**jQuery**

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# **: Introduction:**

* **What is jQuery?**

**Ans: jQuery is a fast, small, and feature-rich JavaScript library. jQuery is a lightweight JavaScript library.**

* **jQuery perform two things.**
* **Select the HTML element.**
* **In selected element, perform the jQuery function which function is created by jQuery.**
* **What is the difference between library and framework?**

**Ans:**

* **Library: a library is collection of pre-defined functions and classes. You decided libraries code where write and where apply.**
* **A library is a collection of pre-written codes that is used to simplify of the task.**
* **Pre-written codes are set of pre-defined functions and classes.**
* **Libraries are used for simplify the code and speed up the code.**
* **Some popular JavaScript library: react-Js, jQuery, swiper-Js, anime.js etc.**
* **Anime.js is used for only animation in JavaScript.**
* **Swiper-Js is used for only carousel.**
* **When you use a library, you are In charge of the flow of the application. And you are choosing when and where to call the library.**
* **React-Js is used for only build a single page application.**
* **A library cannot contain a framework.**
* **You can integrate libraries into existing project.**

* **Framework: framework is a foundation on which developers build application. Framework is following the structure rule.**
* **In framework you cannot decide where write code and how can I apply this code. Every method, classes is made for specific work.**
* **Framework is a collection of pre-defined function and classes.**
* **Framework provides an eco-system or structure along with reusable pieces of code to deal complex code.**
* **Framework follow the design pattern MVC or MVT.**
* **Framework consists of a lot of API’S, compiler, toolset, supports program, libraries.**
* **Framework are used for develop complex and scabble applications.**
* **When you use the framework, the framework is in charge of the flow. It provides some places for you to put your code, and it will call your code when required.**
* **JavaScript problems?**

**Ans: jQuery solved this JavaScript problems. jQuery moto writes less, do more.**

* **Long selector for target the DOM.**
* **Write complex animations.**
* **Dom manipulation difficult.**
* **Difficult ajax coding.**
* **Why should use jQuery?**

**Ans:**

* **Short selector.**
* **Variety of animation functions.**
* **Easy DOM manipulation.**
* **Easy CSS styling.**
* **Easy DOM traversing.**
* **Simple AJAX code.**
* **Benefits of jQuery?**

**Ans:**

* **jQuery is a Browser Independent: all browser’s supported.**
* **Increase the coding speed: speed fast.**

# **: Environment setup jQuery:**

1. **How to implements jQuery in HTML?**

**Ans:**

* **Offline use jQuery file.**

1. **Step:1- Go to official website jQuery.**
2. **Step:2- Download the compressed, production jQuery or download the uncompressed, development jQuery.**
3. **I will suggested use compressed production version.**
4. **Step:3- Include jQuery.js file in HTML file.**
5. **Step:4- Do jQuery code in <script> tag.**

* **jQuery with using CDN (content delivery network)**

1. **go to official website in jQuery.**
2. **Click the download jQuery and scroll below.**
3. **Using jQuery with CDN.**
4. **Click the**  [**https://code.jquery.com**](https://code.jquery.com/)**.**
5. **Choose only latest jQuery 3.x minified click & copy the link.**

* **Other CDN: other CDN Links.**

1. [**Google CDN**](https://developers.google.com/speed/libraries/devguide#jquery)**:**
2. [**Microsoft CDN**](https://www.asp.net/ajax/cdn#jQuery_Releases_on_the_CDN_0)**:**
3. [**CDNJS CDN**](https://cdnjs.com/libraries/jquery/)**:**
4. [**jsDelivr CDN**](https://www.jsdelivr.com/package/npm/jquery)**:**
5. **jQuery Basic**

**Syntax:**

**$(document).ready(function(){**

**//body of document.**

**});**

**OR**

**$(function(){**

**//body of a document.**

**});**

* **Note:**
* **$(document).ready();**
* **$(document) 🡺 is selector basically here we are writing selector name.**
  + **Here we are why use selector? It is used for target the DOM Element.**
* **.reday() 🡺 it is called method (), it is linked by selector, selector jaisa hoga, method waisa hoga.**
  + **Method for what work.**

# **: jQuery - selector:**

1. **Selector: jQuery selector.**

* **basic selector in jQuery.**
  + **Select by id: $(“#id name”)**
  + **Select by name: $(“.class name”)**
  + **Select by tag name: $(“tag name”)**
* **Advanced selector in jQuery:**
* **Select the all-html tags: $(“\*”)**
* **Parent and child selector: $(“ul li”)**
* **Select the multiple classes: $(“.class name, .class name”)**
* **Select the multiple tags: $(“tag name, tag, name, tag name”);**
* **Select the p:first: $(“p: first”)**
* **Select the p:last: $(“p:last”)**
* **Select even: $(“li: even”)**
* **Select odd: $(“li: odd”)**
* **Example: ex of target selectors.**
* **How to target element Id with the help of jQuery:**

