

Fundamental JQuery

TRAINING HARI #3 – ACHMAD SOLICHIN (@ACHMATIM)

Agenda

- ❑ Apa itu JQuery?
- ❑ jQuery Basics
- ❑ Animating, Scrolling, Resizing
- ❑ Image and Slideshow
- ❑ Forms

Apa itu JQuery?

Apa itu JQuery?

jQuery is a **fast**, **small**, and **feature-rich** JavaScript library. It makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers. With a combination of versatility and extensibility, jQuery has changed the way that millions of people write JavaScript. (<http://jquery.com>)



Lightweight Footprint

Only 32kB minified and gzipped.
Can also be included as an AMD module



CSS3 Compliant

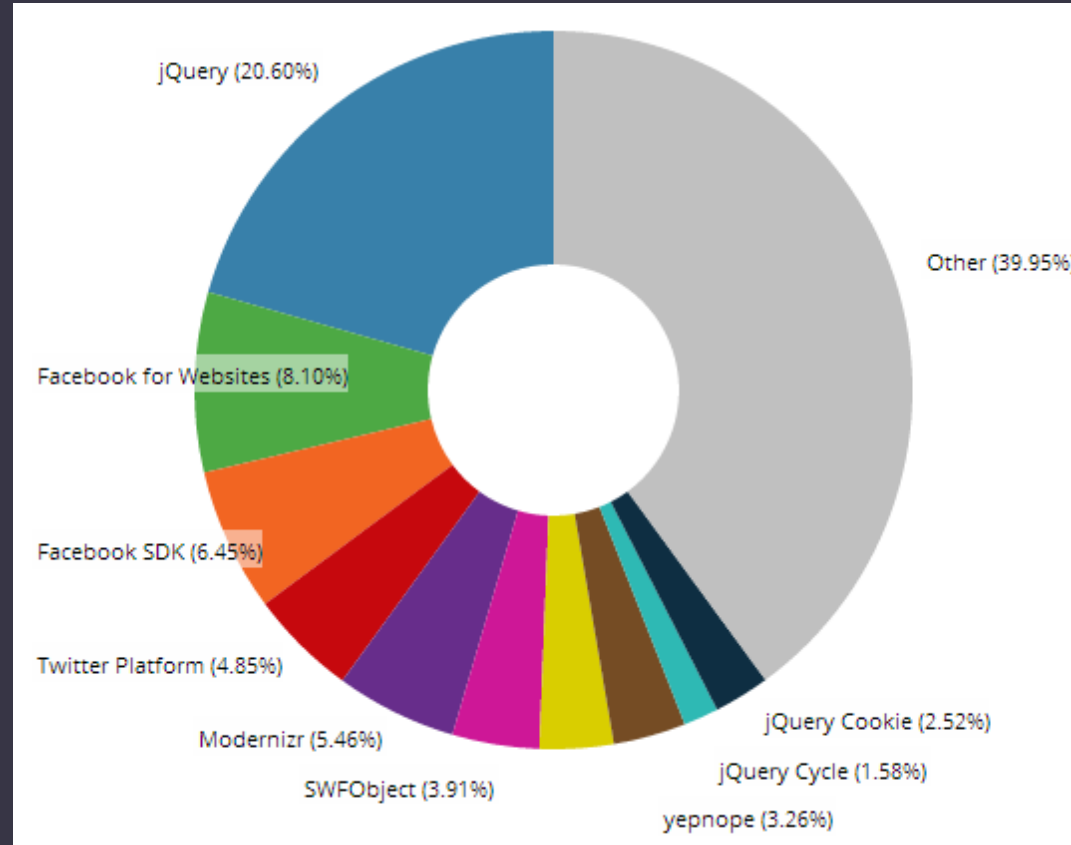
Supports CSS3 selectors to find elements as well as in style property manipulation



Cross-Browser

IE, Firefox, Safari, Opera, Chrome,
and more

JQuery Usage Statistics



Sumber: <http://trends.builtwith.com/javascript/>

Mengapa JQuery?

- ❑ Mengakses bagian halaman tertentu dengan mudah.
- ❑ Dapat mengubah tampilan bagian halaman tertentu saja.
- ❑ Mengubah isi dari halaman.
- ❑ Merespond interaksi user dalam halaman
- ❑ Menambahkan animasi ke halaman
- ❑ Mengambil informasi dari server tanpa me-refresh seluruh halaman
- ❑ Menyederhanakan penulisan Javascript biasa.

