

Mobile Hybrid Applications



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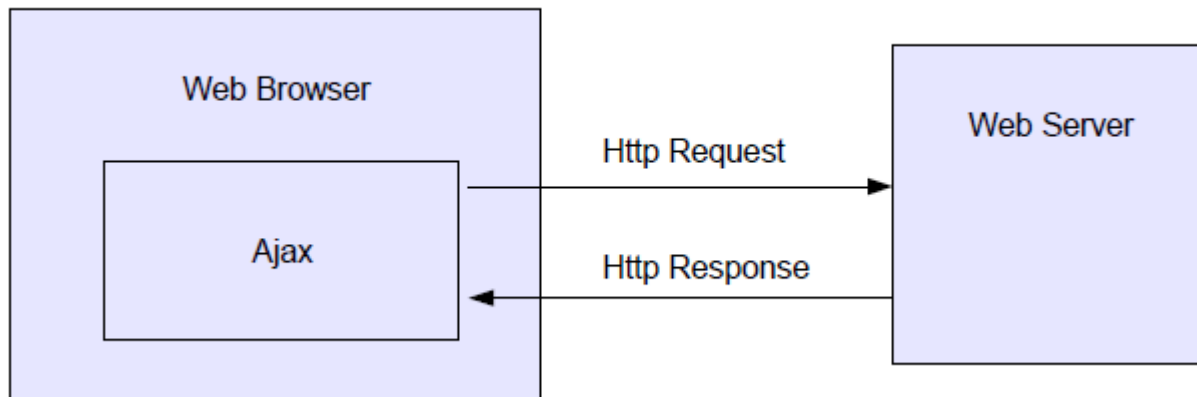
The Power of Java Script

Powerful Language

- JavaScript is an object oriented programming language with functional programming capabilities.

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.

JavaScript Libraries

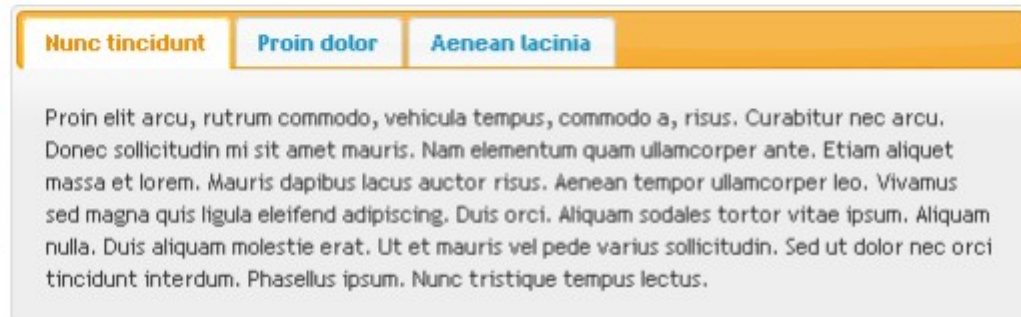
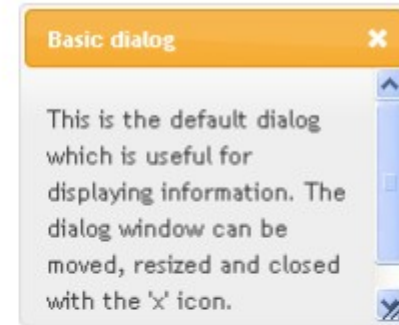
- The web browsers differs in their support for executing JavaScript.
- The result was the emergence of various JavaScript libraries that ease our development process and provide a solution for the web browsers differentiation.

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 description of the platform as a pure JavaScript application framework, a list of features (Live markup, Markup and JSON api, Collaborative backbone, 100% open source software), and a "Download Now" button. A central graphic displays the "AJAX.org Platform" logo. To the right, there is a demo of a charting engine with the text "Use your mouse to interact!". 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. A red diagonal banner in the top right corner reads "Ajax.org Beta". 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>