

# Java Script Libraries



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# What is JavaScript?

- The JavaScript code is executed within the scope of the web browser.
- JavaScript is an object oriented programming language with functional programming capabilities.

# Sample

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
    "http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
    <title></title>
    <script src="mycode.js" type="text/javascript"></script>
</head>
<body>
    bla bla
    <script type="text/javascript">
        alert("sum="+sum(3,4));
    </script>
</body>
</html>
```

# Sample

```
function sum(numA,numB)
{
    return numA+numB;
}
```

# Sample

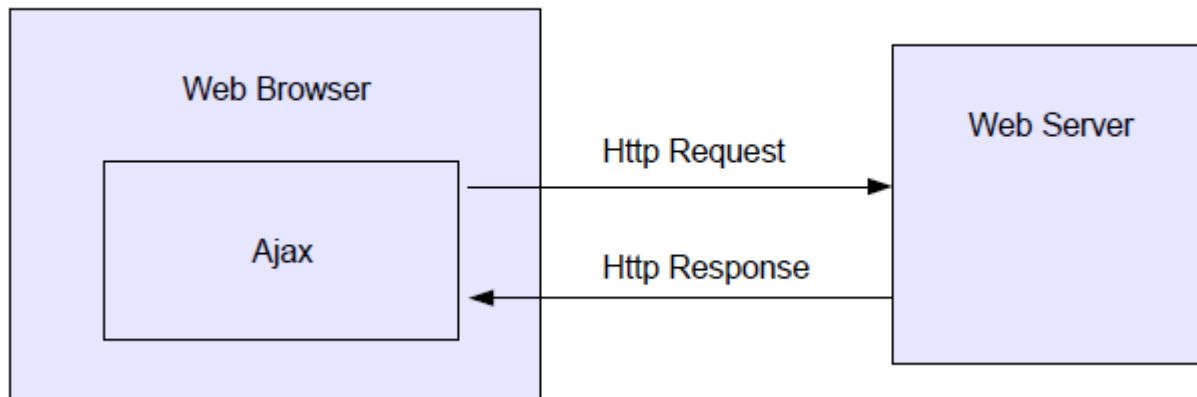


bla bla



# Ajax

- We can develop JavaScript code that perform the HTTP interaction with the server side.



# DOM

- The JavaScript programming language allows us to interact with the web page DOM and even change it.

# CSS

- CSS files are responsible for the look & feel of our web site. We can use Java Script to introduce changes in the look & feel CSS properties.



# CSS

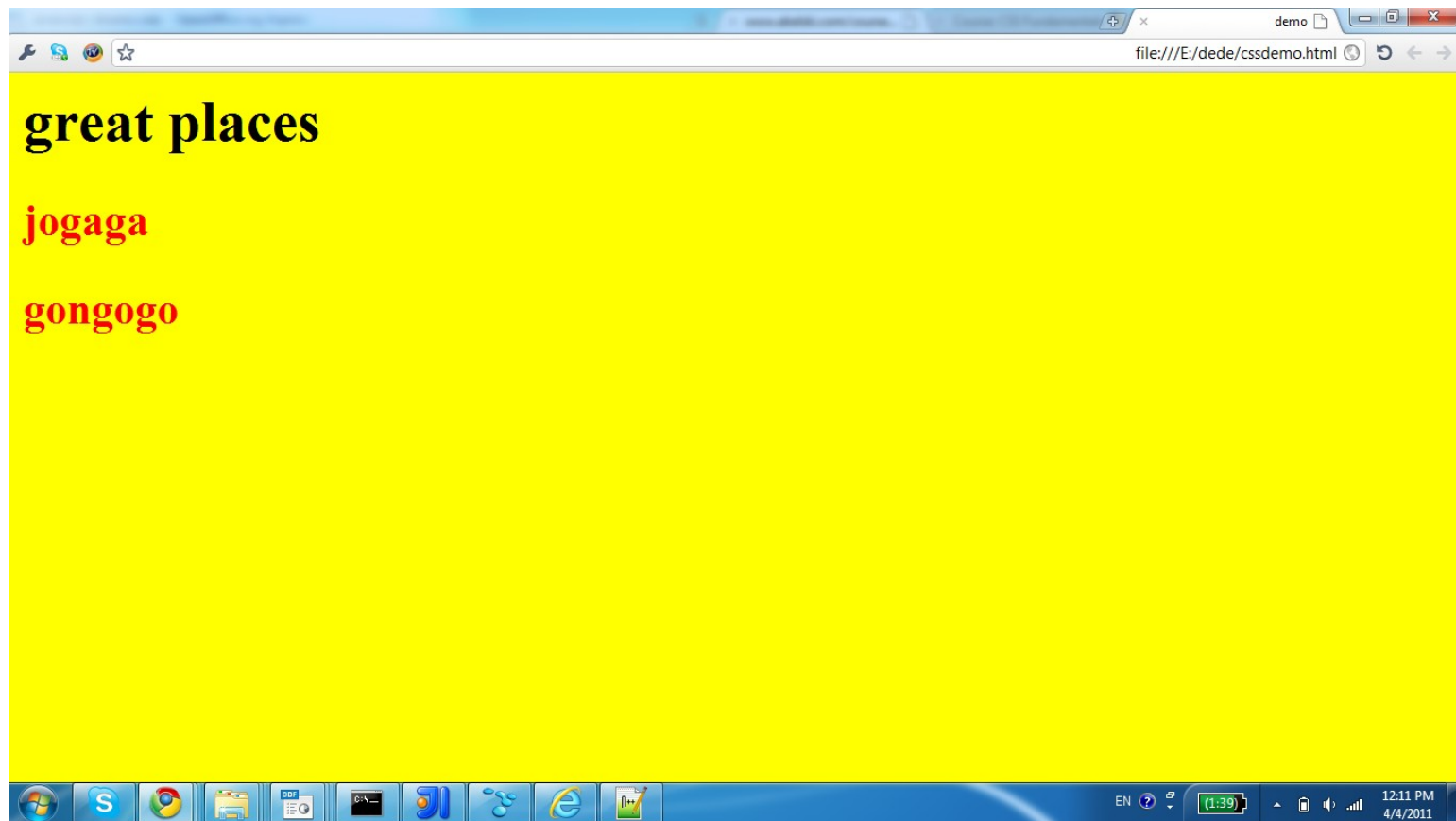
```
body {background-color:yellow}  
h2 {color:red}
```

simple.css

# CSS

