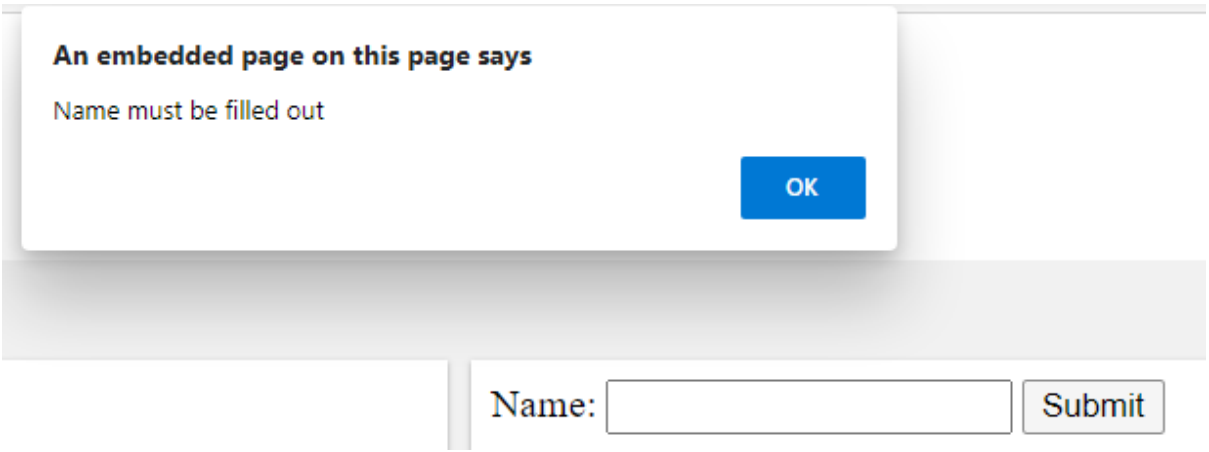
Examples: Apply validations on HTML form

1. **Check input field is filled up or not.**
   A. **Using JS**

```
<!DOCTYPE html>
<html>
<head>
<script>
function validateForm() {
  var x = document.forms["myForm"]["fname"].value;
  if (x == "") {
    alert("Name must be filled out");
    return false;
  }
Else
{
  document.getElementById("demo").innerHTML = x;
}
}
}
</script>
</head>
<body>

<form name="myForm" action="/action_page.php" onsubmit="return validateForm()" method="post">
  Name: <input type="text" name="fname">
  <input type="submit" value="Submit">
<p id="demo"></p>
</form>
</body>
</html>
```



Name: Chalak Submit

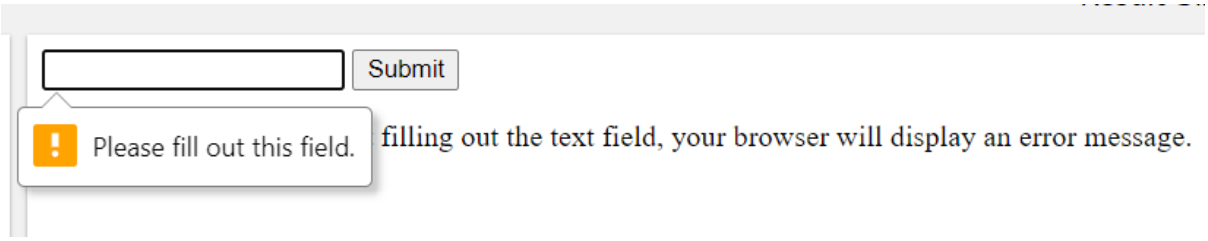
Chalak

B. <u>Automatic validation</u>

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

<form action="/action_page.php" method="post">
  <input type="text" name="fname" required>
  <input type="submit" value="Submit">
</form>

<p>If you click submit, without filling out the text field,
your browser will display an error message.</p>

</body>
</html>
```

Submit

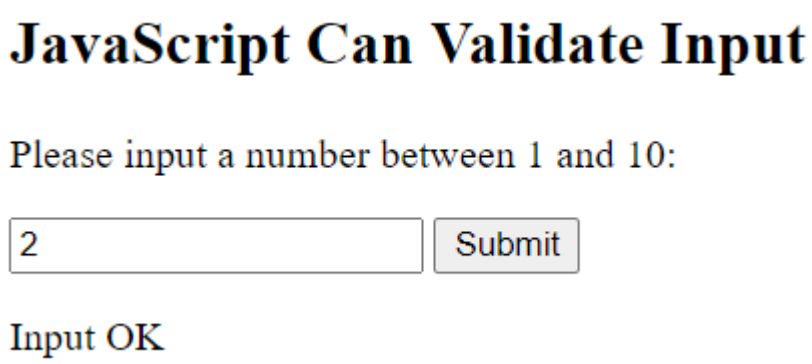
If you click submit, without filling out the text field, your browser will display an error message.



2. <u>Validation on number range:</u>

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

<h2>JavaScript Can Validate Input</h2>

<p>Please input a number between 1 and 10:</p>

<input id="numb">

<button type="button" onclick="myFunction()">Submit</button>

<p id="demo"></p>

<script>
function myFunction() {
  var x, text;

  // Get the value of the input field with id="numb"
  x = document.getElementById("numb").value;

  // If x is Not a Number or less than one or greater than 10
  if (isNaN(x) || x < 1 || x > 10) {
    text = "Input not valid";
  } else {
```

```
  text = "Input OK";
 }
 document.getElementById("demo").innerHTML = text;
}
</script>

</body>
</html>
```



