**Experiment No. 05**

**PART B**

(PART B: TO BE COMPLETED BY STUDENTS)

(Students must submit the soft copy as per following segments within two hours of the practical. The soft copy must be uploaded on the Blackboard or emailed to the concerned lab in charge faculties at the end of the practical in case the there is no Black board access available)

|  |  |
| --- | --- |
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| Class : MCA SEM I | Batch : B3 |
| Date of Experiment : | Date/Time of Submission : |
| Grade : |  |

**B.1 Code:**

**Index.html**  
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Document</title>

    <link rel="stylesheet" href="styles.css">

</head>

<body>

    <script src="script.js"></script>

    <form method="post" action="mailto:Frank@cohowinery.com" name="ContactForm" onsubmit="return ValidateContactForm();">

        <p>Username: <input type="text" id="Username"></p>

        <p>Password: <input type="password" id="Password"></p>

        <p>Email: <input type="text" id="Email"></p>

        <p>Aadhar: <input type="text" id="Aadhar"></p>

        <p>PAN: <input type="text" id="PAN"></p>

        <p>Phone: <input type="text" id="Phone"></p>

        <p>

            <input type="checkbox" id="DoNotCall"> Please do not call me.

        </p>

        <p>

            <input type="radio" name="Option" value="1" id="Option1"> Option 1

            <input type="radio" name="Option" value="2" id="Option2"> Option 2

        </p>

        <p><input type="submit" value="Send"></p>

    </form>

</body>

</html>

**Styles.css**

body {

    font-family: Arial, sans-serif;

    background-color: #c850ff;

    padding: 20px;

}

form {

    background: white;

    padding: 20px;

    border-radius: 5px;

}

input[type="text"], input[type="password"], input[type="submit"] {

    width: 100%;

    padding: 10px;

    margin-top: 5px;

    border: 1px solid #ccc;

    border-radius: 3px;

}

input[type="submit"] {

    background-color: #c187ff;

    color: white;

    border: none;

}

**Script.js**

function ValidateContactForm() {

    const username = document.getElementById('Username').value;

    const password = document.getElementById('Password').value;

    const email = document.getElementById('Email').value;

    const aadhar = document.getElementById('Aadhar').value;

    const pan = document.getElementById('PAN').value;

    const phone = document.getElementById('Phone').value;

    const usernameRegex = /^[a-zA-Z0-9]{3,}$/;

    if (usernameRegex.test(username) == false) {

        alert('Username must be at least 3 characters long and contain only letters and numbers.');

        return false;

    }

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

    if (passwordRegex.test(password) == false) {

        alert('Password must be at least 6 characters long and contain at least one letter and one number.');

        return false;

    }

    const emailRegex = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;

    if (emailRegex.test(email) == false) {

        alert('Please enter a valid email address.');

        return false;

    }

    const aadharRegex = /^\d{12}$/;

    if (aadharRegex.test(aadhar) == false) {

        alert('Aadhar must be exactly 12 digits.');

        return false;

    }

    const panRegex = /^[A-Z]{5}\d{4}[A-Z]$/;

    if (panRegex.test(pan) == false) {

        alert('PAN must be in the format ABCDE1234F.');

        return false;

    }

    const phoneRegex = /^\d{10}$/;

    if (phoneRegex.test(phone) == false) {

        alert('Phone number must be exactly 10 digits.');

