

1. Design front static page for department:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-

scale=1.0">

<title>Department of Computer Science

& IT - University of Jammu</title>

<style>

@import url('https://fonts.googleapis.com/css2?family=Jaro:opsz@6..72&family=Poppins:ital,wght@0,100;0,200;0,300;0,400;0,500;0,600;0,700;0,800;0,900;1,100;1,200;1,300;1,400;1,500;1,600;1,700;1,800;1,900&display=swap');

\*{

font-family: 'Poppins',Arial, sans-serif;

margin: 0;

padding: 0 1px;

}

header {

background-color: #f4f4f4;

padding: 7px 0;

text-align: center;

border-radius: 7px;

margin-bottom: 2px;

}

header img{

width: 300px;

border-radius: 12px;

}

nav {

background-color: #f4f4f4;

padding: 16px;

text-align: center;

margin-bottom: 7px;

}

nav a {

margin: 0 20px;

text-decoration: none;

color: #6d6dd2;

font-weight: bold;

}

nav a:hover {

color: #ff6600;

border-bottom: 3px solid #ff6600;

padding-bottom: 15px;

}

nav a:active{

color: #ff6600;

border-bottom: 3px solid #ff6600;

padding-bottom: 15px;

}

h1{

text-align: center;

color: #060f12;

font-family: "Jaro",Arial, sans-serif;

}

h3{

color: #6885a7;

}

li{

margin: 2px 17px;

}

.student-details{

background-color: #f4f4f4;

text-align: center;

line-height: 1.5;

}

.syllabus-part, .semester-div {

background-color: #f4f4f4;

margin: 20px 0;

padding: 7px 30px;

max-width: auto;

}

.syllabus-part h3{

text-align: center;

}

table {

width: 100%;

border-collapse: collapse;

margin: 20px 0;

}

table,

th,

td {

border: 1px solid #ddd;

}

th,

td {

padding: 7px;

text-align: left;

}

th {

background-color: #6d6dd2;

color: white;

}

.dept-imgs img{

width: 240px;

display: block;

margin: 10px auto;

}

</style>

</head>

<body>

<header>

<img src="https://www.jammuuniversity.ac.in/sites/default/files/logo.png" alt="University Logo">

