Lesson-End Project
Programming and Managing the Behavior of Web Pages Dynamically

Project agenda: To program and manage the behavior of web pages dynamically

Description: This assignment is designed to help understand working with JavaScript to develop a script that can validate the HTML content in web pages. Further, implement the script code in a separate .js file and include it in the HTML web page to work.

Tools required: Text Editor (VS Code recommended), Web Browser

Prerequisites: HTML, JavaScript

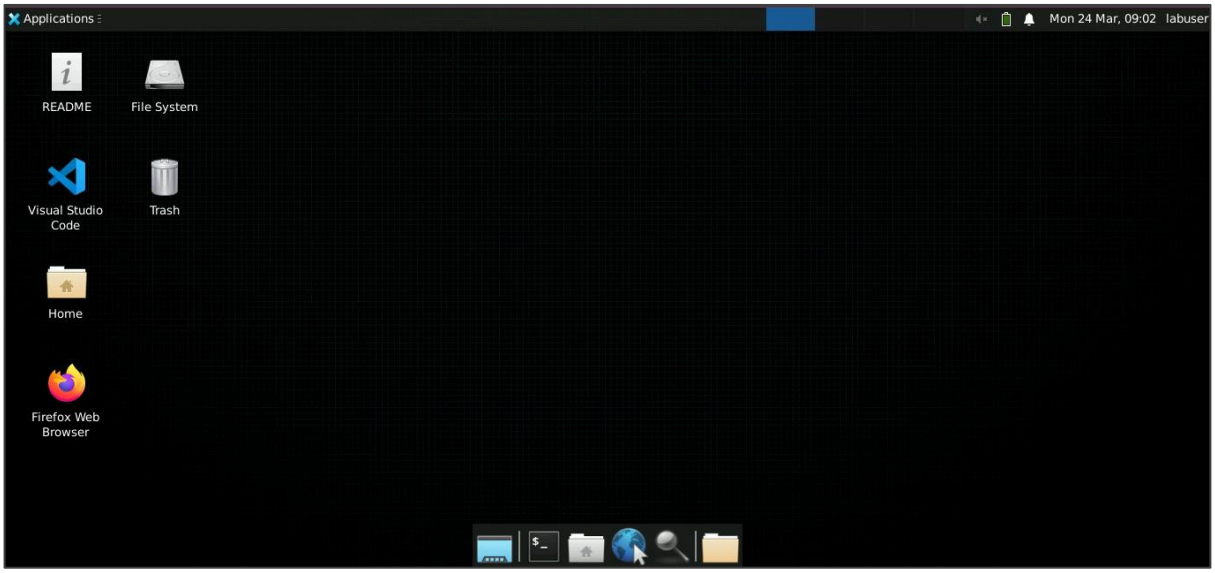
Expected deliverables: A functional JavaScript validation implementation that validates name and email on the client creation page and validates the meeting date on the schedule meeting page, ensuring correctness of user inputs with appropriate alerts.

Steps to be followed:

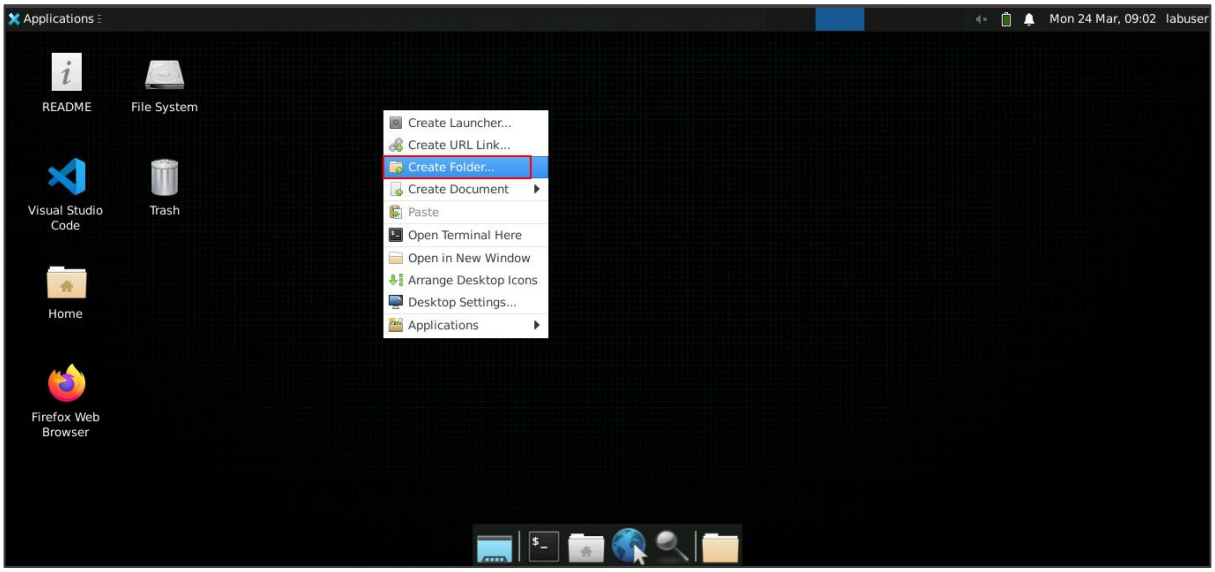
1. Open VS Code and create a new folder
2. Create the initial HTML, CSS, and JS files
3. Create the meeting schedule files
4. Run and test the project

Step 1: Open VS Code and create a new folder

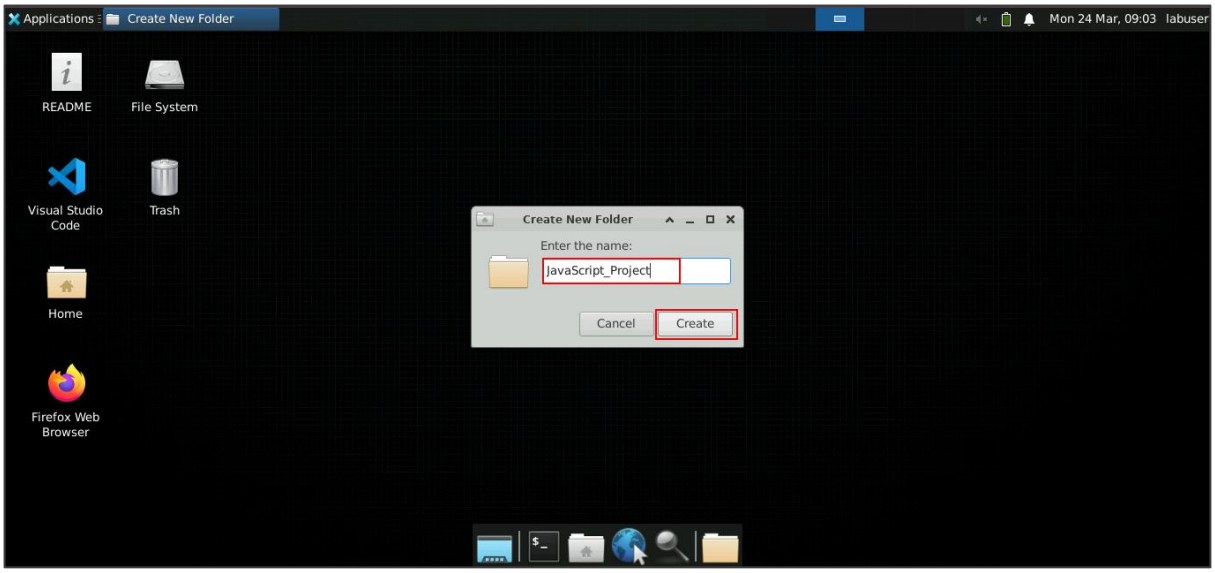
1.1 Open the lab in the LMS portal



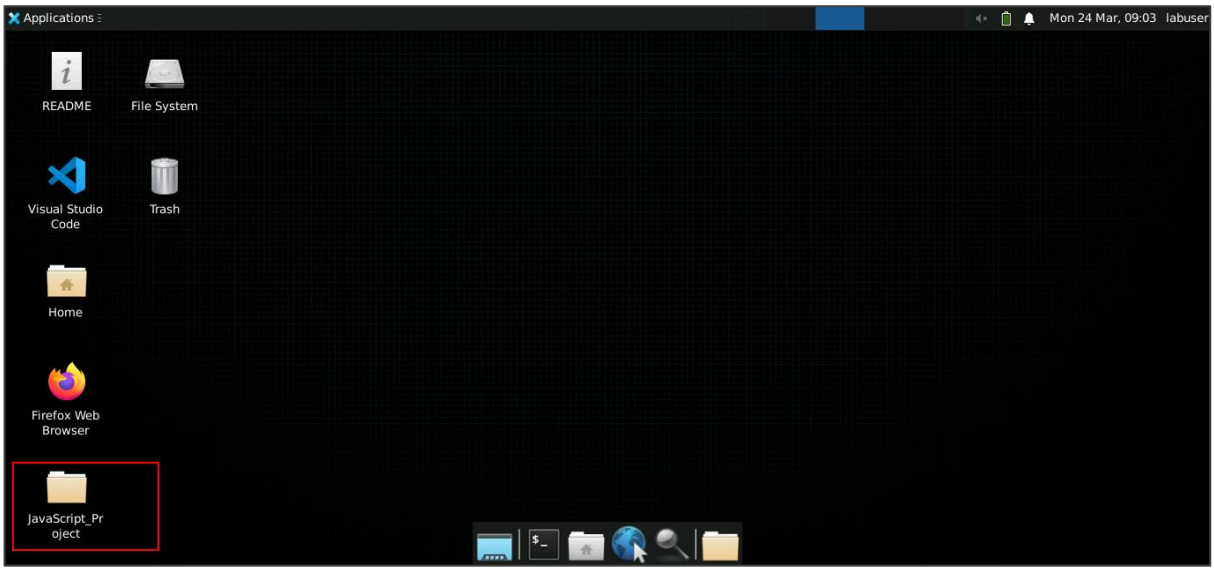
1.2 Right-click on select **Create Folder…**



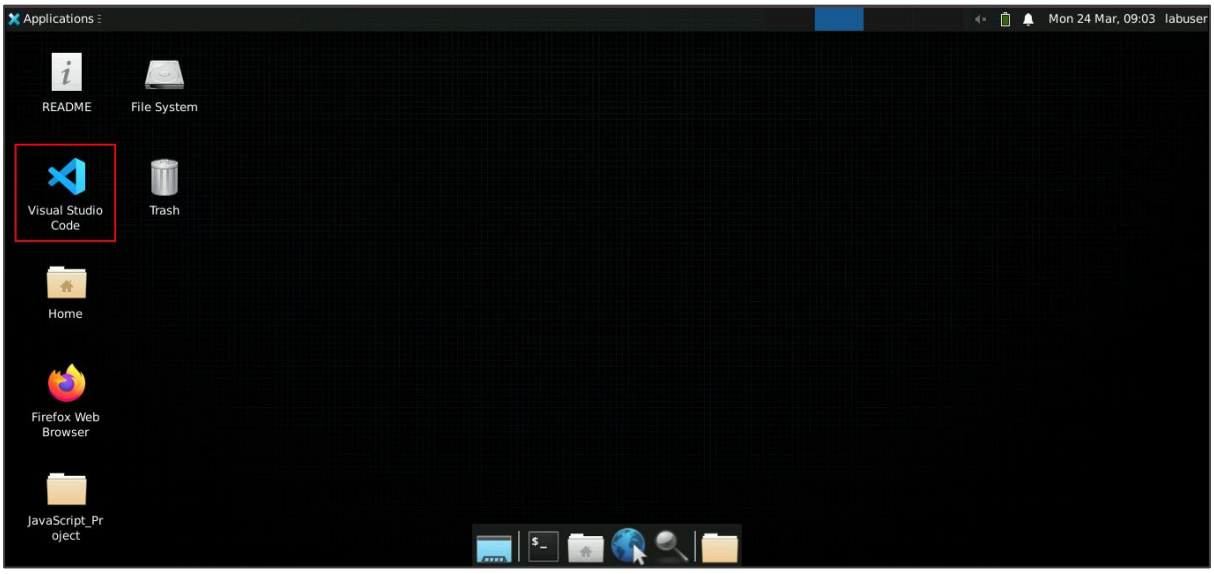
1.3 Enter the folder name as **JavaScript_Project** and click on **Create**