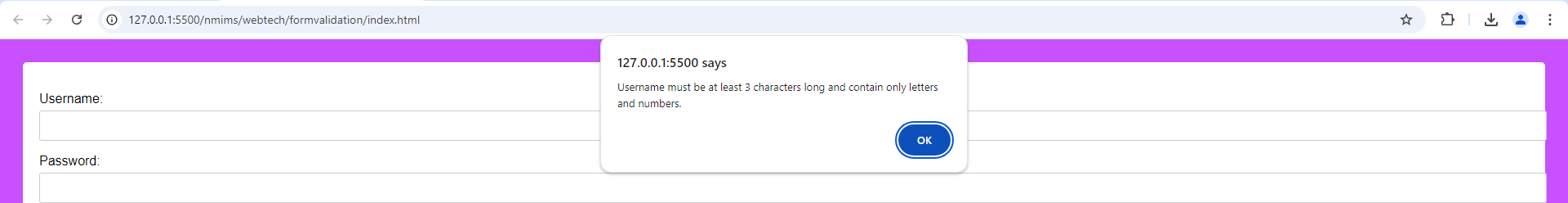
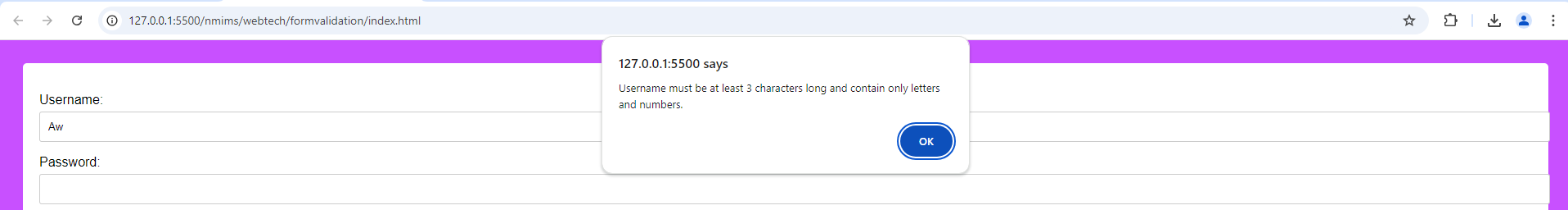
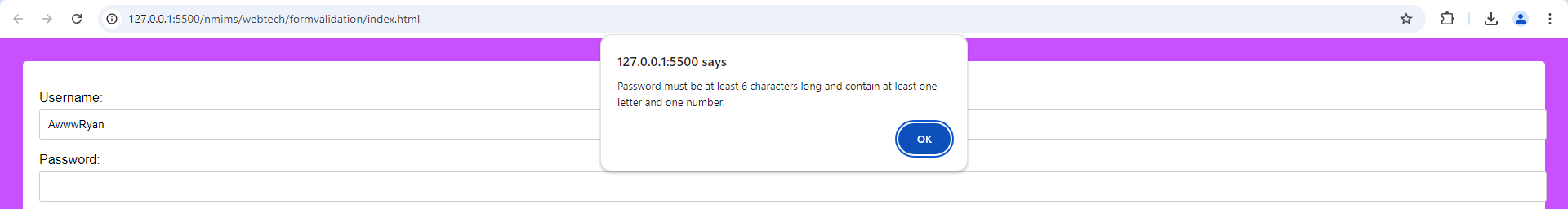
