>
</html>
```

CSS Code:

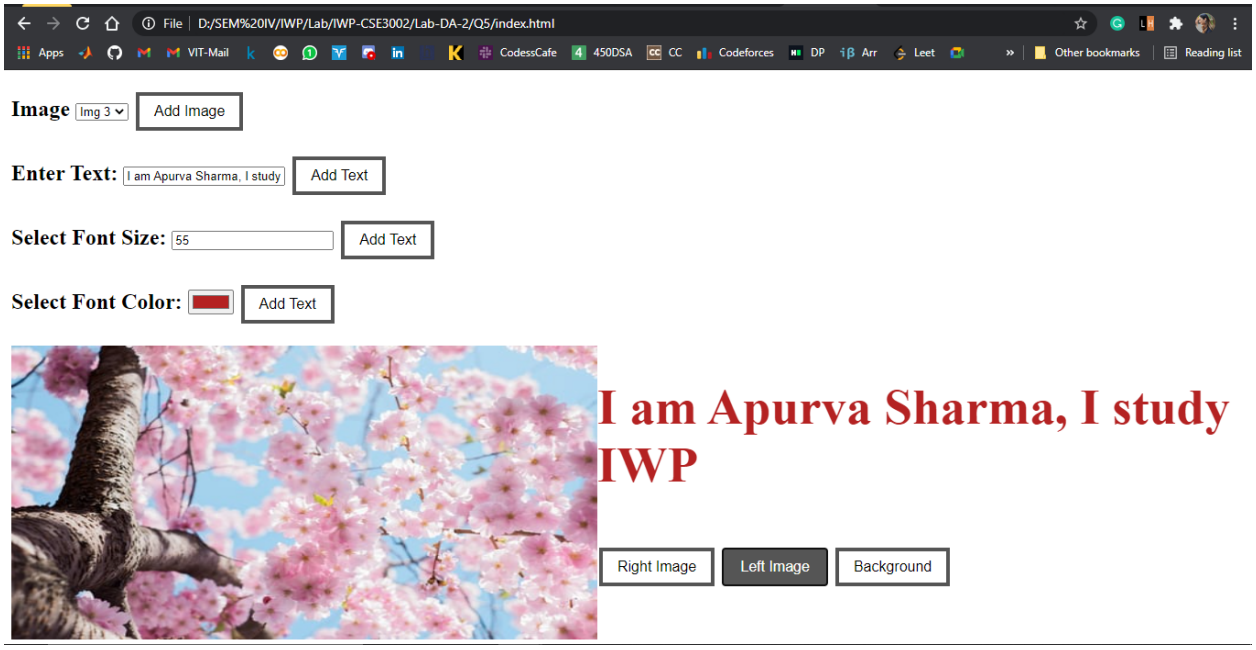
```
.button {
    background-color: #4CAF50; /* Green */
    border: none;
    color: white;
    padding: 8px 16px;
    text-align: center;
    text-decoration: none;
    display: inline-block;
    font-size: 16px;
    margin: 4px 2px;
    transition-duration: 0.4s;
    cursor: pointer;
  }

  .button1 {
    background-color: white;
    color: black;
    border: 4px solid #555555;
  }

  .button1:hover {
    background-color: #555555;
    color: white;
  }
```

OUTPUT:

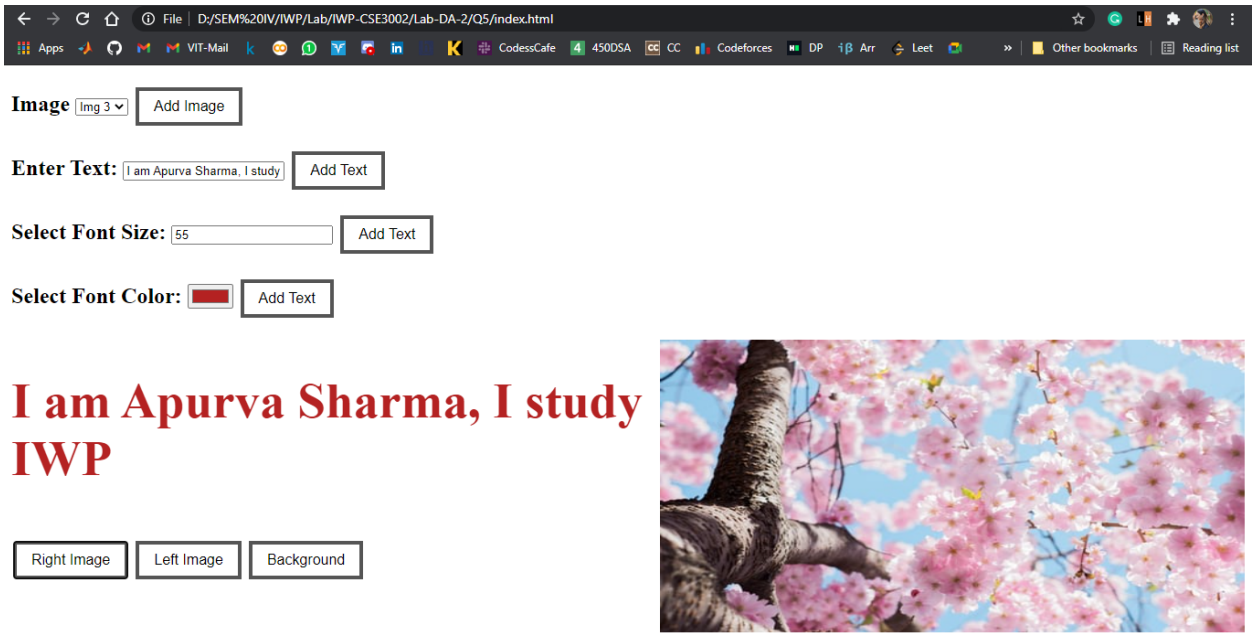
Select image, text, text size, text color.



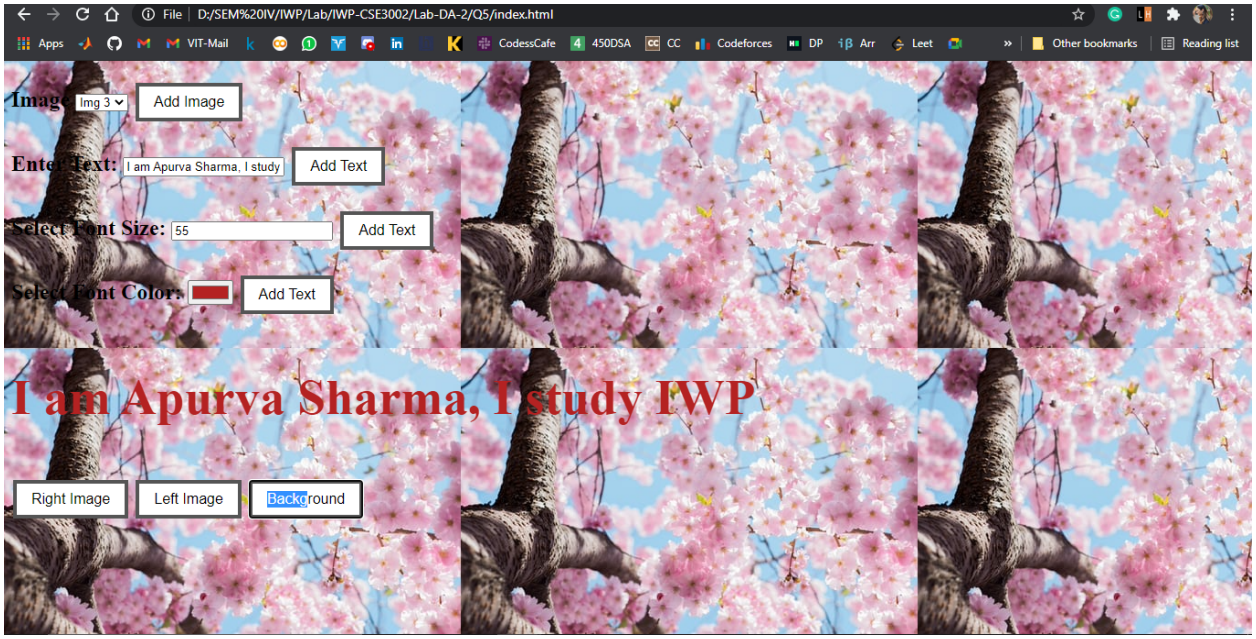
Left Align Image:



Right Align Image:



Background Align Image:



6. A parking garage charges a $2.00 minimum fee to park for up to three hours. The garage charges an additional $0.50 per hour for each hour or part thereof over three hours. The maximum charge for any given 24-hour period is $10.00. Assume that no car parks for longer than 24 hours at a time. Write a script that calculates and displays the parking charges for each customer who parked a car in this garage yesterday. You should input from the user the hours parked for each customer. The program should display the charge for the current customer and should calculate and display the running total of yesterday's receipts. The program should use the function calculate-Charges to determine the charge for each customer. Use a text input field to obtain the input from the user.

   HTML Code:

```
<html>
  <head>
    <title>Parking garage charges</title>
    <style>
      .body{
        position: relative;
      }
      .form{
        font-size: 4em;
        font-family: Cambria, Cochin, Georgia, Times, 'Times New
Roman', serif;
      }
      .button {
        background-color: #4caf50; /* Green */
        border: none;
        color: white;
        padding: 10px 20px;
        text-align: center;
        text-decoration: none;
        display: inline-block;
        font-size: 15px;
        margin: 4px 2px;
        transition-duration: 0.4s;
        cursor: pointer;
      }
```

```
      .button5 {
        background-color: white;
        color: black;
        border: 5px solid #555555;
      }

      .button5:hover {
        background-color: #555555;
        color: white;
      }
      #p1 {
        font-family: Cambria, Cochin, Georgia, Times, 'Times New
Roman', serif;
        font-size: 2em;
      }
    </style>
    <meta charset="utf-8" />
    <script type="text/javascript">
      var total = 0;
      function calculate_charges(form) {
        var hour = form.hours.value;
        var charges = 2;
        if (hour <= 24 && hour > 3) {
          hour = hour - 3;
          hour *= 0.5;
          charges += hour;
          total += charges;
          document.getElementById("p1").innerHTML =
            "Charges is " + charges + "\n" + "Total Collection is: " +
total;
        } else {
          total += charges;
          document.getElementById("p1").innerHTML =
            "Charges is: " + charges + "\n" + "Total Collection is: " +
total;
        }
      }
    </script>
  </head>

  <body>
    <form style="font-size: 2em;">
      <br>
```

```
      Number of hours:<br><input type="number" name="hours" />
      <br>
      <input
        class="button button5"
        type="button"
        value="Calculate"
        onclick="calculate_charges(this.form);"
      />
      <p id="p1"></p>
    </form>
  </body>
</html>
```

Output:

Number of hours:

Calculate

Number of hours:

24

Calculate

7. Develop a word decoder challenge game using HTML, CSS, and JavaScript. Present the player with a set of scrambled words & hints and challenge him to unscramble them. For each attempt randomly select a word, refresh the browser window dynamically and display the scrambled word in red. Once the player thinks the word has been properly decoded, he clicks on the Check Answer button to see the results. If the answer is correct, the player is notified via a success message displayed in a popup dialog window or displays a failure message.
   Code:

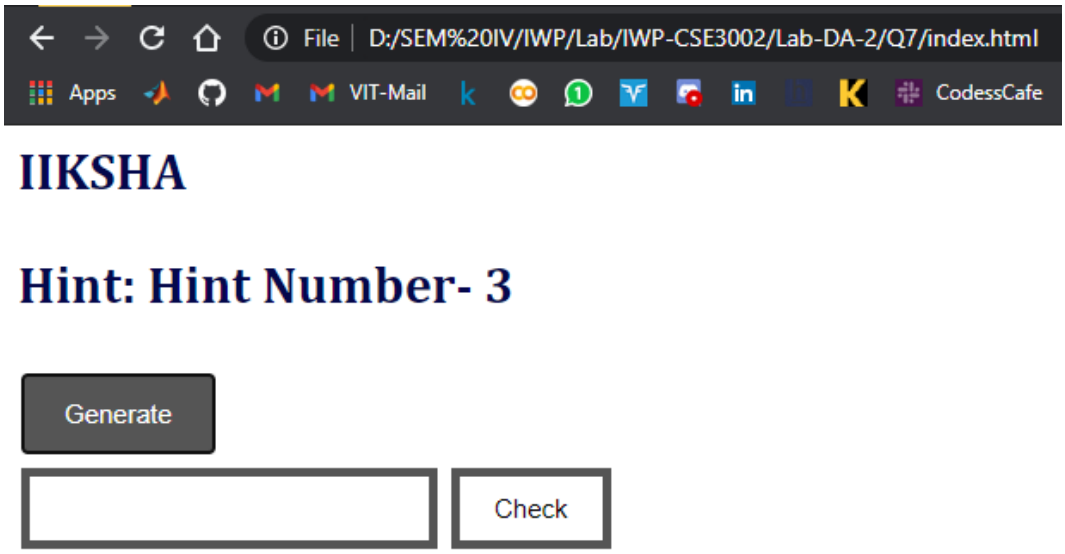
```
<html>

