



Social Media Apps Programming

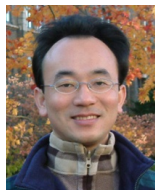
Mobile Apps Using HTML5/CSS3/JavaScript

1031SMAP05

TLMXM1A (8687) (M2143) (Fall 2014)

(MIS MBA) (2 Credits, Elective) [Full English Course]

Thu 8,9 (15:10-17:00) V201



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Assistant Professor

Department of Information Management

Tamkang University

<http://mail.tku.edu.tw/myday>



Course Schedule (1/3)

- | Week | Date | Subject/Topics |
|------|------------|---|
| • 1 | 2014/09/17 | Course Orientation and Introduction to Social Media and Mobile Apps Programming |
| • 2 | 2014/09/24 | Introduction to Android / iOS Apps Programming |
| • 3 | 2014/10/01 | Developing Android Native Apps with Java (Eclipse) (MIT App Inventor) |
| • 4 | 2014/10/08 | Developing iPhone / iPad Native Apps with Swift / Objective-C (XCode) |
| • 5 | 2014/10/15 | Mobile Apps Using HTML5/CSS3/JavaScript |
| • 6 | 2014/10/22 | jQuery Mobile |

Course Schedule (2/3)

Week	Date	Subject/Topics
• 7	2014/10/29	Create Hybrid Apps with Phonegap
• 8	2014/11/05	jQuery Mobile/Phonegap
• 9	2014/11/12	jQuery Mobile/Phonegap
• 10	2014/11/19	Midterm Exam Week (Midterm Project Report)
• 11	2014/11/26	Case Study on Social Media Apps Programming and Marketing in Google Play and App Store
• 12	2014/12/03	Google Cloud Platform

Course Schedule (3/3)

Week	Date	Subject/Topics
• 13	2014/12/10	Google App Engine
• 14	2014/12/17	Google Map API
• 15	2014/12/24	Facebook API (Facebook JavaScript SDK) (Integrate Facebook with iOS/Android Apps)
• 16	2014/01/31	Twitter API
• 17	2015/01/07	Final Project Presentation
• 18	2015/01/14	Final Exam Week (Final Project Report)

Outline

- Mobile Apps
- HTML5
 - Hyper Text Markup Language (version 5)(2012)
 - Content and Structure
- CSS3
 - Cascading Style Sheets (version 3)
 - Presentation, Layout and User Interface
- JavaScript
 - Behavior and Business Logic



Android /iOS Apps Programming

Native Apps

Hybrid Apps

Mobile Web Apps



App Development Comparison



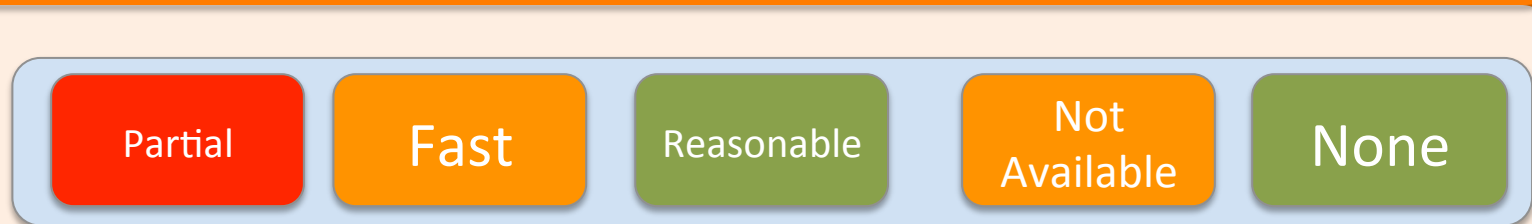
Native Apps



Hybrid Apps



Web Apps



Building Android Apps with HTML, CSS, and JavaScript: Making Native Apps with Standards-Based Web Tools, Jonathan Stark & Brian Jepson, O'reilly, 2012



