

jQuery

What is jQuery?

- Is a free , open Javascript library
- Simplifies the task of creating highly responsive web pages
- Works across modern browsers
- Abstracts away browser-specific features, allowing you to concentrate on design

Introduction to Javascript

HTML

markup language
content

CSS

presentation language
presentation

JavaScript

scripting language
behaviour

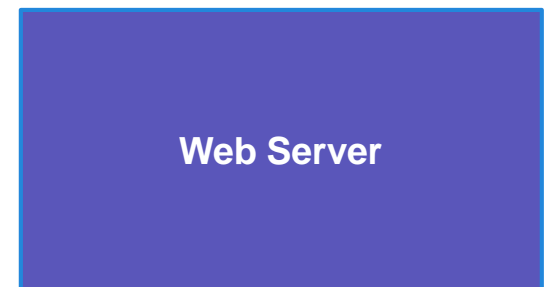
Java



JavaScript

What is a scripting language?

- Can't communicate with OS
- Can't access local files
- Can't directly access database
- Can't access hardware
- Client-side language
- Works on DOM



Python, PHP, ASP.NET,
Ruby on Rails

Document Object Model

Document - Object

```
<html>
<head>
<title>Simple Page</title>
</head>
<body>
  <h1>Simple HTML Page</h1>
  <p>
    This is a very simple HTML page.
  </p>

  <p>It's about as basic as they come. It has:<p>

  <ul>
    <li>An H1 Tag</li>
    <li>Two paragraphs</li>
    <li>An unordered list</li>
  </ul>
</body>
</html>
```

Simple HTML Page

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It's about as basic as they come. It has:

- An H1 Tag
- Two paragraphs
- An unordered list

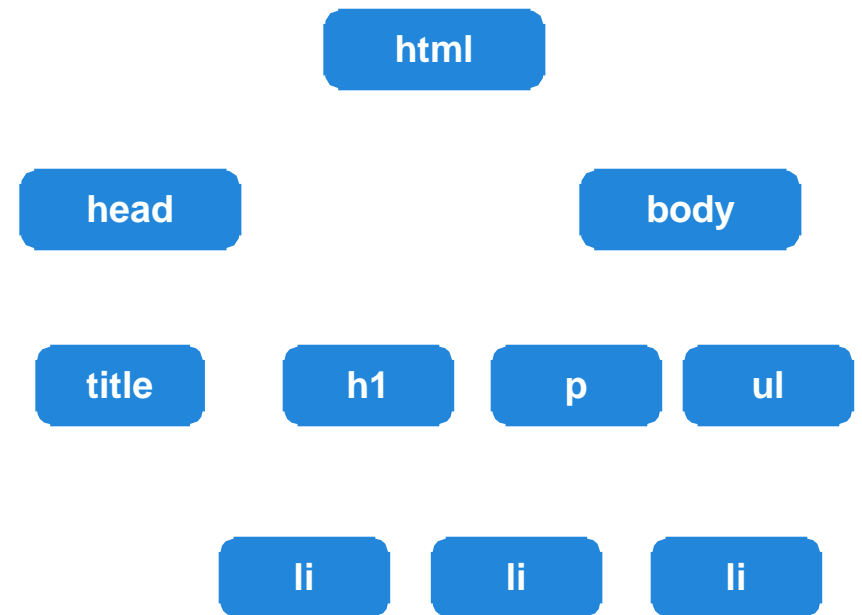
Document

Model

```
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<head>
<title>Simple Page</title>
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```



JavaScript vs jQuery

- Example 1 - Hide an element with id "textbox"

//javascript

```
document.getElementById('textbox').style.display = "none";
```

//jQuery

```
$('#textbox').hide();
```

- Example 2 - Create a <h1> tag with "my text"

//javascript

```
var h1 = document.CreateElement("h1");
```

```
h1.innerHTML = "my text";
```

```
document.getElementsByTagName('body')[0].appendChild(h1);
```

//jQuery

```
$('#body').append( $("<h1/>").html("my text") );
```

Enable jQuery in your page

- jQuery can be enabled in your page by including reference to jQuery library file

```
<script  
src="http://ajax.googleapis.com/ajax/libs/jquery/1.9.1/jquery.min.  
js">
```

- Introduce a jQuery function by using the below given function.