</header>

<nav>

<a href="#">HOME</a>

<a href="#">LISTS</a>

<a href="#">TABLES</a>

<a href="#">IMAGES</a>

</nav>

<main>

<h1><span>DEPARTMENT OF COMPUTER SCIENCE &IT </span></h1>

<div class="student-details">

<h3>Submitted by ⤵️ </h3>

<p>Himanshu Parihar | 30-MCA-23</p>

<p>Agrim Sharma | 16-MCA-23</p>

<p>Kapil Sadotra | 13-MCA-23</p>

<p>Atul Kohli | 11-MCA-23</p>

<p>Prabhjeet Choudhary | 20-MCA-23</p>

</div>

<div class="syllabus-part">

<h3>MCA 3<sup>RD</sup> Sem Subjects</h3>

<ul>

<li><strong>Web Technologies</strong>

<ul>

<li>HTML/CSS/XML</li>

<li>JavaScript</li>

<li>Servlets and JSP</li>

<li>ASP Controls</li>

<li>State Management in ASP</li>

</ul>

</li>

<li><strong>Machine Learning Using

Python</strong>

<ul>

<li>Introduction to Machine

Learning</li>

<li>Types of Machine Learning</li>

<li>Genetic Algorithm and Deep

Learning</li>

<li>Introduction to Python</li>

<li>Introduction to Machine Learning

using Python and Deep Learning</li>

</ul>

</li>

<li><strong>Theory of Computation and

Compiler Design</strong>

<ul>

<li>Regular Languages and

Expressions</li>

<li>Context Free Grammar</li>

<li>Turing Machines</li>

<li>Compiler Structure & Frontend</li>

<li>Errors Detection and Recovery,

Code Generation & Optimization</li>

</ul>

</li>

</ul>

</li>

</ul>

</div>

<div class="semester-div">

<h3>MCA 3rd Semester Time Table</h3>

<table>

<thead>

<tr>

<th>Day</th>

<th>10:00 AM - 11:00 AM</th>

<th>11:00 AM - 12:00 PM</th>

<th>12:00 PM - 1:00 PM</th>

<th>1:00 PM - 1:30 PM</th>

<th>1:30 PM - 2:30 PM</th>

<th>2:30 PM - 4:30 PM</th>

</tr>

</thead>

<tbody>

<tr>

<td>Monday</td>

<td>Web Technologies</td>

<td>Software Engineering</td>

<td>Theory of Computation and compiler design</td>

<td>Break</td>

<td>Machine learning using Python</td>

<td>Practical</td>

</tr>

<tr>

<td>Tuesday</td>

<td>Web Technologies</td>

<td>Software Engineering</td>

<td>Theory of Computation and

compiler design</td>

<td>Break</td>

<td>Big data analytics using R</td>

<td>Practical</td>

</tr>

<tr>

<td>Wednesday</td>

<td>Big data analytics using R</td>

<td>Theory of Computation and

compiler design</td>

<td>Software Engineering</td>

<td>Break</td>

<td>Machine learning using Python</td>

<td>Practical</td>

</tr>

<tr>

<td>Thursday</td>

<td>Web Technologies</td>

<td>Big data analytics using R</td>

<td>Theory of Computation and

compiler design</td>

<td>Break</td>

<td>Machine learning using Python</td>

<td>Practical</td>

</tr>

<tr>

<td>Friday</td>

<td>Web Technologies</td>

<td>Software Engineering</td>

<td>Machine learning using Python</td>

<td>Break</td>

<td>Big data analytics using R</td>

<td>Practical</td>

</tr>

</tbody>

</table>

<h3>Teaching/Non-Teaching Record

Table</h3>

<table>

<thead>

<tr>

<th>Faculty Name</th>

<th>Designation</th>

<th>Area of Interest</th>

</tr>

</thead>

<tbody>

<tr>

<td>Dr. Shubhnandan Singh Jamwal</td>

<td>Professor</td>

<td>Java & Web Technologies</td>

</tr>

<tr>

<td>Sh. Jasbir Singh</td>

<td>Assistant Professor</td>

<td>Theory of Computation & ADA</td>

</tr>

<tr>

<td>Sh. Anil Tickoo</td>

<td>Programmer</td>

<td>C++ & Python</td>

</tr>

<tr>

<td>Sh. Sanjay Manhas</td>

<td>Technical Staff</td>

<td>Workshop</td>

</tr>

<tr>

<td>Mr. Ajay Malgotra</td>

<td>Non-Teaching Staff</td>

<td>Department</td>

</tr>

</tbody>

</table>

</div>

<div class="dept-imgs">

<h3>Images</h3>

<img src="./studentsx1.jpg" alt="Department Picture">

</div>

</main>

</body>

</html>

1. WAP to find the greatest of threenumbers (user defined input) using ternary operators.

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

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

<title>Find Greatest Number</title>

<style>

body {

font-family: Arial, sans-serif;

text-align: center;

margin-top: 50px;

}

input, button {

margin: 10px;

padding: 10px;

font-size: 16px;

}

#output {

margin-top: 20px;

font-size: 18px;

color: green;

}

</style>

</head>

<body>

<h1>Find the Greatest Number</h1>

<label for="num1">Enter first number:</label>

<input type="number" id="num1" placeholder="First Number"><br>

<label for="num2">Enter second number:</label>

<input type="number" id="num2" placeholder="Second Number"><br>

<label for="num3">Enter third number:</label>

<input type="number" id="num3" placeholder="Third Number"><br>

<button onclick="findGreatest()">Find Greatest</button>

<div id="output"></div>

<script>

function greatest(a, b, c) {

let value = a > b && a > c ? a

: b > a && b > c ? b

: c;

return value;

