**JQuery**

**What is jQuery**

jQuery is a fast, lightweight, and feature-rich JavaScript library that is based on the priciple*"write less, do more"*. It's easy-to-use APIs makes the things like HTML document traversal and manipulation, event handling, adding animation effects to a web page much simpler that works seamlessly across all the major browsers. jQuery also gives you the ability to create an Ajax based application in a quick and simple way.

Companies like Google, Microsoft and IBM are using the jQuery for their applications. So you can easily understand how popular the jQuery is?

**Advantages of jQuery**

The biggest advantage of jQuery comes from its selectors that allow you to traverse the DOM tree of an HTML document's structure in an efficient manner.

Additionally, using the jQuery inbuilt methods you can create animations and effects like sliding transition, showing or hiding an element, etc. with a single line of code.

Here are some more advantages, why one should opt for jQuery:

**Save lots of time** — You can save lots of time and efforts by using the jQuery inbuilt effects and selectors and concentrate on other development work.

**Simplify common JavaScript tasks** — jQuery considerably simplifies the common JavaScript tasks. Now you can easily create feature rich and interactive web pages with fewer lines of codes, a typical example is retrieving the information from a server and updates the page without refreshing.

**Easy to use** — jQuery is very easy to use. Anybody with the basic working knowledge of HTML, CSS and JavaScript can start development with jQuery.

**Compatible with browsers** — jQuery is created with modern browsers in mind and it is compatible with all major modern browsers such as Mozilla Firefox, Google Chrome, Safari, Internet Explorer, and Opera.

**Absolutely Free** — And the best part is, it is completely free to download and use.

**Tip:**With JavaScript, you often need to write many lines of codes to locate an element of an HTML document, but with jQuery robust selector mechanism you can easily get the exact portion of the document to perform any manipulation.

**What is $() in jQuery library?**

The $() function is an alias of jQuery() function, at first it looks weird and makes jQuery code cryptic, but once you get used to it, you will love it's brevity. $() function is used to wrap any object into jQuery object, which then allows you to call various method defined jQuery object. You can even pass a selector string to $() function, and it will return jQuery object containing an array of all matched DOM elements.

You have five <div> element in your page? How do you select them using jQuery?

Another fundamental jQuery question based on selector. jQuery supports different kinds of selector e.g. ID selector, class selector and tag selector. Since in this question nothing has been mentioned about ID and class, you can use tag selector to select all div elements.  jQuery code : $("div"), will return a jQuery object contain all five div tags.

**Difference between ID selector and class selector in jQuery?**

If you have used CSS, then you might know the difference between ID and class selector, It's same with jQuery. ID selector uses ID e.g. #element1 to select element, while class selector uses CSS class to select elements. When you just need to select only one element, use ID selector, while if you want to select a group of element, having same CSS class than use class selector.  
  
$("#LoginTextBox") -- Returns element wrapped as jQuery object with id="LoginTextBox"

 $(".active") – Returns all elements with CSS class active.

**How do you hide an image on a button click using jQuery?**  
  
  
jQuery provides good support for handling events like button click. You can use following code to hide an image, found using Id or class. What you need to know is hide() method and how to setup an even handler for button, to handle clicks, you can use following jQuery code to do that  
  
$(“ButtonToClick”).click(function(){

$(“ImageToHide”).hide();

} );

**What is $(document).ready() function? Why should you use it?**  
  
ready() function is used to execute code when document is ready for manipulation. jQuery allows you to execute code, when DOM is fully loaded i.e. HTML has been parsed and DOM tree has been constructed. Main benefit of $(document).ready() function is that, it works in all browser, jQuery handles cross browser difficulties for you.  
  
6. **Difference between JavaScript window.onload event and jQuery ready function?**

Main difference between JavaScript onload event and jQuery ready function is that former not only waits for DOM to be created but also waits until all external resources are fully loaded including heavy images, audios and videos.  If loading images and media content takes lot of time that user can experience significant delay on execution of code defined in window.onload event. On the other hand jQuery ready() function only wait for DOM tree, and does not wait for images or external resource loading, means faster execution. Another advantage of using jQuery $(document).ready() is that you can use it multiple times in your page, and browser will execute them in the order they appear in HTML page, as opposed to onload technique, which can only be used for a single function. Given this benefits, it's always better to use jQuery ready() function than JavaScript window.onload event.  
  
  
**7. How do you find all selected options of HTML select tag?**  
  
This is one of the tricky jQuery question on Interviews. It's still a basic, but don't expect every jQuery beginners to know about this. You can use following jQuery selector to retrieve all selected options of <select> tag with multiple=true :

$('[name=NameOfSelectedTag] :selected')

This code uses attribute selector in combination of :selected selector, which returns only selected options. You can tweak this and instead of name, you can even use id attribute to retrieve <select> tag  
  
**8. What is each() function in jQuery? How do you use it?**  
  
each() function is like Iterator in Java, it allows you to iterate over a set of elements. You can pass a function to each() method, which will be executed for each element from the jQuery object, on which it has been called. This question sometime asked as follow-up of previous question e.g. how to show all selected options in alert box. We can use above selector code to find all selected option and than further can use each() method to print them in alert box, one by one, as shown below:  
  
text() method returns text for that option.