<head>
    <style>
        .body{
        position: relative;
        padding-left: 100px;
      }
      .form{
        font-size: 4em;
        font-family: Cambria, Cochin, Georgia, Times, 'Times New
Roman', serif;
      }
      .button {
        background-color: #4caf50; /* Green */
        border: none;
        color: white;
        padding: 10px 20px;
        text-align: center;
        text-decoration: none;
```

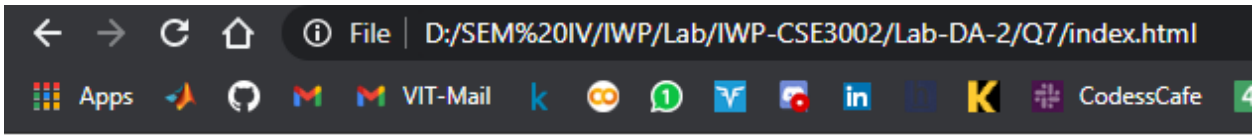
```
        display: inline-block;
        font-size: 15px;
        margin: 4px 2px;
        transition-duration: 0.4s;
        cursor: pointer;
      }
      .button5 {
        background-color: white;
        color: black;
        border: 5px solid #555555;
      }

      .button5:hover {
        background-color: #555555;
        color: white;
      }
      #p1, #p2 {
        color: rgb(4, 8, 75);
        font-size: 30px;
        font-family: Cambria, Cochin, Georgia, Times, 'Times New
Roman', serif;
        border: #4caf50 2em;
        font-weight: bolder;
      }
    </style>
    <script type="text/javascript">
        var i;
        var check = ["APURVA", "SHARMA", "ISHIKA"];
        var dis = ["AARPVU", "SAAHRM", "IIKSHA"];
        function generate() {
          i = parseInt(Math.random() * (3 - 0) + 0);
          document.getElementById("p1").innerHTML = dis[i];
          document.getElementById("p2").innerHTML = "Hint: Hint Number-
" + (i + 1);
        }
        function checks(form) {
          var val = form.ans.value;
          if (val.toUpperCase().localeCompare(check[i]) === 0)
alert("Correct!");
          else alert("Incorrect!");
        }
      </script>
    </head>
```

