



Amrutvahini College of Engineering, Sangamner
Department of Electronics and Telecommunication Engineering
Subject: JavaScript (Elective-III) (BE, E&TC)

Experiment No.: 09

Date of Performance:

TITLE: Create a Student information form using HTML and Write JavaScript code for form validation.

Aim: Create a Student information form using HTML and Write JavaScript code for form validation.

Problem Statement:

Create a student information Form to accept information like Name, Address, City, State Gender, Mobile Number, and email id. Perform validations for- a. Correct names b. Mobile numbers c. Email id d. If no entered value e. Re-display for wrongly entered values with message f. Congratulation and welcome page upon successful entries

Objective:

1. Learn creation of Form using HTML language
2. Learn and code automatic field validation using JavaScript.

Hardware Requirement:

Any CPU with Pentium Processor or similar, 256 MB RAM or more, 1 GB Hard Disk or more

Software Requirement:

- **IDE Software:** Visual Studio Code / Sublime Text3
- **Web Browser:** Google Chrome / Firefox/ Internet Explorer.
- **Operating System:** Windows 7/10, Linux or MAC OS

Theory:

JavaScript Form Validation

HTML form validation can be done by JavaScript.

If a form field (fname) is empty, this function alerts a message, and returns false, to prevent the form from being submitted:

JavaScript Example

```
function validateForm() {  
    let x = document.forms["myForm"]["fname"].value;
```

```
if (x == "") {  
    alert("Name must be filled out");  
    return false;  
}  
}
```

The function can be called when the form is submitted:

HTML Form Example

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

Automatic HTML Form Validation

HTML form validation can be performed automatically by the browser:

If a form field (fname) is empty, the required attribute prevents this form from being submitted:

HTML Form Example

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

Data Validation

Data validation is the process of ensuring that user input is clean, correct, and useful.

Typical validation tasks are:

has the user filled in all required fields?

has the user entered a valid date?

has the user entered text in a numeric field?

Most often, the purpose of data validation is to ensure correct user input.

Validation can be defined by many different methods, and deployed in many different ways.

Server side validation is performed by a web server, after input has been sent to the server.

Client side validation is performed by a web browser, before input is sent to a web server.

HTML Constraint Validation:

HTML5 introduced a new HTML validation concept called constraint validation.

HTML constraint validation is based on:

Constraint validation HTML Input Attributes

Constraint validation CSS Pseudo Selectors

Constraint validation DOM Properties and Methods

Constraint Validation HTML Input Attributes

Attribute	Description
disabled	Specifies that the input element should be disabled
max	Specifies the maximum value of an input element
min	Specifies the minimum value of an input element
pattern	Specifies the value pattern of an input element
required	Specifies that the input field requires an element
type	Specifies the type of an input element

Conclusion:

Review Questions:

1. What is Regex Object in JavaScript programming language?
2. Explain the use of brackets in Regex object
3. List the Metacharecters used in RegExp object.
4. List the Quantifiers used in RegExp object.

REFERENCES:

1. Jon Duckett, "JavaScript & JQuery: Interactive Front-End Web Development", Wiley, ISBN-13. 978-1118531648
2. David Flanagan, "JavaScript: The Definitive Guide", O'Reilly, 6th Edition, ISBN: 9781491952023.
3. Mike Mackgrath, "Javascrpts in easy steps" Dreamtech