Exp 3: Form Validation using Java Script

AIM:

    Is to validate a form after submission using java script

PROCEDURE:

Step 1: Access the Form and Its Input Fields

- Get the form element using `getElementById` or `querySelector`.
- Get all input fields that need validation (e.g., name, email, password).

Step 2: Add an Event Listener for Submit

- Use `form.addEventListener("submit", function(e) {...})`.
- Prevent the default submission using `e.preventDefault()`.

Step 3: Initialize a Validation Flag

- Set a flag `isValid = true`.
- Use it to track if all fields pass the validation rules.

Step 4: Check Each Input Field

- For each field:
    - Trim the input and check if it is empty.
    - If a field has a specific rule (e.g., email pattern, password length), validate it.
    - If invalid, show an error message and set `isValid = false`.

Step 5: Show Success Message if Valid

- After all validations, check if `isValid === true`.
- If valid, display a message like `"Registration Successful!"`.

PROGRAM:

Index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Form</title>
    <link rel="stylesheet" href="style.css">
</head>
```

```html
<script src="script.js"></script>
<body>
    <center>
        <div class="container">
            <h2>Form</h2>
            <br>
            <form id="myForm" method="POST" onsubmit="return validate()">
                <label for="first_name">First Name</label>
                <input type="text" id="first_name" name="first_name"
placeholder="First Name" required>

                <label for="last_name">Last Name</label>
                <input type="text" id="last_name" name="last_name"
placeholder="Last Name" required>

                <label for="phnumber">Phone Number</label>
                <input type="tel" id="phnumber" name="phnumber"
placeholder="Phone Number" required>

                <label for="email">Email</label>
                <input type="email" id="email" name="email"
placeholder="eg@domain.com" required>

                <label for="pass">Password</label>
                <input type="password" id="pass" name="pass"
placeholder="Password" required>

                <label for="address">Address</label>
                <textarea name="address" id="address"></textarea>
                <button type="submit">Submit</button>
            </form>
        </div>
    </center>
</body>
</html>
```

Style.css

```css
* {
    margin: 0;
    padding: 0;
    box-sizing: border-box;
}

body {
    background-color: #f7d5d5;
```

```css
}

.container {
    display: flex;
    flex-direction: column;
    justify-content: center;
    align-items: center;
    background-color: aquamarine;
    width: 30%;
    margin: 50px auto;
    padding: 20px;
    border-radius: 10px;
}

h2 {
    text-align: center;
    color: rgb(56, 21, 250);
    margin-bottom: 20px;
}

form {
    display: flex;

    flex-direction: column;
    width: 100%;
    background-color: blueviolet;
    padding: 20px;
    border-radius: 10px;
}

label {
    color: rgb(23, 238, 23);
    font-weight: bold;
    margin-bottom: 5px;

}

input, textarea {
    border: 1px solid rgb(66, 64, 64);
    border-radius: 10px;
    padding-left: 15px;
    height: 35px;
    font-size: 14px;
    margin-bottom: 10px;
}

textarea {
    height: 100px;
```

```css
    resize: vertical;
}

button {
    height: 40px;
    width: 120px;
    margin: 10px auto;
    background-color: #4CAF50;
    color: white;
    border-radius: 20px;
    border: none;
    font-size: 16px;
    cursor: pointer;
}

button:hover {
    background-color: #45a049;
}
```
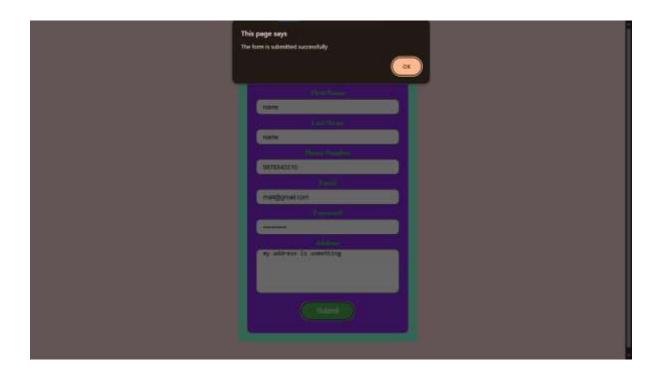
Script.js

```javascript
function validate(){
    //first name
    var fn = document.getElementById("first_name").value;
    if (!fnval(fn)){
        alert("Enter the first name atlest longer than 3 character and only
contain letters");
        return false;
    }
    //last name
    var ln = document.getElementById("last_name").value;
    if(ln.length == 0){
        alert("Please Enter the last name");
        return false;
    }
    //phone number
    var ph = document.getElementById("phnumber").value;
    if(typeof(ph) != 'number' && ph.length != 10){
        alert("Please Enter the correct phone number with 10 digits");
        return false;
    }
    //Password
    var passw = document.getElementById("pass").value;
    if(!passval(passw)){
        alert("Enter a password with a uppercase,number,special character and
it need to be atlease 8 character in it");
        return false;
    }
```

```javascript
    //address
    var add = document.getElementById("address").value;
    if(add.length == 0){
        alert("Please Enter your address");
        return false;
    }
    else{
        alert("The form is submitted successfully");
        return true;
    }
}
function fnval(fn){
    if (fn.length >3 && /^[A-Za-z]+$/.test(fn)){
        return true;
    }
    else{
        return false;
    }
}
function passval(pass){
    if(
        pass.length >=8 &&
        /[!@#$%^&*(),.?":{}|<>]/.test(pass) &&
        /[A-Z]/.test(pass) &&
        /[0-9]/.test(pass)
    ){
        return true;
    }
    else{
        return false;
    }
}
```

OUTPUT:

RESULT:

Thus the validation of html form using java script was done successfully.