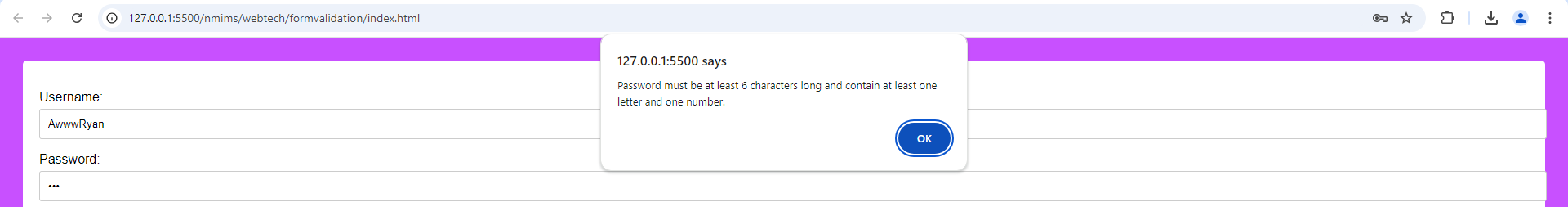
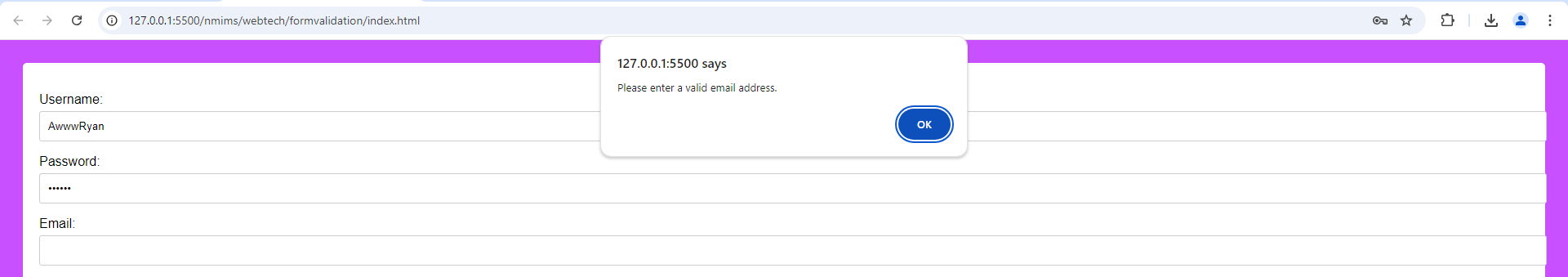