Kegunaan JQuery

- ❑ Mengakses bagian halaman tertentu dengan mudah.
- ❑ Dapat mengubah tampilan bagian halaman tertentu saja.
- ❑ Mengubah isi dari halaman.
- ❑ Merespond interaksi user dalam halaman
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- ❑ Menyederhanakan penulisan Javascript biasa.

JQuery Basics

Download dan Install

❑ Download

<http://jquery.com>

❑ Install (local)

```
<script src="path/to/jquery.js"></script>
```

❑ Install (CDN) – Content Delivery Network

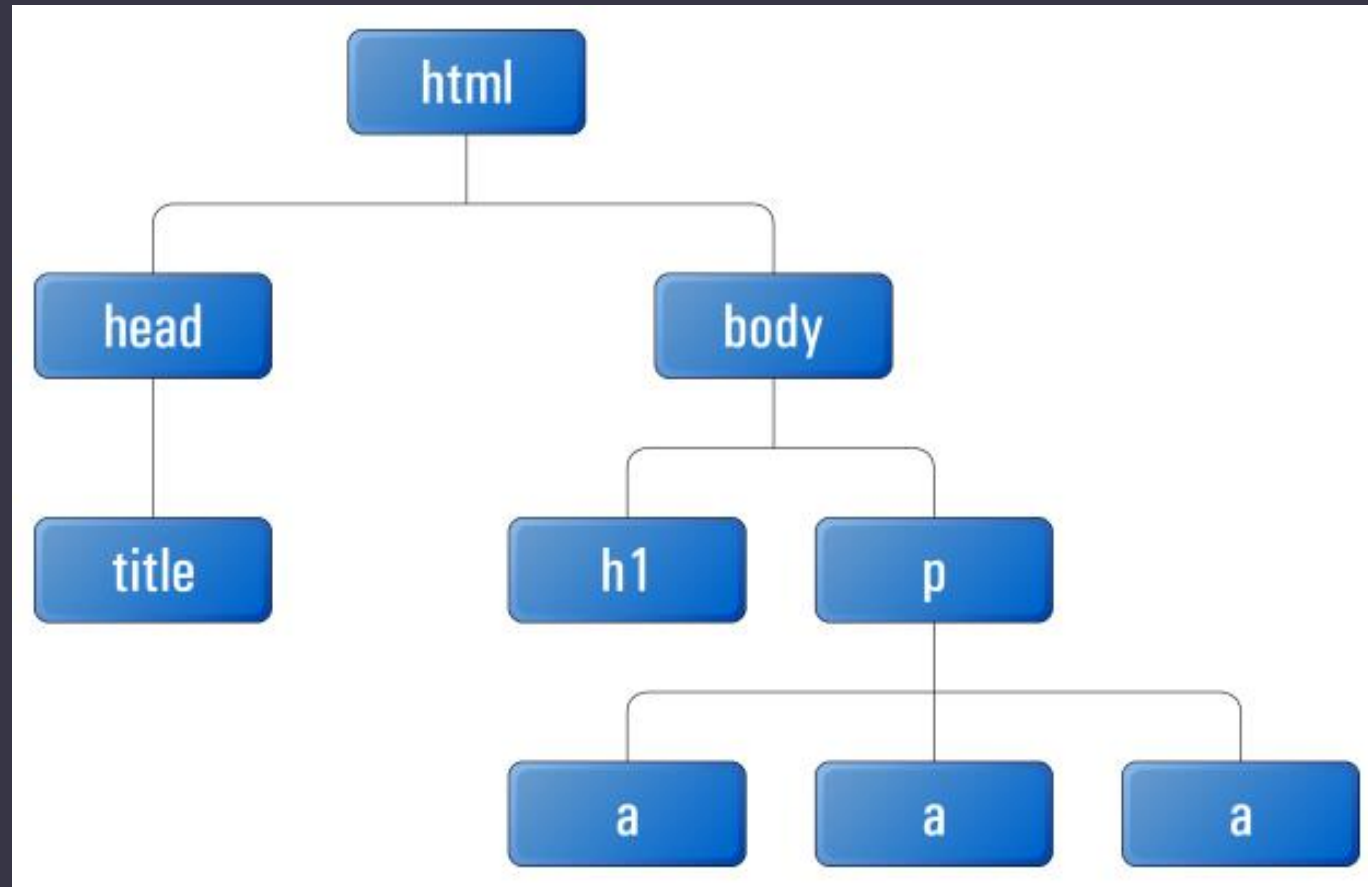
```
<script src="http://code.jquery.com/jquery.js"></script>
```

```
<script src="http://ajax.googleapis.com/ajax/libs/jquery/1.4.0/  
jquery.min.js"></script>
```

