MODULE – 4(Advance PHP)

Jquery

a) What is jQuery?

JQuery is an open-sourced JavaScript library that simplifies creation and navigation of web applications.

Specifically, jQuery simplifies HTML Document Object Model (DOM) manipulation, Asynchronous JavaScript and XML (Ajax) and event handling.

Additionally, jQuery incorporates JavaScript functionalities by manipulating CSS properties to add effects such as fade-ins and outs for website elements.

JQuery is a widely used JavaScript library and is supported by thousands of user-created plug-ins.

JQuery is a lightweight, "write less, do more", and JavaScript library.

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.

❖ **Features provided by jQuery include:**

✓ **A light footprint around 30 kB.**

✓ **Supports Chrome, Firefox, Safari, Internet Explorer and Edge.**

✓ **Event handling**

✓ **Ajax support**

✓ **Plug-in support**

✓ **DOM element manipulation based on CSS selectors.**

✓ **JSON parsing**

✓ **Feature detection**

✓ **Animation effects**

b) How are JavaScript and jQuery different?

JavaScript	jQuery
1. JavaScript uses JIT which is a combination of interpreter and Compile and is written in C. It's a combination of ECMA script and DOM	While JQuery Uses the resources that are provided by JavaScript to make things easier. It is a lightweight JavaScript library. It has only the DOM.
2. JavaScript uses long lines of code as an individual has to write the code own-self.	With JQuery, one has to write fewer lines of code than JavaScript. We just need to import the library and use the only specific functions or methods of the library in our code.
3. In JavaScript, we have to write extra code or move around to have cross-browser compatibility.	JQuery has an inbuilt feature of cross-browser compatibility. We don't need to worry about writing extra lines of code or moving around in order to make our code compatible with any browser.
4. JavaScript can be a burden over a developer as it may take a number of lines of lengthy code to attain functionality.	Unlike JavaScript, JQuery is more user-friendly only a few lines of code have to write in order to have its functionality.

c) Which is the starting point of code execution in jQuery?

The jQuery starts its code execution from the $(document).ready() **function which is executed whenever the whole HTML DOM is loaded and is totally rendered by the browser, so that the event handlers work correctly without any errors.**

This *$(document).ready ()* function load the script only after the whole DOM is loaded by the browser.

Syntax:

```
$(document).ready (function ({....}));
```

OR

$(function ({....}));

$(document).ready() **ensures that it gets executed when DOM is loaded.**

When we want the execution of the script such that all the resources like images, videos and iframes gets loaded, we need to use $(window).on("load", function() { … }).

d) Document Load Vs Window. Load() jQuery

Document load:

1. Best for onetime initialization.

2. Called as soon as DOM is ready; may called slightly before than pageLoad ().

3. Cross browser compatible.

4. Unable to re-attach the functionality to elements/controls of the page affected by partial postbacks.

Window.Load():

5. Not best for onetime initialization if used with UpdatePanel.

6. Not Cross browser compatible.

7. Best to re-attach the functionality to elements/controls of the page affected by partial postbacks with UpdatePanel.

e) What is the difference between prop and attr?

Both attr () and prop () are used to get or set the value of the specified property of an element attribute, but attr () returns the default value (Original state) of a property whereas prop () returns the current value (Current state).

- .attr () changes attributes for that HTML tag.
- .prop () changes properties for that HTML tag as per the DOM tree.

In many cases the returned item will be the same - but keep in mind one is the current state vs. the original state.

JQuery is a changing library and sometimes they make regular improvements.

The difference between attributes and properties can be important in specific situations.

Before jQuery 1.6, the .attr () method sometimes took property values into account when retrieving some attributes, which could cause inconsistent behavior.

As of jQuery 1.6, the .prop () method provides a way to explicitly retrieve property values, while .attr () retrieves attributes.

In the majority of cases, prop () does what attr () used to do. Replacing calls to attr () with prop () in your code will generally work.

So, it is advised that if you are using a later version of JQuery you should use .prop () whenever possible.

f) Explain Difference Between JQuery And JavaScript?

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3. In JavaScript, we have to write extra code or move around to have cross-browser compatibility.	JQuery has an inbuilt feature of cross-browser compatibility. We don't need to worry about writing extra lines of code or moving around in order to make our code compatible with any browser.
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g) How We Can Select the Specified Element From the ListOf Elements In<ul>?

The <li> tag defines a list item.

The <li> tag is used inside ordered lists(<ol>), unordered lists (<ul>), and in menu lists (<menu>).

In <ul> and <menu>, the list items will usually be displayed with bullet points.