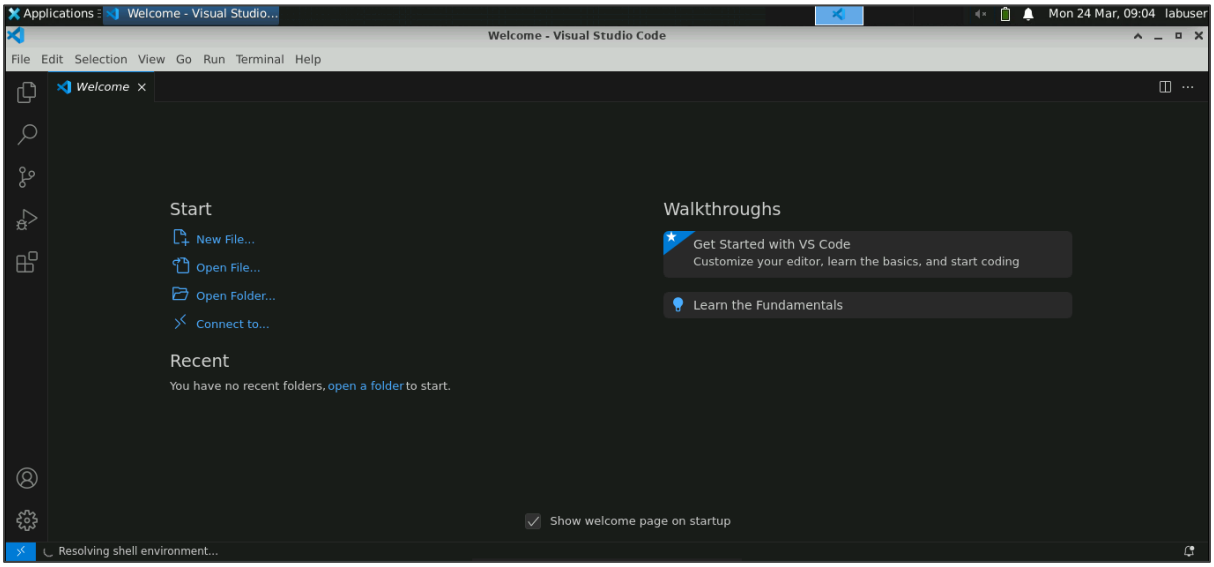
The folder gets created as shown below:



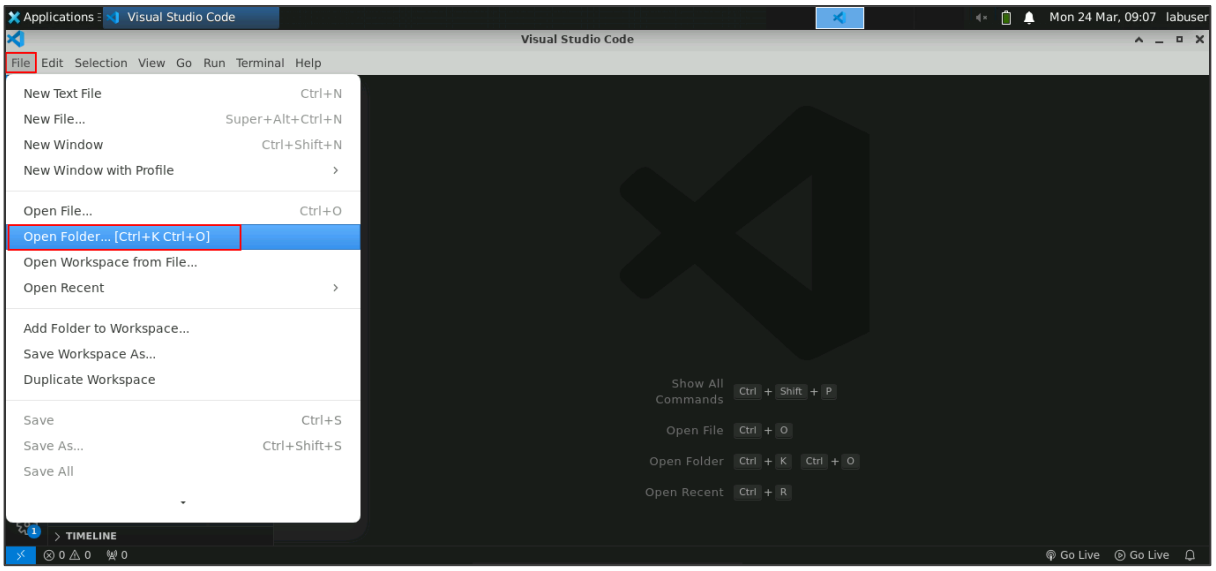
1.4 Double-click on the **Visual Studio Code** icon to open it



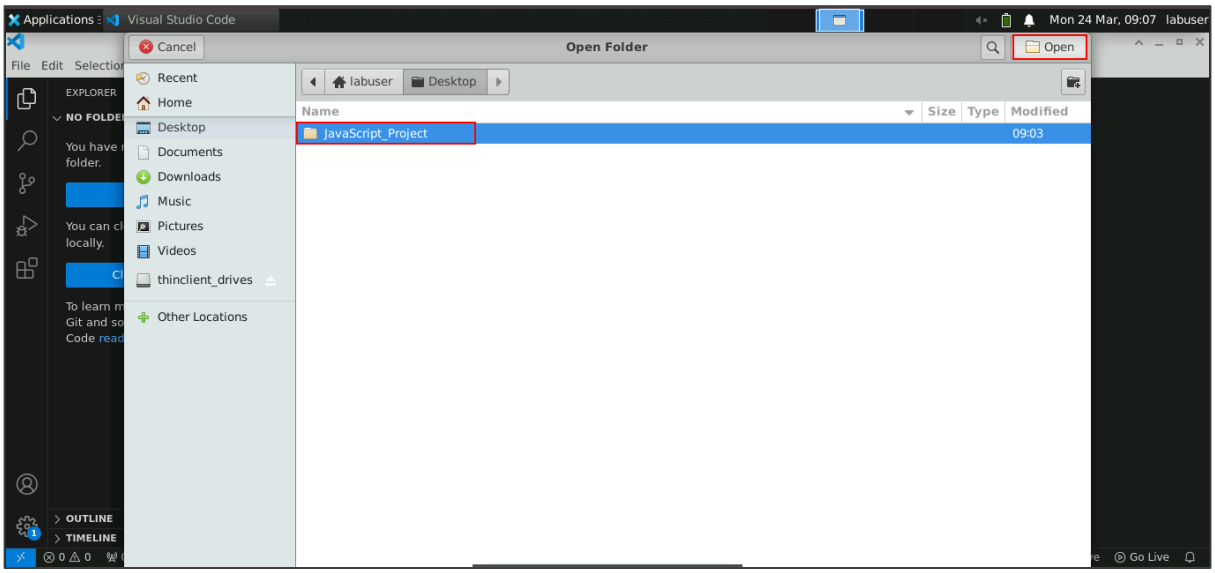
Visual Studio Code opens as shown below:



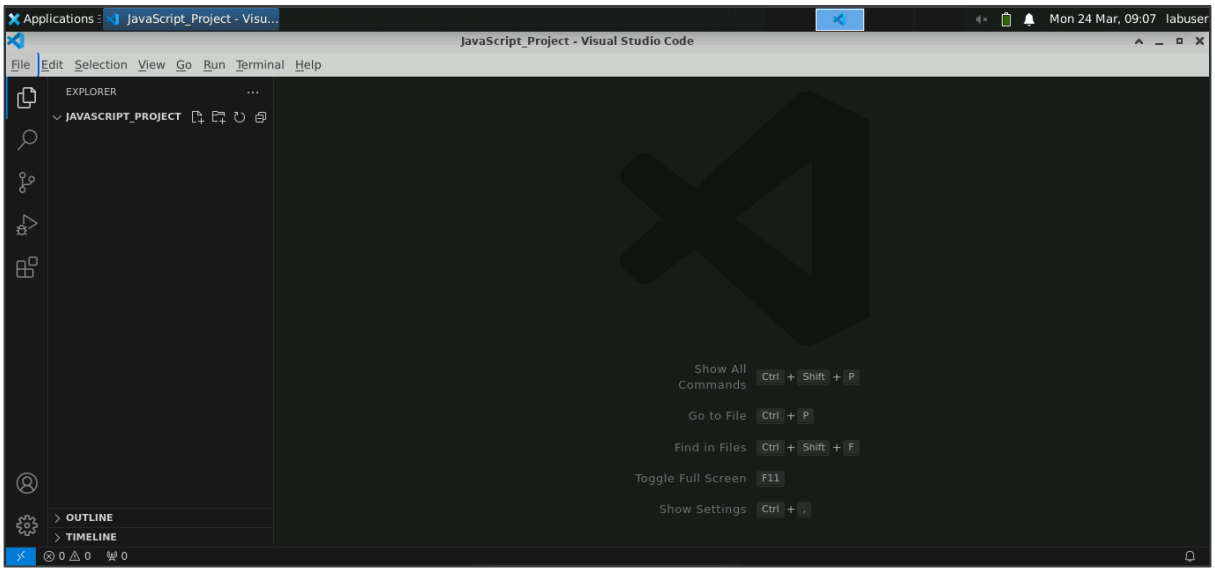
1.5 Click on **File** and select **Open Folder…**



1.6 Select the **JavaScript_Project** folder and click on **Open**

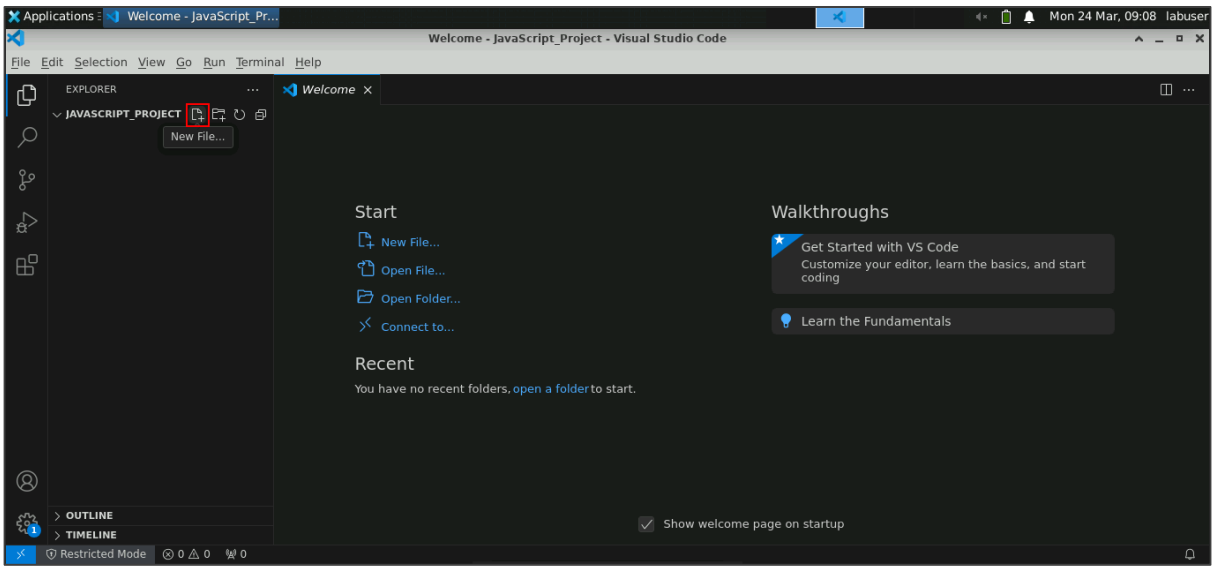


The folder opens as shown below:

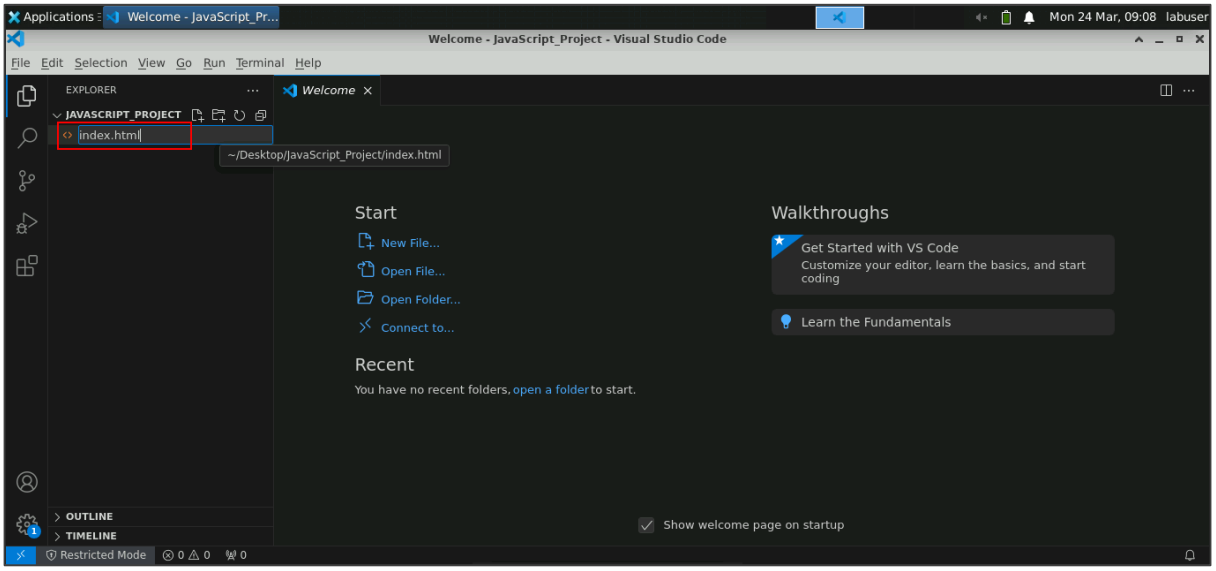


Step 2: Create the initial HTML, CSS, and JS files

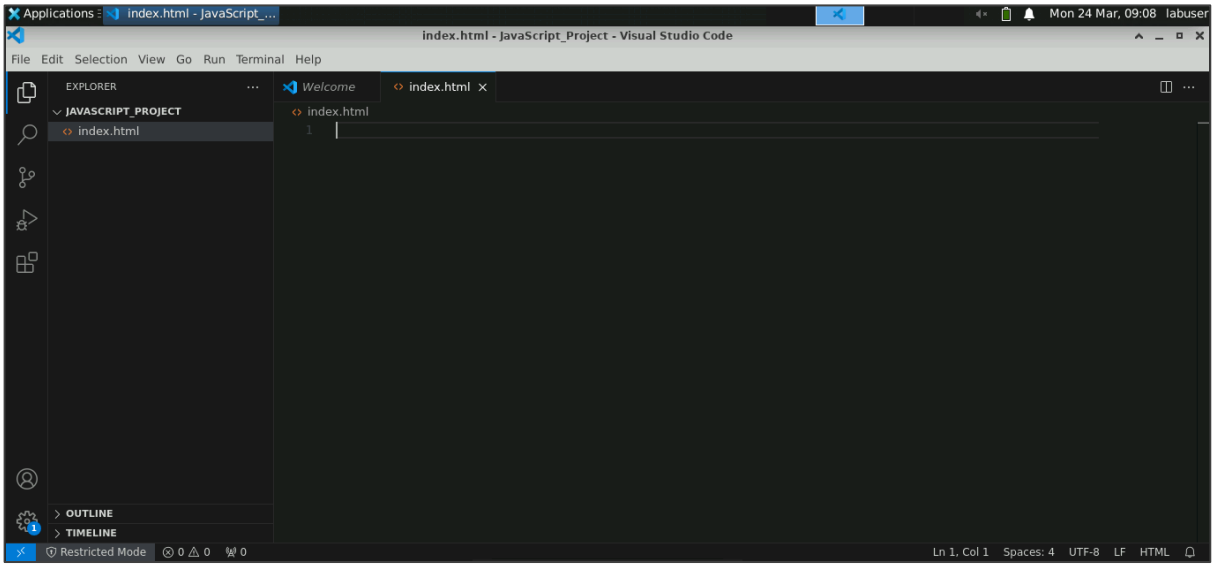
2.1 Click on the **New File** icon



2.2 Enter the file name as **index.html** and press **Enter**



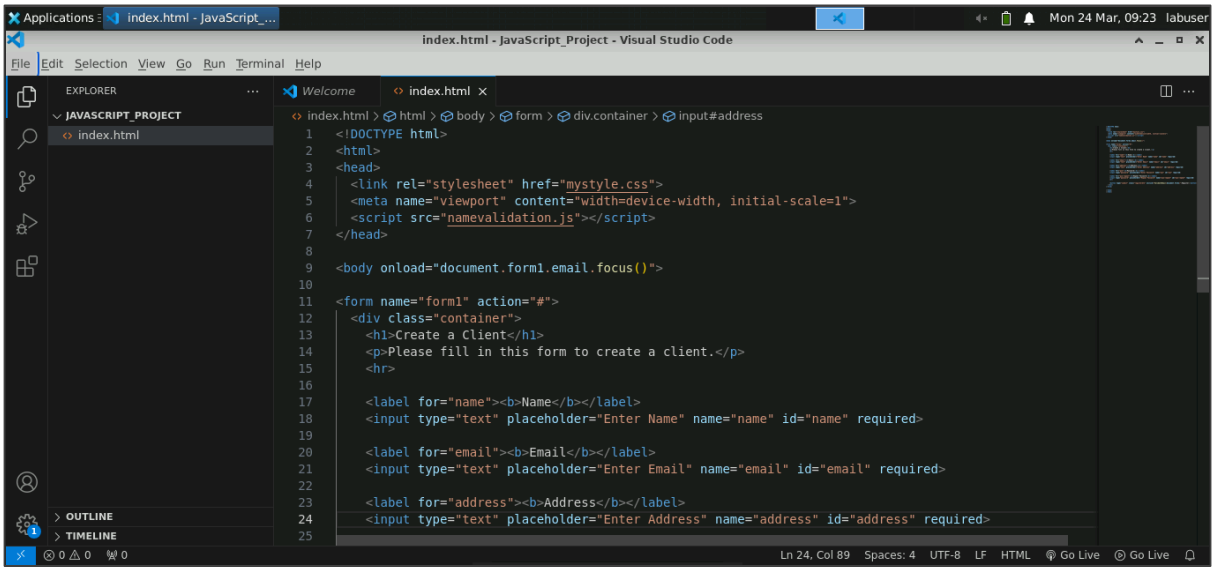
The **index.html** file gets created as shown below:

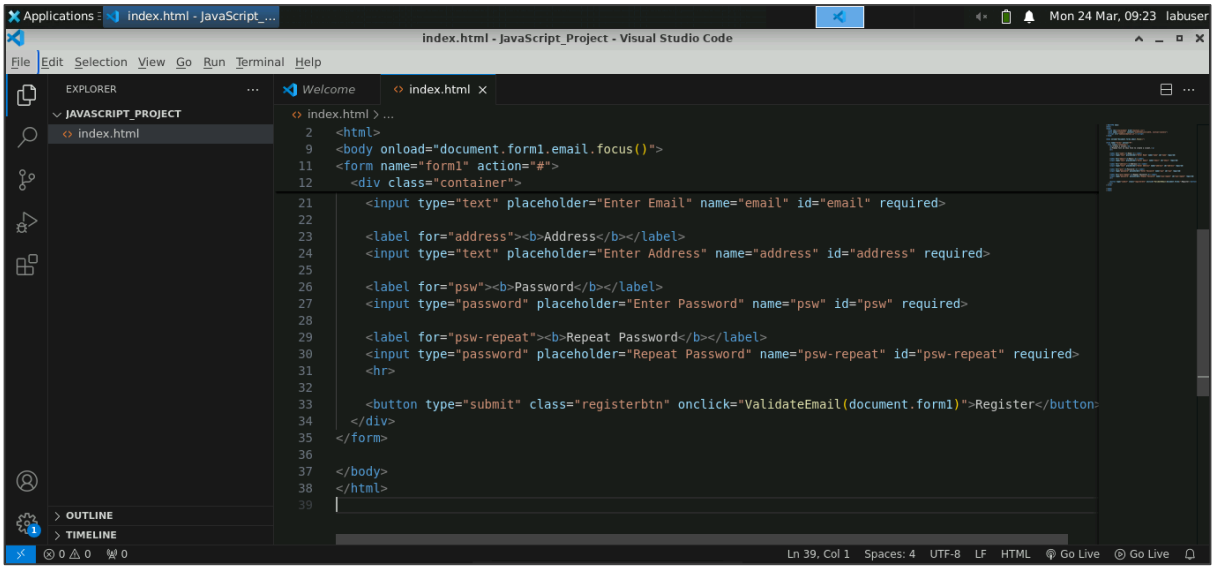


2.3 Enter the code below in the **index.html** file and save the file by clicking on **ctrl** + **s**

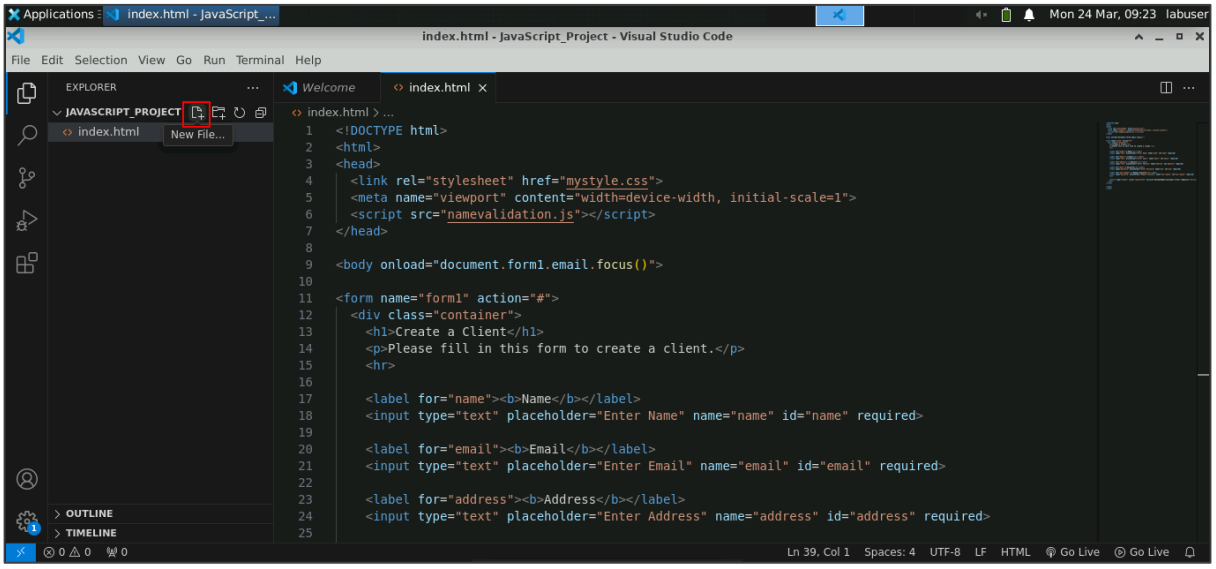
```
<!DOCTYPE html>
<html>
<head>
 <link rel="stylesheet" href="mystyle.css">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <script src="namevalidation.js"></script>
</head>

<body onload="document.form1.email.focus()">

<form name="form1" action="#">
 <div class="container">
  <h1>Create a Client</h1>
  <p>Please fill in this form to create a client.</p>
  <hr>

  <label for="name"><b>Name</b></label>
  <input type="text" placeholder="Enter Name" name="name" id="name"
required>

  <label for="email"><b>Email</b></label>
  <input type="text" placeholder="Enter Email" name="email" id="email"
required>

  <label for="address"><b>Address</b></label>
```

```
   <input type="text" placeholder="Enter Address" name="address" id="address" required>

   <label for="psw"><b>Password</b></label>
   <input type="password" placeholder="Enter Password" name="psw" id="psw" required>

   <label for="psw-repeat"><b>Repeat Password</b></label>
   <input type="password" placeholder="Repeat Password" name="psw-repeat" id="psw-repeat" required>
   <hr>

   <button type="submit" class="registerbtn" onclick="ValidateEmail(document.form1)">Register</button>
  </div>
</form>

</body>
</html>
```