**Syntax:**

**$(“#id name”).method\_name();**

**Ex:**

**$(“#test”).html();**

* **How to target element Id and get the value.**

**Syntax:**

**$(“#id name”).val();**

* **How to target element class and set the css property.**

**Syntax:**

**$(“.class name).css(“property”, “value”);**

**Ex:**

**$(“.test”).css(“border”, “2px solid red”);**

* **How to target all-elements and set the color red?**

**Syntax:**

**$(“\*”).css(“property”, “value”);**

**Ex:**

**$(“\*”).css(“color”, “red”);**

* **How to target Equation and set the border 2px solid red.**
* **Equation is always start 0 zero.**

**Syntax:**

**$(“tag name tag name: eq(1)”).css(“property”, “value”);**

**Ex:**

<script>

  $(document).ready(function(){

$("ul li:eq(2)").css("border","2px solid red");

   });

</script>

* **How to target gt, means greater than and set the css.**
* **Grater than.**

**Syntax:**

**$(“tag name tag name:gt(1)”).css(“property”, “value”);**

**Example:**

$("ul li:gt(1)").css("border","2px solid red");

* **How to target lt, means lower than set the**

**css.**

* **Lower than, 2 means target 2, 3 means target 3.**

**Syntax:**

**$(“tag name tag name:lt(2)”).css(“property”, “value”);**

**Example:**

$("ul li:lt(2)").css("border","2px solid red");

# **: jQuery - Events:**

* **What is event in jQuery?**

**Ans: jQuery events are those tasks that can be detected by your web application. They are used to create dynamic web pages.**

**“An event represents the exact moment when something happens.”**

**Types of jQuery events.**

1. **On event.**
2. **Off event.**
3. **Mouse event:**
4. **Keyboard event:**
5. **Form event:**
6. **Document/ windows event:**
7. **On event: The on() method attaches one or more event handlers for the selected elements.**

**Example:**

**<script>**

**$(document).ready(function(){**

**$("p").on({**

**mouseenter: function(){**

**$(this).css("background-color", "lightgray");**

**},**

**mouseleave: function(){**

**$(this).css("background-color", "lightblue");**

**},**

**click: function(){**

**$(this).css("background-color", "yellow");**

**}**

**});**

**});**

**</script>**

**</head>**

**<body>**

**<p>Click or move the mouse pointer over this paragraph.</p>**

**</body>**

**Ex:**

**<style>**

**.boxbg{**

**background-color: aqua;**

**}**

**</style>**

**<body>**

**<div class="container">**

**<div class="row">**

**<div class="col-lg-6">**

**<div id="box">**

**<h2>Test Box</h2>**

**<p>Lorem ipsum dolor sit p>**

**</div>**

**</div>**

**</div>**

**</div>**

**<script>**

**$(document).ready(function(){**

**$("#box").on('mouseover mouseout',function(){**

**$(this).toggleClass("boxbg");**

**});**

**});**

**</script>**

1. **Off method (): off method is used for remove the multiple events on the page.**

**Ex:**

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

**$("#box").off("mouseover mouseout");**

**});**

1. **Mouse Event:**

* **click():**
* **dblclick():**
* **contextmenu(): contextmenu means right click.**
* **mouseenter():**
* **mouseleave():**
* **Example: How to change background-color red on click, and dblclick pr, background-color orange and mouse enter pr background-color yellow, and mouse leave pr background-color white, contextmenu means right click pr background-color blue.**

**<script>**

**$(document).ready(function(){**

**$("#box").click(function(){**

**$("#box").css("background-color", "red");**

**// let a = $('#box').html();**

**//console.log(a); //it is get the id box, whole html with inside text.**

**});**

**$('#box').dblclick(function(){**

**$('#box').css('background', 'orange');**

**});**

**$('#box').contextmenu(function(){**

**$('#box').css('background-color', 'blue');**

**});**

**$('#box').mouseenter(function(){**

**$('#box').css('background-color', 'yellow');**

**});**

**$('#box').mouseleave(function(){**

**$('#box').css('background-color', 'white');**

**});**

**});**

**</script>**

1. **Keyboard event:**

* **Keypress (): keyboard key press hone pr event trigger.**
* **Keydown (): keyboard key press hone pr event trigger.**
* **Keyup: keyboard pr key leave hone pr event trigger.**
* **Example: keyboard event ex.**

