**Module (J Query Basic, Effects & Advanced) – 5**

1. **What is jQuery?**

* jQuery is a lightweight, "write less, do more", 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.

jQuery also simplifies a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.

The jQuery library contains the following features:

* HTML/DOM manipulation
* CSS manipulation
* HTML event methods
* Effects and animations
* AJAX
* Utilities

**2.How to Apply CSS Using jQuery, How to Add Class and Remove Class in jQuery , jQuery Animation?**

* **CSS using jQuery:-** It is possible to change the CSS property of an element by using a simple JavaScript API, but we try to complete this challenge using jQuery [**CSS()**](https://www.geeksforgeeks.org/jquery-css-method/)method.
  + There are many types of CSS methods, which means that each method has the same name but takes different parameters.

**Syntax:**

$().css(propertyname, value);

$().css(properties);

* **addClass() method:** It is used to add specified classes to each of the targeted elements while animating all style changes.

**Syntax:**

**.**addClass(className, [duration], [easing], [callback])

* **removeClass() method:**It is used to remove the classes from the element while animating all style changes.

**Syntax:**

.removeClass(className, [duration], [easing], [callback])

* **jQuery animation method:** 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.

**3.How to create slider with animation?**

* The **animate() method** is an inbuilt method in [**jQuery**](https://www.geeksforgeeks.org/jquery/) which is used to **change the state of the element with CSS style**. This method can also be used to change the CSS property to create the animated effect for the selected element.

**Syntax:**

(selector).animate({styles}, para1, para2, para3);

* **Styles:** It helps to set the new CSS property.
* **para1:** It is an optional parameter and is used to set the speed of the parameter and its default value is 400 milliseconds.
* **para2:** It is optional and this specifies the speed of the element at different positions.
* **para3:** It is an optional function that is used to be performed after the animation is complete.