**Module (JQuery Basic, Effects & Advanced) – 5**

* **What is jQuery?**
* jQuery is a JavaScript library that simplifies HTML DOM tree traversal and manipulation, as well as event handling, CSS animation, and Ajax. It is a free, open-source software using the permissive MIT License. As of Aug 2022, jQuery is used by 77% of the 10 million most popular websites.
* jQuery is a powerful tool that can be used to do a variety of things, including:
* Selecting and manipulating HTML elements
* Adding event handlers to HTML elements
* Animating HTML elements
* Making AJAX requests
* Creating custom JavaScript plugins
* jQuery is a very popular library, and there are many resources available to help you learn how to use it. The official jQuery website has a great tutorial, and there are also many books and online courses available.
* Here are some of the benefits of using jQuery:
* It is easy to learn and use.
* It is very powerful.
* It is cross-browser compatible.
* It is well-documented.
* There is a large community of users and developers.
* **How to Apply CSS Using JQuery, How to Add Class and Remove Class in Jquery, JQuery Animation?**
* To apply CSS properties using jQuery, you can use the `.css()` method. The syntax for the `.css()` method is as follows:
* $(selector).css(property, value);
* `selector` is the jQuery selector that you want to apply the CSS property to.
* `property` is the name of the CSS property that you want to apply.
* `value` is the value of the CSS property.
* For example, the following code would set the font size of all elements with the class `my-element` to 16px:
* $(".my-element").css("font-size", "16px");
* You can also use the `.css()` method to set multiple CSS properties at once. For example, the following code would set the font size, color, and background color of all elements with the class `my-element`:
* $(".my-element").css({
* "font-size": "16px",
* "color": "red",
* "background-color": "blue",
* });
* **How to Add Class and Remove Class in Jquery**
* To add a class to an element using jQuery, you can use the `.addClass()` method. The syntax for the `.addClass()` method is as follows:
* $(selector).addClass(class\_name);
* `selector` is the jQuery selector that you want to add the class to.
* `class\_name` is the name of the class that you want to add.
* For example, the following code would add the class `active` to all elements with the class `my-element`:
* $(".my-element").addClass("active");
* To remove a class from an element using jQuery, you can use the `.removeClass()` method. The syntax for the `.removeClass()` method is as follows:
* $(selector).removeClass(class\_name);
* `selector` is the jQuery selector that you want to remove the class from.
* `class\_name` is the name of the class that you want to remove.
* For example, the following code would remove the class `active` from all elements with the class `my-element`:
* $(".my-element").removeClass("active");
* **JQuery Animation**
* JQuery animation allows you to animate the properties of an element over time. You can use jQuery animation to create a variety of effects, such as sliding elements in and out, fading elements in and out, and rotating elements.
* To create a jQuery animation, you use the `.animate()` method. The syntax for the `.animate()` method is as follows:
* $(selector).animate({
* properties: values,
* duration: milliseconds,
* easing: easing\_function,
* step: function(progress) {
* // Do something with the progress value.
* },
* complete: function() {
* // Do something when the animation is complete.
* },
* });
* `selector` is the jQuery selector that you want to animate.
* `properties` is an object that specifies the properties that you want to animate.
* `duration` is the duration of the animation in milliseconds.
* `easing` is the easing function that you want to use for the animation.
* `step` is a function that is called at each step of the animation.
* `complete` is a function that is called when the animation is complete.
* **How to create slider with animation?**
* **Html,**
* <div id="slider">
* <ul>
* <li>Image 1</li>
* <li>Image 2</li>
* <li>Image 3</li>
* <li>Image 4</li>
* </ul>
* </div>
* **Jquery,**
* $(document).ready(function() {
* var slider = $("#slider");
* var images = slider.find("li");
* function animateSlide() {
* var currentSlide = images.eq(slider.data("currentSlide"));
* var nextSlide = images.eq(slider.data("currentSlide") + 1);
* currentSlide.fadeOut(500);
* nextSlide.fadeIn(500);
* slider.data("currentSlide", slider.data("currentSlide") + 1);
* }
* slider.data("currentSlide", 0);
* setInterval(animateSlide, 2000);
* });