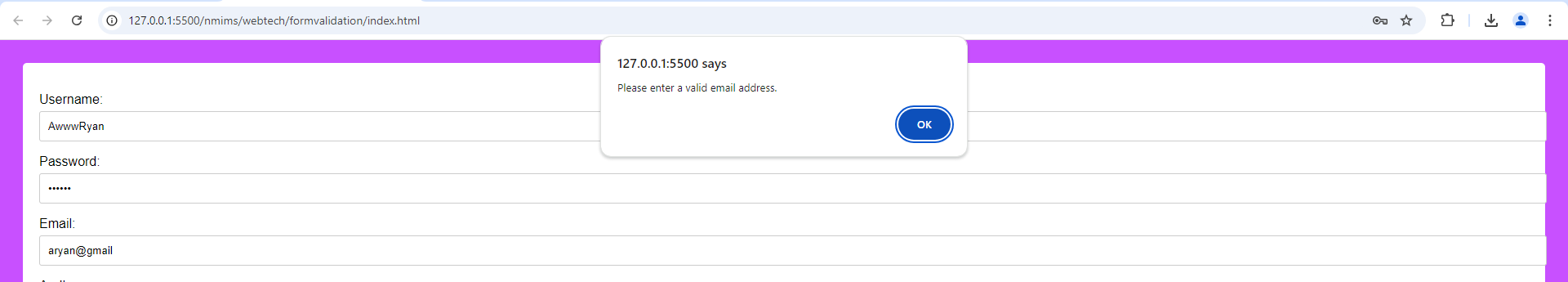
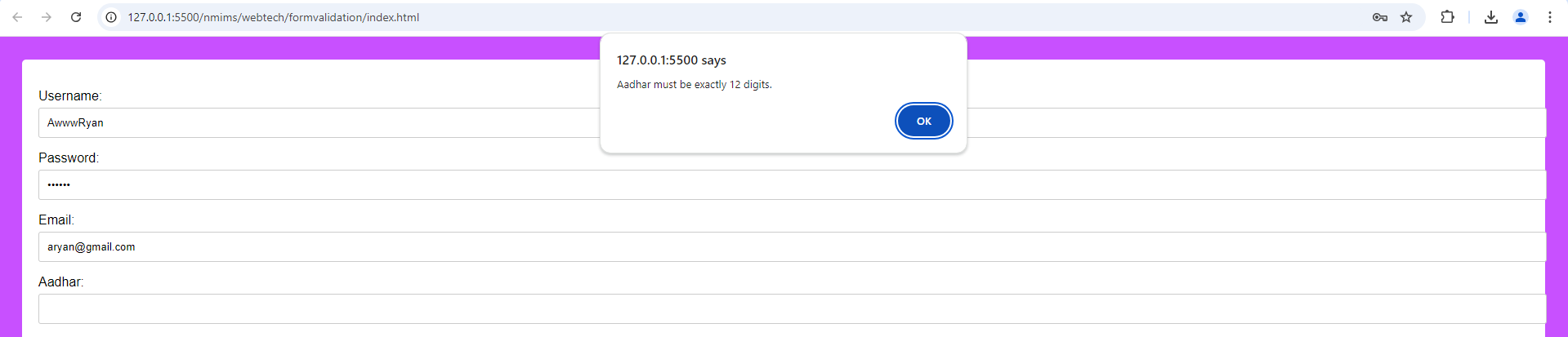
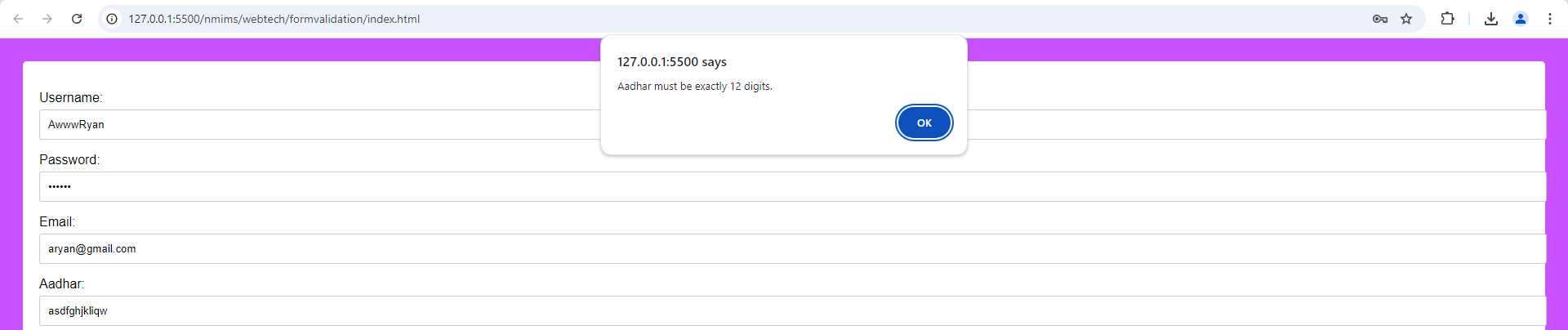