Building iPhone Apps with HTML, CSS, and JavaScript: Making App Store Apps Without Objective-C or Cocoa

Jonathan Stark, O'Reilly, 2010

Making App Store Apps Without Objective-C or Cocoa



Building

iPhone
Apps

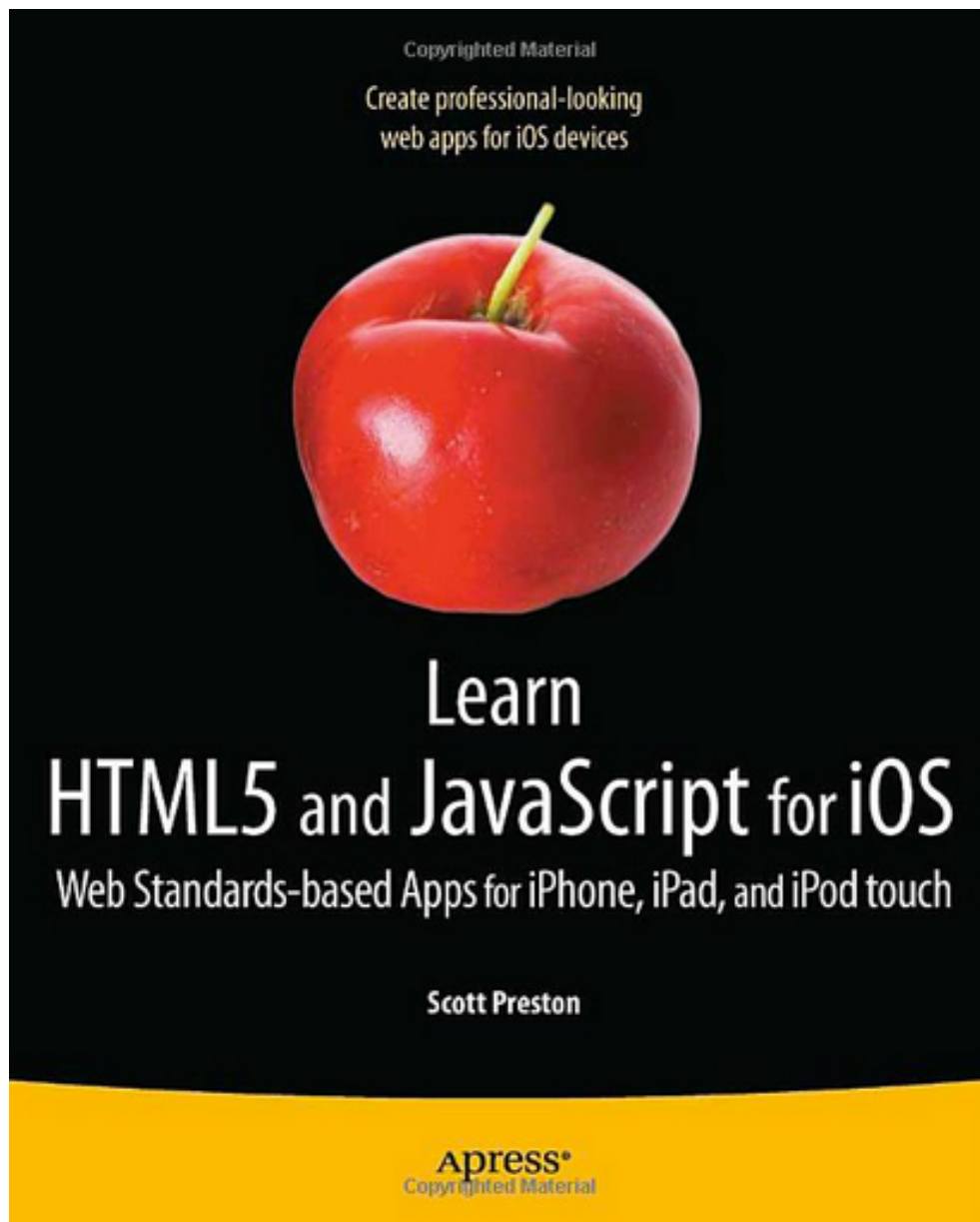
with HTML, CSS, and JavaScript

O'REILLY®

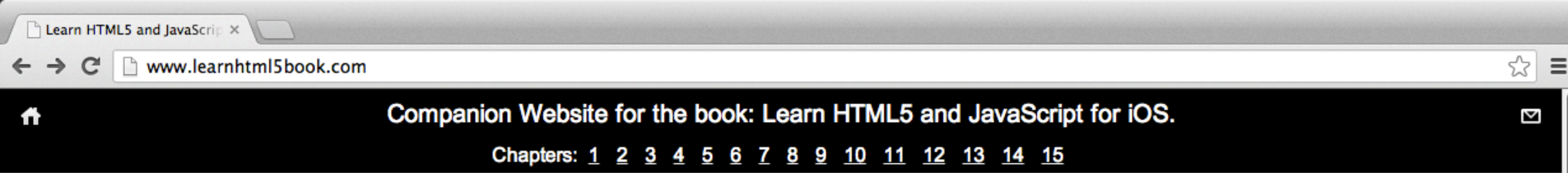
Jonathan Stark

Copyrighted Material

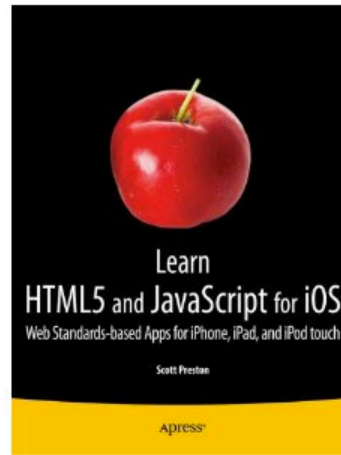
Learn HTML5 and JavaScript for iOS: Web Standards-based Apps for iPhone, iPad, and iPod touch, Scott Preston, Apress, 2012



Learn HTML5 and JavaScript for iOS



Learn HTML5 and JavaScript for iOS



This site features a series of examples for every chapter. Look at the site on your desktop, iPad or iPhone as you read the book. Click "View Source" in your browser or go to the [Apress](#) download zip to see the source code for each example.

What you see in the book might only be part of the code needed to demonstrate an idea or concept, but the this site has everything you need, like additional JS, or CSS, or rendered HTML.

The Real World Example Site

www.grandviewave.com/m

The Grandview Avenue site was written in 2010 and continues to evolve. It's a real site designed to give local businesses an app and mobile site presence. Each chapter in the book ends with a section called "Putting It All Together", in which I show you how I apply the concepts in the chapter to this real world application.

Hopefully you can see how this site works and either build one like it yourself or do something completely different