```
<html>
  <head>
    <title>demo</title>
    <link rel="stylesheet" type="text/css" href="simple.css"/>
  </head>
  <body>
    <h1>great places</h1>
    <h2>jogaga</h2>
    <h2>gongogo</h2>
  </body>
</html>
```

# CSS



# HTML5

- HTML5 new coming standard is mainly about JavaScript. The new coming HTML5 specification defines various JavaScript APIs for performing various useful operations.

# JavaScript Libraries

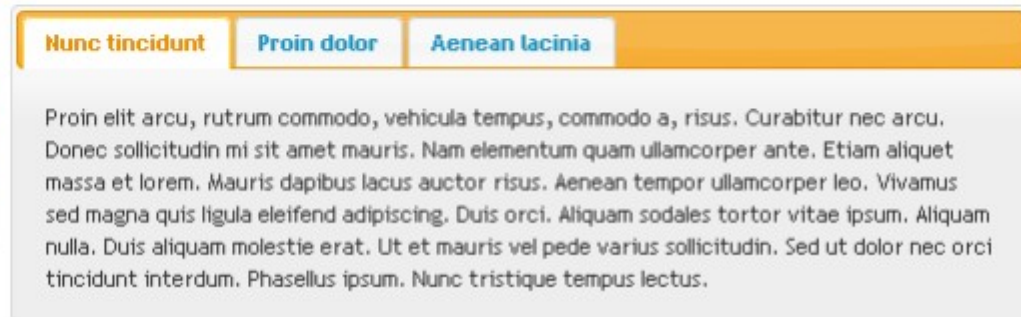
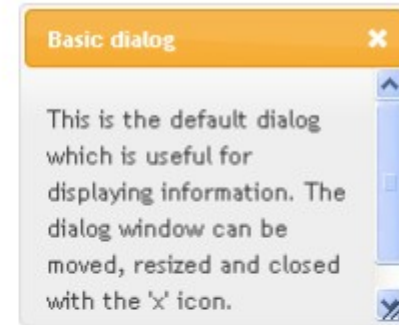
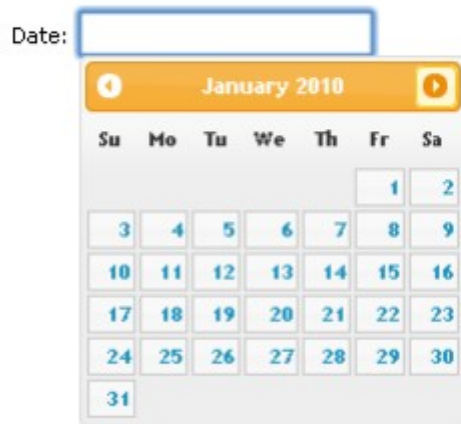
- The web browsers differs in their support for executing JavaScript.
- The result was the emergence of various JavaScript libraries that ease our development process and provide a solution for the web browsers differentiation.

# The jQuery Library

- This library allows us to develop cross platform user interface compatible with most available web browsers.



# The jQuery Library



# The jQuery Mobile Library

- The jQueryMobile is a JavaScript library that enables the creation of unified GUI components across most mobile telephones web browsers, including iPhone, android, Black Berry and others.
- The jQueryMobile library is an open source project. It uses the jQuery library.





# The MooTools Library

- This library is known as the JavaScript programming language extension.

# The MooTools Library