In <ol>, the list items will usually be displayed with numbers or letters.

Example:

```
<ol>
      <li>Coffee</li>
      <li>Tea</li>
      <li>Milk</li>
</ol>

<ul>
      <li>Coffee</li>
      <li>Tea</li>
      <li>Milk</li>
</ul>
```

h) In <table>Design Change The Color Of Even <tr>Elements To "green"And Change The Color Of Odd <tr> elements To "blue" Color? Give An Example Code?

i) How We Can Implement Animation Effects In JQuery?

The jQuery **animate ()** method is used to create custom animations.

Syntax:

$(*selector*).animate({*params*},*speed, callback*);

The required params parameter defines the CSS properties to be animated.

The optional speed parameter specifies the duration of the effect. It can take the following values: "slow", "fast", or milliseconds.

The optional callback parameter is a function to be executed after the animation completes.

The following example demonstrates a simple use of the **animate()** method; it moves a <div> element to the right, until it has reached a left property of 250px:

Example:

```
$("button").click(function()

{

  $("div").animate({left: '250px'});


});
```

OR

```
$("button").click(function()
{

  $("div").animate

({

    left: '250px',
    opacity: '0.5',
    height: '150px',
    width: '150px'

  });

});
```

j) Apply jQuery validation using library.

JQuery form validation (Client-side validation) in PHP; In this tutorial; you will learn how to use jQuery validation or client side validation with PHP Forms using jQuery validation library.

This tutorial will create simple contact us form and add client-side validation on it in PHP MySQL using jQuery client-side validation library.

Simple jQuery (Client Side) Form Validation in PHP + MySQL

Use the following steps to to implement client-side jQuery validation in PHP + MySQL;

Step 1 – Create PHP Project

Step 2 – Create Table in Database

Step 3 – Create a Database Connection File

Step 4 – Create HTML Form

Step 5 – Add Client Side Validation on Form

k) Create custom dynamic function for require field validator.

->

```
   this.businessFormGroup: this.fb.group({
   'businessType': ['', Validators.required],
   'description': ['', Validators.compose([Validators.required,
validators.maxLength(200)])],
    'income': ['']
     })
```

Now when businessType is Other, I want to remove Validators.required validator from description. And if businessType is not Other, I want to add back the Validators.required.

I am using the below code to dynamically add/remove the Validators.required. However, it clears the existing Validators.maxLength validator.

```
If
(this.businessFormGroup.get('businessType').value !==
'Other')
{
   this.businessFormGroup.get('description').validator =
<any>Validators.compose([Validators.required]);
}
else
{
this.businessFormGroup.get('description').clearValidators();
}

this.businessFormGroup.get('description').updateValueAnd
Validity();
```

I) Get state data by country selection (Ajax).

Dynamic country state city database using Ajax in MySQL PHP. In this tutorial, we will show you how to dynamically populate country state city dropdown list in PHP using jQuery ajax from MySQL database.

This tutorial will guide you step by step on how to populate country state city in dropdown list onchange in PHP from MySQL using Ajax or populate the first, second, and third dropdown based on the first, and second selection of dropdown in PHP. As well as learn, how to fetch data from the database in the dropdown list in PHP using jQuery ajax.

Now, follow below given simple and easy steps to retrieve and display country, state, and city dropdown list onchange in PHP using jQuery ajax from MySQL database:

- Step 1: Create Country State City Table

- Step 2: Insert Data Into Country State City Table

- Step 3: Create DB Connection PHP File

- Step 4: Create Html Form For Display Country, State and City Dropdown

- Step 5: Get States by Selected Country from MySQL Database in Dropdown List using PHP script

- Step 6: Get Cities by Selected State from MySQL Database in DropDown List using PHP script

m) Image uploading with preview.

```javascript
$("fileUpload").on('change', function () {

    var imgPath = $(this)[0].value;
    Var extn = imgPath.substring(imgPath.lastIndexOf('.') +
1).toLowerCase();

    if (extn == "gif" || extn == "png" || extn == "jpg" || extn ==
"jpeg") {
        if (typeof (FileReader) != "undefined") {

            var image_holder = $("#image-holder");
            image_holder.empty();

            var reader = new FileReader();
            reader.onload = function (e) {
                $("<img />", {
                    "src": e.target.result,
                        "class": "thumb-image"
                }).appendTo(image_holder);

            }
            image_holder.show();
            reader.readAsDataURL($(this)[0].files[0]);
        } else {
            alert("This browser does not support FileReader.");
        }
    } else {
        alert("Pls select only images");
    }
});
```