```
    <body>
      <p id="p1"></p>
      <p id="p2"></p>
      <input class="button button5" type="button" value="Generate"
onclick="generate();" />
      <form>
        <input class="button button5" type="text" name="ans" />
        <input class="button button5" type="button" value="Check"
onclick="checks(this.form);" />
      </form>
    </body>
   </html>
```

Output:

i)





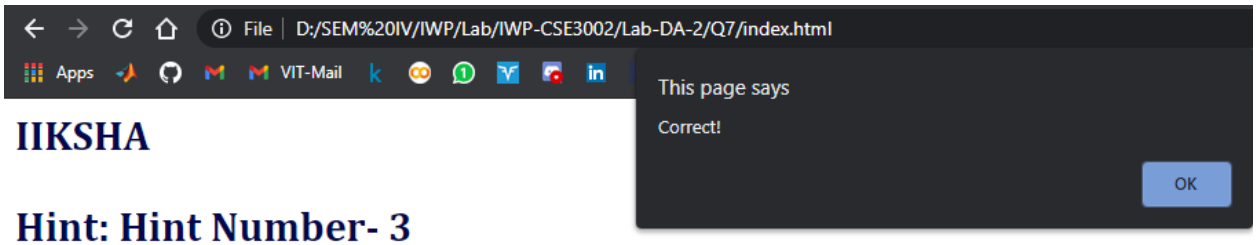
IIKSHA

Hint: Hint Number- 3

Generate

ISHIKA

Check



IIKSHA

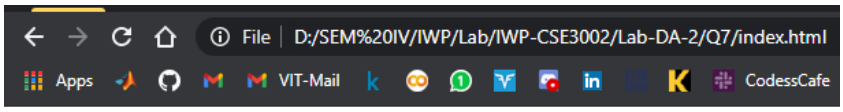
Hint: Hint Number- 3

Generate

ISHIKA

Check

ii)



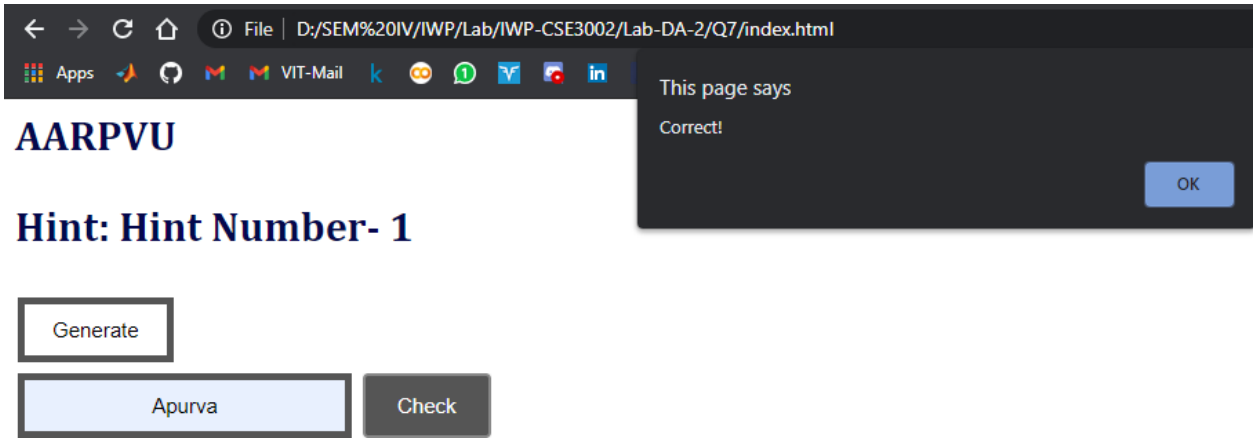
AARPVU

Hint: Hint Number- 1

Generate

Apurva

Check



8. Develop a JavaScript program that will determine whether a department-store customer has exceeded the credit limit on a charge account. For each customer, the following facts are available:
    i) Account number
    ii) Balance at the beginning of the month
    iii) Total of all items charged by this customer this month
    iv) Total of all credits applied to this customer's account this month
    v) Allowed credit limit

    The program should input each of these facts from a prompt dialog as an integer, calculate the new balance (= beginning balance + charges – credits), display the new balance, and determine whether the new balance exceeds the customer's credit limit. For customers whose credit limit is exceeded, the program should output HTML text that displays the message “Credit limit exceeded.”

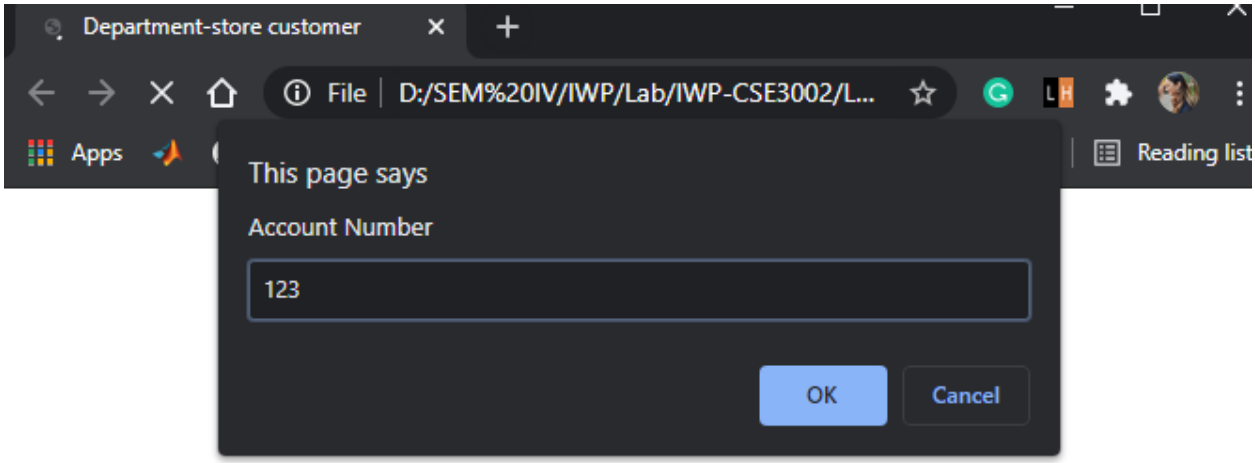
Account number: 123
Credit limit: 2500
Beginning balance: 1200
Total Expenditures: 200
Total Credit Payments: 300
New Balance: 1100

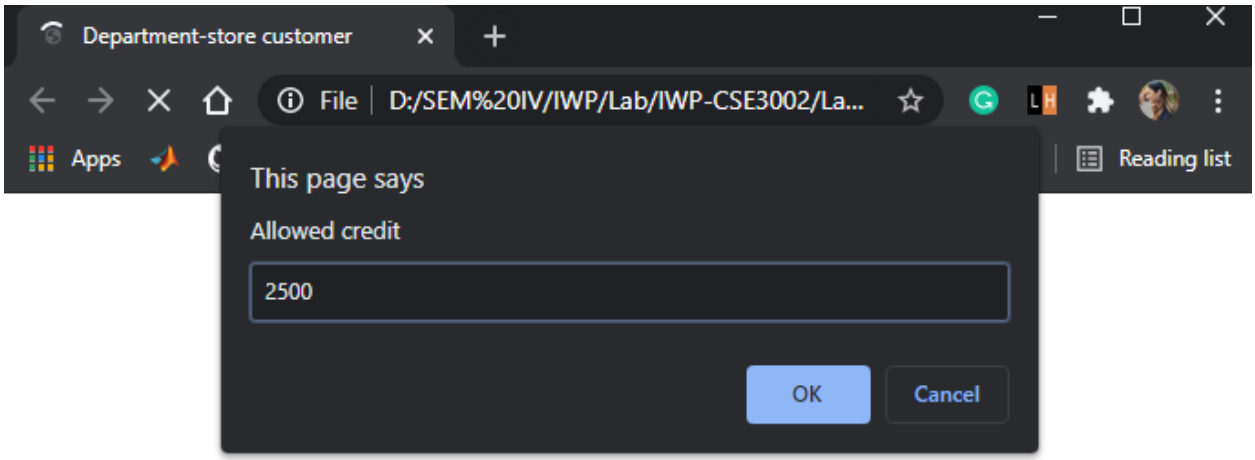
Account number: 124
Credit limit: 500
Beginning balance: 300
Total Expenditures: 200
Total Credit Payments: 150
New Balance: 350

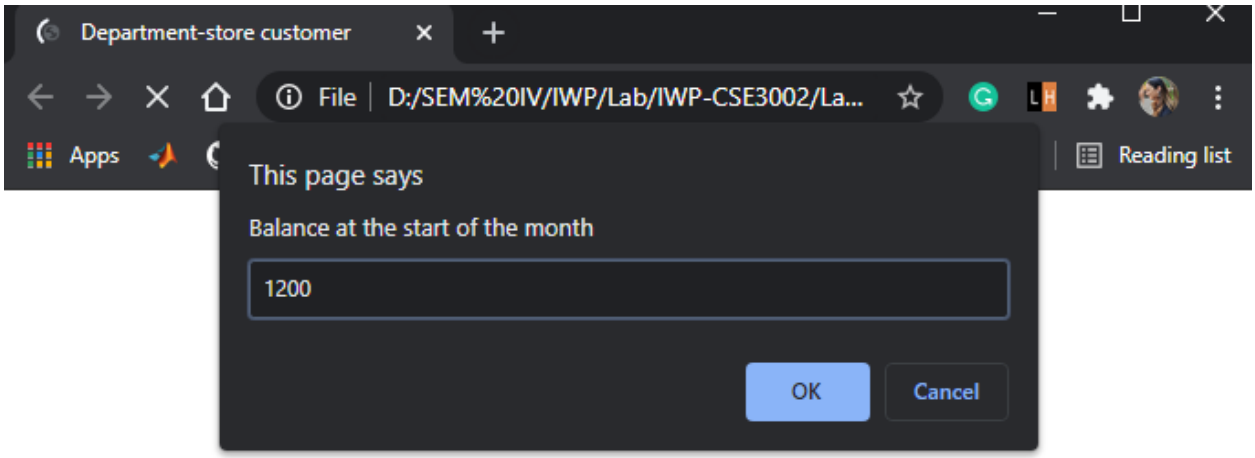
CODE:

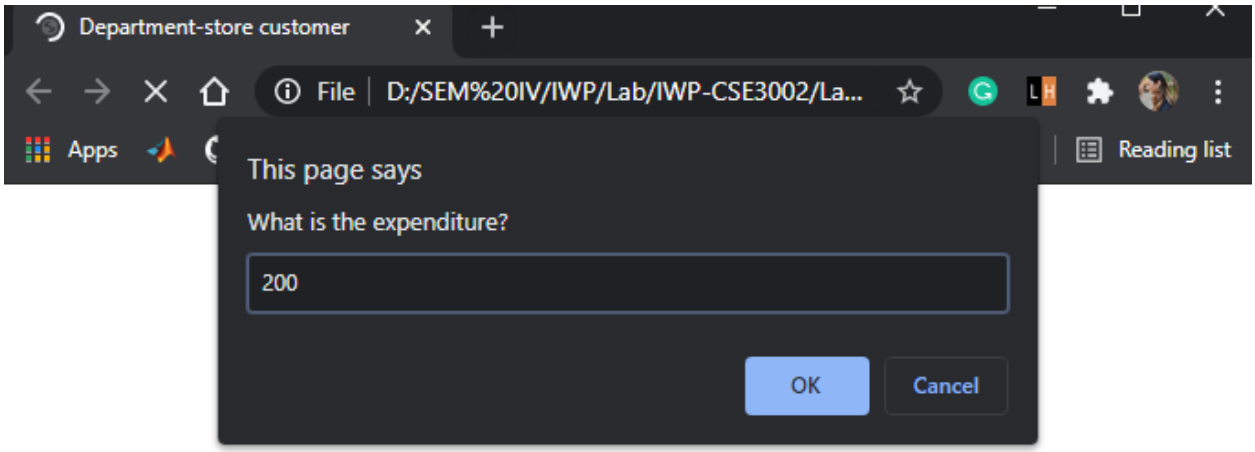
```
<html>
  <head>
    <title>Department-store customer</title>
  </head>