}

function findGreatest() {

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

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

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

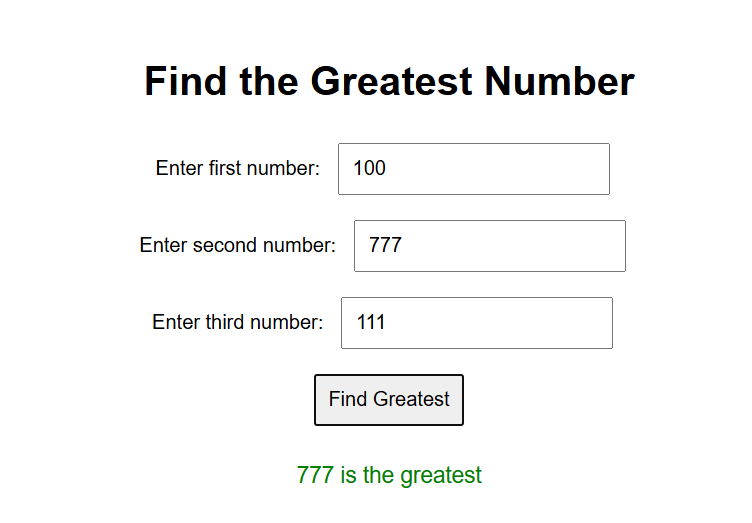
let result = greatest(num1, num2, num3);

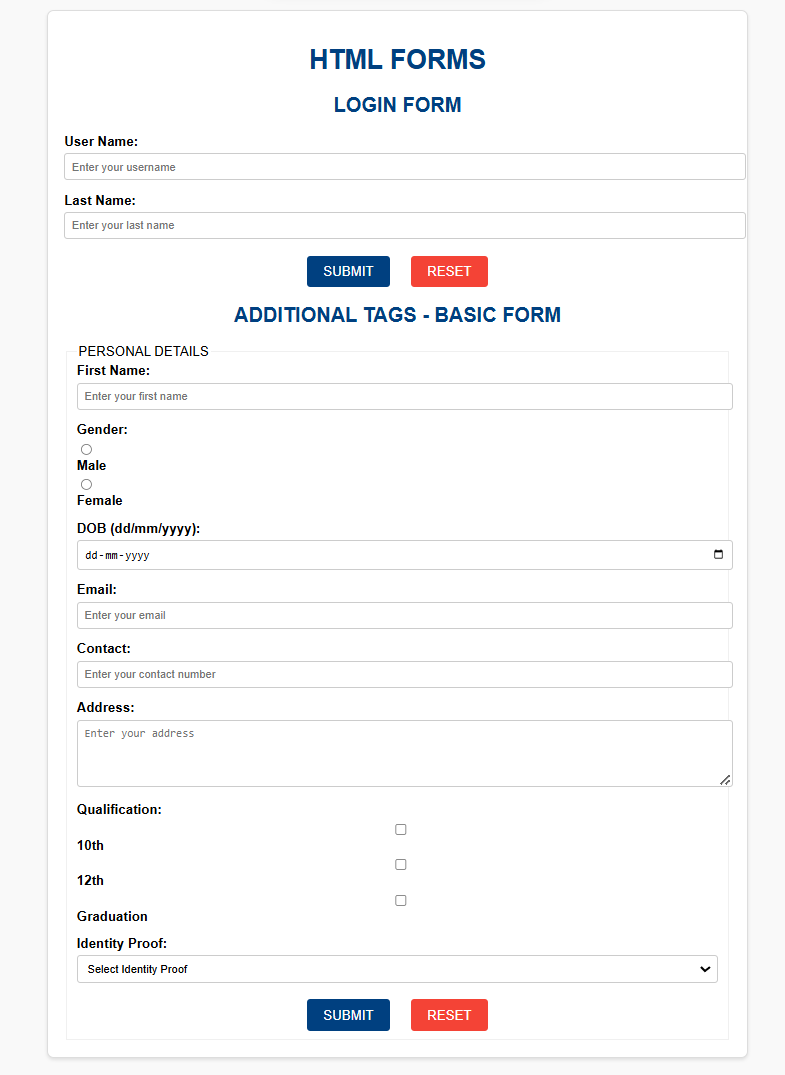
document.getElementById('output').innerText = `${result} is the greatest`;

}

</script>

</body>

</html>



1. Write HTML code to create login

form and additional tags form as

shown in the figure using the div

and required tags:

<!DOCTYPE *html*>

<html *lang***=**"en">

<head>

    <meta *charset***=**"UTF-8">

    <meta *name***=**"viewport" *content***=**"width=device-width, initial-

scale=1.0">

    <title>Practical 2</title>

    <style>

        body {

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

            margin**:** 0**;**

            padding**:** 0**;**

            background-color**:** **#f9f9f9;**

        }

*.container* {

            width**:** 90%**;**

            max-width**:** 800px**;**

            margin**:** 20px auto**;**

            padding**:** 20px**;**

            background-color**:** **#ffffff;**

            border**:** 1px solid **#ddd;**

            border-radius**:** 8px**;**

            box-shadow**:** 0 2px 4px rgba(0**,** 0**,** 0**,**

                    0.1)**;**

        }

        h1**,**

        h2 {

            text-align**:** center**;**

            color**:** **#004080;**

        }

        form {

            margin-top**:** 20px**;**

        }

*.form-group* {

            margin-bottom**:** 15px**;**

        }

*.form-group* label {

            display**:** block**;**

            margin-bottom**:** 5px**;**

            font-weight**:** bold**;**

        }

*.form-group* input**,**

*.form-group* select**,**

*.form-group* textarea {

            width**:** 100%**;**

            padding**:** 8px**;**

            border**:** 1px solid **#ccc;**

            border-radius**:** 4px**;**

        }

*.form-group* input[*type*="radio"] {

            width**:** auto**;**

        }

*.form-actions* {

            text-align**:** center**;**

            margin-top**:** 20px**;**

        }

*.form-actions* button {

            padding**:** 10px 20px**;**

            margin**:** 0 10px**;**

            border**:** none**;**

            border-radius**:** 4px**;**

            cursor**:** pointer**;**

            font-size**:** 16px**;**

        }

*.form-actions* button*.submit* {

            background-color**:** **#004080;**

            color**:** white**;**

        }

*.form-actions* button*.reset* {

            background-color**:** **#f44336;**

            color**:** white**;**

        }

    </style>

</head>

<body>

    <div *class***=**"container">

        <h1>HTML FORMS</h1>

        <h2>LOGIN FORM</h2>

        <form>

            <div *class***=**"form-group">

                <label *for***=**"username">User

                    Name:</label>

                <input *type***=**"text" ***id*=**"username" *name***=**"username" *placeholder***=**"Enter your username" *required*>

            </div>

            <div *class***=**"form-group">

                <label *for***=**"lastname">Last

                    Name:</label>

                <input *type***=**"text" ***id*=**"lastname" *name***=**"lastname" *placeholder***=**"Enter your last name" *required*>

            </div>

            <div *class***=**"form-actions">

                <button *type***=**"submit" *class***=**"submit">SUBMIT</button>

                <button *type***=**"reset" *class***=**"reset">RESET</button>

            </div>

        </form>

        <h2>ADDITIONAL TAGS - BASIC FORM</h2>

        <form>

            <fieldset>

                <legend>PERSONAL DETAILS</legend>

                <div *class***=**"form-group">

                    <label *for***=**"firstname">First

                        Name:</label>

                    <input *type***=**"text" ***id*=**"firstname" *name***=**"firstname" *placeholder***=**"Enter your first name" *required*>

                </div>

                <div *class***=**"form-group">

                    <label>Gender:</label>

                    <input *type***=**"radio" ***id*=**"male" *name***=**"gender" *value***=**"Male" *required*>

                    <label *for***=**"male">Male</label>

                    <input *type***=**"radio" ***id*=**"female" *name***=**"gender" *value***=**"Female">

                    <label *for***=**"female">Female</label>

                </div>

                <div *class***=**"form-group">

                    <label *for***=**"dob">DOB

                        (dd/mm/yyyy):</label>

                    <input *type***=**"date" ***id*=**"dob" *name***=**"dob" *required*>

                </div>

                <div *class***=**"form-group">

                    <label *for***=**"email">Email:</label>

                    <input *type***=**"email" ***id*=**"email" *name***=**"email" *placeholder***=**"Enter your email" *required*>

                </div>

                <div *class***=**"form-group">

                    <label *for***=**"contact">Contact:</label>

                    <input *type***=**"tel" ***id*=**"contact" *name***=**"contact" *placeholder***=**"Enter your contact number" *required*>

                </div>

                <div *class***=**"form-group">

                    <label *for***=**"address">Address:</label>

                    <textarea ***id*=**"address" *name***=**"address" *rows***=**"4" *placeholder***=**"Enter your address"></textarea>

                </div>

                <div *class***=**"form-group">

                    <label>Qualification:</label>

                    <input *type***=**"checkbox" ***id*=**"qualification10" *name***=**"qualification" *value***=**"10th">