Struktur JQuery

selector	action	parameters
<code>jQuery('p')</code>	<code>.css</code>	<code>('color', 'blue');</code>
<code>\$('p')</code>	<code>.css</code>	<code>('color', 'blue');</code>

Document Object Model (DOM)



jQuery Hello World!

```
$(document).ready(function() {  
    alert('Hello World!');  
});
```

```
$(function() {  
    alert('Ready to do your bidding!');  
});
```

Selector

□ Tag

`$ ('h2')`

□ ID

`$ ('#celebs')`

□ Class

`$ ('.data')`

The screenshot shows a web page titled "Our Celebrities" with a table of celebrities. Several elements are highlighted with yellow boxes and labeled with CSS selectors:

- `div#celebs` points to the main container div.
- `h2.heading` points to the "Our Celebrities" heading.
- `p.info` points to the paragraph of text below the heading.
- `table.data` points to the table containing celebrity information.

The table data is as follows:

ID		Occupation	Approx. Location	Price
203A	Johnny Stardust (bio)	Front-man	Los Angeles	\$39.95
141B	Beau Dandy (pic , bio)	Singer	New York	\$39.95
2031	Mo' Fat (pic)	Producer	New York	\$19.95

Selector

```
$(document).ready(function() {  
    alert($('#celebs tr').length + ' elements!');  
});
```

```
$(document).ready(function() {  
    alert($('#celebs tbody tr').length + ' elements!');  
});
```

```
$(document).ready(function() {  
    alert($('#celebs tbody tr:even').length + ' elements!');  
});
```

```
$('p,div,h1,input')
```

Contoh

```
1 <html>
2   <head>
3     <title>Belajar JQuery</title>
4     <script type="text/javascript" src="jquery-1.3.min.js"></script>
5     <script type="text/javascript">
6       $(document).ready(function() {
7         $('a.show').click(function() {
8           $('p.jquery').show("slow");
9         });
10        $('a.hide').click(function() {
11          $('p.jquery').fadeOut("slow");
12        });
13      });
14    </script>
15  </head>
16  <body>
17    <h1>Hello World with JQuery</h1>
18    <p><a href="" class="show">Show</a> <a href="" class="hide">Hide</a></p>
19    <p class="jquery" style="display:none">Semboyan JQuery adalah "write less, do more"
20    atau dengan kata lain kesederhanaan dalam penulisan code, tetapi menghasilkan
21    tampilan yang lebih. Inilah yang menjadi daya tarik tersendiri buat para pengembang
22    web untuk menggunakan <a href="http://jquery.com">JQuery</a>.
23  </p>
24  </body>
25 </html>
```



jQuery dan CSS

❑ Membaca Property CSS

```
$(document).ready(function() {  
    var fontSize = $('#celebs tbody tr:first').css('font-size');  
    alert(fontSize);  
});
```

❑ Mengubah Property CSS

```
$(document).ready(function() {  
    $('#celebs tbody tr:even').css('background-color', '#dddddd');  
});
```

```
$('#celebs tbody tr:even').css('background-color', '#dddddd');  
$('#celebs tbody tr:even').css('color', '#666666');
```

```
$('#celebs tbody tr:even').css(  
    {'background-color': '#dddddd', 'color': '#666666'}  
);
```


jQuery dan CSS

□ Menambah dan Menghapus Class CSS

```
.zebra {  
  background-color: #dddddd;  
  color: #666666;  
}
```

```
$('#celebs tr:even').addClass('zebra');
```

```
$('#celebs tr.zebra').removeClass('zebra');
```

```
▼ <table class="data">  
  ► <thead>  
  ▼ <tbody>  
    ► <tr class="zebra">  
    ► <tr>  
    ► <tr class="zebra">  
    ► <tr>  
    ► <tr class="zebra">  
    ► <tr>  
    </tbody>  
</table>
```

jQuery Event Handler

❑ HTML

```
<input type="button" id="hideButton" value="hide" />
```

❑ Menyembunyikan suatu komponen pada saat tombol diklik

```
$('#hideButton').click(function() {  
    $('#disclaimer').hide();  
});
```

❑ Selector 'this' yang mengacu pada lingkup dirinya sendiri

```
$('#hideButton').click(function() {  
    $(this).hide(); // a curious disappearing button.  
});
```

jQuery Event Handler

❑ Toggle (Show/Hide)

```
$('#toggleButton').click(function() {  
    if ($('#disclaimer').is(':visible')) {  
        $('#disclaimer').hide();  
    } else {  
        $('#disclaimer').show();  
    }  
});
```

jQuery Manipulasi Elemen

❑ Menambahkan elemen baru

```
$('<input type="button" value="toggle" id="toggleButton">')  
  .insertAfter('#disclaimer');
```

```
$('<input type="button" value="toggle" id="toggleButton">')  
  .insertBefore('#disclaimer');
```

```
$('<strong>START!</strong>').prependTo('#disclaimer');  
$('<strong>END!</strong>').appendTo('#disclaimer');
```

