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# **Roll No: 210451**

Practical No: 12

**1) Write a program to validate an IP address**

**CODE:**

<!DOCTYPE *html*>

<html>

  <head>

    <title>Regex OP</title>

  </head>

  <style>

    body {

      font-family: system-ui, -apple-system, BlinkMacSystemFont, "Segoe UI",

        Roboto, Oxygen, Ubuntu, Cantarell, "Open Sans", "Helvetica Neue",

        sans-serif;

    }

  </style>

  <body>

    <h1>IP Address Validation</h1>

    <label *for*="ipAddress">Enter an IP Address: </label>

    <input *type*="text" *id*="ipAddress" *placeholder*="e.g., 192.168.0.1" />

    <br>

    <button *onclick*="validateIP()">Validate</button>

    <p *id*="result"></p>

    <script>

      function validateIPAddress(ipAddress) {

        const ipAddressPattern =

          /^((25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\.){3}(25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)$/;

        return ipAddressPattern.test(ipAddress);

      }

      function validateIP() {

        const ipAddress = document.getElementById("ipAddress").value;

        const result = document.getElementById("result");

        if (validateIPAddress(ipAddress)) {

          result.innerHTML = `${ipAddress} is a valid IP address. NOICE M8`;

          result.style.color = "green";

        } else {

          result.innerHTML = `${ipAddress} is not a valid IP address. NOT NOICE M8`;

          result.style.color = "red";

        }

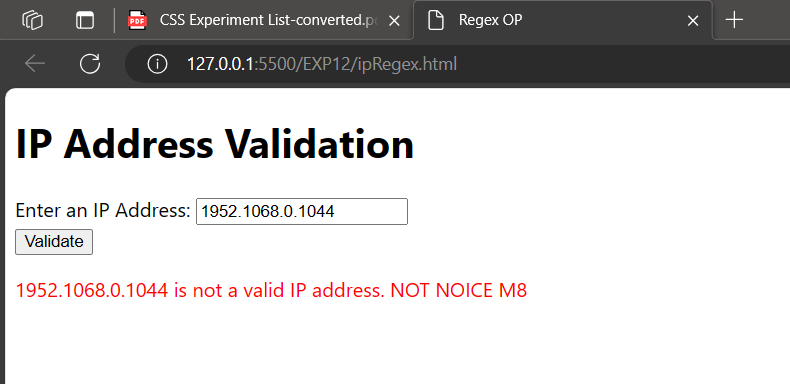
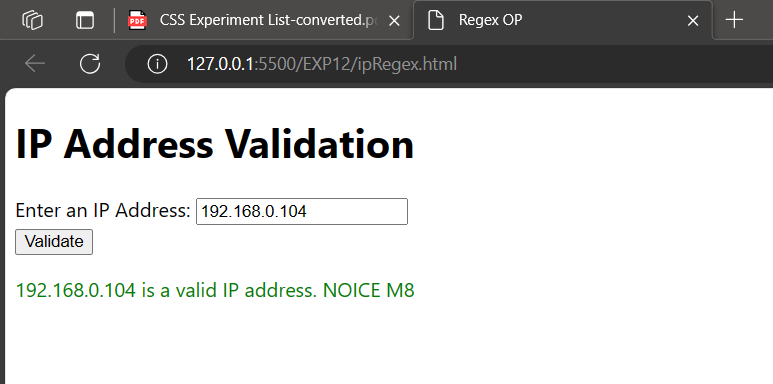
      }

    </script>

  </body>

</html>

**OUTPUT:**

****

**2) Write a to validate a form via Regex**

**CODE:**

**<!DOCTYPE *html*>**

**<html>**

**<head>**

**<style>**

**body {**

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

**background-color: #333;**

**color: #fff;**

**margin: 0;**

**padding: 0;**

**display: flex;**

**flex-direction: column;**

**justify-content: center;**

**align-items: center;**

**height: 100vh;}h1 {**

**text-align: center;**

**color: #fff; form {**

**background: #444;**

**padding: 20px;**

**border-radius: 5px;**

**box-shadow: 0 0 10px rgba(0, 0, 0, 0.2);**

**max-width: 500px;}label {**

**font-weight: bold;**

**color: #fff; }**

**input[*type*="text"],**

**input[*type*="email"],**

**input[*type*="password"] {**

**width: 95%;**

**padding: 10px;**

**margin: 5px 0;**

**border: 1px solid #777**

**border-radius: 3px;**

**background: #555;**

**color: #fff; }**

**input[*type*="submit"] {**

**background: #3498db;**

**color: #fff;**

**padding: 10px 20px;**

**border: none;**

**border-radius: 3px;**

**cursor: pointer;}**

**input[*type*="submit"]*:hover* {**

**background: #2980b9;}**

**</style>**

**</head>**

**<body>**

**<h1>Form Validation</h1>**

**<form *onsubmit*="return validateForm()">**

**<label *for*="name">Name: </label>**

**<input *type*="text" *id*="name" *required*><br>**

**<label *for*="age">Age: </label>**

**<input *type*="text" *id*="age" *required*><br>**

**<label *for*="dob">Date of Birth (DD/MM/YYYY): </label>**

**<input *type*="text" *id*="dob" *required*><br>**

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

**<input *type*="email" *id*="email" *required*><br>**

**<label *for*="password">Password: </label>**

**<input *type*="password" *id*="password" *required*><br>**

**<input *type*="submit" *value*="Submit">**

**</form>**

**<script>**

**function validateForm() {**

**const namePattern = /^[A-Za-z\s]+$/;**

**const agePattern = /^\d+$/;**

**const dobPattern = /^\d{2}\/\d{2}\/\d{4}$/;**

**const emailPattern = /^[a-zA-Z0-9.\_-]+@[a-zA-Z0-9.-]+\.[a-zAZ]{2,4}$/;**

**const passwordPattern = /^(?=.\*\d)(?=.\*[a-z])(?=.\*[A-Z]).{6,}$/;**

**const name = document.getElementById("name").value;**

**const age = document.getElementById("age").value;**

**const dob = document.getElementById("dob").value;**

**const email = document.getElementById("email").value;**

**const password = document.getElementById("password").value;**

**if (!namePattern.test(name{**

**alert("Name is not valid.");**

**return false;}**

**if (!agePattern.test(age)) {**

**alert("Age is not valid.");**

**return false;}**

**if (!dobPattern.test(dob)) {**

**alert("Date of Birth is not valid (Use format DD/MM/YYYY).");**

**return false;}**

**if (!emailPattern.test(email)) {**

**alert("Email is not valid.");**

**return false;}**

**if (!passwordPattern.test(password)) {**

**alert(**

**"Password is not valid. It should contain at least one digit, one lowercase letter, one uppercase letter, and be at least 6 characters long.");**

**return false;}**

**alert("Form Submitted")**

**return true;}**

**</script>**

**</body>**

**</html>**

**OUTPUT:** 