3. Application form:

A. Html file-

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Simple HTML Form</title>
  <link rel="stylesheet" href="style.css">
  <script src="validator.js"></script>
</head>
<body>
<form name="contactForm" onsubmit="return validateForm()" action="confirmation.php" method="post">
```

```
<h2>Application Form</h2>
<div class="row">
  <label>Full Name</label>
  <input type="text" name="name">
  <div class="error" id="nameErr"></div>
</div>
<div class="row">
  <label>Email Address</label>
  <input type="text" name="email">
  <div class="error" id="emailErr"></div>
</div>
<div class="row">
  <label>Mobile Number</label>
  <input type="text" name="mobile" maxlength="10">
  <div class="error" id="mobileErr"></div>
</div>
<div class="row">
  <label>Country</label>
  <select name="country">
    <option>Select</option>
    <option>Australia</option>
    <option>India</option>
    <option>United States</option>
    <option>United Kingdom</option>
  </select>
  <div class="error" id="countryErr"></div>
</div>
<div class="row">
  <label>Gender</label>
  <div class="form-inline">
    <label><input type="radio" name="gender" value="male"> Male</label>
```

```
        <label><input type="radio" name="gender" value="female"> Female</label>
      </div>
      <div class="error" id="genderErr"></div>
    </div>
    <div class="row">
      <label>Hobbies <i>(Optional)</i></label>
      <div class="form-inline">
        <label><input type="checkbox" name="hobbies[]" value="sports"> Sports</label>
        <label><input type="checkbox" name="hobbies[]" value="movies"> Movies</label>
        <label><input type="checkbox" name="hobbies[]" value="music"> Music</label>
      </div>
    </div>
    <div class="row">
      <input type="submit" value="Submit">
    </div>
</form>
</body>
</html>
```

B. Building the Form Validation Script

```
// Defining a function to display error message
function printError(elemId, hintMsg) {
    document.getElementById(elemId).innerHTML = hintMsg;
}

// Defining a function to validate form
function validateForm() {
    // Retrieving the values of form elements
    var name = document.contactForm.name.value;
    var email = document.contactForm.email.value;
    var mobile = document.contactForm.mobile.value;
```

```
var country = document.contactForm.country.value;
var gender = document.contactForm.gender.value;
var hobbies = [];
var checkboxes = document.getElementsByName("hobbies[]");
for(var i=0; i < checkboxes.length; i++) {
   if(checkboxes[i].checked) {
      // Populate hobbies array with selected values
      hobbies.push(checkboxes[i].value);
   }
}

  // Defining error variables with a default value
var nameErr = emailErr = mobileErr = countryErr = genderErr = true;

// Validate name
if(name == "") {
   printError("nameErr", "Please enter your name");
} else {
   var regex = /^[a-zA-Z\s]+$/;
   if(regex.test(name) === false) {
      printError("nameErr", "Please enter a valid name");
   } else {
      printError("nameErr", "");
      nameErr = false;
   }
}

// Validate email address
if(email == "") {
   printError("emailErr", "Please enter your email address");
} else {
```

```
    // Regular expression for basic email validation
    var regex = /^\S+@\S+\.\S+$/;
    if(regex.test(email) === false) {
        printError("emailErr", "Please enter a valid email address");
    } else{
        printError("emailErr", "");
        emailErr = false;
    }
}

// Validate mobile number
if(mobile == "") {
    printError("mobileErr", "Please enter your mobile number");
} else {
    var regex = /^[1-9]\d{9}$/;
    if(regex.test(mobile) === false) {
        printError("mobileErr", "Please enter a valid 10 digit mobile number");
    } else{
        printError("mobileErr", "");
        mobileErr = false;
    }
}

// Validate country
if(country == "Select") {
    printError("countryErr", "Please select your country");
} else {
    printError("countryErr", "");
    countryErr = false;
}
```

```
    // Validate gender
    if(gender == "") {
        printError("genderErr", "Please select your gender");
    } else {
        printError("genderErr", "");
        genderErr = false;
    }