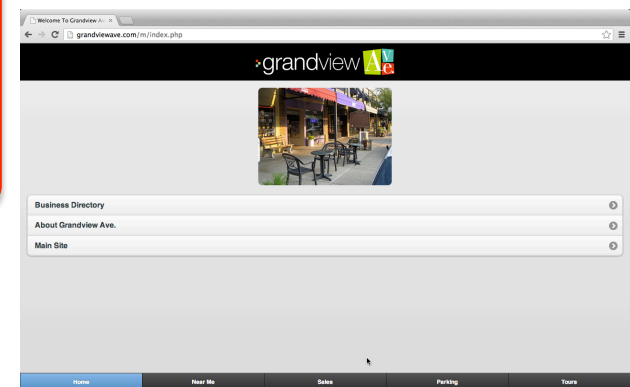
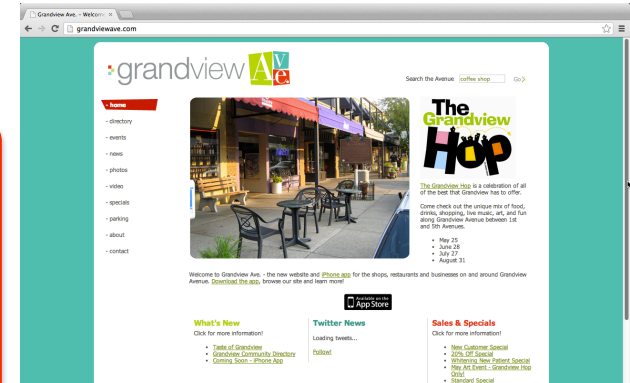
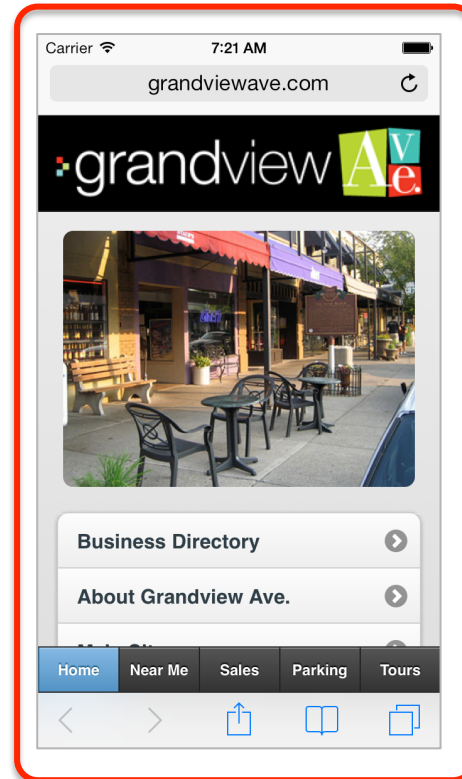
<http://www.learnhtml5book.com/>

Mobile Apps

- Mobile Website
 - Classic Website

- **Mobile Apps**
 - Web Apps

- Responsive Web Design (RWD)



Mobile Website Classic Website

Grandview Ave. - Welcome x
grandviewave.com

grandview **AVe**

Search the Avenue Go

- home
- directory
- events
- news
- photos
- video
- specials
- parking
- about
- contact

The Grandview Hop

The Grandview Hop is a celebration of all of the best that Grandview has to offer.

Come check out the unique mix of food, drinks, shopping, live music, art, and fun along Grandview Avenue between 1st and 5th Avenues.

- May 25
- June 28
- July 27
- August 31

Welcome to Grandview Ave. - the new website and [iPhone app](#) for the shops, restaurants and businesses on and around Grandview Avenue. [Download the app](#), browse our site and learn more!

Available on the App Store

What's New
Click for more information!

- [Taste of Grandview](#)
- [Grandview Community Directory](#)
- [Coming Soon - iPhone App](#)

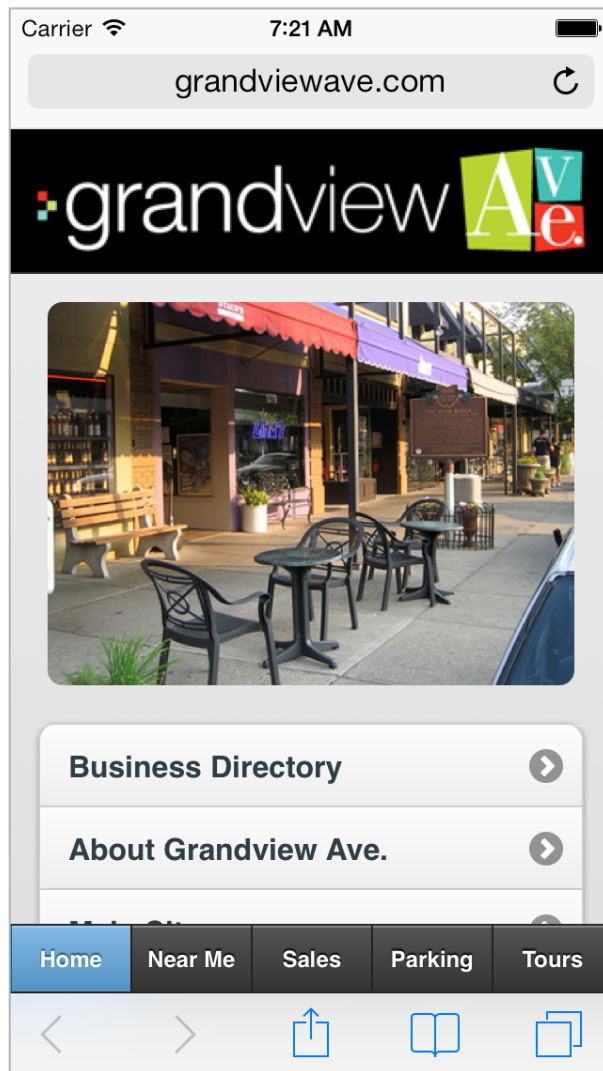
Twitter News
Loading tweets...
[Follow!](#)