                    <label *for***=**"qualification10">10th</label>

                    <input *type***=**"checkbox" ***id*=**"qualification12" *name***=**"qualification" *value***=**"12th">

                    <label *for***=**"qualification12">12th</label>

                    <input *type***=**"checkbox" ***id*=**"graduation" *name***=**"qualification" *value***=**"Graduation">

                    <label *for***=**"graduation">Graduation</label>

                </div>

                <div *class***=**"form-group">

                    <label *for***=**"identity">Identity

                        Proof:</label>

                    <select ***id*=**"identity" *name***=**"identity" *required*>

                        <option *value***=**"">Select Identity

                            Proof</option>

                        <option *value***=**"aadhar">Aadhar

                            Card</option>

                        <option *value***=**"pan">PAN Card</option>

                        <option *value***=**"passport">Passport</option>

                    </select>

                </div>

                <div *class***=**"form-actions">

                    <button *type***=**"submit" *class***=**"submit">SUBMIT</button>

                    <button *type***=**"reset" *class***=**"reset">RESET</button>

                </div>

            </fieldset>

        </form>

    </div>

</body>

</html>

4. Define external styling sheet:

a. To style paragraph using id

names "para1".

Styles.css file

*#para1*{

            color**:** green**;**

        }

b. Add stylesheet (internal/ external) in Question 1.

Internal Stylesheet –

Already used with <style> tag

External Stylesheet –

Style.css

\*{

            font-family**:** 'Poppins'**,**Arial**,** sans-serif**;**

            margin**:** 0**;**

            padding**:** 0 1px**;**

        }

        header {

            background-color**:** **#f4f4f4;**

            padding**:** 7px 0**;**

            text-align**:** center**;**

            border-radius**:** 7px**;**

            margin-bottom**:** 2px**;**

        }

        header img{

            width**:** 300px**;**

            border-radius**:** 12px**;**

        }

        nav {

            background-color**:** **#f4f4f4;**

            padding**:** 16px**;**

            text-align**:** center**;**

            margin-bottom**:** 7px**;**

        }

        nav a {

            margin**:** 0 20px**;**

            text-decoration**:** none**;**

            color**:** **#6d6dd2;**

            font-weight**:** bold**;**

        }

        nav a*:hover* {

            color**:** **#ff6600;**

            border-bottom**:** 3px solid **#ff6600;**

            padding-bottom**:** 15px**;**

        }

        nav a*:active*{

            color**:** **#ff6600;**

            border-bottom**:** 3px solid **#ff6600;**

            padding-bottom**:** 15px**;**

        }

        h1{

            text-align**:** center**;**

            color**:** **#060f12;**

            font-family**:** "Jaro"**,**Arial**,** sans-serif**;**

        }

        h3{

            color**:** **#6885a7;**

        }

        li{

            margin**:** 2px 17px**;**

        }

*.student-details*{

            background-color**:** **#f4f4f4;**

            text-align**:** center**;**

            line-height**:** 1.5**;**

        }

*.syllabus-part***,** *.semester-div* {

            background-color**:** **#f4f4f4;**

            margin**:** 20px 0**;**

            padding**:** 7px 30px**;**

            max-width**:** auto**;**

        }

*.syllabus-part* h3{

            text-align**:** center**;**

        }

        table {

            width**:** 100%**;**

            border-collapse**:** collapse**;**

            margin**:** 20px 0**;**

        }

        table**,**

        th**,**

        td {

            border**:** 1px solid **#ddd;**

        }

        th**,**

        td {

            padding**:** 7px**;**

            text-align**:** left**;**

        }

th {

            background-color**:** **#6d6dd2;**

            color**:** white**;**

        }

*.dept-imgs* img{

            width**:** 240px**;**

            display**:** block**;**

            margin**:** 10px auto**;**

        }

1. WAP to Implement the Methods of

Math Class:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

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

<title>Math Class Methods</title>

<script>

function showMathMethods() {

let num = 25.6;

let result = `

Math.ceil(${num}) =

${Math.ceil(num)}<br>

Math.floor(${num}) =

${Math.floor(num)}<br>

Math.round(${num}) =

${Math.round(num)}<br>

Math.sqrt(16) = ${Math.sqrt(16)}<br>

Math.pow(2, 3) = ${Math.pow(2, 3)}<br>

Math.abs(-5) = ${Math.abs(-5)}<br>

Math.min(3, 7, 1) = ${Math.min(3, 7,

1)}<br>

Math.max(3, 7, 1) = ${Math.max(3, 7,

1)}<br>

Math.random() =

${Math.random().toFixed(2)}<br>`;

document.write(result)

