Ex.no: 4 b)	Forms Walidation union investment
Date: 28/1/2025	Form Validation using javascript

AIM:

To create a Form Validation form using javascript.

DESCRIPTION:

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Form validation in JavaScript ensures that user input meets specified criteria before being submitted the form. This process enhances data accuracy, improves security, and provides a better user experience by catching errors early.

PROCEDURE;

Tags used	Description
<html></html>	Represents the root of an HTML document.
<head></head>	Defines a title in the browser toolbar.
<body></body>	It contains all the contents of an HTML document.
<h1> to <h6></h6></h1>	Used to define the HTML headings.
	Used to define a paragraph.

Javascript keywords	Description		
document.getElementById()	Accesses the HTML element with the id		
innerHTML	a property that allows you to get or set the		
	HTML content inside an element. When		
	used to set content, it interprets any HTML		
	tags as part of the content		
createElement("tag")	Creates a new HTML element (e.g., li,		
	button).		
textContent	Sets or gets the text inside an element.		
remove()	Deletes an element from the DOM		
innerHTML	Sets or gets the HTML inside an element.		
event.preventDefault	Prevents the default action associated with		
	the event from occurring.		
addEventListener	Attaches an event handler to a specified		
	element without overwriting existing event		
	handlers.		

Page 1

CODE:

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```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Form</title>
  <style>
form {
  max-width: 500px;
  margin: 0 auto;
  padding: 20px;
  border: 1px solid #ccc;
  border-radius: 5px;
  background-color: #f9f9f9;
}
form h1 {
  text-align: center;
  font-size: 24px;
  margin-bottom: 20px;
label {
  display: block;
  margin-bottom: 5px;
  font-weight: bold;
input[type="text"],
input[type="date"],
input[type="email"],
input[type="password"],
select {
  width: 100%;
  padding: 10px;
  margin-bottom: 15px;
  border: 1px solid #ccc;
  border-radius: 4px;
  box-sizing: border-box;
button[type="submit"] {
  width: 100%;
  padding: 10px;
  background-color: #4CAF50;
```

```
color: white;
  border: none:
  border-radius: 4px;
  font-size: 16px;
  cursor: pointer;
button[type="submit"]:hover {
  background-color: #45a049;
.error {
  color: red;
  font-size: 14px;
  margin-bottom: 10px;
  </style>
</head>
<body>
  <form id="userform">
  <h1>Use data entry</h1>
  <label for="name">Name</label>
  <input type="text" name="name" id="name"><br>
  <span class="error" id="nameError"></span><br>
  <label for="reg">Reg No.</label>
  <input type="text" name="reg" id="reg"><br>
  <span class="error" id="regError"></span><br>
  <label for="mail">mail Id</label>
  <input type="email" name="mail" id="mail"><br>
  <span class="error" id="mailError"></span><br>
  <label for="dept">Dept</label>
  <select name="dept" id="dept" required>
    <option value="" disabled selected>Select Department
    <option value="cse">CSE</option>
    <option value="ece">ECE</option>
    <option value="eee">EEE</option>
    <option value="civil">Civil</option>
    <option value="mech">Mech</option>
    <option value="aids">AIDS</option>
    <option value="it">IT</option>
  </select><br>
```

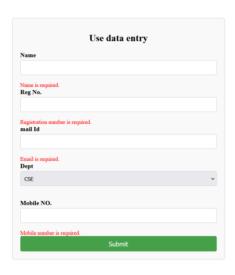

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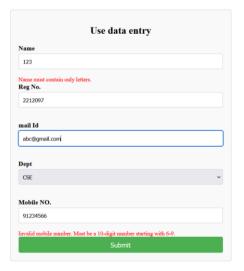
```
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```

```
<label for="num">Mobile NO.</label>
  <input type="text" name="num" id="num"><br>
  <span class="error" id="numError"></span><br>
  <button type="submit">Submit</button>
  </form>
<script>
  document.getElementById('userform').addEventListener("submit",function(event){
    event.preventDefault();
    document.guerySelectorAll('.error').forEach(function(e){
       e.textContent=";
    });
    let is Valid=true;
    const nameInput=document.getElementById('name');
    const namePattern = /^[a-zA-Z]+$/;
       if (nameInput.value.trim() === ") {
         document.getElementById('nameError').textContent = 'Name is required.';
         isValid = false;
       } else if (!namePattern.test(nameInput.value)) {
         document.getElementById('nameError').textContent = 'Name must contain only letters.';
         isValid = false;
       }
    const reg=document.getElementById('reg');
    const regPattern = /^d{7}$/;
    if (reg.value.trim() === ") {
       document.getElementById('regError').textContent = 'Registration number is required.';
       isValid = false;
    } else if (!regPattern.test(reg.value)) {
       document.getElementById('regError').textContent = 'Registration number must be exactly 7
digits.';
       isValid = false;
    }
    const dept=document.getElementById("dept");
    if(dept.value==="){
       document.getElementById('deptError').textContent= 'Please select the department';
       isValid=false;
     }
    const mailInput = document.getElementById('mail');
    const mailPattern = /^[a-zA-Z0-9]. %+-]+@[a-zA-Z]+\.[a-zA-Z]{2,6}$/;
    if (mailInput.value.trim() === ") {
       document.getElementById('mailError').textContent = 'Email is required.';
```

```
isValid = false;
     } else if (!mailPattern.test(mailInput.value)) {
       document.getElementById('mailError').textContent = 'Invalid email format.';
       isValid = false:
    }
    const numInput = document.getElementById('num');
       const numPattern = /^[6-9]\d{9}$/;
       if (numInput.value.trim() === ") {
         document.getElementById('numError').textContent = 'Mobile number is required.';
         isValid = false;
       } else if (!numPattern.test(numInput.value)) {
         document.getElementById('numError').textContent = 'Invalid mobile number. Must be a
10-digit number starting with 6-9.';
         isValid = false;
       }
    if (isValid) {
       alert('Form submitted successfully!');
       document.getElementById('userform').reset();
       dept.selectedIndex = 0;
    }
  });
</script>
</body>
</html>
```

OUTPUT:







Problem	Implementation	Time	Viva	Total
Understanding	& Output	Management	(5)	(20)
(5)	(5)	(5)		

Result:

Thus the form is created , validated and verified successfully.