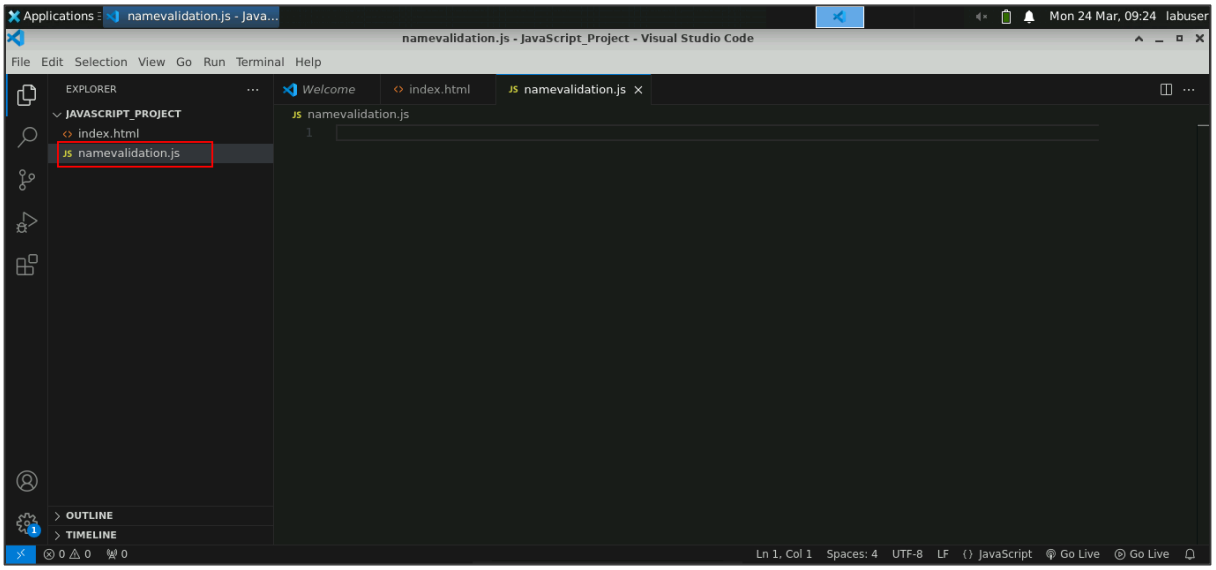




2.4 Click on the **New File** icon

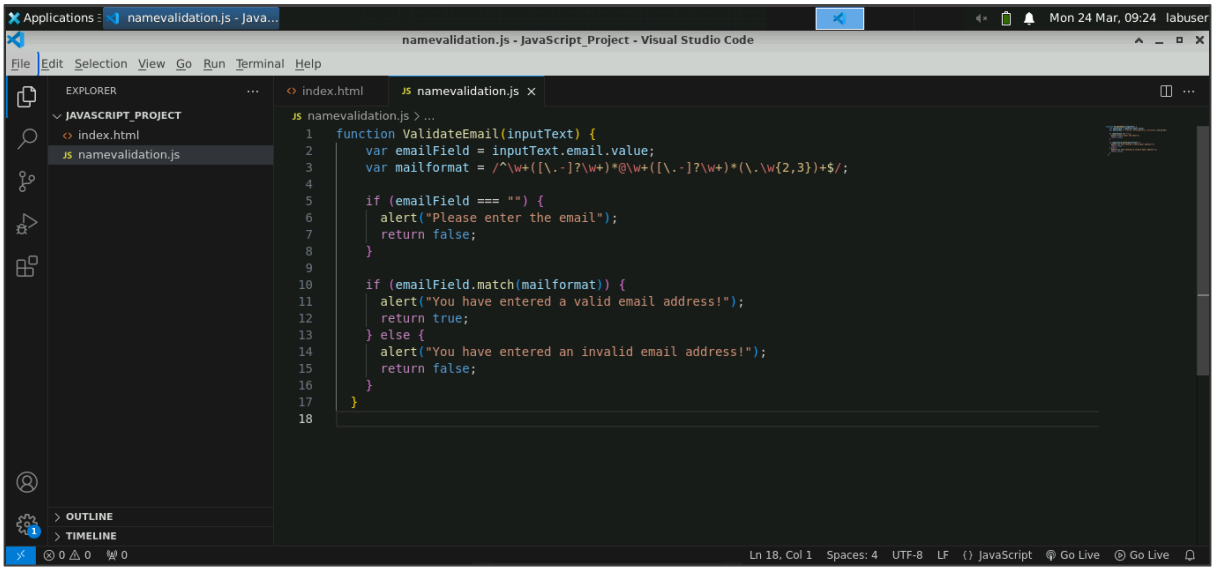


2.5 Enter the file name as **namevalidation.js** and press **Enter**



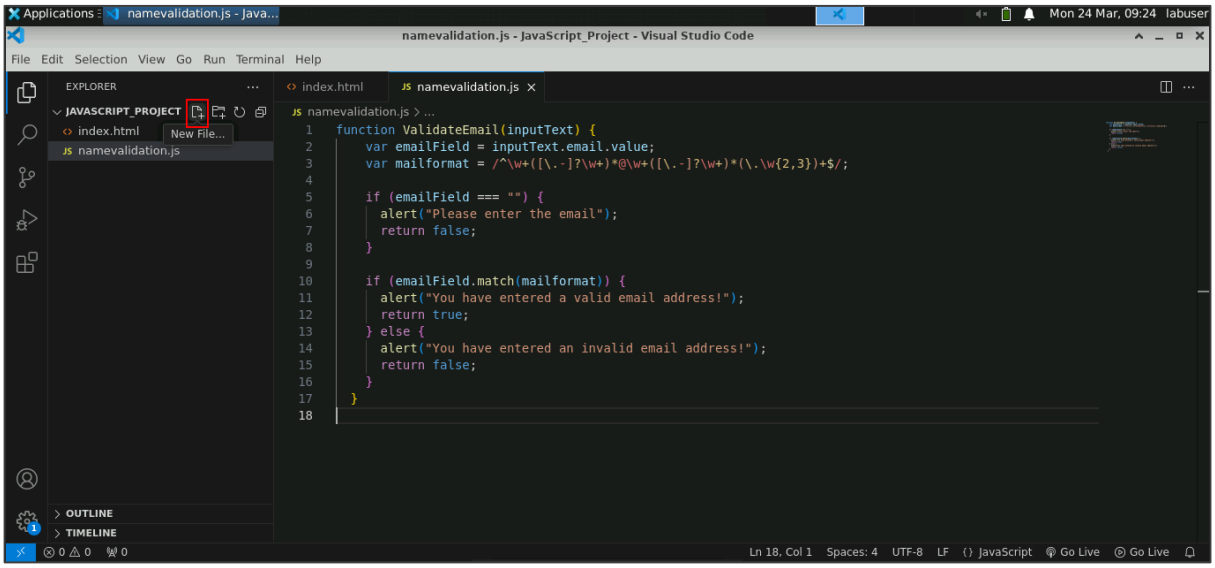
2.6 Enter the code below in the **namevalidation.js** and save the file by clicking on **ctrl** + **s:**

```
function ValidateEmail(inputText) {
 var emailField = inputText.email.value;
 var mailformat = /^\w+([\.-]?\w+)*@\w+([\.-]?\w+)*(\.\w{2,3})+$/;

 if (emailField === "") {
  alert("Please enter the email");
  return false;
 }

 if (emailField.match(mailformat)) {
  alert("You have entered a valid email address!");
  return true;
 } else {
  alert("You have entered an invalid email address!");
  return false;
 }
}
```



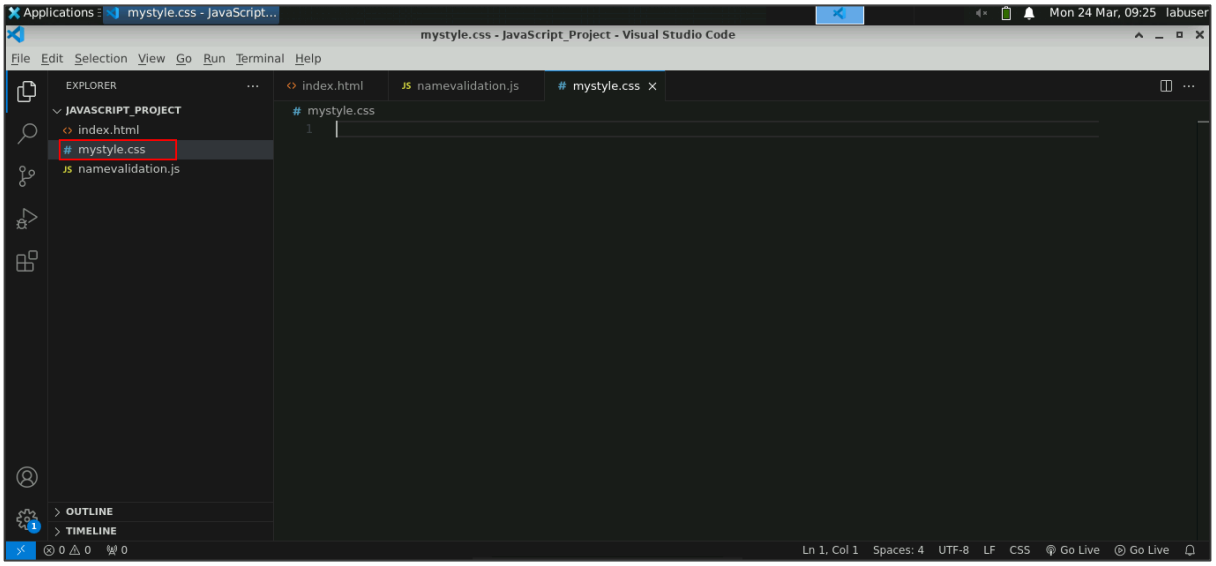

```
function ValidateEmail(inputText) {
    var emailField = inputText.email.value;
    var mailformat = /^\w+([\.-]?\w+)*@\w+([\.-]?\w+)*(\.\w{2,3})+$/;

    if (emailField === "") {
      alert("Please enter the email");
      return false;
    }

    if (emailField.match(mailformat)) {
      alert("You have entered a valid email address!");
      return true;
    } else {
      alert("You have entered an invalid email address!");
      return false;
    }
  }
```

2.7 Click on **New file** icon




```
function ValidateEmail(inputText) {
    var emailField = inputText.email.value;
    var mailformat = /^\w+([\.-]?\w+)*@\w+([\.-]?\w+)*(\.\w{2,3})+$/;

    if (emailField === "") {
      alert("Please enter the email");
      return false;
    }

    if (emailField.match(mailformat)) {
      alert("You have entered a valid email address!");
      return true;
    } else {
      alert("You have entered an invalid email address!");
      return false;
    }
  }
```

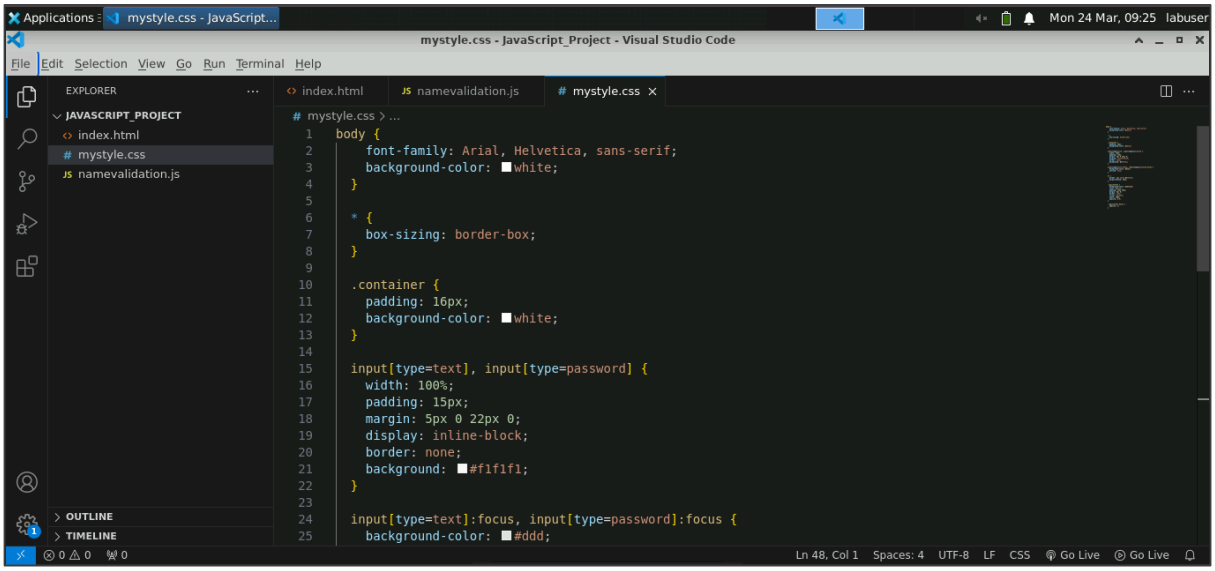
2.8 Enter the file name as **mystyle.css** and press **Enter**