  <body
    style="
      font-size: 2em;
      font-family: Cambria, Cochin, Georgia, Times, 'Times New Roman',
serif;
      font-weight: 100;
      color: rgb(0, 0, 3);
    "
  >
    <h1
      style="
        font-family: Cambria, Cochin, Georgia, Times, 'Times New
Roman', serif;
        font-weight: 100;
        color: rgb(0, 0, 2);
      "
    >
      Enter the details in prompt
    </h1>
    Account Number:-<span id="acc"></span><br />
    Credit Limit:-<span id="credit"></span><br />
    Begining Balance:-<span id="bal"></span><br />
    Total Expenditure:-<span id="exp"></span><br />
    Total Credit Payment:-<span id="pay"></span><br />
    New Balance:-<span id="new"></span><br />
    <script>
      var acc = prompt("Account Number");
      var Credit = parseInt(prompt("Allowed credit"));
      var beg_bal = parseInt(prompt("Balance at the start of the
month"));
      var exp = parseInt(prompt("What is the expenditure?"));
      var cred_pay = parseInt(prompt("what is credit payment?"));
      var new_bal = beg_bal + exp - cred_pay;
      if (new_bal > Credit) {
        document.getElementById("acc").innerHTML = acc;
        document.getElementById("credit").innerHTML = Credit;
        document.getElementById("bal").innerHTML = beg_bal;
```

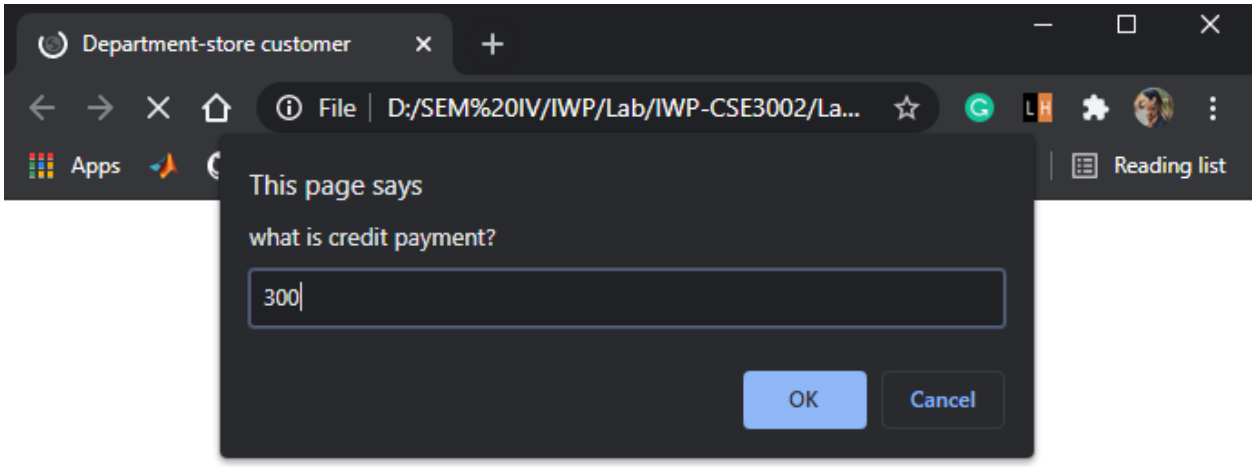
```
        document.getElementById("exp").innerHTML = exp;
        document.getElementById("pay").innerHTML = cred_pay;
        document.getElementById("new").innerHTML = "Credit Limit
Exceed";
      } else {
        document.getElementById("acc").innerHTML = acc;
        document.getElementById("credit").innerHTML = Credit;
        document.getElementById("bal").innerHTML = beg_bal;
        document.getElementById("exp").innerHTML = exp;
        document.getElementById("pay").innerHTML = cred_pay;
        document.getElementById("new").innerHTML = new_bal;
      }
    </script>
  </body>
</html>
```

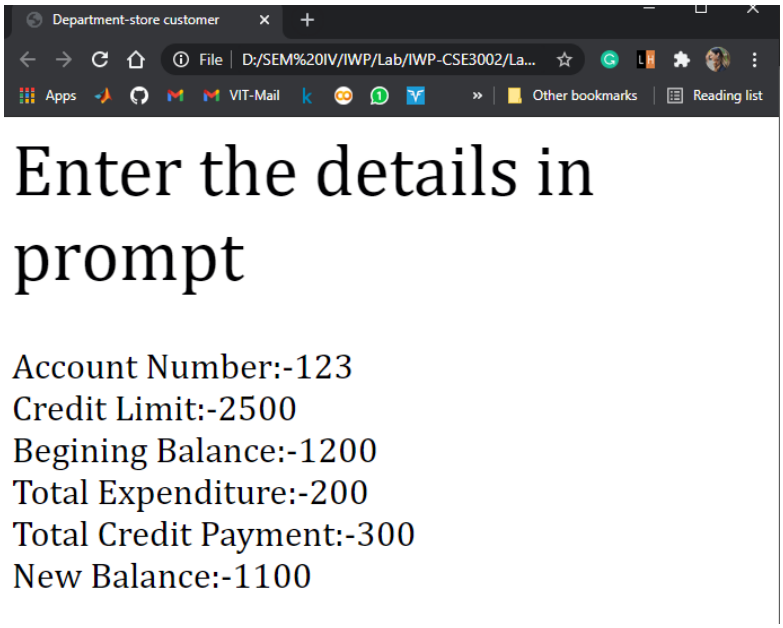



Department-store customer
File | D:/SEM%20IV/IWP/Lab/IWP-CSE3002/La...
Apps
Reading list
This page says
Allowed credit
2500
OK
Cancel


Department-store customer
File | D:/SEM%20IV/IWP/Lab/IWP-CSE3002/La...
Apps
Reading list
This page says
Balance at the start of the month
1200
OK
Cancel


Department-store customer
File | D:/SEM%20IV/IWP/Lab/IWP-CSE3002/La...
Apps
Reading list
This page says
What is the expenditure?
200
OK
Cancel





9. Implement an online quiz application. The timer is set for each question. If the timer elapses the next question is automatically displayed. Going back to the previous question is disabled and going to the next question before time should also be possible. The app should display the results of the user at the end of the quiz.

index.html:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Quiz App</title>
    <link rel="stylesheet" href="./style.css" />
  </head>
  <body>
    <h2 id="hometext">Quiz Game by Apurva Sharma</h2>
    <button class="button button5" id="strt" onclick="start()">
      Start Quiz
    </button>
    <div class="timers">
      <span class="clock" id="cdtimer"></span>
    </div>

    <div id="qs" class="question">
      <p id="ques">Question here:</p>
      <form action="#">
        <input type="radio" id="oa" name="sel" value="IWP" />
        <label for="oa">IWP</label><br />
        <input type="radio" id="ob" name="sel" value="Vijayarani A" />
        <label for="ob">Vijayarani A</label><br />
        <input type="radio" id="oc" name="sel" value="Programming
language" />
        <label for="oc">Programming language</label><br />
        <input type="radio" id="od" name="sel" value="Cascading Style
Sheet" />
        <label for="od">Cascading Style Sheet</label><br /><br />
      </form>
      <button class="button button5" onclick="goToNext()">Next</button>
    </div>

    <div class="res" id="result">
      <p id="scr"></p>
    </div>

    <script>
      var questions = [
        "What is the subject?",
        "Who is IWP professor?",
        "What is Javascript?",
        "What is fullform of CSS?",
      ];
```

```
var answer = [
  "IWP",
  "Vijayarani A",
  "Programming language",
  "Cascading Style Sheet",
];
var count = 0;
var score = 0;
var x;

function goToNext() {
  var ele = document.getElementsByName("sel");
  var i;

  for (i = 0; i < ele.length; i++) {
    if (ele[i].checked) {
      if (ele[i].value == answer[count - 1]) {
        score++;
      }
    }
  }

  clearInterval(x);
  console.log(count);
  if (count == 4) {
    var elem = document.getElementById("qs");
    elem.parentNode.removeChild(elem);
    elem = document.getElementById("cdtimer");
    elem.parentNode.removeChild(elem);
    var txt = "Your Final Score is: " + score;

    document.getElementById("result").style.display = "block";
    document.getElementById("result").innerHTML = txt;
  }
  start();
}

function start() {
  document.getElementById("strt").style.display = "none";
  document.getElementById("hometext").style.display = "none";
  document.getElementById("qs").style.display = "block";

  document.getElementById("ques").innerHTML = questions[count];
```

```
        count++;

        var countDownDate = new Date().getTime() + 30800;

        x = setInterval(function () {
          var now = new Date().getTime();

          var distance = countDownDate - now;

          var minutes = Math.floor((distance % (1000 * 60 * 60)) /
(1000 * 60));
          var seconds = Math.floor((distance % (1000 * 60)) / 1000);

          document.getElementById("cdtimer").innerHTML =
            minutes + "m " + seconds + "s ";

          // If the count down is over, write some text
          if (distance < 0) {
            clearInterval(x);
            goToNext();
          }
        }, 1000);
      }

    </script>
  </body>
</html>
```