    // Prevent the form from being submitted if there are any errors
    if((nameErr || emailErr || mobileErr || countryErr || genderErr) == true) {
       return false;
    } else {
        // Creating a string from input data for preview
        var dataPreview = "You've entered the following details: \n" +
                          "Full Name: " + name + "\n" +
                          "Email Address: " + email + "\n" +
                          "Mobile Number: " + mobile + "\n" +
                          "Country: " + country + "\n" +
                          "Gender: " + gender + "\n";
        if(hobbies.length) {
            dataPreview += "Hobbies: " + hobbies.join(", ");
        }
        // Display input data in a dialog box before submitting the form
        alert(dataPreview);
    }
};
```

C. CSS

```
body {
    font-size: 16px;
    background: #f9f9f9;
```

```
    font-family: "Segoe UI", "Helvetica Neue", Arial, sans-serif;
}
h2 {
    text-align: center;
    text-decoration: underline;
}
form {
    width: 300px;
    background: #fff;
    padding: 15px 40px 40px;
    border: 1px solid #ccc;
    margin: 50px auto 0;
    border-radius: 5px;
}
label {
    display: block;
    margin-bottom: 5px
}
label i {
    color: #999;
    font-size: 80%;
}
input, select {
    border: 1px solid #ccc;
    padding: 10px;
    display: block;
    width: 100%;
    box-sizing: border-box;
    border-radius: 2px;
}
.row {
```

```
    padding-bottom: 10px;
}
.form-inline {
    border: 1px solid #ccc;
    padding: 8px 10px 4px;
    border-radius: 2px;
}
.form-inline label, .form-inline input {
    display: inline-block;
    width: auto;
    padding-right: 15px;
}
.error {
    color: red;
    font-size: 90%;
}
input[type="submit"] {
    font-size: 110%;
    font-weight: 100;
    background: #006dcc;
    border-color: #016BC1;
    box-shadow: 0 3px 0 #0165b6;
    color: #fff;
    margin-top: 10px;
    cursor: pointer;
}
input[type="submit"]:hover {
    background: #0165b6;
}
```

Application Form

Full Name

asd

Email Address

as.gmail.com

Please enter a valid email address

Mobile Number

98789067aa

Please enter a valid 10 digit mobile number

Country

Select

Please select your country

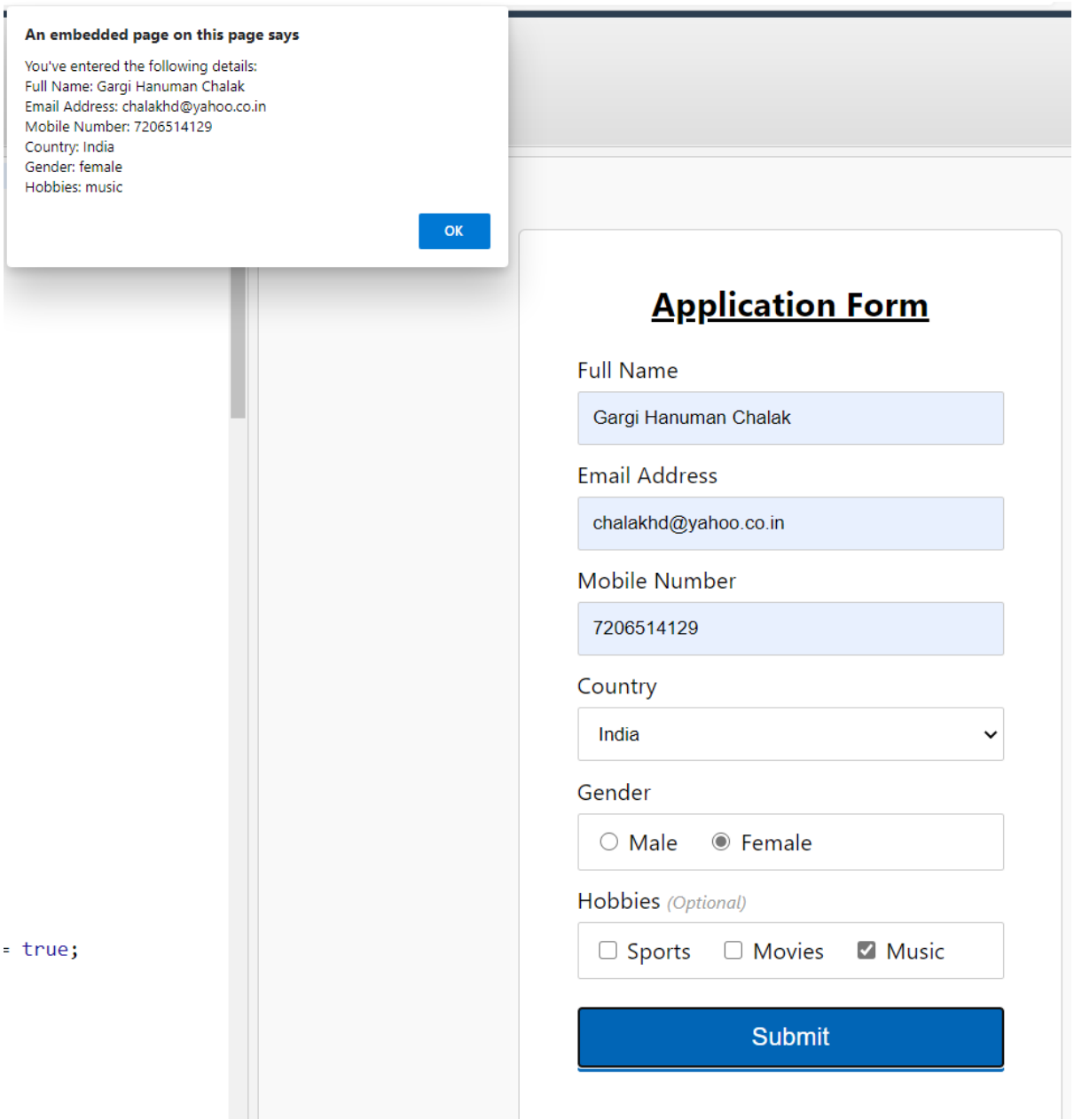
Gender

○ Male ◉ Female

Hobbies *(Optional)*

☑ Sports ☐ Movies ☐ Music

Submit



Confirmation

Form submitted successfully. It's just for testing purpose, data not saved.

Task:

A. JavaScript Retype Password Validation

B. JavaScript Number Validation

C. JavaScript validation with image

D. JavaScript email validation

Solution A:

