Experiment No: 19

Create an Image slider using jQuery.

Date:

Competency and Practical Skills:

Relevant CO: 5

Objectives:

1. To understand how JQuery Works.

Theory:

JQUERY

The purpose of jQuery is to make it much easier to use JavaScript on your website. jQuery takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code. jQuery also simplifies a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.

The jQuery library contains the following features:

A. HTML/DOM manipulation
B. CSS manipulation
C. HTML event methods
D. Effects and animations
E. AJAX

There are several ways to start using jQuery on your web site.

You can:
- Download the jQuery library from jQuery.com
- Include jQuery from a CDN, like Google

> *<head>*
> *<script src="jquery-3.6.4.min.js"></script>*
> *</head>*
>   *OR*
> *<head>*
> *<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.4/jquery.min.js">*
> *</script>*
> *</head>*

The jQuery syntax is tailor-made for **selecting** HTML elements and performing some **action** on the element(s).

Basic syntax is:

 $(selector).action()

- A $ sign to define/access jQuery

- A (*selector*) to "query (or find)" HTML elements

- A jQuery *action*() to be performed on the element(s)

Examples:

> *$(this).hide() - hides the current element.*
> *$("p").hide() - hides all <p> elements.*
> *$(".test").hide() - hides all elements with class="test".*
> *$("#test").hide() - hides the element with id="test".*

All jQuery methods in our examples, are inside a document ready event:

> *$(document).ready(function(){*
>
> *// jQuery methods go here…*
>
> *});*

This is to prevent any jQuery code from running before the document is finished loading (is ready). It is good practice to wait for the document to be fully loaded and ready before working with it. This also allows you to have your JavaScript code before the body of your document, in the head section.

jQuery selectors allow you to select and manipulate HTML element(s).

jQuery selectors are used to "find" (or select) HTML elements based on their name, id, classes, types, attributes, values of attributes and much more. It's based on the existing CSS Selectors, and in addition, it has some own custom selectors.

All selectors in jQuery start with the dollar sign and parentheses: $().

When a user clicks on a button, all <p> elements will be hidden:

> *$(document).ready(function(){*
> *$("button").click(function(){*
> *$("p").hide();*
> *});*
> *});*

The jQuery *#id* selector uses the id attribute of an HTML tag to find the specific element.

An id should be unique within a page, so you should use the #id selector when you want to find a single, unique element.

To find an element with a specific id, write a hash character, followed by the id of the HTML element:

$("#test")

When a user clicks on a button, the element with id="test" will be hidden:

```
$(document).ready(function(){
  $("button").click(function(){
    $("#test").hide();
  });
});
```

All the different visitors' actions that a web page can respond to are called events. An event represents the precise moment when something happens.

Examples:
- moving a mouse over an element
- selecting a radio button
- clicking on an element

The term **"fires/fired"** is often used with events. Example: "The keypress event is fired, the moment you press a key". Here are some common DOM events:

Mouse Events	Keyboard Events	Form Events	Document/Window Events
Click	Keypress	submit	Load
Dblclick	Keydown	change	Resize
Mouseenter	Keyup	focus	Scroll
Mouseleave		blur	Unload

In jQuery, most DOM events have an equivalent jQuery method. To assign a click event to all paragraphs on a page, you can do this:

```
$("p").click();
```

The next step is to define what should happen when the event fires. You must pass a function to the event:

```
$("p").click(function(){
  // action goes here!!
});
```

Commonly Used jQuery Event Methods

$(document).ready()

The $(document).ready() method allows us to execute a function when the document is fully loaded.

click()

The click() method attaches an event handler function to an HTML element. The function is executed when the user clicks on the HTML element. The following example says: When a click event fires on a <p> element; hide the current <p> element:

```
$("p").click(function(){
  $(this).hide();
});
```

dblclick()

The dblclick() method attaches an event handler function to an HTML element. The function is executed when the user double-clicks on the HTML element:

```
$("p").dblclick(function(){
  $(this).hide();
});
```

mouseenter()

The mouseenter() method attaches an event handler function to an HTML element. The function is executed when the mouse pointer enters the HTML element:

```
$("#p1").mouseenter(function(){
  alert("You entered p1!");
});
```

Implementation:

Create an Image slider using jQuery.

Output:

Conclusion:

Quiz:

1. What is jquery?
2. Javascript Vs. Jquery

Suggested Reference:

- https://www.w3schools.com/jquery/jquery_intro.asp

References used by the students:

Rubric wise marks obtained:

Rubrics	1	2	3	Total
Marks				