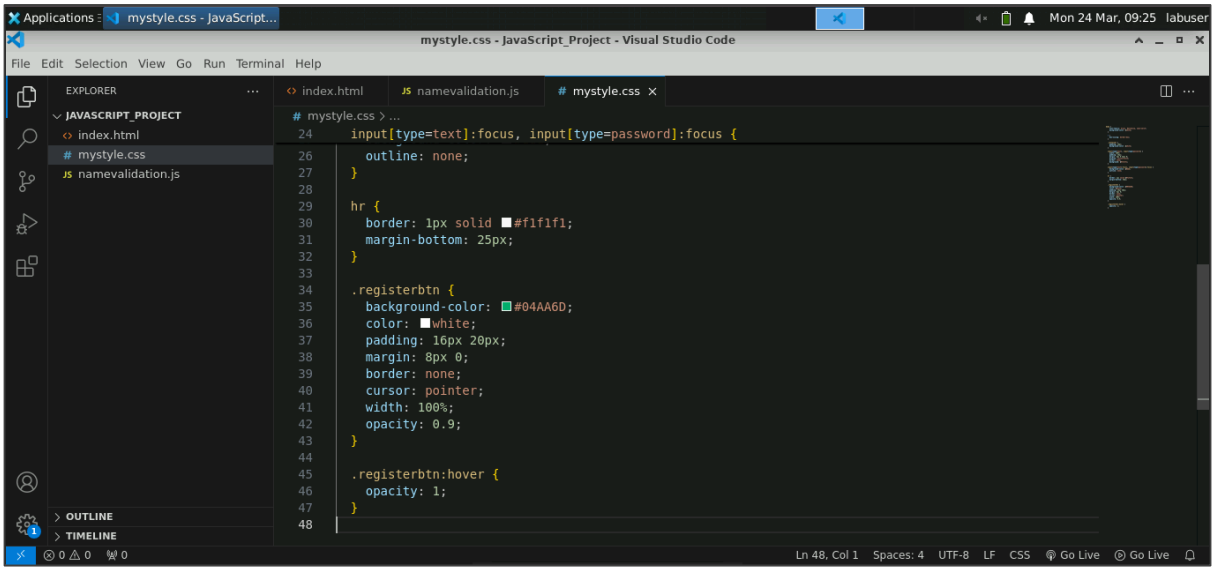


2.9 Enter the below code in the **mystyle.css** file and save the file by clicking on **ctrl** + **s:**

```
body {
  font-family: Arial, Helvetica, sans-serif;
  background-color: white;
}

* {
  box-sizing: border-box;
}

.container {
  padding: 16px;
  background-color: white;
}

input[type=text], input[type=password] {
  width: 100%;
  padding: 15px;
  margin: 5px 0 22px 0;
  display: inline-block;
  border: none;
  background: #f1f1f1;
}

input[type=text]:focus, input[type=password]:focus {
  background-color: #ddd;
```

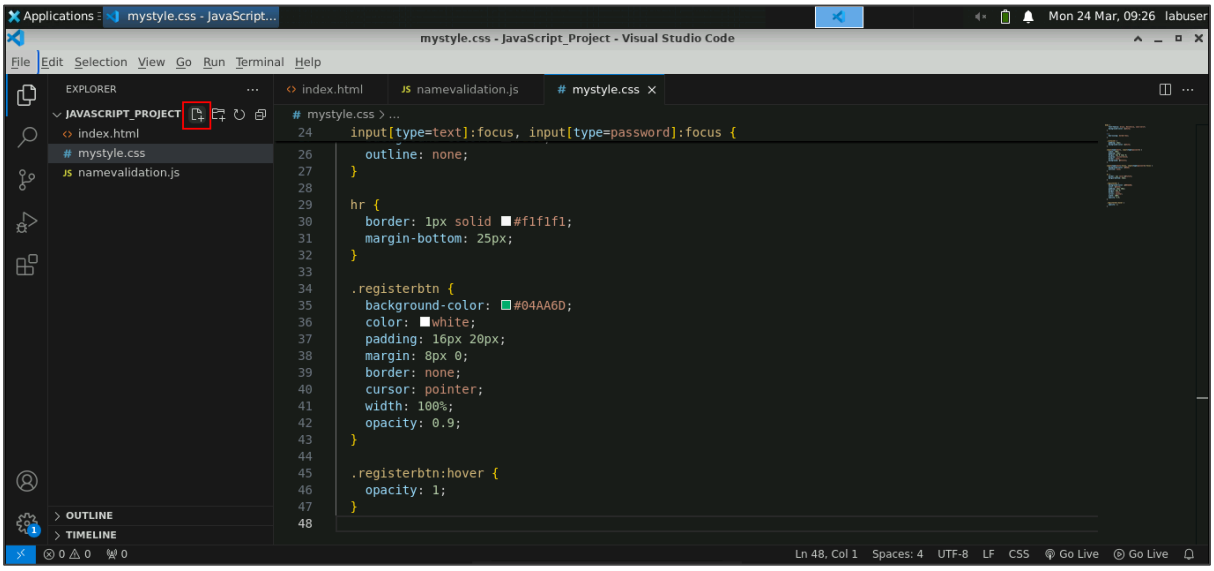
```
  outline: none;
}

hr {
  border: 1px solid #f1f1f1;
  margin-bottom: 25px;
}

.registerbtn {
  background-color: #04AA6D;
  color: white;
  padding: 16px 20px;
  margin: 8px 0;
  border: none;
  cursor: pointer;
  width: 100%;
  opacity: 0.9;
}

.registerbtn:hover {
  opacity: 1;
}
```



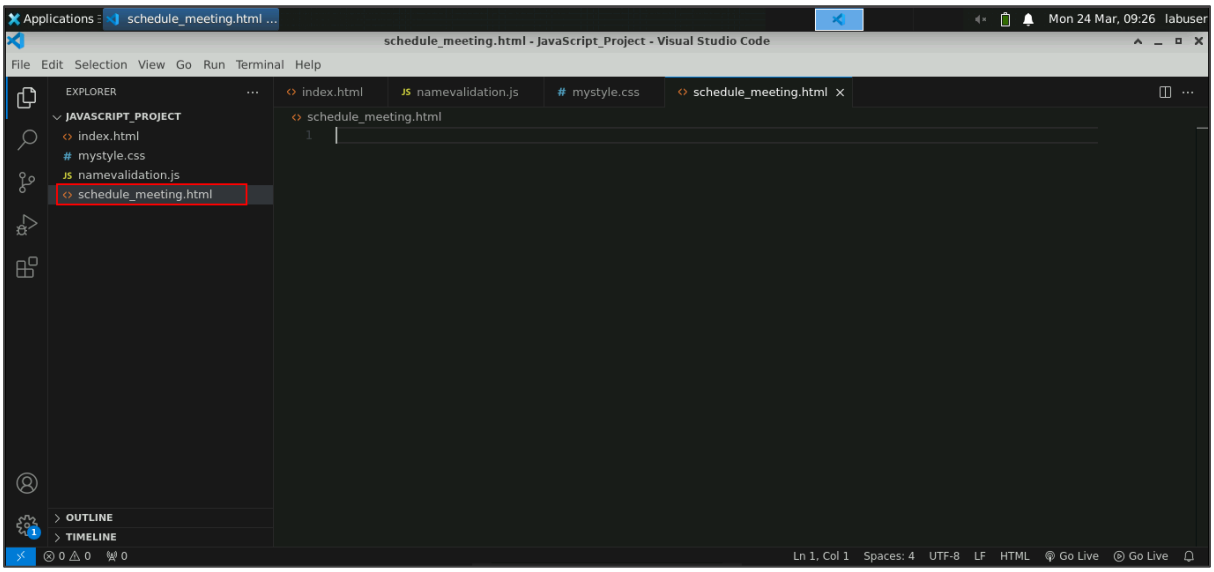


Step 3: Create the meeting schedule files

3.1 Click on the **New File** icon



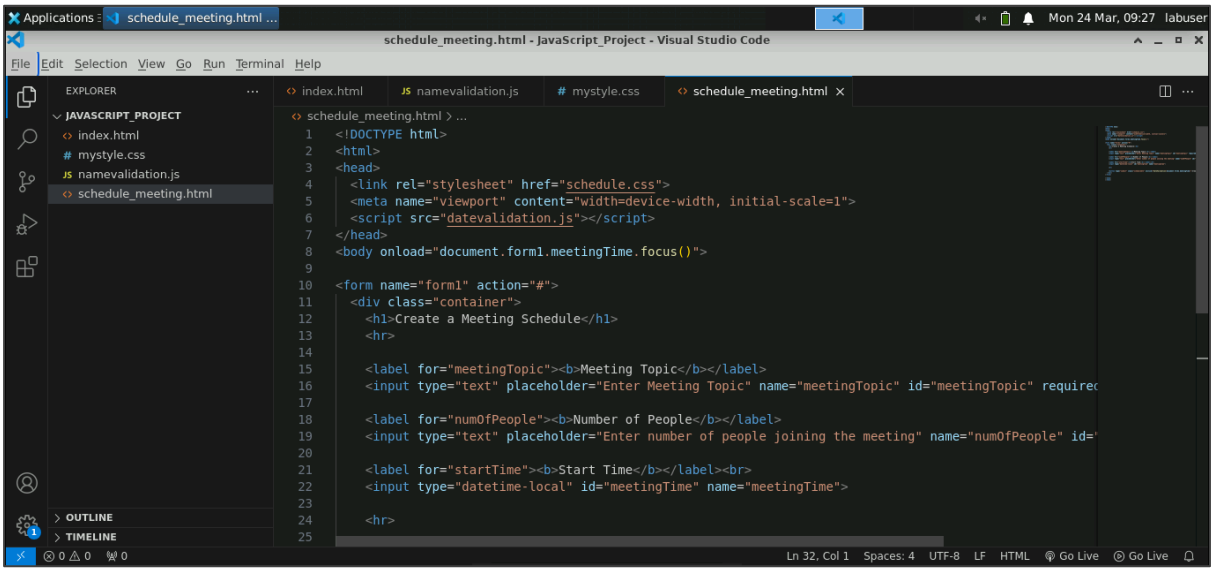
3.2 Enter the file name as **schedule_meeting.html** and press **Enter**