```
<script type="text/javascript" src="mootools-core-1.3-full-
compat.js"></script>
<script type="text/javascript">
var Rectangle = new Class({
// properties
width: 0,
height: 0,
// methods
initialize: function(wVal,hVal)
{
    this.width = wVal;
    this.height = hVal;
},
details: function()
{
    alert("width=" + this.width + " height=" + this.height);
},
});
var rec = new Rectangle(5,4);
rec.details();
</script>
```

# The ajax.org Library

- This library is known for its various capabilities and especially the one that allows us to develop 3D rich charts models.

# The ajax.org Library

The screenshot shows the homepage of the Ajax.org Platform. The browser's address bar displays `ui.ajax.org/#home`. The website features a dark blue header with navigation links: Platform, Demos, Documentation, Planet, Downloads, Forum, and Bug Tracker. A search bar is located in the top right corner. The main content area is titled "The collaborative application platform v3.0 Beta2 (unstable)". It includes a central logo for "AJAX.org Platform" and a 3D charting engine demo with the text "Use your mouse to interact!". A red diagonal banner on the right side of the page reads "Ajax.org Beta". Below the main content, there are three columns: "Promote JS" with a "BETTER JS DOCS FOR US, BY US! PROMOTE JS!" graphic; "Getting Started" with links to "Read about APF" (Getting Started Tutorial, APF Manual) and "Get APF into your Editor" (Aptana, IntelliJ IDEA, Visual Studio); and "Participate" with a login form for "@ajax.org" (Username, Password, E-mail) and a "Submit" button. The Windows taskbar at the bottom shows the system tray with a 97% battery level and the date/time 2:45 PM 2/20/2011.

<http://ui.ajax.org/#home>

# Coco2SD

- The Cocos2d-javascript is a 2D game/graphics engine based on cocos2d-iphone designed to run in a web browser.
- Cocos2D-javascript uses HTML 5 for creating 2D graphics without the need for plug-ins such as Adobe Flash.

# Coco2SD



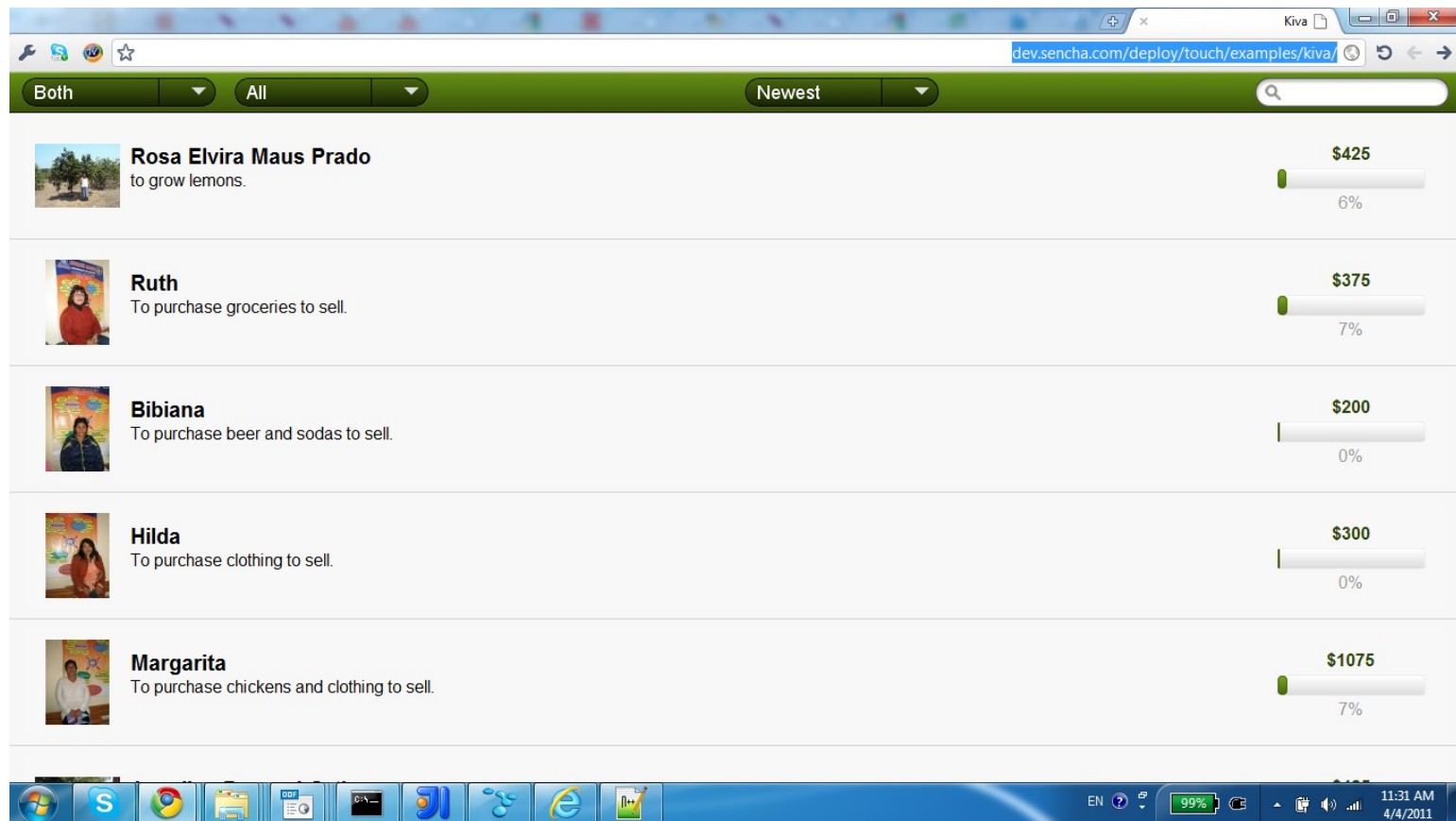
<http://cocos2d-javascript.org/about>

# Sencha Touch

- The Sencha Touch JavaScript library allows us to develop mobile web applications that look and feel like native iPhone, Android and BlackBerry applications.

<http://www.sencha.com/products/touch/>

# Sencha Touch



<http://dev.sencha.com/deploy/touch/examples/kiva/>



# Sencha CSS3 Animator

- The Sencha CSS3 Animator enables us to create rich animations based on CSS3 and JavaScript.

<http://www.sencha.com/products/animator/demos/>

# Sencha CSS3 Animator



<http://dev.sencha.com/animator/demos/cogs/>