} Menambahkan setelah / sebelum

→ Menambahkan di dalam elemen

❑ Menghapus elemen

```
<p id="no-script">  
  We recommend that you have JavaScript enabled!  
</p>
```

```
$('#no-script').remove();
```

jQuery Manipulasi Elemen

❑ Mengganti Isi Elemen

```
$('#p').html('good bye, cruel paragraphs!');  
$('#h2').text('All your titles are belong to us');
```

```
$('#p').html('<strong>Warning!</strong> Text has been replaced ... ');  
$('#h2').text('<strong>Warning!</strong> Title elements can be ...');
```

❑ Apa perbedaan .html() dan .text() ?

jQuery mouseover() dan hover()

```
tr.zebraHover {  
  background-color: #FFFACD;  
}
```

```
$('#celebs tr').mouseover(function() {  
  $(this).addClass('zebraHover');  
});  
$('#celebs tr').mouseout(function() {  
  $(this).removeClass('zebraHover');  
});
```

```
$('#celebs tbody tr').hover(function() {  
  $(this).addClass('zebraHover');  
}, function() {  
  $(this).removeClass('zebraHover');  
});
```

JQuery Animating, Scrolling, Resizing

jQuery animate()

- ❑ Animasi di semua paragraf saat halaman ditampilkan

```
$('#p').animate({  
  padding: '20px',  
  borderBottom: '3px solid #8f8f8f',  
  borderRight: '3px solid #bfbfbf'  
}, 2000);
```

- ❑ Animasi aktif saat hover()

```
$('#navigation li').hover(function() {  
  $(this).animate({paddingLeft: '+=15px'}, 200);  
}, function() {  
  $(this).animate({paddingLeft: '-=15px'}, 200);  
});
```

- ❑ Color Animation

```
$('#disclaimer').animate({'backgroundColor': '#ff9f5f'}, 2000);
```


jQuery animate()

□ Easing

```
$('#p:first').toggle(function() {  
    $(this).animate({'height': '+=150px'}, 1000, 'linear');  
}, function() {  
    $(this).animate({'height': '-=150px'}, 1000, 'swing');  
});
```

```
$('#p:first').animate({height: '+=300px'}, 2000, 'easeOutBounce');  
$('#p:first').animate({height: '-=300px'}, 2000, 'easeInOutExpo');  
$('#p:first').animate({height: 'hide'}, 2000, 'easeOutCirc');  
$('#p:first').animate({height: 'show'}, 2000, 'easeOutElastic');
```

jQuery animate() - Bouncing

```
<div id="bio">
  <h2>Who's Hot Right Now?</h2>

  <h3>Beau Dandy</h3>
  <div>
    
    <p>Content about Beau Dandy</p>
  </div>

  <h3>Johnny Stardust</h3>
  <div>
    
    <p>Content about Johnny Stardust</p>
  </div>

  <h3>Glendatronix</h3>
  <div>
    
    <p>Content about Glendatronix</p>
  </div>
</div>
```

```
$('#bio h3').click(function() {
  $(this).next().animate(
    {'height':'toggle'}, 'slow', 'easeOutBounce'
  );
});
```

jQuery animate() – Animated Navigation

```
<ul id="navigation">
  <li><a href="#">Home</a></li>
  <li><a href="#">About Us</a></li>
  <li><a href="#">Buy!</a></li>
  <li><a href="#">Gift Ideas</a></li>
</ul>
```

```
$('#<div id="navigation_blob"></div>').css({
  width: $('#navigation li:first a').width() + 10,
  height: $('#navigation li:first a').height() + 10
}).appendTo('#navigation');
```

```
// Mouse over function
$('#navigation_blob').animate(
  {width: $(this).width() + 10, left: $(this).position().left},
  {duration: 'slow', easing: 'easeOutElastic', queue: false}
);
```

```
// Mouse out function
$('#navigation_blob')
  .stop(true)
  .animate(
    {width: 'hide'},
    {duration: 'slow', easing: 'easeOutCirc', queue: false}
  )
  .animate(
    {left: $('#navigation li:first a').position().left;},
    'fast'
  );
}
```

jQuery Scrolling

❑ Fungsi scroll()

```
$('#news').scroll(function() {  
    $('#header')  
        .append('<span class="scrolled">You scrolled!</span>');  
});
```