**<script>**

**$(document).ready(function(){**

**$('body').keypress(function(){**

**$(this).css('background', 'yellow');**

**});**

**$('body').keyup(function(){**

**$(this).css('background', 'white');**

**});**

**$('body').keydown(function(){**

**$(this).css('background', 'yellow');**

**});**

**});**

**</script>**

1. **Form Events:**

* **Focus(): focus means input filed pr hone pr. Use with input box.**
* **Blur(): blur means leaving the focus. Use with input box.**
* **Change(): anything change hone pr. Use with select box.**
* **Select(): input field select hone pr. Use only input box.**
* **Submit(): submit hone pr.**

* **Example: form-event.**

**See form event example.**

1. **Document / window event:**

* **Load (): remove in version 3.0**
* **Unload (): remove in version 3.0**
* **Resize ():**
* **Scroll (): when I’m scrolling the page this function is called.**

# **: jQuery HTML:**

1. **Get method. Get method used for get html Dom element, elements value, elements attribute, etc.**

* **text(): text () method returns the text of the content of the selected elements.**

**Syntax:**

**text();**

* **html(): html () method returns the text of content of the selected elements including html.**

**Syntax:**

**html();**

* **attr(): attr () method returns the attribute of the selected elements.**

**Syntax:**

**attr(‘attribute name pass’);**

* **val(): val () method returns the elements value.**

**Syntax:**

**val();**

* **Example: Get Method**

**<body>**

**<div id="box" class="test abc">**

**<h2>Text Box</h2>**

**<p>Lorem ipsum dolor, sit amet<span> consectetur adipisicing.</span></p>**

**</div>**

**<br/><br/>**

**<form id="sform">**

**<input type="text" name="name" id="name" required placeholder="Input the Any word"/><br/><br/>**

**<input type="submit" value="submit"/>**

**</form>**

**<script>**

**$(document).ready(function(){**

**//html() method.**

**let a= $("#box p").html();**

**console.log(a);**

**//text () method.**

**let b = $("#box p").text();**

**console.log(b);**

**//attr () method means attribute.**

**let c = $("#box").attr('class');**

**console.log(c);**

**//val () method.**

**$("#sform").submit(function(){**

**let d = $("#name").val();**

**console.log(d);**

**alert ('hello'+d);**

**});**

**});**

**</script>**

**</body>**

1. **Set method. Set () method is used to set the value, text, html, attribute of any elements etc.**

* **text(): text () method is used to set the text of targeted html element.**

**Syntax:**

**text(“write any text”);**

* **html(): html () method is used to set the html of any content.**

**Syntax:**

**html(“<b> write something with tags name</b>”);**

* **attr(): attr () method is used for change the any element attribute and set the new attribute.**

**Syntax:**

**attr(“attribute name”, “value”)**

* **val(): val () method is used for change the any form element value and set the new value.**

**Syntax:**

**val(“set any text value”);**

* **Example:**

**<body>**

**<div id="box" class="test">**

**<h2>Test Box</h2>**

**<p>Lorem ipsum dolor sit amet consectetur adipisicing.**

**<span>Lorem ipsum dolor sit amet.</span>**

**</p>**

**</div>**

**<br/><br>**

**<button id="clickbutton">Set Value</button>**

**<br/><br/>**

**<form action="" id="sform">**

**<input type="text" name="sname" id="sname"/>**

**<br/><br/>**

**<input type="submit" value="submit"/>**

**</form>**

**<script>**

**$(document).ready(function(){**

**$("#clickbutton").click(function() {**

**//change text.**

**$("#box h2").text("Dravinanshu Mishra");**

**$("#box p").text("lorem100");**

**//change HTML tags.**

**$("#box p").html("<h1>lorem100</h1>");**

**//attribute. set.**

**$("#box h2").attr("class","red");**

**//value set.**

**});**

**});**

**$(document).ready(function(){**

**$("#sname").val("dravinanshu mishra");**

**});**

**</script>**

**</body>**

1. **CSS Class method:**

* **addClass(): for add new class.**
* **removeClass(): for remove the class.**
* **toggleClass(): for add & remove the class. It is works for both add & remove class.**
* **Example:**