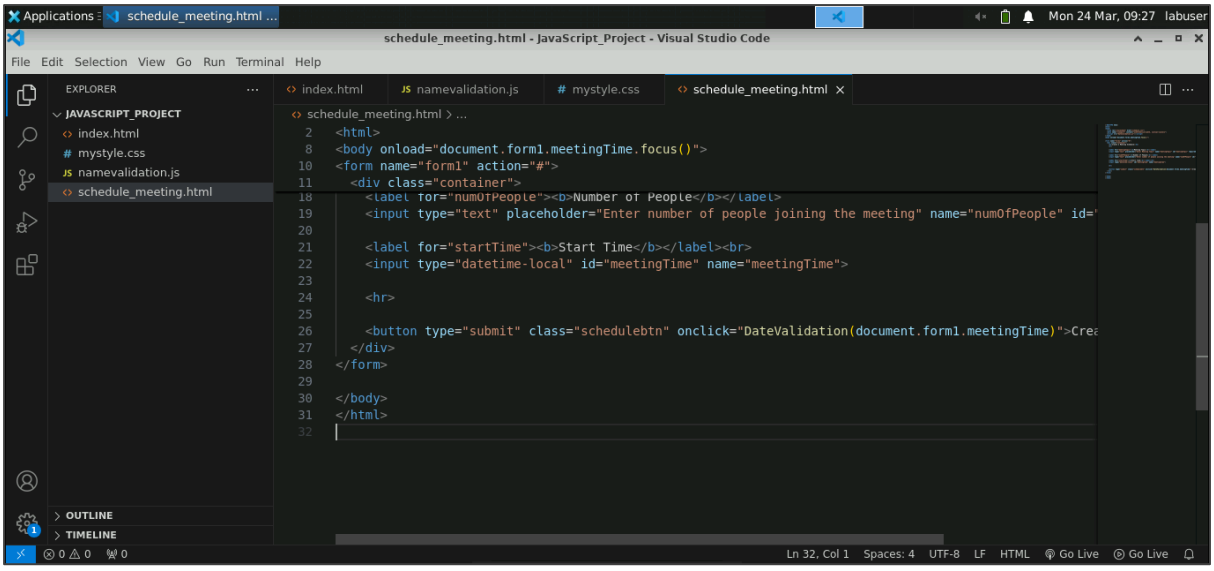


3.3 Enter the code below in the **schedule_meeting.html** and save the file by clicking on **ctrl + s:**

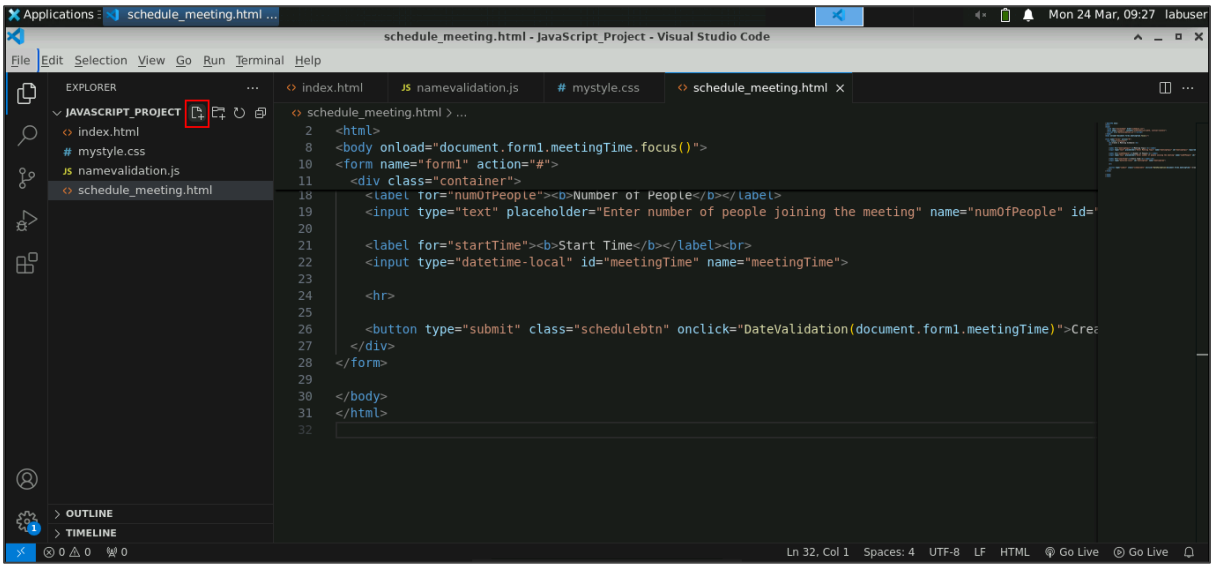
```
<!DOCTYPE html>
<html>
<head>
 <link rel="stylesheet" href="schedule.css">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <script src="datevalidation.js"></script>
</head>
<body onload="document.form1.meetingTime.focus()">

<form name="form1" action="#">
 <div class="container">
  <h1>Create a Meeting Schedule</h1>
  <hr>

  <label for="meetingTopic"><b>Meeting Topic</b></label>
  <input type="text" placeholder="Enter Meeting Topic" name="meetingTopic"
id="meetingTopic" required>

  <label for="numOfPeople"><b>Number of People</b></label>
  <input type="text" placeholder="Enter number of people joining the meeting"
name="numOfPeople" id="numOfPeople" required>

  <label for="startTime"><b>Start Time</b></label><br>
  <input type="datetime-local" id="meetingTime" name="meetingTime">

  <hr>
```

```
   <button type="submit" class="schedulebtn"
onclick="DateValidation(document.form1.meetingTime)">Create
Schedule</button>
  </div>
</form>

</body>
</html>
```

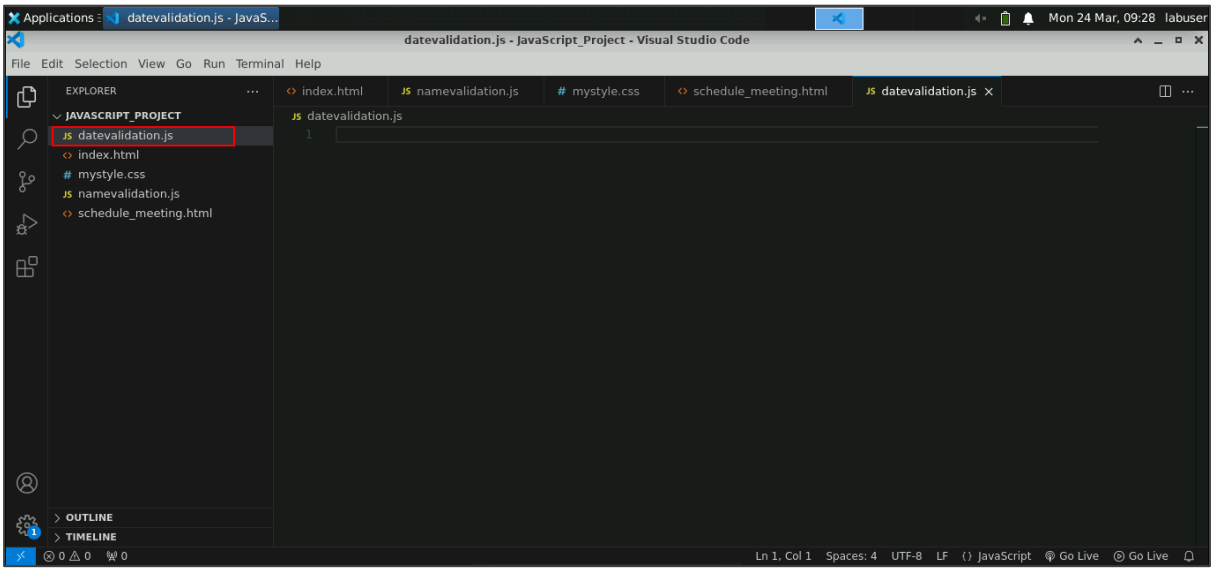




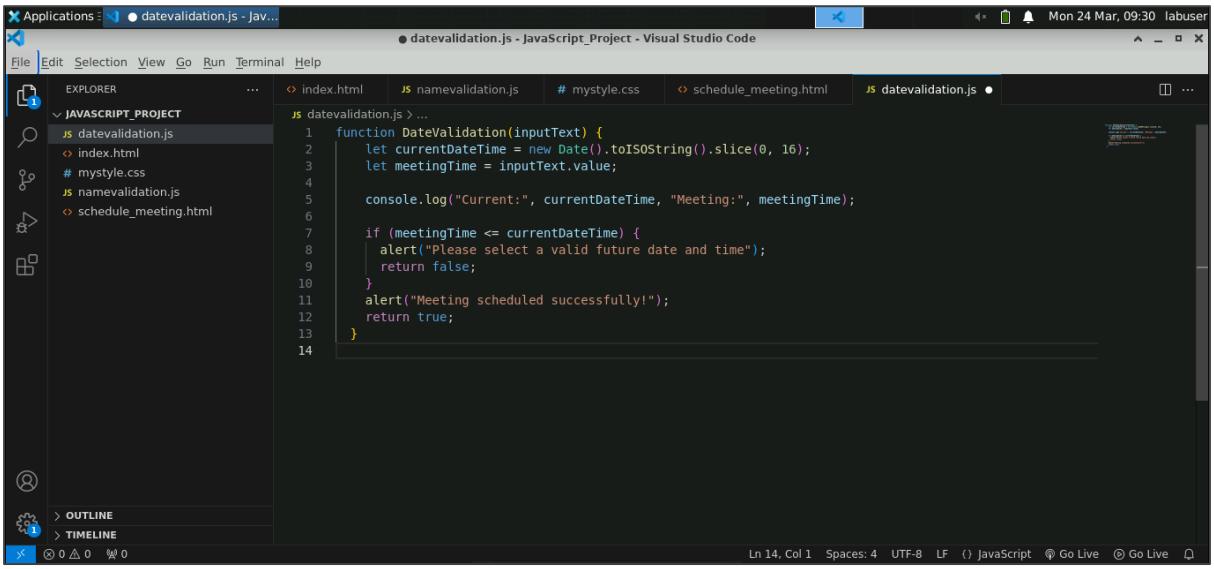
3.4 Click on the **New File** icon



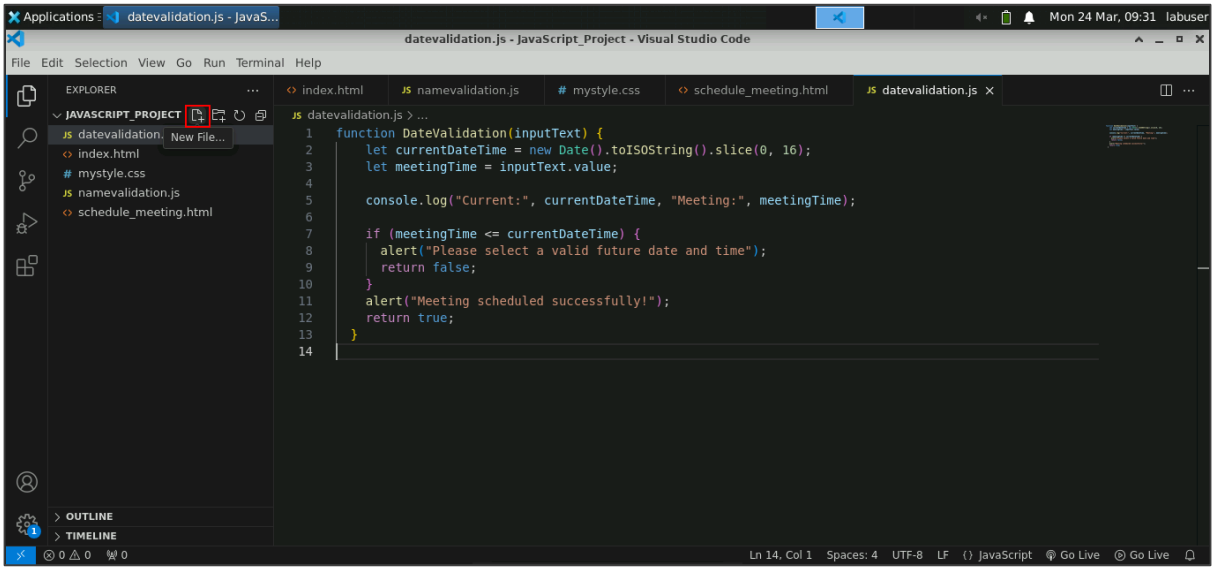
3.5 Enter the file name as **datevalidation.js** and press **Enter**



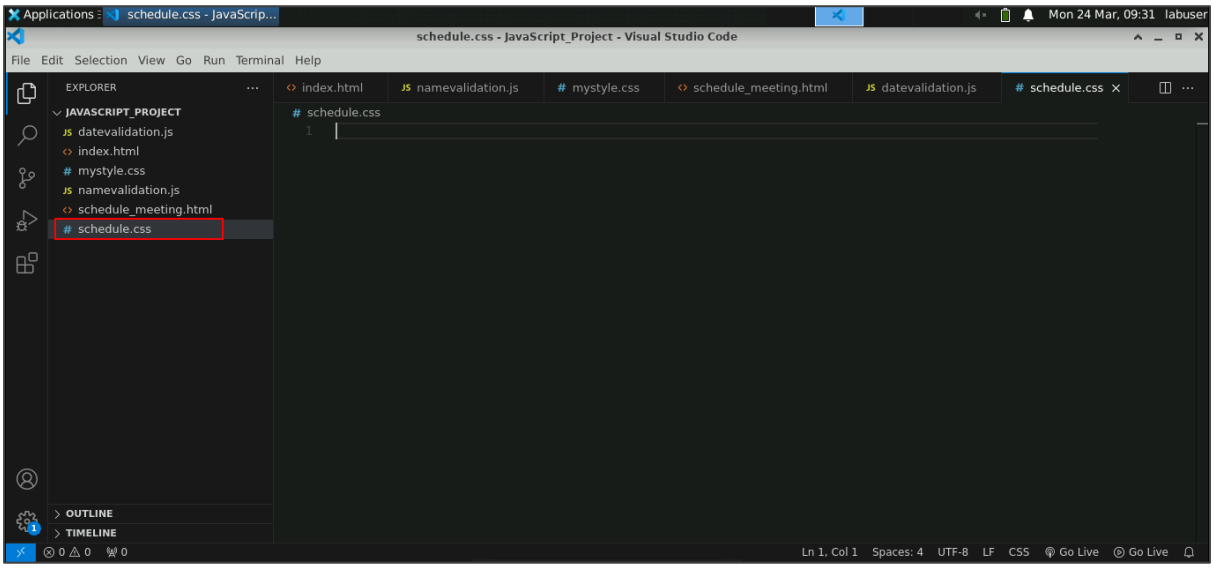
3.6 Enter the code below in the **datevalidation.js** and save the file by clicking on **ctrl** + **s:**