Sales & Specials
Click for more information!

- [New Customer Special](#)
- [20% Off Special](#)
- [Whitening New Patient Special](#)
- [May Art Event - Grandview Hop Only!](#)
- [Standard Special](#)

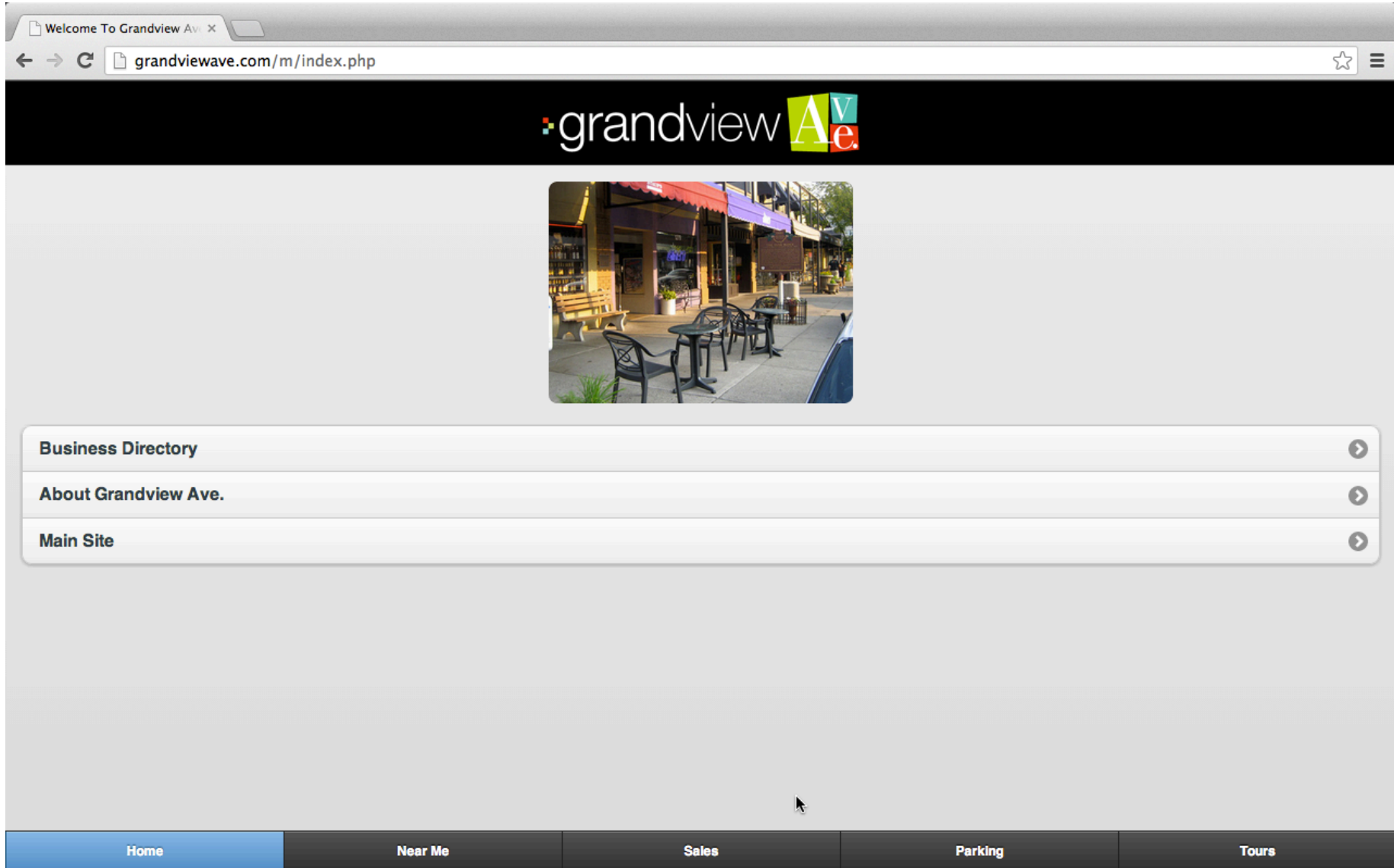
<http://grandviewave.com/>

Mobile Apps (Web Apps)



