

JQuery

JQuery is a javascript library, JQuery code gets executed, once you DOM is ready in the memory,

Hence jQuery code is always written in document.ready event

\$---represents jQuery, but some time if we are using code of some other languages, like PHP, PHP also uses \$ for variables, then conflict will be there for \$. Hence to avoid conflict we may use keyword jQuery

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|---|---|
| <code>\$(document).ready(function(){} \$(document).ready(()=>{})</code> | <code>jQuery(document).ready(function(){} jQuery(document).ready(()=>{})</code> |
|---|---|

While writing jQuery code first step is load jQuery library in html file, by using <script> tag

If you are working on many projects, then you will need to keep separate copy of library file one for every project,

Or if version changes then you need to download new version every time, to avoid this, you may use CDN(Content delivery Network), but it always need network connectivity.

You may add following CDN entry

```
<script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.7.1/jquery.min.js"
integrity="sha512-
v2CJ7UaYy4JwqLDlrZUI/4hqeoQieOmAZNXBeQyjo21dadnwR+8ZaIJVT8EE2iyI61OV8e6M8PP
2/4hpQINQ/g==" crossorigin="anonymous" referrerpolicy="no-referrer"></script>
```

To test whether jQuery code is executing or not

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <!--<script src="./jquery.js"></script>-->
  <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.7.1/jquery.min.js"
integrity="sha512-
v2CJ7UaYy4JwqLDlrZUI/4hqeoQieOmAZNXBeQyjo21dadnwR+8ZaIJVT8EE2iyI61OV8e6M8PP
2/4hpQINQ/g==" crossorigin="anonymous" referrerpolicy="no-referrer"></script>
  <script>
    $(document).ready(function(){
      alert("hello")
    })
  </script>
</head>
<body>

</body>
</html>
```

In jQuery to select any element from html page, we use CSS selector, all css selectors can be used, but few extra also can be used

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|----------------------|---|
| div[name] | Select all div with name attribute |
| div[name=mydiv] | Select all div with value of name attribute as mydiv |
| div[name^='my'] | Select all div with name attribute value starts with my |
| div[name\$='my'] | Select all div with name attribute value ends with my |
| div[name*='my'] | Select all div with name attribute, value has my word somewhere in it |
| div p:first-child | To select all p which are first child, of div tag's descendants |
| Div p:last-child | To select all p which are last child, of div tag's descendants |
| Div p:nth-child(n) | To select all p which are nth child, of div tag's descendants |
| div p:odd | To select all odd number children of div tag descendants |
| div p:even | To select all even number children of div tag descendants |
| div:contains('KLFS') | To select all div tags, whose contents has KLFS substring somewhere in it |

Why use jQuery

1. It reduces the size of code as compared to JavaScript
2. It makes your code browser independent
3. It has lot of UI plugin, which can be just added and used

Functions in jQuery

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| \$(selector).css(property,value) \$(selector).css({'property':'value','property':'value'}) | It will assign the css property to all elements which selector can select |
| \$(selector).val() \$(selector).val(12) | To retrieve value of, value property of form elements |
| \$(selector).html() \$(selector).html("assign to innerHTML property") | To retrieve value of, innerHTML property of form elements |
| \$(selector).each(function(index,element){}) | To execute function inside each for every element selected by selector |
| \$(selector).append(html element) | It adds html element after last child |
| \$(selector).prepend(html element) | It adds html element before first child |
| \$(selector).wrap(html element) | It will wrap each selected element into separate html element, It adds parent for the selected tag |
| \$(selector).wrapAll(html element) | It will wrap all selected element into single given html element, It adds parent for the selected tag |
| \$(selector).insertBefore(html element) | It will add html element before selected element |
| \$(selector).remove() | Will remove all selected element |
| \$(selector).remove(criteria selector) | Will remove all elements, which matches the criteria |
| \$(selector).hover(function1,function2) \$(selector).hover(function1) | In hover, 2 events occur, mouseover and mouseout, function1 will get executed for mouseover and function2 will get executed for mouseout But if only function1 is given, then function1 will get executed 2 time, |

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| | once for mouseover and second for mouseout |
| <code>\$(selector).addClass(classname)</code> | New classname will be added in selected elements |
| <code>\$(selector).removeClass(classname)</code> | Given classname will be removed from selected elements |
| <code>\$(selector).toggleClass(classname)</code> | If classname exists, then it will be removed, and if it is not there then it will add, so opposite action will be done |
| <code>\$(selector).hasClass(classname)</code> | It will return true, if the classname exists, return false, if classname does not exists |
| <code>\$(selector).attr(property,value)</code> <code>\$(selector).attr({'property':'value','property':'value'})</code> | It will assign the attribute to all elements which selector can select To assign multiple attributes, use JSON object |

| Javascript | jQuery |
|--|---|
| <pre>var arr=document.getElementsByTagName('p'); for(var v of arr){ v.setAttribute("style","background- colro:yellow") }</pre> | <pre>\$(‘p’).css(“background-color”,“yellow”); \$(‘p’).css({“background-color”:“yellow”, “color”:“red”});</pre> |
| <pre>//to assign text color for all p and divtag //programetically, setColor is event handler for some button click <button type=’button’ onclick=”setColor()”> function setColor(){ var arr=document.getElementsByTagName(‘p’);</pre> | <pre>\$(document).ready(function(){ \$('#btn').click(==>{ \$(‘p,div’).css(‘color’,‘red’) }) })</pre> |

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| <pre> for(var x of arr){ // x.setAttribute('style','color:red') x.style='color:red' } var arr=document.getElementsByTagName('div'); for(var x of arr){ // x.setAttribute('style','color:red') x.style='color:red' } } </pre> | |
| document.getElementById("mydiv") | \$('#mydiv') |
| Document.getElementsByClassName('myclass') | \$('.myclass') |
| <pre> function checkradio(){ var arr=document.getElementsByName("degree"); for(var p of arr){ if(p.checked){ var v=p.value; alert(v) return true; } } return false; } </pre> | <pre> var v=\$('#input[name=degree]:checked').val() if(v!=undefined){ return true } Return false </pre> |
| <pre> function checkcheckboxes(){ var arr=document.getElementsByName("skills"); var v=""; var cnt=0; for(var p of arr){ if(p.checked){ var v=v+p.value; cnt++; } } If(cnt>=2){ alert(v) return true } return false; } </pre> | <pre> Var v=""; Var cnt=0; \$('#input[name=skills]').each(function(index,element){ if(\$(element).is(':checked')){ v+=\$(element).val(); cnt++; } }) If(cnt>=2){ alert(v) return true } return false; } </pre> |
| <pre> var city=document.getElementById("city") var pos=city.selectedIndex var v=city.options[pos].value; If(v!="test"){ return true } </pre> | <pre> Var v=\$('#city option:selected').val() If(v!="test"){ return true } Return false; </pre> |

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| <pre>} Return false;</pre> | |
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