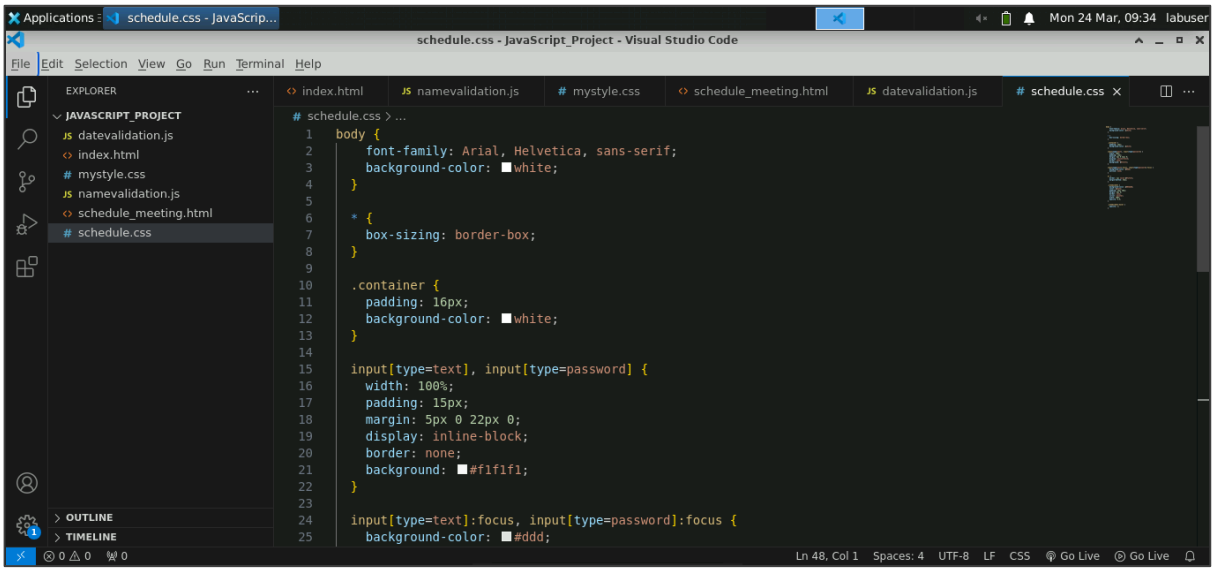
3.7 Click on the **New File** icon

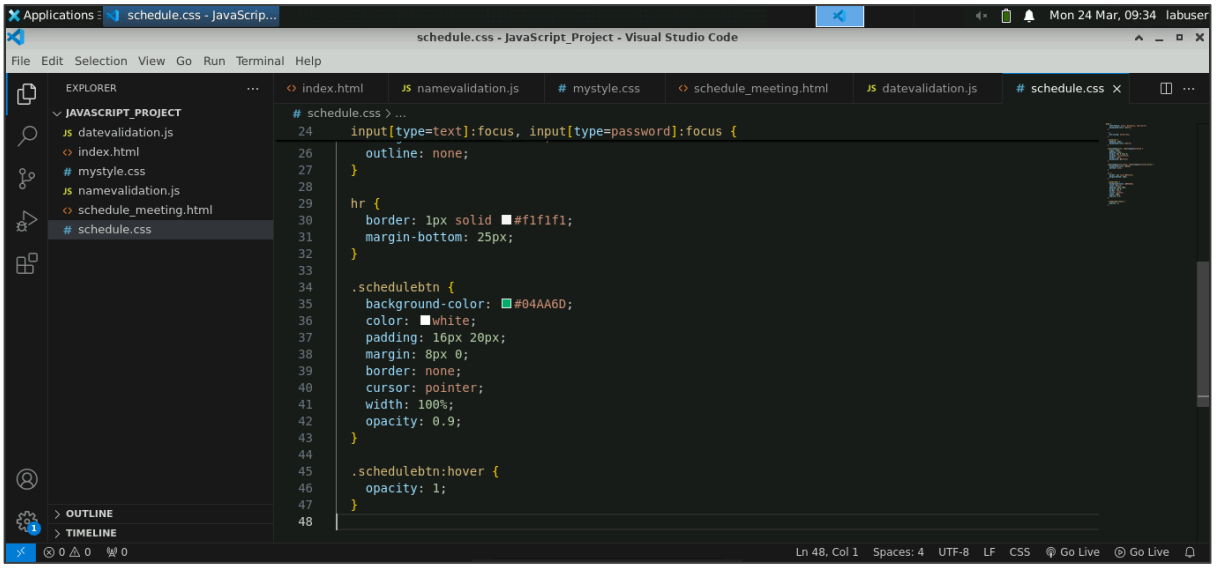


3.8 Enter the file name as **schedule.css** and press **Enter**



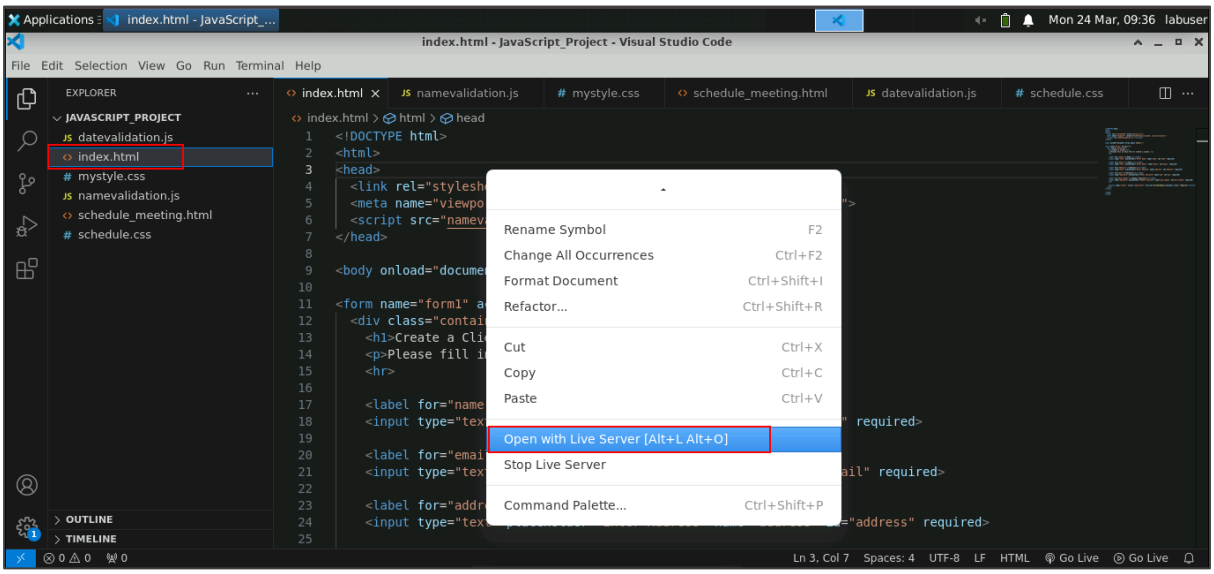
3.9 Enter the code below in the **schedule.css** file and save the file by clicking on **ctrl** + **s:**



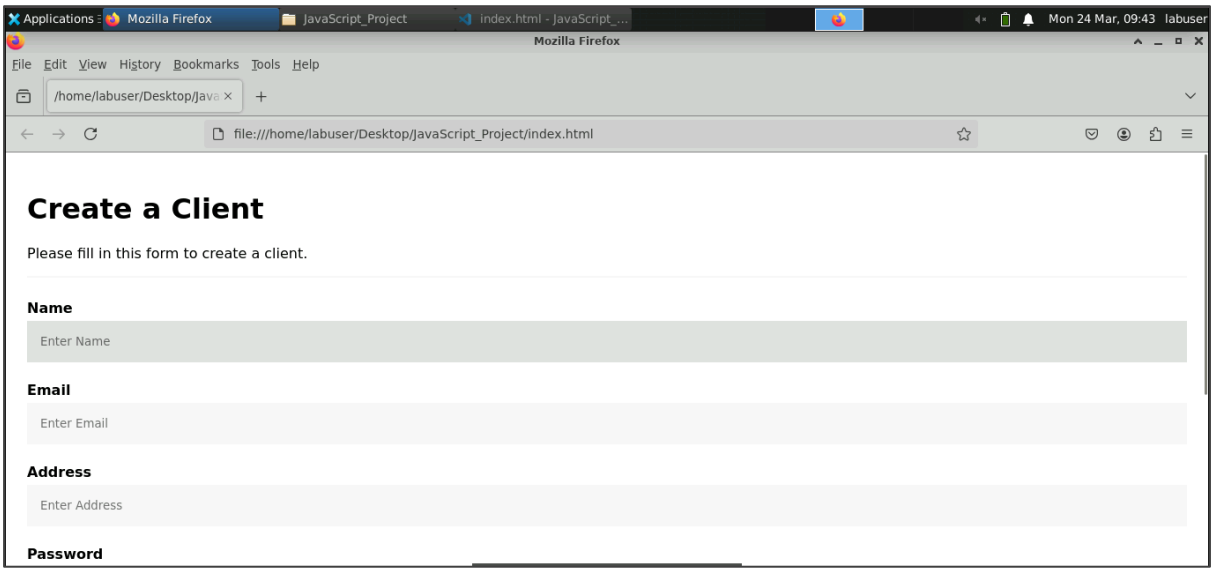


Step 4: Run and test the project

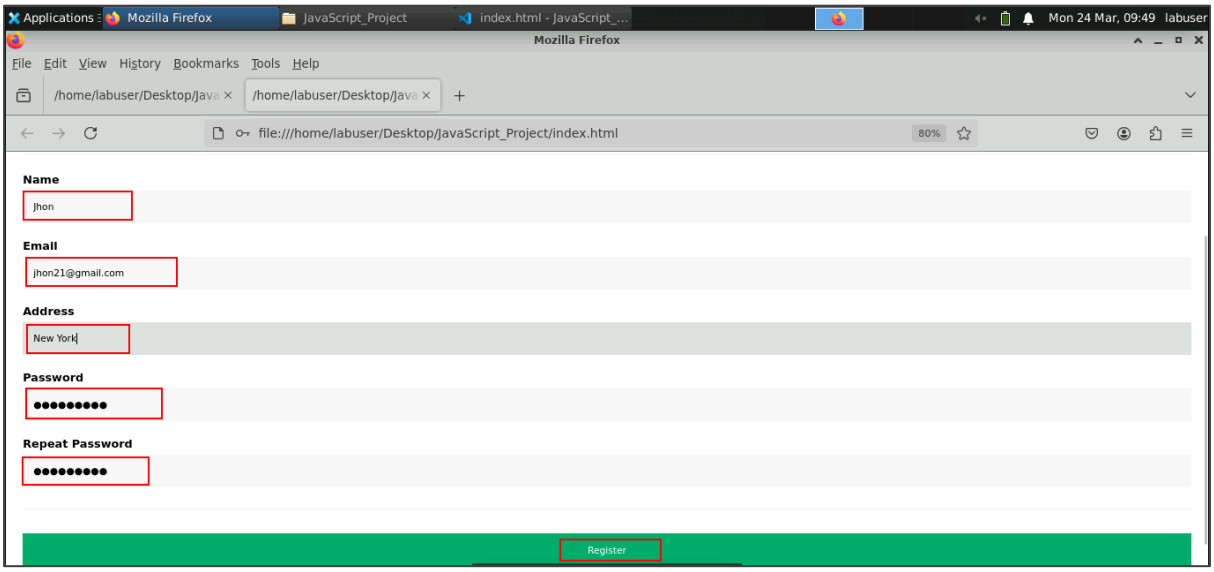
4.1 Navigate to the **index.html** file right click and select **Open with Live Server**