style.css:

```
.question{
    font-family: Cambria, Cochin, Georgia, Times, 'Times New Roman',
serif;
    font-weight: 100;
    font-size: 2em;

}
#ques{
```

```
    font-family: Cambria, Cochin, Georgia, Times, 'Times New Roman',
serif;
    font-weight: 100;
    display: flex;
}
.button {
    background-color: #4caf50; /* Green */
    border: none;
    color: white;
    padding: 10px 20px;
    text-align: center;
    text-decoration: none;
    display: inline-block;
    font-size: 15px;
    margin: 4px 2px;
    transition-duration: 0.4s;
    cursor: pointer;
  }
  .button5 {
    background-color: white;
    color: black;
    border: 5px solid #555555;
  }

  .button5:hover {
    background-color: #555555;
    color: white;
  }

.clock {
      position:relative;
      font-family:monaco,consolas,"courier new",monospace;
      font-size:3.5rem;
      line-height:1.375;
}
```

OUTPUT:

Quiz Game by Apurva Sharma

Start Quiz

Question here:

- IWP
- Vijayarani A
- Programming language
- Cascading Style Sheet

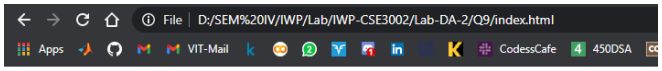
Next

0m 27s

Who is IWP professor?

- IWP
- Vijayarani A
- Programming language
- Cascading Style Sheet

Next



0m 26s

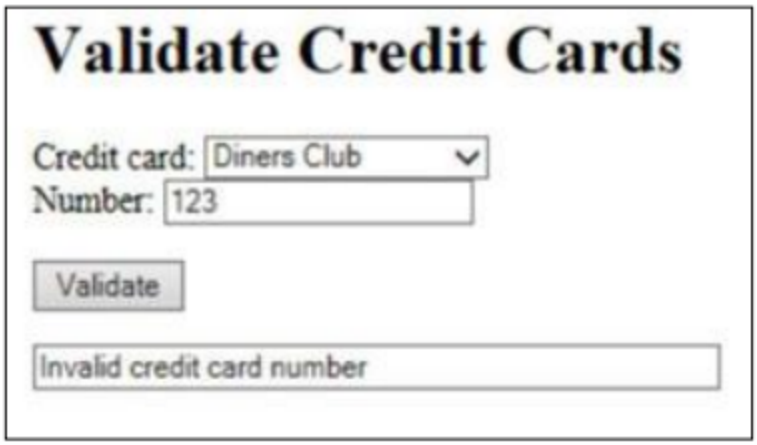
What is Javascript?

