Web Technologies Laboratory 03

Aim: Client-side Form Validations using JavaScript, DOM real-time update, JQuery to develop Ajax based applications.

Aim: Write a program to perform following form validations using JavaScript:

a) All fields mandatory,
b) Phone number, Email Address, Zip code Validation etc.
Include JavaScript to access and manipulate Document Object Model (DOM) objects in an HTML web page.
Include JQuery to develop to develop your application as an Ajax based application.

Objectives:

1. To understand what form validation is.
2. To learn basic functioning of DOM objects.
3. To learn how to apply various techniques to implement it.

Theory:

1. Different types of form validations.
2. HTML Document Object Model.
3. What is JQuery? Write various JQuery Selectors.

FAQ:

1. Write 3 reasons why Form validations are important.
2. Give an example of how to modify an attribute value using DOM.
3. What is jQuery Ajax?

Problem Statement:

1) Write a program to design Student registration form by using HTML, CSS having following fields: Username, Email, Phone number, Password, Confirm Password and write external javascript code to achieve following validations

- Fields should not be empty. If spaces are entered those should be considered empty
- Phone number must accept only numeric values and it should be 10 digits
- Password length must be at least 7 and it should contain at least one capital letter, one digit and one special character from the set (&,$,#@)
- Value entered in password field and confirm password fields must match

Email address must contain @ sign and a ., there should be few letters before the @ sign, there should be three letters between @ sign and a . There must be 3 or 2 letters after the . (hint: Use regular expression)

2) Write a client-side script with JavaScript to access and manipulate Document Object Model (DOM) objects in an HTML web page. Develop a dynamic web page using javascript and DOM. Make use of the following for accessing elements

- getElementById, getElementsByTagName,getElementsByClassName
- Change the text using innerHTML property
- Change the CSS properties like color, position of a particular element on the page
- Change the image source after clicking on a button
- Add a text node and attach it to a parent node
- Delete a node

Include jQuery to perform following operations:

- Change button text using jQuery.
- Set background-image using jQuery CSS property.
- Access HTML form data using jQuery.
- Add attribute using jQuery

Use this reference link for jQuery :
https://www.w3resource.com/jquery-exercises/part1/index.php