```
<script type="text/javascript">
function matchpass(){
var firstpassword=document.f1.password.value;
var secondpassword=document.f1.password2.value;

if(firstpassword==secondpassword){
return true;
}
else{
alert("password must be same!");
return false;
}
}
</script>

<form name="f1" action="register.jsp" onsubmit="return matchpass()">
Password:<input type="password" name="password" /><br/>
Re-enter Password:<input type="password" name="password2"/><br/>
<input type="submit">
</form>
```

Solution B:

Let's validate the textfield for numeric value only. Here, we are using isNaN() function.

```
<script>
function validate(){
var num=document.myform.num.value;
```

```
if (isNaN(num)){
  document.getElementById("numloc").innerHTML="Enter Numeric value only";
  return false;
}else{
  return true;
  }
}
</script>
<form name="myform" onsubmit="return validate()" >
Number: <input type="text" name="num"><span id="numloc"></span><br
/>
<input type="submit" value="submit">
</form>
```

Solution C:

Let’s see an interactive JavaScript form validation example that displays correct and incorrect image if input is correct or incorrect.

```
<script>
function validate(){
var name=document.f1.name.value;
var password=document.f1.password.value;
var status=false;

if(name.length<1){
document.getElementById("nameloc").innerHTML=
" <img src='unchecked.gif'/> Please enter your name";
status=false;
}else{
document.getElementById("nameloc").innerHTML=" <img src='checked.gif'/>";
status=true;
}
if(password.length<6){
document.getElementById("passwordloc").innerHTML=
" <img src='unchecked.gif'/> Password must be at least 6 char long";
status=false;
}else{
```

```
document.getElementById("passwordloc").innerHTML=" <img src='checked.gif'/
>";
}
return status;
}
</script>

<form name="f1" action="#" onsubmit="return validate()">
<table>
<tr><td>Enter Name:</td><td><input type="text" name="name"/>
<span id="nameloc"></span></td></tr>
<tr><td>Enter Password:</td><td><input type="password" name="passwo
rd"/>
<span id="passwordloc"></span></td></tr>
<tr><td colspan="2"><input type="submit" value="register"/></td></tr>

</table>
</form>
```

Solution D:

We can validate the email by the help of JavaScript.

There are many criteria that need to be follow to validate the email id such as:

- email id must contain the @ and . character
- There must be at least one character before and after the @.
- There must be at least two characters after . (dot).

Let's see the simple example to validate the email field.

```
<script>
function validateemail()
{
var x=document.myform.email.value;
var atposition=x.indexOf("@");
var dotposition=x.lastIndexOf(".");
if (atposition<1 || dotposition<atposition+2 || dotposition+2>=x.length){
```

```
  alert("Please enter a valid e-
mail address \n atpostion:"+atposition+"\n dotposition:"+dotposition);
  return false;
  }
}
</script>
<body>
<form name="myform"  method="post" action="#" onsubmit="return validatee
mail();">
Email: <input type="text" name="email"><br/>

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