❑ Floating Navigation

```
#navigation {  
    position: relative;  
}  
  
#content {  
    height: 2000px;  
}
```

```
$(window).scroll(function() {  
    $('#navigation').css('top', $(document).scrollTop());  
});
```

```
$(window).scroll(function() {  
    $('#navigation')  
        .stop()  
        .animate({top: $(document).scrollTop()}, 'slow', 'easeOutBack');  
});
```

jQuery Scrolling

❑ Page Scroll → scrollTop

```
$('#a[href=#]').click(function() {  
    $('html').animate({scrollTop: 0}, 'slow');  
    return false; // Return false to cancel the default link action  
})
```

❑ Manipulasi Scrollbar → plugin <https://code.google.com/p/jscrollpane/>

```
$('#fine_print').jScrollPane({  
    scrollbarWidth: 10,  
    scrollbarMargin: 10,  
    showArrows: false  
});
```



usmod tempor incididunt ut
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jQuery Resize

❑ Fungsi `resize()`

```
$(window).resize(function() {  
    alert("You resized the window!");  
});
```

❑ Membuat komponen dapat diubah ukurannya (resizable)

```
$('#p').resizable();
```

Which member of the seminal calypso/lectro band *C&C Music Sweatshop* was spotted last night at *Dirt*, the trendy New York restaurant that serves only food caught and retrieved by the chef's own hands? Yes! It's the ever-effervescent, *Glendatronix!*

❑ Resizable Textarea

```
$('#textarea').resizable({  
    grid : [20, 20],  
    minWidth : 153,  
    minHeight : 30,  
    maxHeight : 220,  
    containment: 'parent'  
});
```

jQuery Image & Slideshow

jQuery Lightbox

- ❑ ColorBox - <http://www.jacklmoore.com/colorbox/>
- ❑ LightBox - <http://lokeshdhakar.com/projects/lightbox2/>
- ❑ FancyBox - <http://fancybox.net/>
- ❑ Magnific Popup - <http://dimsemenov.com/plugins/magnific-popup/>
- ❑ Nivo Lightbox - <http://dev7studios.com/plugins/nivo-lightbox/>
- ❑ Featherlight - <http://noelboss.github.io/featherlight/>

jQuery ColorBox

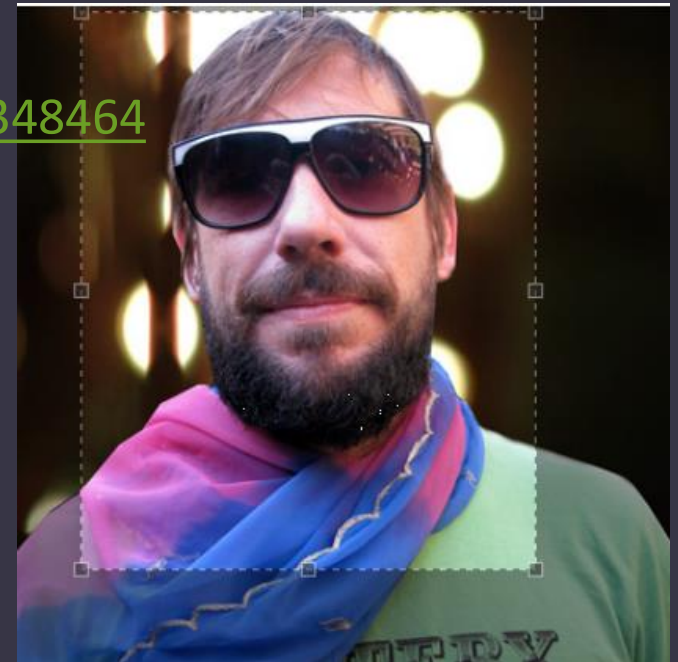
```
<link rel="stylesheet" href="colorbox.css" type="text/css">
<script src="jquery.colorbox-min.js" type="text/javascript">
  </script>
```

```
$(document).ready(function() {
  $('a[rel="celeb"]').colorbox();
});
```

```
$('a[rel=celeb]').colorbox({
  transition: 'fade',
  speed: 500,
  current: "{current} of {total} celebrity photos"
});
```

jQuery Cropping Image

- ❑ Jcrop - <http://deepliquid.com/content/Jcrop.html>
- ❑ Image Cropper - <https://github.com/fengyuanchen/cropper>
- ❑ CropPic - <http://www.croppic.net/>
- ❑ Image Crop (paid) - <http://codecanyon.net/item/image-crop/5348464>
- ❑ CropZoom - <http://www.cropzoom.com.ar/>