- IWP
- Vijayarani A
- Programming language
- Cascading Style Sheet

Next

Your Final Score is: 4

10. Create a script that uses regular expressions to validate credit card numbers. Major credit card numbers must be in the following formats:
    - American Express—Numbers start with 34 or 37 and consist of 15 digits.
    - Diners Club—Numbers begin with 300 through 305, or 36 and 38, and consist of 14 digits.
    - Discover—Numbers begin with 6011 or 65 and consist of 16 digits.
    - JCB—Numbers beginning with 2131 or 1800 consist of 15 digits, while numbers beginning with 35 consist of 16 digits.
    - MasterCard—Numbers start with the numbers 51 through 55 and consist of 16 digits.
    - Visa—Numbers start with a 4; new cards consist of 16 digits and old cards consist of 13 digits.



Javascript code:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
    <title>Q10</title>
  </head>
  <body>
    <div
      style="
        display: inline-block;
        box-sizing: border-box;
        border: 1px solid black;
        padding: 12px;
      "
    >
      <h1>Validate Credit Cards</h1>
      <div class="fc">
        <label for="card-name">Credit Card</label>
        <select name="card-name" id="card-name">
          <option value="amex">American Express</option>
          <option value="dinersclub">Diners Club</option>
          <option value="discover">Discover</option>
          <option value="jcb">JCB</option>
          <option value="mastercard">MasterCard</option>
          <option value="visa">Visa</option>
```

```
      </select>
    </div>
    <div class="fc">
      <label for="card-number">Number</label>
      <input
        name="card-number"
        type="tel"
        inputmode="numeric"
        pattern="[0-9\s]{13,19}"
        autocomplete="cc-number"
        maxlength="19"
        placeholder="xxxx xxxx xxxx xxxx"
        id="card-number"
      />
    </div>
    <button onclick="validate()">Validate</button>
    <div
      id="res"
      style="
        box-sizing: border-box;
        border: 1px solid black;
        padding: 2px;
        margin-top: 4px;
      "
    >
      Validate Credit Card Number
    </div>
  </div>
</body>
<script>
  let cardName = document.getElementById("card-name");
  let cardNumber = document.getElementById("card-number");
  let res = document.getElementById("res");

  let validate = () => {
    selectedCardName = cardName.value;
    enteredCardNumber = cardNumber.value;

    console.log(selectedCardName, enteredCardNumber);

    switch (selectedCardName) {
      case "amex":
        if (
```

```
    enteredCardNumber.length == 15 &&
    /^3[47]{1}/.test(enteredCardNumber)
  ) {
    res.innerHTML = "Valid Card";
  } else {
    res.innerHTML = "Invalid Card";
  }
  break;

case "dinersclub":
  if (
    enteredCardNumber.length == 16 &&
    (/^30[0-5]{1}/.test(enteredCardNumber) ||
      /^3[68]{1}/.test(enteredCardNumber))
  ) {
    res.innerHTML = "Valid Card";
  } else {
    res.innerHTML = "Invalid Card";
  }
  break;

case "discover":
  if (
    enteredCardNumber.length == 16 &&
    /^6(011|5){1}/.test(enteredCardNumber)
  ) {
    res.innerHTML = "Valid Card";
  } else {
    res.innerHTML = "Invalid Card";
  }
  break;
case "jcb":
  if (
    (enteredCardNumber.length == 15 &&
      /^(2311|1800){1}/.test(enteredCardNumber)) ||
    (enteredCardNumber.length == 16 &&
      /^[35]{1}/.test(enteredCardNumber))
  ) {
    res.innerHTML = "Valid Card";
  } else {
    res.innerHTML = "Invalid Card";
  }
  break;
```

```
            case "mastercard":
              if (
                enteredCardNumber.length == 16 &&
                /^5[1-5]{1}/.test(enteredCardNumber)
              ) {
                res.innerHTML = "Valid Card";
              } else {
                res.innerHTML = "Invalid Card";
              }
              break;

            case "visa":
              if (
                /^4{1}/.test(enteredCardNumber) &&
                (enteredCardNumber.length == 13 || enteredCardNumber.length
    == 15)
              ) {
                res.innerHTML = "Valid Card";
              } else {
                res.innerHTML = "Invalid Card";
              }
              break;
          }
        };
      </script>
    </html>
```

OUTPUT:

11. Design a HTML form to collect the following from user:
    a. User Name which starts with capital letter followed by lower case alphabets then space, initial with uppercase and a dot(.). Some persons may have multiple names with one initial.
    b. Email id comprises username (combination of lowercase alphabets, numbers and underscore(_)), symbol - @, domain name, dot(.), domain extension. Domain extension may be multiple.
    c. Mobile number
    d. Age between 18 and 60 Apply DOM model validation to get proper data and indicate the user to provide valid data

HTML Code:

```
<!DOCTYPE html>
<html>

<head>
    <meta charset="utf-8">
    <title>Question 11</title>
    <style>
        body {
            margin: 0;
            padding: 0;
            font-family: Arial;
```

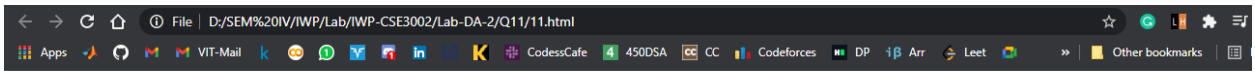
```
}

.center {
    position: absolute;
    top: 50%;
    left: 50%;
    transform: translate(-50%, -50%);
    background-color: white;
    border-radius: 10px;
    width: 400px;
}

.button { /* Green */
    border: none;
    padding: 10px 20px;
    text-align: center;
    text-decoration: none;
    display: inline-block;
    font-size: 15px;
    transition-duration: 0.4s;
    cursor: pointer;
    width: 100%;
    height: 50px;
    border: 2 px solid;
    border-radius: 10px;
    color: #bd085c;
    font-weight: 700;
    outline: none;
    margin-bottom: 5px;
}
.button5 {
    background-color: rgb(236, 200, 228);
    color: black;
    border: 5px solid #977e92;
}