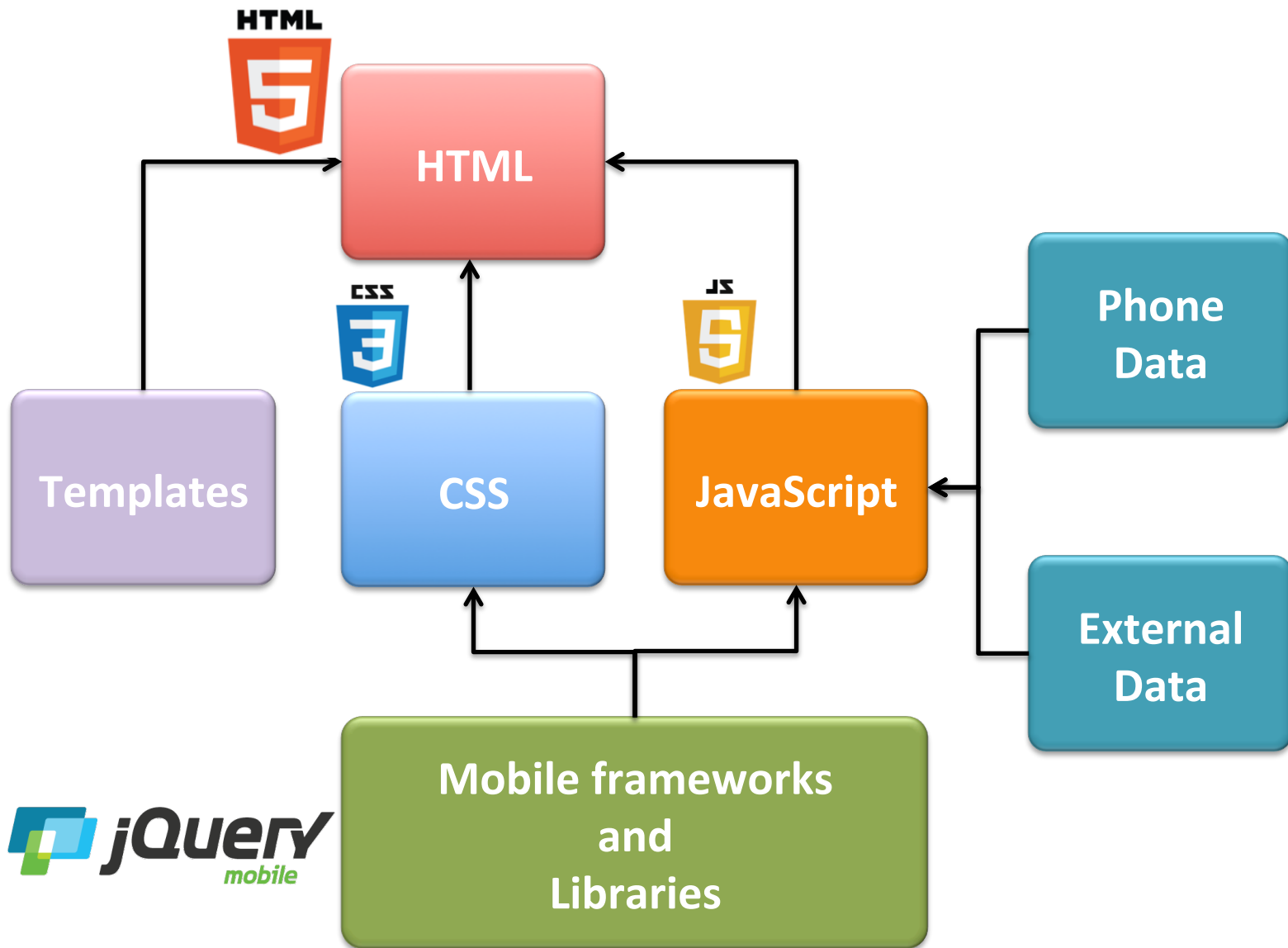
<http://grandviewave.com/>

Responsive Web Design (RWD)



<http://grandviewave.com/m/>

Mobile Web App



Mobile Web App

Organizing files in directories

- Classic Website
 - / - for all HTML files
 - /css - for all CSS
 - /js - for all JavaScript
 - /images - for all images
- Mobile Web App
 - /m -for all **HTML** files
 - /m/css - for all **CSS**
 - /m/js - for all **JavaScript**
 - /m/images - for all images.

HTML5

HTML



HTML5 Game

<http://www.cuttherope.ie/>



<http://www.cuttherope.ie/>

Objective-C to JavaScript

The screenshot shows the website www.cuttherope.ie/dev/. The header features the "CUT the ROPE BEHIND THE SCENES" logo and a "Beauty of the Web" badge. A social media bar shows "Tell your friends!" with "Like 4.2k" and "Tweet 1,758". A lightbulb icon introduces the "MEET OM NOM'S DEVELOPER TEAM" section. A video player displays "Cut The Rope Developer Candy: Behind the Scenes" with a progress bar at 1:34 / 3:59. To the right, a "MORE FREE FUN!" box lists three items:

- 1 **DOWNLOAD** **Internet Explorer 10** (Platform Preview)
- 2 **GET THE** **Resource Loader** (easily create an HTML5 preloader)
- 3 **START BUILDING** **Windows 8 Apps** (in HTML5 + Javascript)

<http://www.cuttherope.ie/dev/>

Cut the Rope App

Cut the Rope for iPhone, iPad

https://itunes.apple.com/app/cut-the-rope/id380293530?mt=8

Store Mac iPod iPhone iPad iTunes Support


iTunes Preview


What's New What is iTunes iTunes Charts

Cut the Rope

By Chillingo Ltd

Open iTunes to buy and download apps.

Game Center  [View More By This Developer](#)



Description

Cut the rope to feed candy to little monster Om Nom! 400 million downloads around the world of this phenomenal puzzle game. 375 levels and more to come!

[Chillingo Ltd Web Site](#) ▶ [Cut the Rope Support](#) ▶ [Application License Agreement](#) ▶ [...More](#)

What's New in Version 2.3.1

It's time to update! To ensure all in-app purchases and data are saved, please update Cut the Rope now.