}

</script>

</head>

<body>

<h1>Math Class Methods</h1>

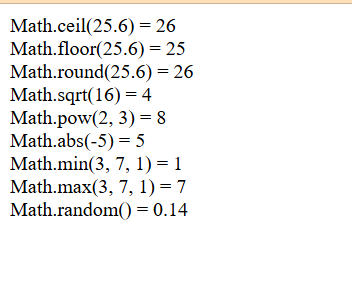
<button onclick="showMathMethods()">Show

Results</button>

<div id="mathResults"></div>

</body>

</html>



1. Paragraph Analysis with Frequency,

Unique Words, and Replacement:

<!DOCTYPE *html*>

<html *lang***=**"en">

<head>

    <meta *charset***=**"UTF-8">

    <meta *name***=**"viewport" *content***=**"width=device-width, initial-

scale=1.0">

    <title>Paragraph Analysis</title>

    <script>

        function analyzeText() {

            let text **=**

                document**.**getElementById("inputText")**.***value***;**

            let words **=** text**.**toLowerCase()**.**match(/**\b**\w**+\b**/**g**)**;**

            let frequency **=** {}**;**

            let longestUniqueWord **=** ""**;**

            let highestFrequencyWord **=** ""**;**

            let maxFrequency **=** 0**;**

            words**.**forEach(**word** **=>** {

                frequency[word] **=** (frequency[word] **||** 0) **+** 1**;**

**if** (word**.**length **>** longestUniqueWord**.**length **&&** frequency[word] **===** 1) {

                    longestUniqueWord **=** word**;**

                }

**if** (frequency[word] **>** maxFrequency) {

                    maxFrequency **=** frequency[word]**;**

                    highestFrequencyWord **=** word**;**

                }

            })**;**

            let replacedText **=** text**.**replace(/**\b**a**\b**/**gi,** "ComputerScienceDepartmentUniversityOf Jammu")**;**

document**.**getElementById("output")**.***innerHTML* **=** `<strong>Unique Words and Frequency:</strong><br>${JSON**.**stringify(frequency**,** null**,** 2)} <br>

            <strong>Longest Unique Word:</strong>

            ${longestUniqueWord}<br>

                <strong>Highest Frequency

                    Word:</strong>

                ${highestFrequencyWord}<br>

                    <strong>Replaced

                        Text:</strong><br>${replacedText}<br>`**;**

}</script>

</head>

<body>

    <h1>Paragraph Analysis</h1>

    <textarea ***id*=**"inputText" *rows***=**"10" *cols***=**"80" *placeholder***=**"Enter your paragraph here..."></textarea>