jQuery Image Slider

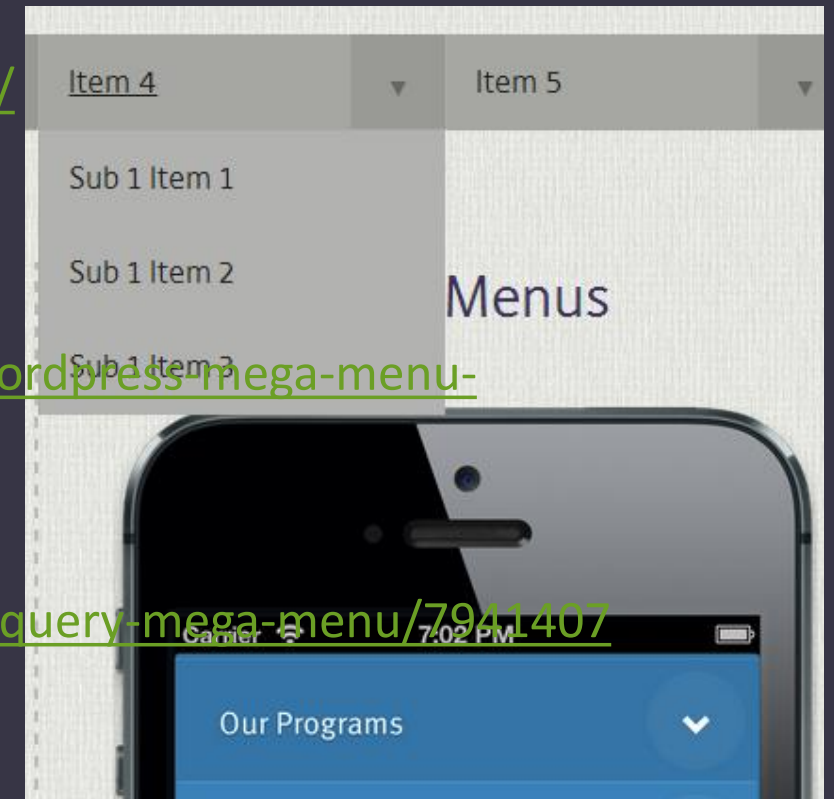
- ❑ ResponsiveSlider - <http://responsiveslides.com/>
- ❑ WowSlider - <http://wowslider.com/>
- ❑ Jquery Cycle - <http://jquery.malsup.com/cycle/>
- ❑ BxSlider - <http://bxslider.com/>
- ❑ SlideJS - <http://www.slidesjs.com/>
- ❑ NivoSlider - <http://dev7studios.com/plugins/nivo-slider>



JQuery Menu, Tabs, Panels, Tooltips

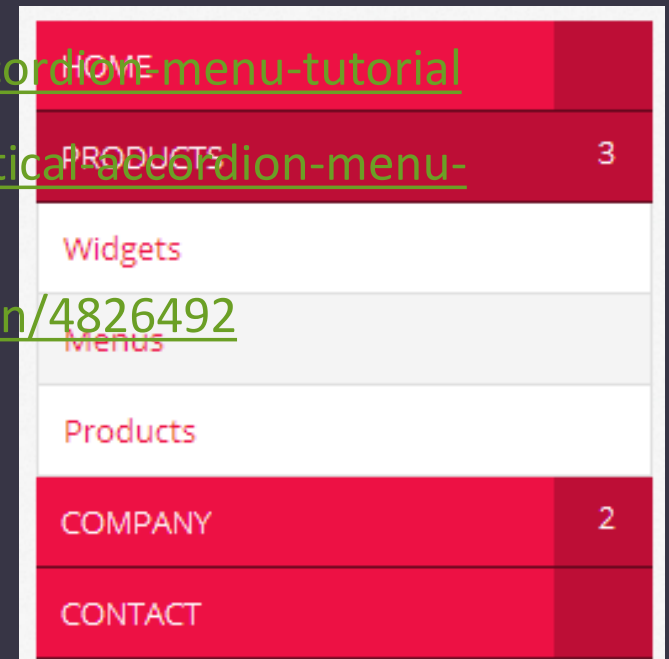
jQuery Menu

- ❑ SmartMenu - <http://www.smartmenus.org/>
- ❑ SuperFish - http://users.tpg.com.au/j_birch/plugins/superfish/
- ❑ FlexNav - <http://jasonweaver.name/lab/flexiblenavigation/>
- ❑ contextMenu - <https://github.com/s-yadav/contextMenu.js>
- ❑ NOO Menu (paid) - <http://codecanyon.net/item/noo-menu-wordpress-mega-menu-plugin/7873697>
- ❑ meanMenu - <https://github.com/meantthemes/meanMenu>
- ❑ Zetta Menu (paid) - <http://codecanyon.net/item/zetta-menu-jquery-mega-menu/7941407>
- ❑ And many more...