.button5:hover {
    background-color: #977e92;
    color: white;
}
.center form {
    padding: 0 20px;
    box-sizing: border-box;
```

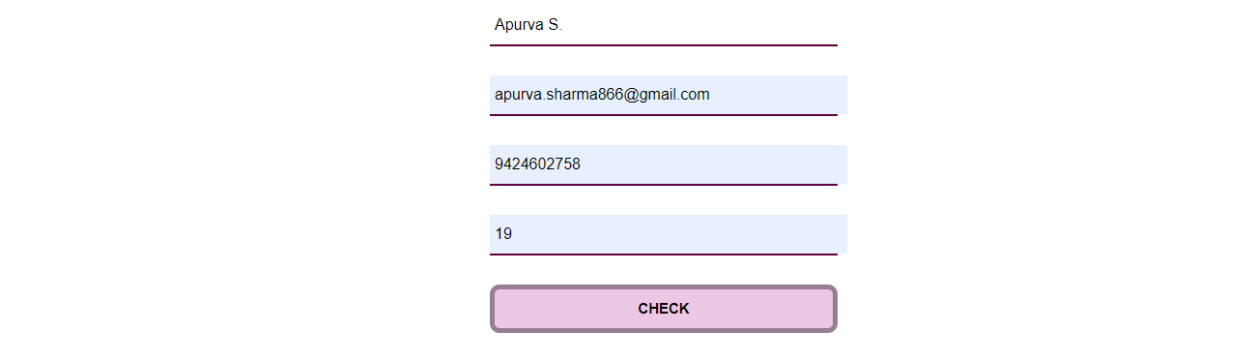
```
        }


        form .txt_field {
            position: relative;
            border-bottom: 2px solid #5f0140;
            margin: 30px 0;
        }

        .txt_field input {
            width: 100%;
            padding: 0 5px;
            height: 40px;
            font-size: 16px;
            border: none;
            background: none;
            outline: none;
        }

        p {
            color:red;
            font-weight: 100;
            font-family: Cambria, Cochin, Georgia, Times, 'Times New
Roman', serif;
            font-size: medium;
        }
        p .op {
            transition: all 0.9s ease-in-out;
        }
        #op0 {
            color: green;
        }
    </style>
</head>

<body>
    <div class="center">
        <form method="post">
            <div class="txt_field">
                <input type="text" placeholder="Name" id="name"
pattern="^[A-Z][a-z]+\s[A-Z].$" required>
                <span></span>
            </div>
```

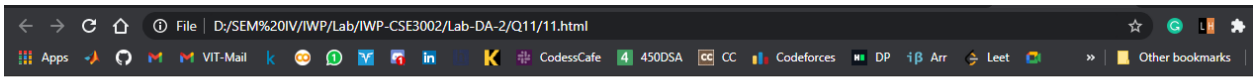
```
            <div class="txt_field">
                <input type="text" placeholder="Email" id="email"
required>
                <span></span>
            </div>
            <div class="txt_field">
                <input type="tel" placeholder="Contact" id="contact"
required>
                <span></span>
            </div>
            <div class="txt_field">
                <input type="text" placeholder="Age" id="age" min="18"
max="60" required>
                <span></span>
            </div>
            <button class="button button5" type="button"
onclick="check()" id="btn">CHECK</button>
        </form>
        <p class="op" id="op0"></p>
        <p class="op" id="op1"></p>
        <p class="op" id="op2"></p>
        <p class="op" id="op3"></p>
        <p class="op" id="op4"></p>
    </div>



    <script>
        function check() {
            var count = 0;
            var namePatt = new RegExp(/^[A-Z][a-z]+\s[A-Z].$/gm);
            var emailPatt = new
RegExp(/^[a-z0-9\._]+@[a-z]+(\.[a-z]+)+$/gm);
            var mobilePatt = new RegExp(/^[7-9]{1}[0-9]{9}$/gm);

            var ip_name = document.getElementById("name").value;
            var ip_email = document.getElementById("email").value;
            var ip_mobile = document.getElementById("contact").value;
            var ip_age = document.getElementById("age").value;


            var res1 = namePatt.test(ip_name);
            var res2 = emailPatt.test(ip_email);
```

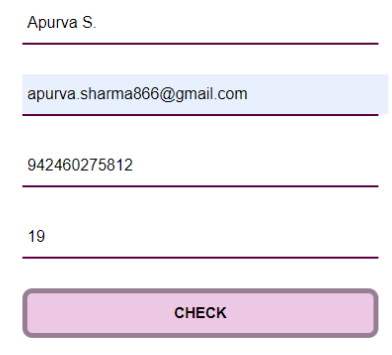
```
            var res3 = mobilePatt.test(ip_mobile);

            if (res1 == false) {
                document.getElementById("op1").innerHTML = "Enter valid
name";
                count += 1;
            }

            if (res2 == false) {
                document.getElementById("op2").innerHTML = "Enter valid
email";
                count += 1;
            }

            if (res3 == false) {
                document.getElementById("op3").innerHTML = "Enter valid
contact no.";
                count += 1;

            }

            if (ip_age < 18 || ip_age > 60) {
                document.getElementById("op4").innerHTML = "Invalid age
entered";
                count += 1;
            }

            if (count == 0) {
                document.getElementById("op1").innerHTML = "";
                document.getElementById("op2").innerHTML = "";
                document.getElementById("op3").innerHTML = "";
                document.getElementById("op4").innerHTML = "";
                document.getElementById("op0").innerHTML = "VALID
INFORMATION ENTERED";

            }
            if (count != 0) {
                setInterval(function () {
                    document.getElementById("op1").innerHTML = "";
                    document.getElementById("op2").innerHTML = "";
                    document.getElementById("op3").innerHTML = "";
                    document.getElementById("op4").innerHTML = "";
```

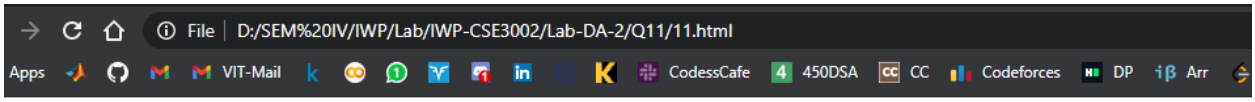
```
                }, 8000);
            }
        }


    </script>
</body>

</html>
```











Apurva S.

apurva.sharma866@gmail.com

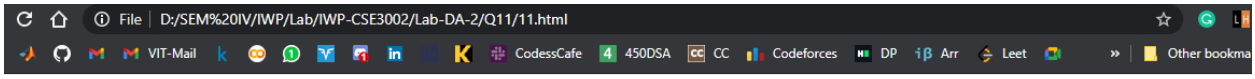
942460275812

17

CHECK

Enter valid contact no.

Invalid age entered



Apurva .

apurva.sharma866@gmail.com

942460275812

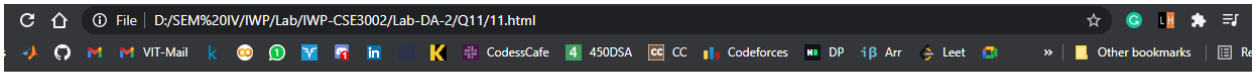
17

CHECK

Enter valid name

Enter valid contact no.

Invalid age entered



Apurva .

apurva.sharma866mail.com

942460275812

17

CHECK

Enter valid name

Enter valid email

Enter valid contact no.

Invalid age entered