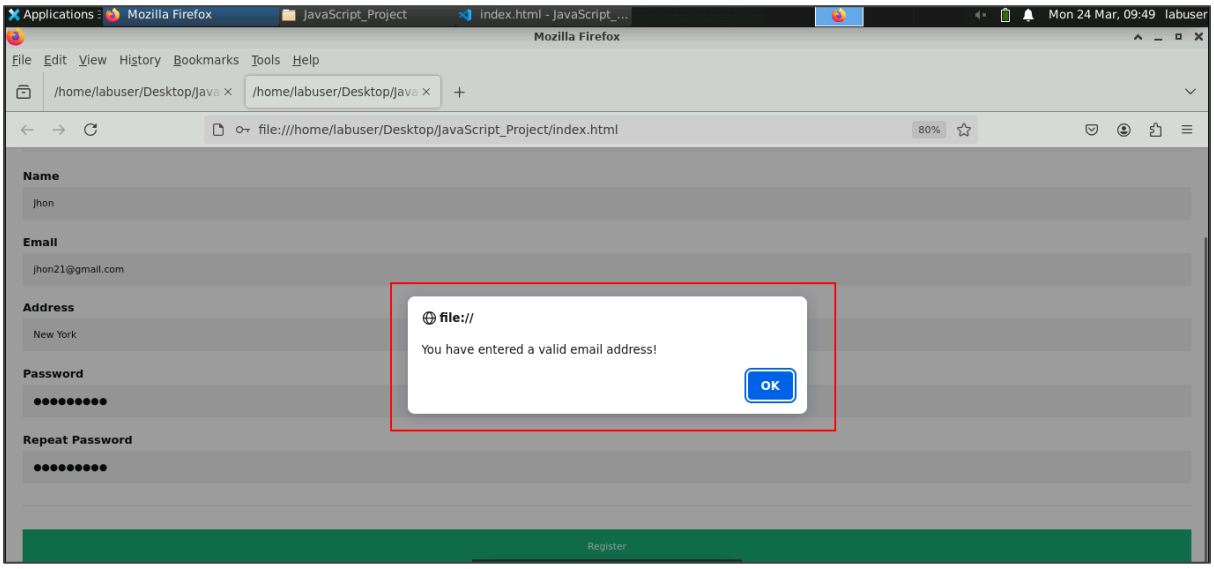
The webpage opens as shown below:



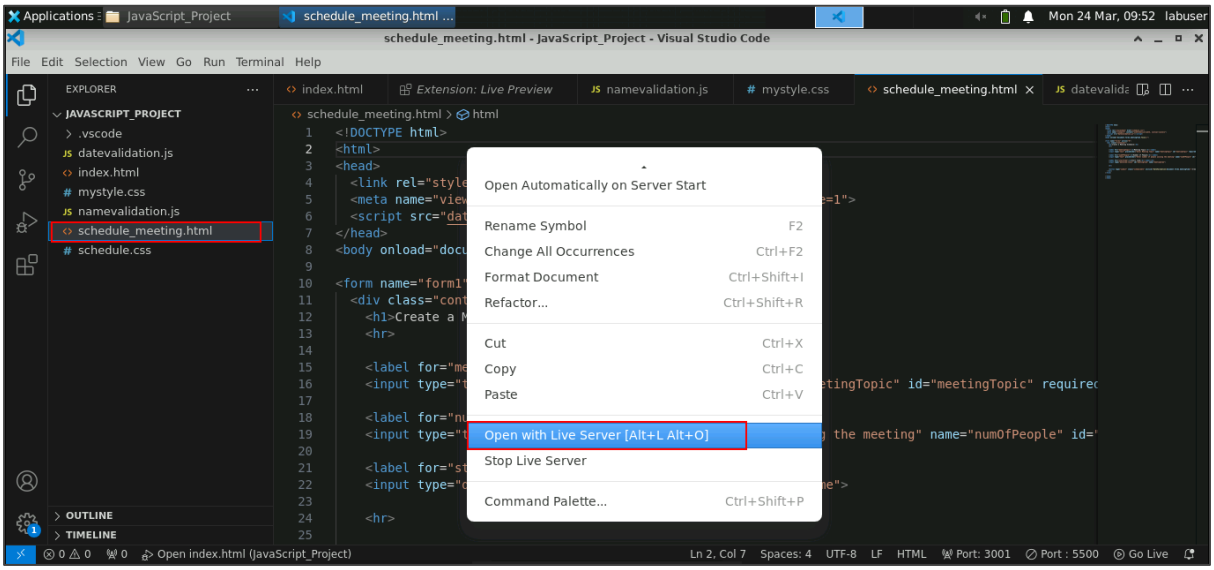
4.2 Enter the required details and click on **Register**



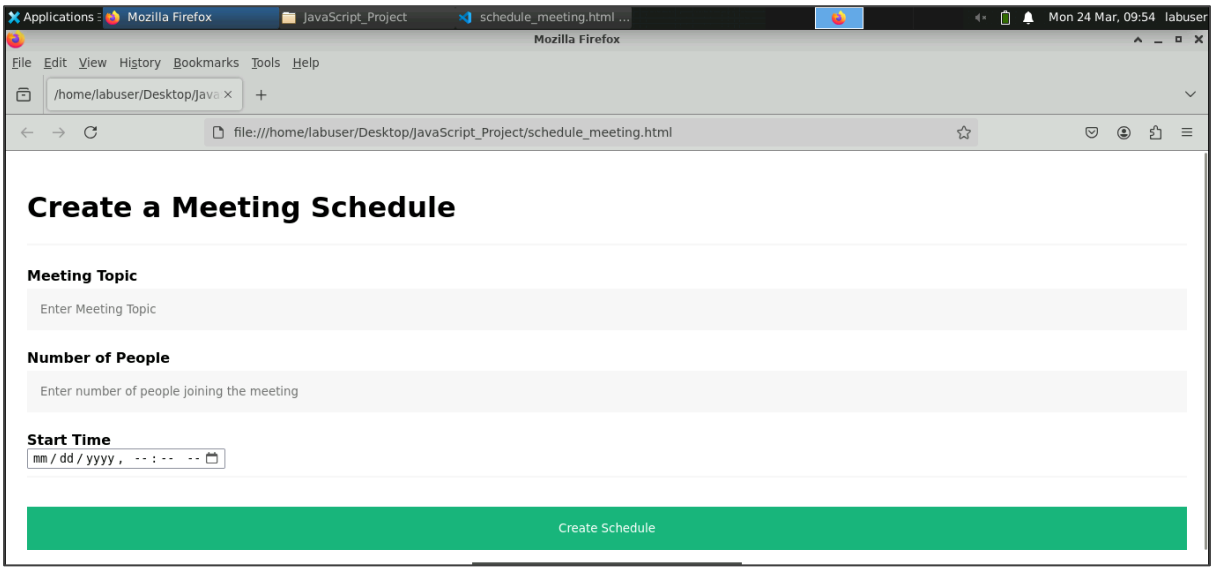
The test is successful as shown below:



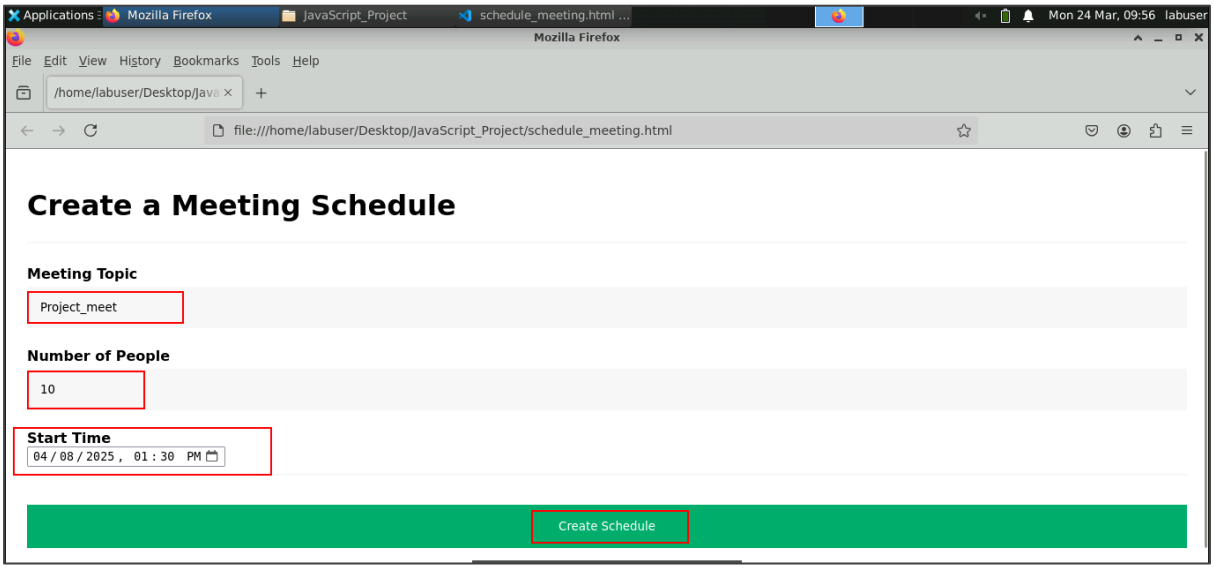
4.3 Navigate to VS Code, right-click on the **schedule_meeting.html** file, and select **Open with Live Server**



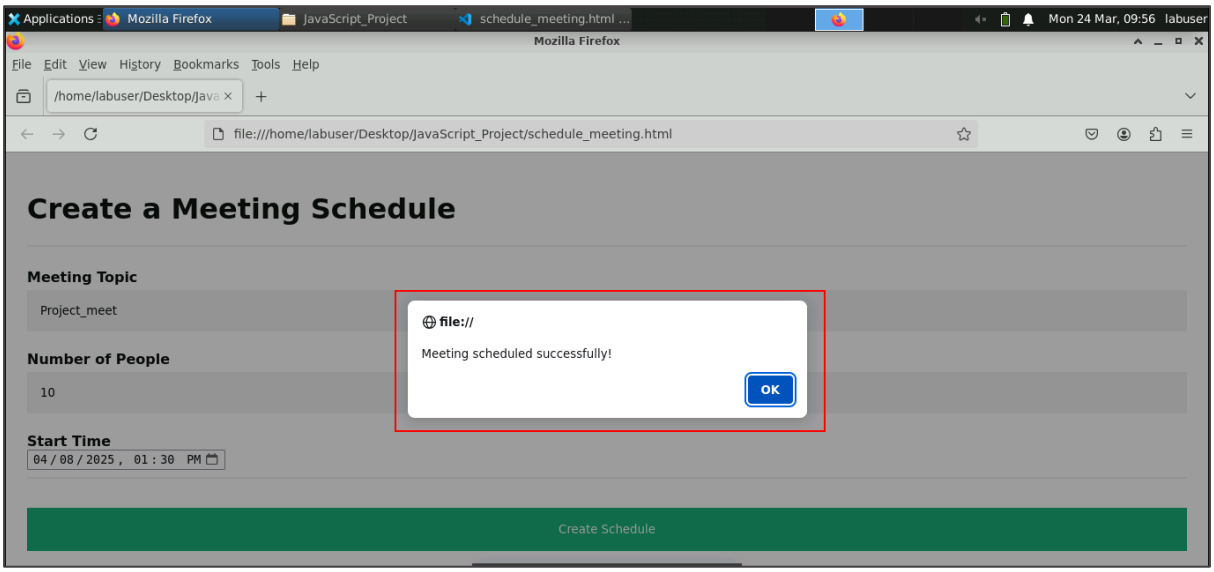
The web page opens as shown below:



4.4 Enter the required details and click on **Create Schedule**



The test for the meeting schedule is successful as shown below:



By following the above steps, you have successfully implemented JavaScript validation to ensure the correctness of user inputs on both the client creation and meeting schedule web pages. Through this process, you have dynamically managed the behavior of web pages by separating validation logic into external JavaScript files, thereby enhancing user interaction and data accuracy within the project.