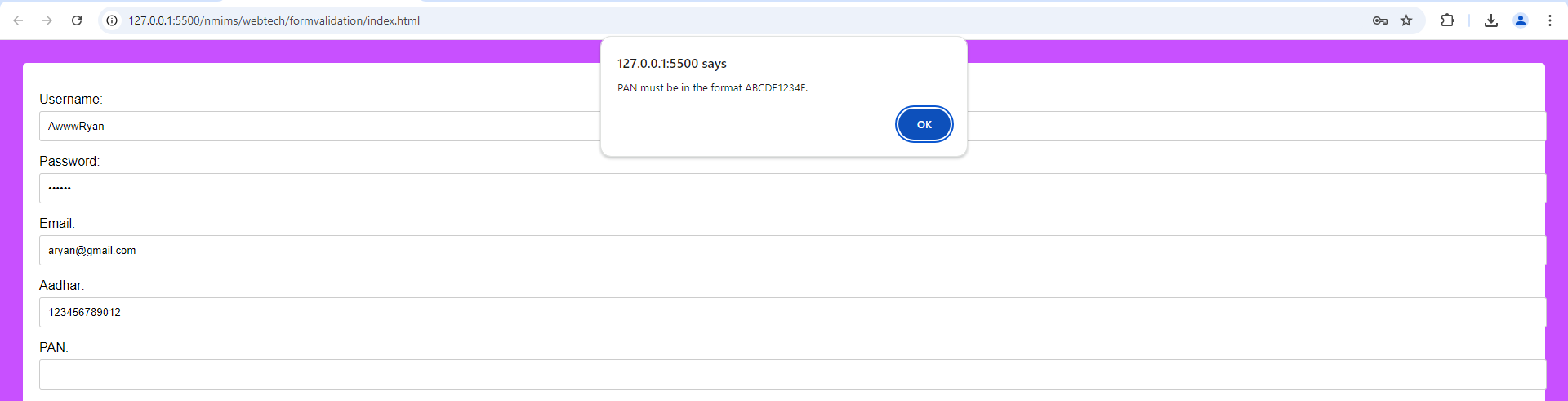
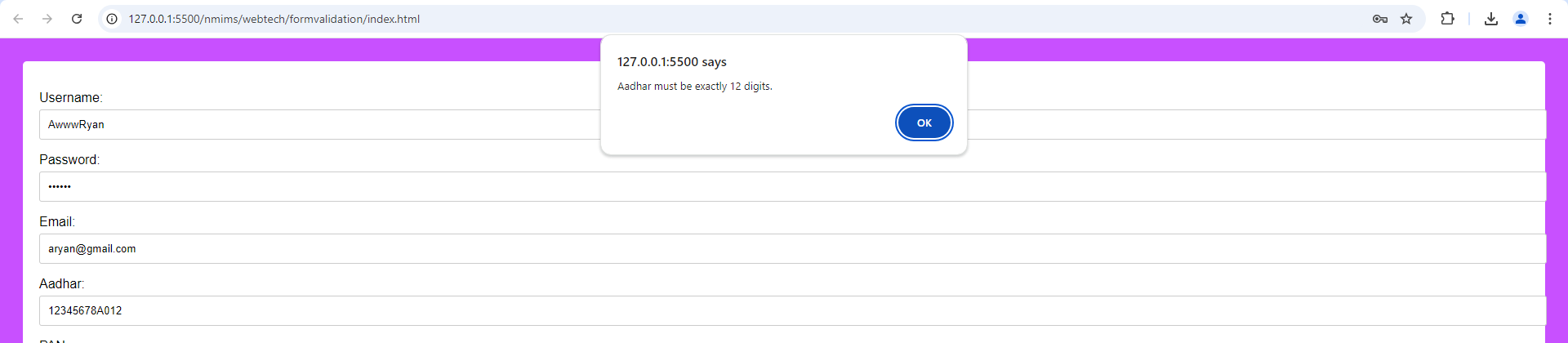
