**IMPLEMENTATION OF JQUERY.**

**OBJECTIVE**

To implement and familiarize with JQuery.

**THEORY**

**jQuery**

jQuery is a JavaScript library designed to simplify HTML DOM tree traversal and manipulation, as well as event handling, CSS animation, and Ajax. It is free, open-source software using the permissive MIT License. As of May 2019, jQuery is used by 73% of the 10 million most popular websites. Web analysis indicates that it is the most widely deployed JavaScript library by a large margin, having 3 to 4 times more usage than any other JavaScript library.

jQuery's syntax is designed to make it easier to navigate a document, select DOM elements, create animations, handle events, and develop Ajax applications. jQuery also provides capabilities for developers to create plug-ins on top of the JavaScript library. This enables developers to create abstractions for low-level interaction and animation, advanced effects and high-level, theme able widgets. The modular approach to the jQuery library allows the creation of powerful dynamic web pages and Web applications.

**Features of jQuery**

jQuery includes the following features:

* DOM element selections using the multi-browser open source selector engine Sizzle, a spin-off of the jQuery project
* DOM manipulation based on CSS selectors that uses elements' names and attributes, such as id and class, as criteria to select nodes in the DOM
* Events
* Effects and animations, Ajax
* Deferred and Promise objects to control asynchronous processing
* JSON parsing
* Extensibility through plug-ins
* Utilities, such as feature detection
* Compatibility methods that are natively available in modern browsers, but need fallbacks for older browsers, such as jQuery.inArray() and jQuery.each().
* Cross-browser support

**ACTIVITIES**

First, we created a html and js file. In Html file we write general structure and in inside body we make a h2, div and button. In the head section we write the script linking from the cdn as:

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>

Then we comment this line and write another method for setup of jQuery, i.e. by downloading the file and linking them in head section as:

<script type="text/javascript" src="js/jquery-3.4.1.min.js"></script>

Now, in the js file that we have created we write some jQuery code.

**SOURCE CODE**

**HTML:**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<meta http-equiv="X-UA-Compatible" content="ie=edge">

<!-- jquery from cdn -->

<!-- <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script> -->

<script type="text/javascript" src="js/jquery-3.4.1.min.js"></script>

<script type="text/javascript" src="js/script.js"></script>

<title>Jquery</title>

</head>

<body>

<h2 id="title">jQuery Title</h2><br>

<div class="content">jQuery Content</div>

<button>Click Here</button>

</body>

</html>

**JS:**

$(document).ready(function(){

$('button').click(function(){

// // $('#title').css('color','red');//single css

// $('#title').css({'color':'red','background-color':'gray','opacity':'0.5'});//multiple css

// $('.content').html('This is a content of the jquery ');

var title = $('#title');

title.css('opacity','1');

interval = setInterval(function(){

var oldOpacity = title.css('opacity');

if(oldOpacity == 0)

clearInterval(interval);

else

title.css('opacity',oldOpacity - 0.01);

},10);

});

});

**OUTPUT**

****

**SUMMARY/PROBLEM FACED**

We are able to setup jQuery successfully. We are able to change single/multiple CSS, manipulate document, animation etc.

The main problem faced was to write multiple CSS at first but we fix it.

**LAB INSTRUCTOR COMMENTS**