jQuery Accordion

- ❑ liteAccordion - <http://nicolahibbert.com/demo/liteAccordion/>
- ❑ Slidorion - <http://slidorion.com/>
- ❑ jQuery UI Accordion – <http://jqueryui.com>
- ❑ Flat JQuery Accordion - <http://cssmenu maker.com/blog/flat-jquery-accordion-menu-tutorial>
- ❑ Vertical Accordion Menu - <http://thecodeplayer.com/walkthrough/vertical-accordion-menu-using-jquery-css3>
- ❑ jQuery Accordion (paid) - <http://codecanyon.net/item/jquery-accordion/4826492>
- ❑ And many more...



jQuery Tabs

```
<ul id="info-nav">
  <li><a href="#intro">Intro</a></li>
  <li><a href="#about">About Us</a></li>
  <li><a href="#disclaimer">Disclaimer</a></li>
</ul>
```

```
<div id="info">
  <p id="intro">
    Welcome to <strong>StarTrackr!</strong> the planet's premier ...
  <p id="about">
    StarTrackr! was founded in early 2009 when a young ...
  </p>
  <p id="disclaimer">
    Disclaimer! This service is not intended for the those ...
  </p>
</div>
```

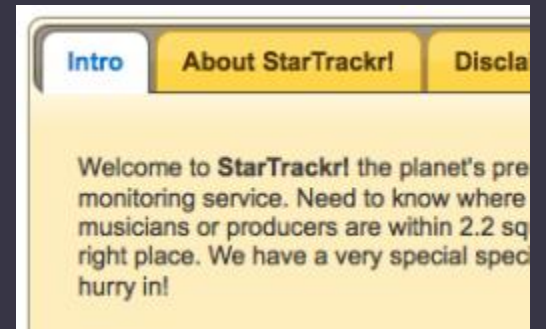
```
$('#info p:not(:first)').hide();
```

```
$('#info-nav li').click(function(e) {
  $('#info p').hide();
  $('#info-nav .current').removeClass("current");
  $(this).addClass('current');

  var clicked = $(this).find('a:first').attr('href');
  $('#info ' + clicked).fadeIn('fast');
  e.preventDefault();
}).eq(0).addClass('current');
```

jQuery Tabs

- ❑ jQuery UI Tabs – <http://jqueryui.com>
- ❑ EasyTabs - <http://os.alfajango.com/easytabs>
- ❑ TabulousJS - <http://git.aaronlumsden.com/tabulous.js/>
- ❑ Google Play's Tabs - <http://red-team-design.com/google-play-minimal-tabs-with-css3-jquery/>
- ❑ Folder Tabs - <http://red-team-design.com/css3-jquery-folder-tabs/>
- ❑ And many more...



jQuery Slide-down Login Panel

```
$('#login form').hide();
$('#login a').toggle(function() {
    $(this)
        .addClass('active')
        .next('form')
        .animate({'height':'show'}, {
            duration:'slow',
            easing: 'easeOutBounce'
        });
}, function() {
    $(this)
        .removeClass('active')
        .next('form')
        .slideUp();
});
```

```
$('#login form :submit').click(function() {
    $(this)
        .parent()
        .prev('a')
        .click();
});
```

jQuery Tooltips

```
<a href="#" title="Check out all the ... ">New York</a>
```

```
.tooltip {  
  display: none;  
  position: absolute;  
  border: 1px solid #333;  
  background-color: #ffed8a;  
  padding: 2px 6px;  
}
```

```
$('.location').hover(function(e) {  
  // Hover over code  
}, function() {  
  // Hover out code  
}).mousemove(function(e) {  
  // Mouse move code  
});
```

```
// Hover over code  
var titleText = $(this).attr('title');  
$(this)  
  .data('tipText', titleText)  
  .removeAttr('title');  
  
$('<p class="tooltip"></p>')  
  .text(titleText)  
  .appendTo('body')  
  .css('top', (e.pageY - 10) + 'px')  
  .css('left', (e.pageX + 20) + 'px')  
  .fadeIn('slow');
```

```
// Hover out code  
$(this).attr('title', $(this).data('tipText'));  
$('.tooltip').remove();
```

```
// Mouse move code  
$('.tooltip')  
  .css('top', (e.pageY - 10) + 'px')  
  .css('left', (e.pageX + 20) + 'px');
```

jQuery Tooltips

- ❑ jQuery UI Tooltips – <http://jqueryui.com>
- ❑ Tooltipster - <http://iamceege.github.io/tooltipster/>
- ❑ qTip2 - <http://qtip2.com/>
- ❑ qTip - <http://craigsworks.com/projects/qtip/>
- ❑ Toltipsy - <http://tooltipsy.com/>
- ❑ And many more...