**<body>**

**<div id="box">**

**<h2>Test Box</h2>**

**<p>Lorem ipsum dolor elit.</p>**

**</div>**

**<br/>**

**<button id="addbutton">Add Class</button>**

**<button id="removebutton">Remove Class</button>**

**<button id="togglebutton">Toggle Class</button>**

**<script>**

**$(document).ready(function(){**

**//addClass () method.**

**$("#addbutton").click(function(){**

**$("#box").addClass("first second");**

**});**

**//removeClass.**

**$("#removebutton").click(function(){**

**$("#box").removeClass("first");**

**});**

**//toggleClass.**

**$("#togglebutton").click(function(){**

**$("#box").toggleClass("first");**

**});**

**});**

**</script>**

1. **CSS method: how to attached multiple CSS property and its value in CSS.**

**Syntax:**

**CSS({“property” : ”value”, ”property” : ”value”})**

**Example:**

**<script>**

**$(document).ready(function(){**

**$('#btn-click').click(function(){**

**//click pr apply multiple css properties.**

**$("#box").css({"color":"red","border":"2px solid green","background-color":"silver","padding":"10px"});**

**});**

**});**

**</script>**

# **:**

1. **Append method: append method is used for attached any html tags with content last of the content.**
2. **Prepend method: prepend method is used for attached any html tags with content beginning of the content.**

**Example:**

**<body>**

**<div class="container mt-3">**

**<div class="row">**

**<div class="col-lg-6">**

**<ol id="box">**

**<li>list items-1</li>**

**<li>list items-2</li>**

**<li>list items-3</li>**

**<li>list items-4</li>**

**<li>list items-5</li>**

**</ol>**

**<button type="button" id="btn-append">Append-methdo</button>**

**<button type="button" id="btn-prepend">prepend-methdo</button>**

**</div>**

**</div>**

**</div>**

**<script>**

**$(document).ready(function(){**

**$("#btn-append").click(function(){**

**$("ol").append("<li>list appended below the bottom</li>");**

**});**

**$("#btn-prepend").click(function(){**

**$("ol").prepend("<li>list prepended on the top</li>");**

**});**

**});**

**</script>**

1. **Before: before method is used for attached the html tags with content before the tag.**
2. **After: after method is used for attached the html tags with content after the tag.**

**Ex:**

**<div class="container mt-3">**

**<div class="row">**

**<div class="col-lg-12">**

**<div id="box" style="border: 1px solid red; padding:20px; margin-bottom:10px;">**

**<h2>text box</h2>**

**<p>Lorem ipsum dolor sit amet consectetur adipisicing.</p>**

**</div>**

**<button id="before-btn" class="btn btn-primary">Before</button>**

**<button id="after-btn" class="btn btn-success">After</button>**

**</div>**

**</div>**

**</div>**

**<script>**

**$(document).ready(function(){**

**$('#before-btn').click(function(){**

**$('#box').before("<h1>This is h1 tag</h1>");**

**});**

**$('#after-btn').click(function(){**

**$('#box').after("<h2>This is h2 tag</h2>");**

**});**

**});**

**</script>**

**5.remove () method: remove method remove the div tag and inside the content.**

**6.empty () method: empty method removes the div tag inside content only.**

**Ex:**

**<div class="container mt-3">**

**<div class="row">**

**<div class="col-lg-6">**

**<div id="box" class="boxbg border border-2 border-dark p-5">**

**<h2>Text box</h2>**

**<p>Lorem ipsum dolor sit amet consecte.</p>**

**</div>**

**<button id="empty-btn" class="btn btn-primary">empty-btn</button>**

**<button id="remove-tbn" class="btn btn-primary">remove</button></div>**

**</div>**

**</div>**

**<script>**

**$(document).ready(function(){**

**$('#empty-btn').click(function(){**

**$('#box').empty();**

**});**

**$('#remove-tbn').click(function(){**

**$('#box').remove();**

**});**

**});**

**</script>**

**7.AppendTo ():**

**8.PrependTo ():**

**Ex:**

**<script>**

**$(document).ready(function(){**

**$("#appBtn").click(function(){**

**$('<p>add to appendTo</p>').appendTo('#box');**

**});**

**$("#PreBtn").click(function(){**

**$('<p>add to appendTo</p>').prependTo('#box');**

**});**

**});**

**</script>**

**9. clone () method: clone method copy the textual data.**

**Ex:**

**<script>**

**$(document).ready(function(){**

**$('#cloneBtn').click(function(){**

**$('#box h2').clone().prependTo('#box2');**

**$('#box p').clone().appendTo('#box2');**

**});**

**});**

**</script>**

# **:**

1. **replaceWith (): replaceWith method replace the tag with inside textual data.**
2. **replaceAll (): replaceAll method replace the tag only.**