```
$(document).ready(function(){  
    //Script goes here  
});
```

OR

```
$(function(){  
    //Script goes here  
});
```


Basic selectors

- TagName

```
document.getElementsByTagName("tagName");
```

```
$("#tagName") - $("div"), $("p"), $("div"),.....
```

- Tag ID

```
document.getElementById("id");
```

```
$("#id") - $("#name"), $("#address")
```

- Tag Class

```
document.getElementsByClassName("className");
```

```
$(".className") - $(".comment"), $(".code")
```

- To select all elements - \$("*")

Selectors - Combined

- Syntax

`$("#tagName.className")`

`$("#tagName.className#tagId")`

- Examples

`$("#h1.mainTitle")`

`$("#h1.mainTitle#firstHeading")`

Index filters

Syntax:

- `$("selector:first")`
- `$("selector:last")`
- `$("selector:odd")`
- `$("selector:even")`
- `$("selector:eq(i)")`
- `$("selector:gt(i)")`
- `$("selector:lt(i)")`

Examples:

- `$("p:first")`
- `$("p:last")`
- `$("p:odd")`
- `$("p:even")`
- `$("p:eq(1)")`
- `$("p:gt(1)")`
- `$("p:lt(1)")`

Condition filters - Form filters

- `$("#selector:visible")`
- `$("#selector:hidden")`
- `$("#selector:disabled")`
- `$("#selector:enabled")`
- `$("#selector:checked")`
- `$("#selector:selected")`
- `$("#selector:header")`
- `$("#selector:animated")`
- `$("#selector:not(selector:not)")`
- `$("#selector:input")`
- `$("#selector:text")`
- `$("#selector:password")`
- `$("#selector:radio")`
- `$("#selector:checkbox")`
- `$("#selector:submit")`
- `$("#selector:reset")`
- `$("#selector:image")`
- `$("#selector:file")`
- `$("#selector:button")`

Relationship filters - Content filters

- `$("selector:parent")`
- `$("selector:first-child")`
- `$("selector:last-child")`
- `$("selector:only-child")`
- `$("selector:nth-child(i)")`
- `$("selector:nth-child(odd)")`
- `$("selector:nth-child(even)")`
- `$("selector:nth-child(Xn+M)")`
- `$("selector:content('text')")`
- `$("selector:empty")`
- `$("selector:has(selector)")`

Attribute filters

Syntax:

- `$("selector[attribute]")`
- `$("selector[attribute=value]")`
- `$("selector[attribute!=value]")`
- `$("selector[attribute^=value]")`
- `$("selector[attribute$=value]")`
- `$("selector[attribute*=value]")`

Examples:

- `$("p:[name]")`
- `$("p:[name=para]")`
- `$("p:[name!=para]")`
- `$("p:[name^=para]")`
- `$("p:[name$=para]")`
- `$("p:[name*=para]")`

Retrieve, Set and Remove attributes

Syntax:

- `$("selector").attr("name")`
- `$("selector").attr("key", "val")`
- `$("selector").attr("key", fn())`
- `$("selector").attr(properties)`
- `$("selector").removeAttr(attr)`

Examples:

- `$("img").attr("src")`
- `$("p").attr("class", "source")`
- `$("img").attr("height", calHt())`
- `$("img").attr({
 "src" : "/path/",
 "title" : "My Img"
});`
- `$("div").removeAttr("class")`

Class, HTML, Text, Value - Functions

- `$("selector").hasClass("className")`
- `$("selector").addClass("className")`
- `$("selector").removeClass("className")`
- `$("selector").toggleClass("className")`

- `$("selector").html()`
- `$("selector").html("html code")`

- `$("selector").text()`
- `$("selector").text("text content")`

- `$("selector").val()`
- `$("selector").val("value")`

Traversing

Syntax:

- `$("selector").length`
- `$("selector").size()`
- `$("selector").get()`
- `$("selector").get(index)`
- `$("selector").find("selector")`
- `$("selector").each(function(){
 $(this).xxxx();
});`

Examples:

- `$("h1").length`
- `$("h1").size()`
- `var h1_list = $("h1").get()`
- `var h1 = $("h1").get(2)`
- `$("select").find("option[value='india']")`
- `$("selector").each(function(){
 $(this).addClass('title');
});`

Events

- bind()
- unbind()
- ready()
- toggle()
- hover()
- trigger()
 - `$("selector").bind(event, data, handler)`
 - `$("selector").unbind(event, handler)`

Bind - Example

```
$(function(){  
    $("#myButton").bind("onclick", validate);  
    $("#myButton").click( validate);  
});  
function validate(){  
    if( $("#myText").val().length == 0 ){  
        alert("Error")  
    } else {  
        $("#myForm").submit();  
    }  
}
```

Animations

- `show()`
- `hide()`
- `fadeIn()`
- `fadeOut()`
- `slideUp()`
- `slideDown()`