    <br>

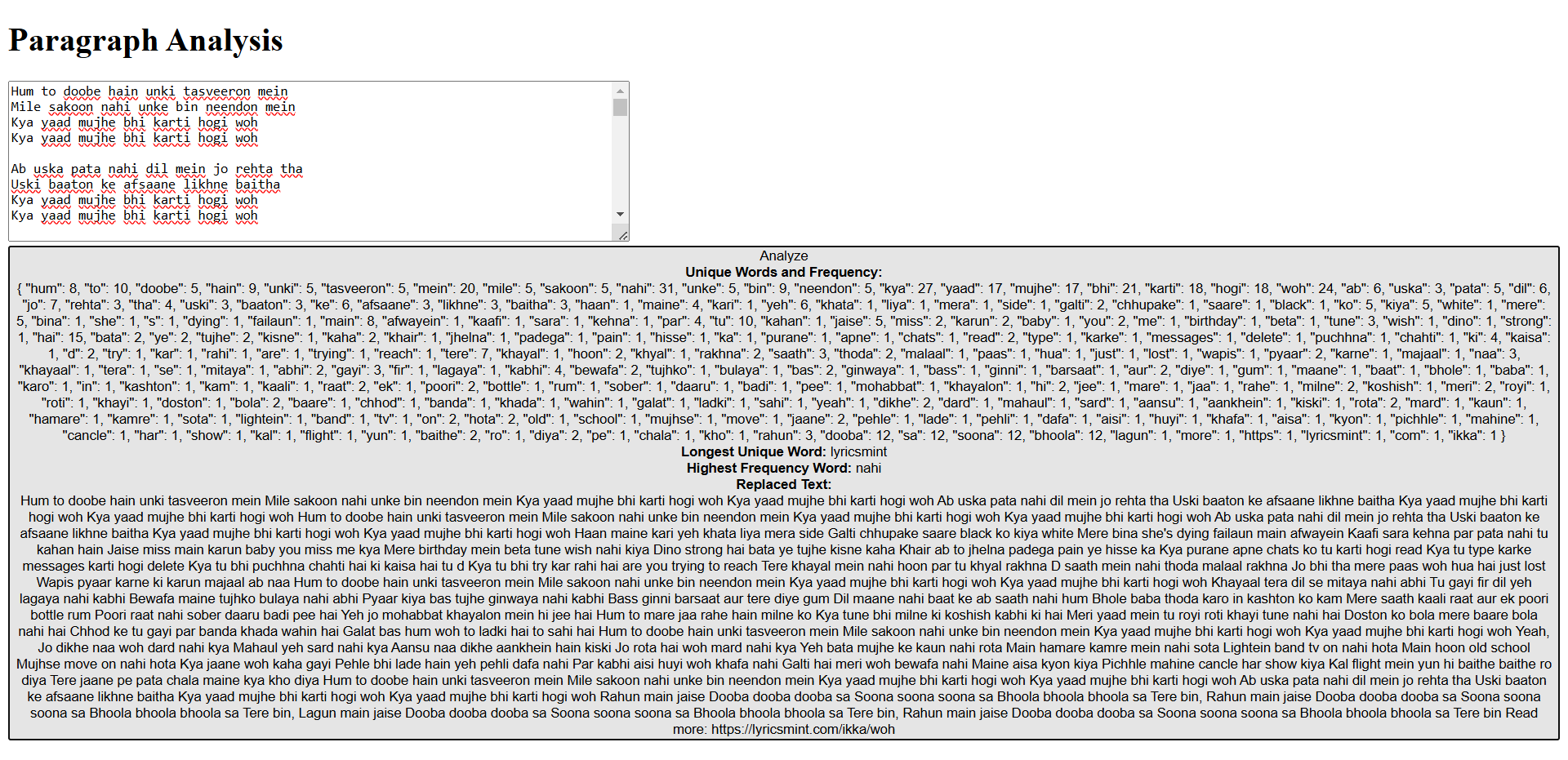
    <button *onclick***=**"analyzeText()">Analyze</butto *n*>

        <div ***id*=**"output"></div>

</body>

</html>

</html>

1. Gmail Registration form with validation.

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-

scale=1.0">

<title>Gmail Registration Form</title>

<style>

body{

padding: 13px 13px;

}

input{

margin: 7px 0;

}

</style>

<script>

function validateForm() {

const fname =

document.getElementById("fname").value.trim();

const lname =

document.getElementById("lname").value.trim();

const email =

document.getElementById("email").value.trim();

const password =

document.getElementById("password").value.trim();

const confirmPassword =

document.getElementById("confirmPassword").value.trim();

if (!fname || !lname || !email ||!password || !confirmPassword) {

alert("All fields are required.");

return false;

}

if (password !== confirmPassword) {

alert("Passwords do not match.");

return false;

}

const emailPattern = /^[a-zA-Z0-9.\_-]+@[a - zA - Z0 - 9. -] +\.[a - zA - Z]{ 2, 6 } $ /;

if (!emailPattern.test(email)) {

alert("Invalid email format.");

return false;

}

alert("Registration Successful!");

return true;

}

</script>

</head>

<body>

<h1>Gmail Registration Form</h1>

<form onsubmit="return validateForm()">

First Name: <input type="text" id="fname"><br>

Last Name: <input type="text" id="lname"><br>

Email: <input type="email" id="email"><br>

Password: <input type="password" id="password"><br>

Confirm Password: <input type="password" id="confirmPassword"><br>

<button type="submit">Submit</button>

</form>

</body>

</html>