**Ex:**

**<script>**

**$(document).ready(function(){**

**$('#repl').click(function(){**

**$("#box p:first").replaceWith("<h3>Dravinanshu Mishra Welcome Back</h3>");**

**});**

**$('#repla').click(function(){**

**$("<h3>Dravinanshu Mishra Welcome Back</h3>").replaceAll("#box p");**

**});**

**});**

**</script>**

1. **Each () method: each method works as loop.**

**Ex:**

**<script>**

**$(document).ready(function(){**

**$('li').each(function(){**

**console.log($(this).text());**

**});**

**});**

**</script>**

1. **Warp (): wrap method warp the any selected element wrap with parent element.**

**Syntax:**

**wrap(“<h1></h1>”);**

1. **Unwrap (): unwarp method unwarp the any element.**

**Syntax:**

**unwrap(“<h2></h2>”);**

**ex:**

  <script>

        $(document).ready(function(){

           $("#wrapButton").click(function(){

              console.log("warp");

             $("#box p").wrap("<h1></h1>");

           });

           $("#unWrapButton").click(function(){

             console.log("unwarp");

             $("#box p").unwrap();

           });

        });

    </script>

1. **wrapInner (): wrapInner () method wrap the inside element any tags.**

**Syntax:**

**wrapInner();**

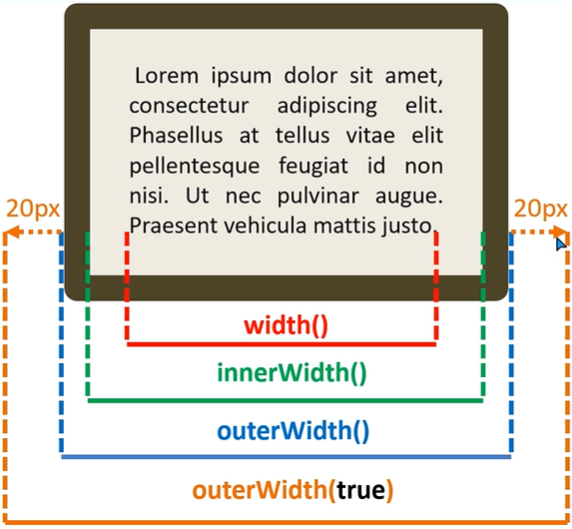
1. **wrapAll (): wrapAll method wrap the all method inside the element.**

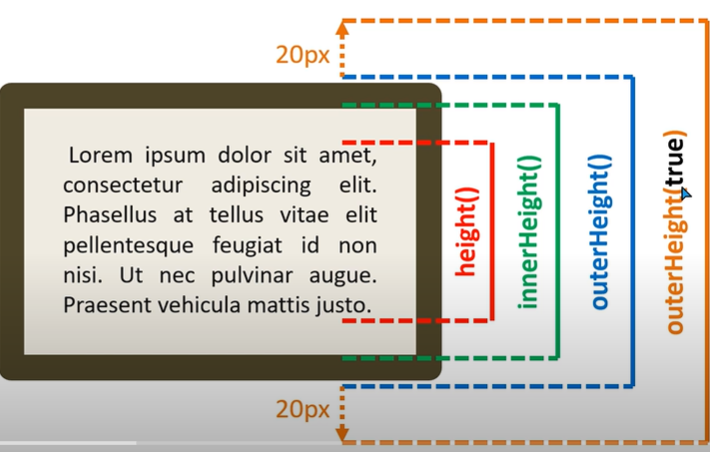
**Syntax:**

**wrapAll();**

# **:**

1. **Width ():**
2. **Height ():**
3. **innerWidth ():**
4. **innerHeight ():**
5. **outerWidth ():**
6. **outerHeight ():**
7. **outerWidth (true):**
8. **outerHeight (true):**

****

****

1. **position property in jQuery: The position () method returns the position (relative to its parent element) of the first matched element.**

**Syntax:**

1. **offset property in jQuery: offset method returns the offset coordinate for the selected elements, relative to the document.**

**Syntax:**

1. **scrollTop (): top se scroll.**

**Syntax:**

**$(window).scrollTop();**

1. **scrollLeft (): left se scroll.**

**Syntax:**

**$(window).scrollLeft();**

1. **hasClass (): hasClass method checks the class of element if class is available, it returns true otherwise returns false.**

**Syntax:**

**hasClass();**

# **:**

1. **H**

# **: jQuery plugin:**

1. **jQuery plugins.**

* **Cropper (image cropper):**
* **3D slider (image plugin):**
* **Signature plugin.**
* **Bezier curve plugin.**
* **Interactive 360 product viewer plugin with jQuery.**
* **Clothes & T-shirt maker.**

1. **jQuery perform two things.**

* **Select the HTML element.**
* **In selected element, perform the jQuery function which function is created by jQuery.**