JQuery Forms

jQuery Form Validation

□ <http://achmatim.net/2012/05/22/membuat-validasi-form-dengan-jquery-validation/>

jQuery Check All Checkboxes

```
<div class="stats">
  <span class="title">Reason for Celebrity</span>
  <input name="reason"
    type="checkbox" value="net" />Famous on the internet<br/>
  <input name="reason"
    type="checkbox" value="crim" />Committed a crime<br />
  <input name="reason"
    type="checkbox" value="model" />Dates a super model<br />
  <input name="reason"
    type="checkbox" value="tv" />Hosts a TV show<br />
  <input name="reason"
    type="checkbox" value="japan" />Big in Japan<br />
  <hr />
  <input class="check-all"
    name="reason" type="checkbox" /><span>Check all</span>
</div>
```

```
$('.check-all:checkbox').change(function() {
  var group = ':checkbox[name=' + $(this).attr('name') + ']';
  $(group).attr('checked', $(this).attr('checked'));
});
```

jQuery Autocomplete

```
<label for="location">Last known whereabouts:</label>  
<input type="text" id="location"/>
```

```
var cities = ['New York', 'Melbourne', 'Montreal', 'London' ... ];  
$('#location').autocomplete(cities,{  
  autoFill: true,  
  selectFirst: true,  
  width: '240px'  
});
```

```
$('#location')  
  .autocomplete(cities)  
  .result(function(event, selection) {  
    alert(selection);  
  });
```

jQuery Autocomplete

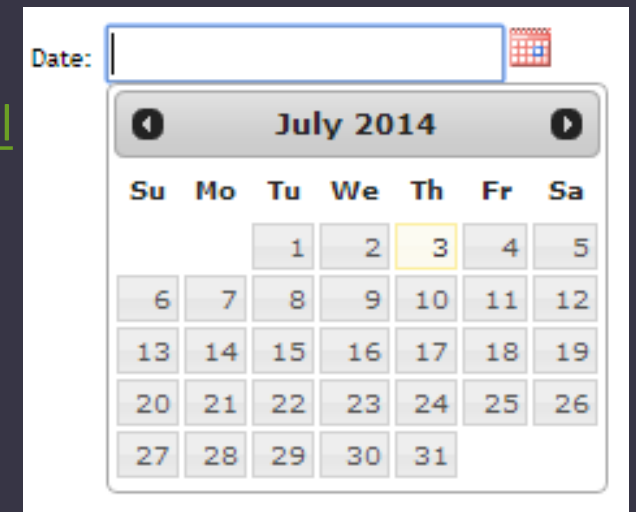
- ❑ jQuery UI Autocomplete - <http://jqueryui.com/autocomplete/>
- ❑ Autocomplete - <http://bassistance.de/jquery-plugins/jquery-plugin-autocomplete/>
- ❑ Ajax Autocomplete - <http://www.devbridge.com/sourcery/components/jquery-autocomplete/>
- ❑ Facebook Like Autocomplete - <http://www.web2ajax.fr/2008/02/03/facebook-like-jquery-and-autosuggest-search-engine/>
- ❑ And many more...

Tags:

Clojure
Java
JavaScript

jQuery Datepicker

- ❑ jQuery UI Datepicker – <http://jqueryui.com/datepicker/>
- ❑ DatePicker - <http://www.eyecon.ro/datepicker/>
- ❑ Bootstrap Datepicker - <http://www.eyecon.ro/bootstrap-datepicker/>
- ❑ glDatePicker - <http://glad.github.com/glDatePicker/>
- ❑ Zebra DatePicker - <http://stefangabos.ro/jquery/zebra-datepicker/>
- ❑ ptTimeSelect - <http://pttimeselect.sourceforge.net/example/index.html>
- ❑ And many more...



jQuery Slider

❏ jQuery UI Slider – <http://jqueryui.com/slider>

Drag the slider to filter by price:



203A	Johnny Stardust (bio)	Front-man	Los Angeles	\$79
141B	Beau Dandy (pic , bio)	Singer	New York	\$39
6636	Glendatronix (bio , press)	Keytarist	London	\$55

Resources

- ❑ (Book) JQuery Novice to Ninja. Sitepoint
- ❑ <http://jquery.com>
- ❑ <http://jqueryui.com>
- ❑ <http://achmatim.net>

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