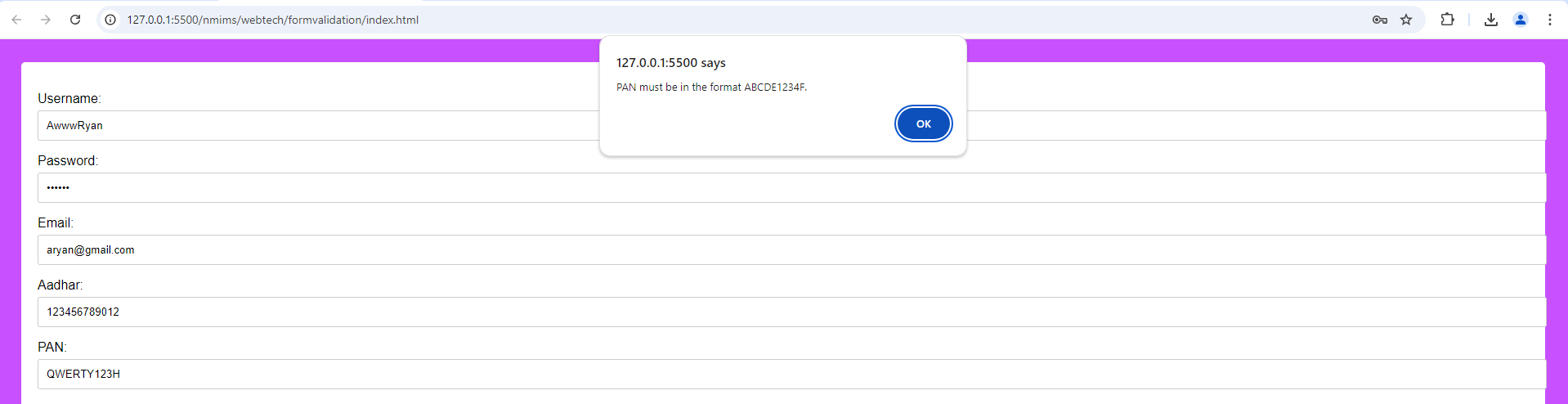
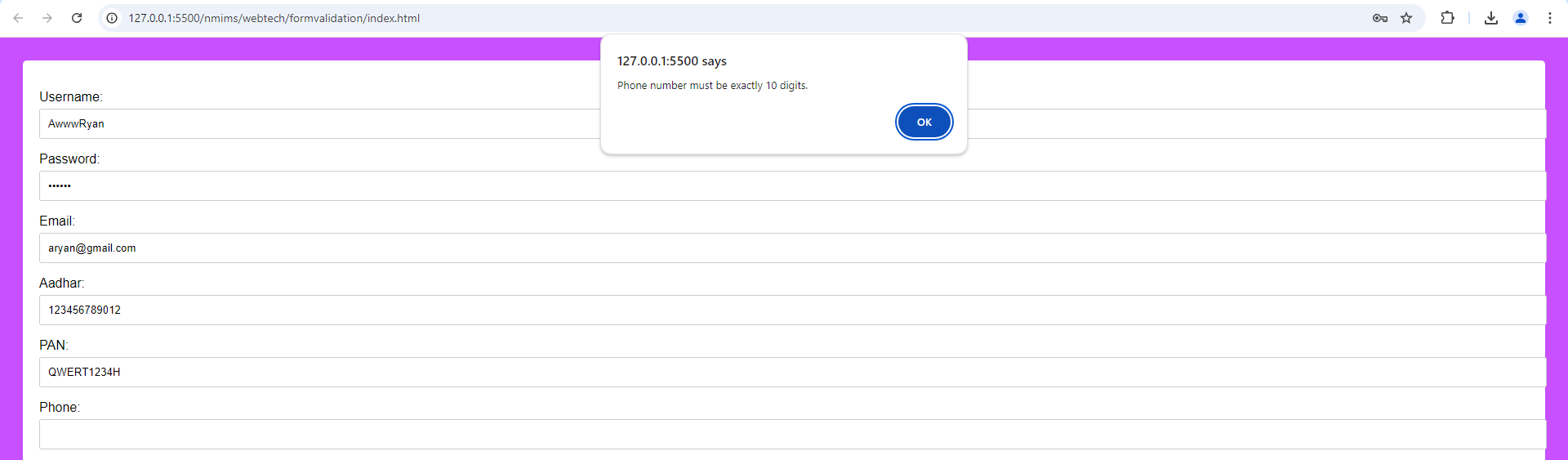
        return false;