$(‘[name=NameOfSelectedTag]:selected’).each(function(selected)

{

Alert($(selected).text());

});

**9. How do you add an HTML element in DOM tree?**

You can use jQuery method appendTo() to add an HTML element in DOM tree. This is one of the many DOM manipulation method jQuery provides. You can add an existing element or a new HTML element, appendTo() add that method in the end of a particular DOM element  
  
10 Can you write jQuery code to select all links, which is inside paragraphs?  
 **11. Difference between $(this) and this keyword in jQuery?**  
  
$(this) returns a jQuery object, on which you can call several jQuery methods e.g. text() to retrieve text, val() to retrieve value etc, while this represent current element, and it's one of the JavaScript keyword to denote current DOM element in a context. You can not call jQuery method on this, until it's wrapped using $() function i.e. $(this).  
  
**How do you retrieve attribute of an HTML tag using jQuery e.g. href of links?**  
attr() method is used to retrieve value of an attribute of any HTML element. You first need to select all links or specified links using jQuery selector and than you can apply attr() method to get value of there href attribute. Below code will find all links from a page and return href value :  
  
$(“a”).each(function(){

Alert($(this).attr(‘href’));

**});**How do you set attribute using jQuery?

attr() method is overload like many other methods in JQuery. If you call attr() method with value e.g. attr(name, value), where name is the name of attribute and value is the new value.

**What is difference between detach() and remove() method in jQuery?**  
  
Though both detach() and remove() method is used to remove a DOM element, Main difference between them is that detach() keep track of the last element detached, so that it can be reattached, while remove() method does keep reference of last removed method. You can also take a look on appendTo() for adding element into DOM.

**empty**(): This method removes all the child element of the matched element where remove() method removes set of matched elements from DOM.  
  
.**remove**(): This method takes elements out of the DOM. Use .remove() when you want to remove the element itself, as well as everything inside it. In addition to the elements themselves, all bound events and jQuery data associated with the elements are removed.

.**detach**(): This method is same as remove(), except that detach() keep all jquery data associated with the removed elements. This method is useful when removed elements are reinserted into the DOM at a later time.

**How do you add and remove CSS classes to an element using jQuery?**

By using addClass() and removeClass() jQuery methods. This can be very handy, while dynamically changing class of elements e.g. marking them inactive or active and using class ".active" etc.

**What is main advantage of loading jQuery library using CDN?**  
  
Well, apart from many advantages including reducing server bandwidth and faster download, one of the most important is that, if browser has already downloaded same jQuery version from same CDN, than it won't download it again. Since now days, almost many public websites use jQuery for user interaction and animation, there is very good chance that browser already have jQuery library downloaded.  
  
**What is difference between jQuery.get() and jQuery.ajax() method?**

ajax() method is more powerful and configurable, allows you to specify how long to wait and how to handle error, get() is a specialization to over ajax just to retrieve some data.

**What is method chaining in jQuery? what is benefit of using method chaining?**

Method chaining is calling another method in result of another method, it result in clean and concise code, single search over DOM so better performance.

**What happen if you return false from a jQuery event handler?**

It used to stop the event bubbling up

**Which one is more efficient, document.getElementbyId( "myId") or $("#myId)?**

First one because its direct call to JavaScript engine

**jQuery Get or Set Contents and Values**

Some jQuery methods can be used to either assign or read some value on a selection. A few of these methods are **text(), html(), attr(), and val().**

When these methods are called with no argument, it is referred to as a *getters*, because it gets (or reads) the value of the element. When these methods are called with a value as an argument, it's referred to as a *setter* because it sets (or assigns) that value.

## What is Traversing

The jQuery selectors we've seen so far only allow us to select the elements down the DOM tree. But there are many occasions when you need to select a parent or ancestor element; that is where jQuery's DOM traversal methods come into play. With these traversal methods, we can go up, down, and all around the DOM tree very easily.

DOM traversing is one of the prominent features of the jQuery. To make the most it you need to understand the relationships between the elements in a DOM tree.

## jQuery find() Method

The jQuery find() method is used to get the descendant elements of the selected element.

The find() and children() methods are similar, except that the find() method search through multiple levels down the DOM tree to the last descendant, whereas the children()method only search a single level down the DOM tree. The following example will add a border around all the [<li>](http://www.tutorialrepublic.com/html-reference/html-li-tag.php) elements that are descendants of the [<div>](http://www.tutorialrepublic.com/html-reference/html-div-tag.php) element.

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## jQuery noConflict() Method

The **jQuery.noConflict()** method return the control of the $ **identifier** back to other libraries. The jQuery code in the following example (line no-10) will put the jQuery into **no-conflict** mode immediately after it is loaded onto the page and assign a new variable name $**j** to replace the $**alias** in order to avoid conflicts with the prototype framework.