



Subject : 2304CS431 – Client Side Scripting using  
Javascript

Faculty: Prof. Chirag K. Sakhrani

## Practical – 10: JS UDF, Popup boxes and validations

1)

Program :- WAP to demonstrate the use of UDF in JavaScript. (A)

Output :-

```
function calculateAreaOfCircle(radius){
    return Math.PI*radius;
}

function checkPrime(number){
    for(let i = 2; i <= Math.sqrt(number); i++){
        if(number % i == 0){
            console.log("The given number is not a prime number");
            return;
        }
    }
    console.log("The given number is prime number");
}

let radius = 7;

let area = calculateAreaOfCircle(radius);
area = area.toFixed(4);

console.log("The area of circle of given radius is:",area);
checkPrime(5);
checkPrime(9);
```

2)

Program :- WAP to demonstrate all 3 types of Pop-up boxes. (A)

Output :-

```
let str = prompt("Enter the string");

alert(`This is an alert! You Entered ${str}`);

if(confirm("Is this ok to print?")){
    console.log(str);
}
else{
    console.log("nothing!");
}
```



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3)	
	Program:- WAP to implement basic validations. (B)
	<p>Output:-</p> <p><b>HTML And CSS :-</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="UTF-8"&gt;   &lt;meta name="viewport" content="width=device-width, initial-scale=1.0"&gt;   &lt;title&gt;Basic Form Validations&lt;/title&gt; &lt;/head&gt; &lt;body&gt;   &lt;h2&gt;Registration Form&lt;/h2&gt;   &lt;form id="registrationForm" onsubmit="return validateForm()"&gt;     &lt;label for="username"&gt;Username:&lt;/label&gt;     &lt;input type="text" id="username" name="username"&gt;&lt;br&gt;&lt;br&gt;      &lt;label for="email"&gt;Email:&lt;/label&gt;     &lt;input type="text" id="email" name="email"&gt;&lt;br&gt;&lt;br&gt;      &lt;label for="password"&gt;Password:&lt;/label&gt;     &lt;input type="password" id="password" name="password"&gt;&lt;br&gt;&lt;br&gt;      &lt;label for="confirmPassword"&gt;Confirm Password:&lt;/label&gt;     &lt;input type="password" id="confirmPassword" name="confirmPassword"&gt;&lt;br&gt;&lt;br&gt;      &lt;button type="submit"&gt;Register&lt;/button&gt;   &lt;/form&gt;   &lt;script src="L10-3.js"&gt;&lt;/script&gt; &lt;/body&gt; &lt;/html&gt;</pre> <p><b>JS:-</b></p> <pre>function validateForm() {    const username = document.getElementById("username").value.trim();   const email = document.getElementById("email").value.trim();   const password = document.getElementById("password").value;   const confirmPassword = document.getElementById("confirmPassword").value;    if (username === "") {     alert("Username is required.");     return false;   } }</pre>



**Subject : 2304CS431 – Client Side Scripting using Javascript**

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```
if (password.length < 8) {  
    alert("Password must be at least 8 characters long.");  
    return false;  
}  
  
if (password !== confirmPassword) {  
    alert("Passwords do not match.");  
    return false;  
}  
  
alert("Registration successful!");  
return true;  
}
```

4)

**Program:- WAP to implement data format validations. (C)**

**Output:-**

**HTML And CSS:-**

```
<!DOCTYPE html>  
<html lang="en">  
<head>  
    <meta charset="UTF-8">  
    <meta name="viewport" content="width=device-width, initial-scale=1.0">  
    <title>Data Format Validations</title>  
</head>  
<body>  
    <h2>Data Format Validation Form</h2>  
    <form id="validationForm" onsubmit="return validateForm()">  
        <label for="username">Username:</label>  
        <input type="text" id="username" name="username"><br><br>  
  
        <label for="email">Email:</label>  
        <input type="text" id="email" name="email"><br><br>  
  
        <label for="phone">Phone Number:</label>  
        <input type="text" id="phone" name="phone"><br><br>  
  
        <label for="dob">Date of Birth:</label>  
        <input type="date" id="dob" name="dob"><br><br>  
  
        <button type="submit">Submit</button>  
    </form>
```



Subject : 2304CS431 – Client Side Scripting using  
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```
<script src="L10-4.js"></script>
</body>
</html>
```

**JS:-**

```
const dobField = document.getElementById("dob");
const today = new Date().toISOString().split("T")[0];
dobField.max = today;

function validateForm() {

    const username = document.getElementById("username").value.trim();
    const email = document.getElementById("email").value.trim();
    const phone = document.getElementById("phone").value.trim();
    const dob = document.getElementById("dob").value;

    if (username === "") {
        alert("Username is required.");
        return false;
    }
    if (username.length < 3) {
        alert("Username must be at least 3 characters long.");
        return false;
    }

    const emailPattern = /^[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}$/;
    if (!emailPattern.test(email)) {
        alert("Please enter a valid email address (e.g., example@domain.com).");
        return false;
    }

    const phonePattern = /^\d{10}$/;
    if (!phonePattern.test(phone)) {
        alert("Please enter a valid 10-digit phone number (e.g., 1234567890).");
        return false;
    }

    if (dob === "") {
        alert("Date of Birth is required.");
        return false;
    }

    alert("Form submitted successfully!");
    return true;
}
```