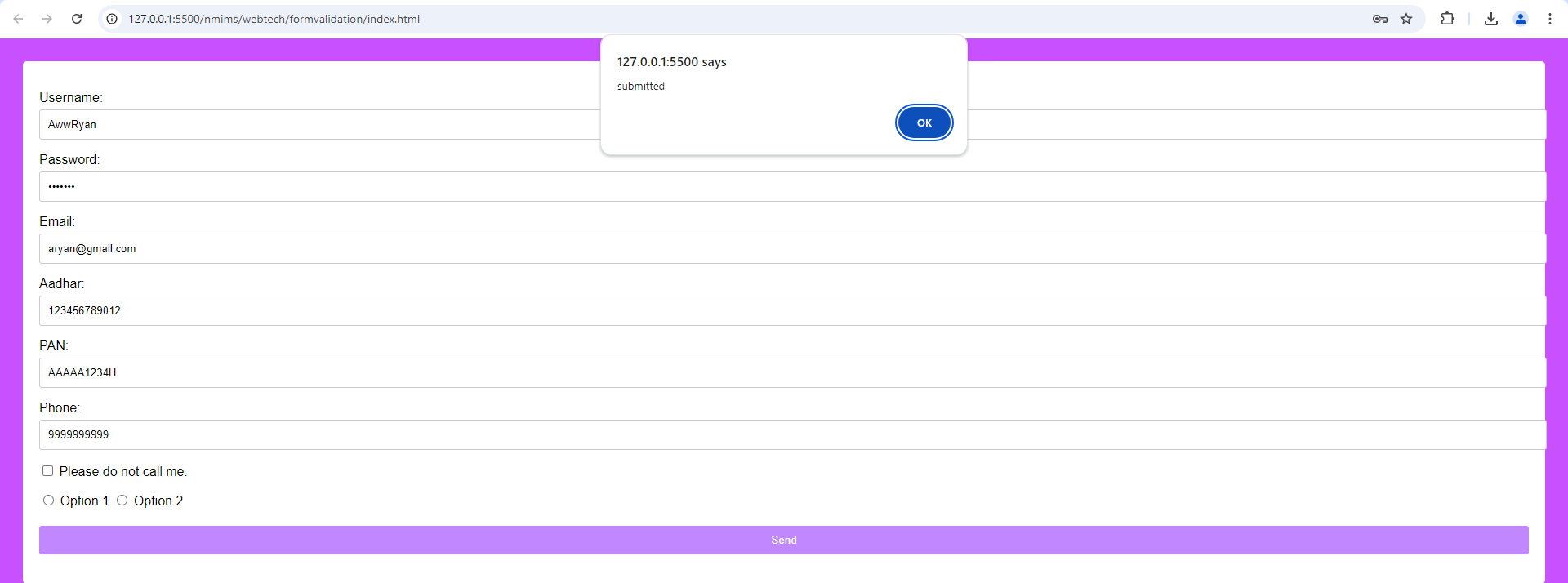
    }

    return true;

}

**B.2 Output**

**** ****          



**B.3 Conclusion:**

*Successfully completed the implementation of form validation using regex.*

**B.3 Observations and Learning:**

*Successfully completed the implementation of form validation using regex.*

**B.4 Question of Curiosity**

Q1. Why are validations necessary in HTML forms? Explain with suitable reason.

Data Integrity: Validations help ensure that the data submitted by users is accurate and complete. This prevents erroneous or incomplete data from being processed and stored, which can lead to issues down the line.

User Experience: Providing immediate feedback to users about the correctness of their input enhances the user experience. It allows users to correct mistakes before submitting the form, saving time and frustration.

Security: Validating inputs can help prevent malicious data from being submitted, which can lead to security vulnerabilities such as SQL injection or cross-site scripting (XSS).

Q2. List down the different validators that can be used in an HTML form? Explain any three of them with script syntax and example.

required: Ensures that the field must be filled out before submission.

<form>

<label for="username">Username:</label>

<input type="text" id="username" required>

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

</form>

pattern: Allows you to specify a regular expression that the input value must match.

<form>

<label for="phone">Phone Number:</label>

<input type="text" id="phone" pattern="\d{3}[-]\d{3}[-]\d{4}"

placeholder="Format: 123-456-7890" required>

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

</form>

minlength and maxlength: Specify the minimum and maximum length of input, respectively.

type: Validates the type of data entered (e.g., email, number, date).

<form>

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

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

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

</form>

max and min: Define the range of acceptable values for numeric inputs.