[View In iTunes](#)

\$0.99

Category: [Games](#)

Updated: Sep 10, 2013

Version: 2.3.1

Size: 26.8 MB


Languages: English, Chinese, Dutch, French, German, Italian, Japanese, Korean, Portuguese, Russian, Spanish

Seller: Chillingo Ltd

© ZeptoLab

Rated 4+

iPhone Screenshots



HTML Versions

Version	Year
HTML	1991
HTML+	1993
HTML 2.0	1995
HTML 3.2	1997
HTML 4.01	1999
XHTML 1.0	2000
HTML5	2012



The <!DOCTYPE> Declaration

HTML5

```
<!DOCTYPE html>
```

HTML 4.01

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"  
"http://www.w3.org/TR/html4/loose.dtd">
```

XHTML 1.0

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"  
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

What is HTML?

- HTML is a language for describing web pages.
 - HTML stands for **H**yper **T**ext **M**arkup **L**anguage
 - HTML is a **markup** language
 - A markup language is a set of markup **tags**
 - The tags **describe** document **content**
 - HTML documents contain HTML **tags** and plain **text**
 - HTML documents are also called **web pages**

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title>My Title</title>
  </head>
  <body>
    Hello World
  </body>
</html>
```


HTML Tag, Element, Attribute

HTML Element

```
<title>My Title</title>
```

```
<p>This is a paragraph.</p>
```

```
<tagname>content</tagname>
```

HTML Tag, Element, Attribute

HTML Element

```
<title>My Title</title>
```

Tag

Start Tag

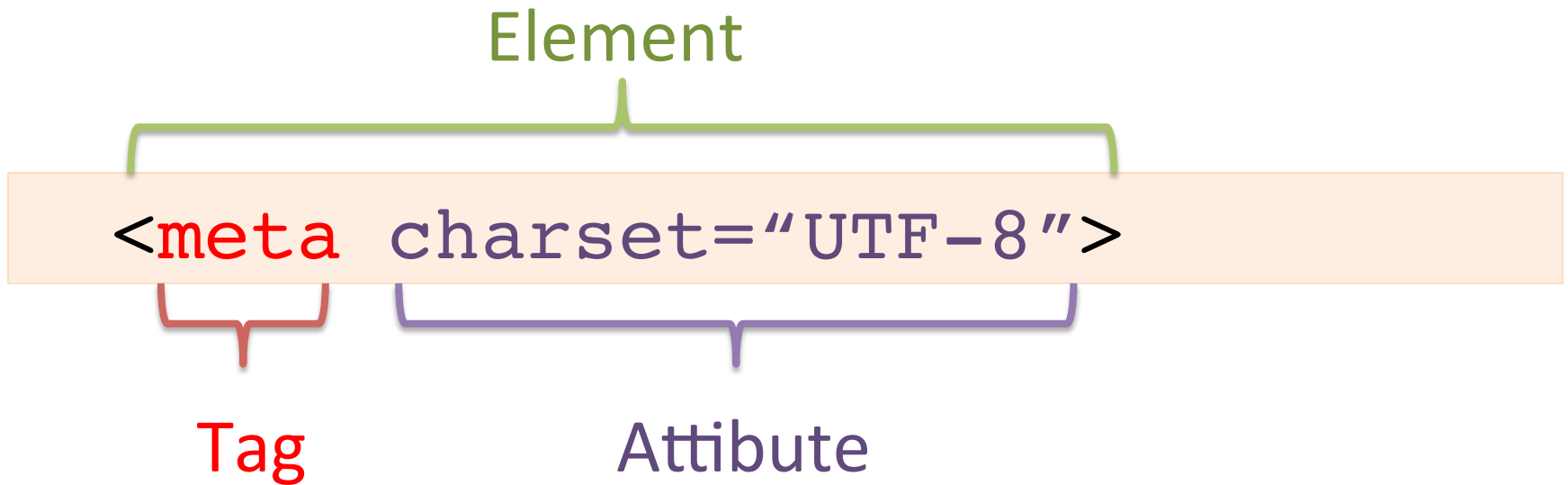
Opening Tag

Tag

End Tag

Closing Tag

HTML Tag, Element, Attribute



What is HTML5

- **HTML5 is The New HTML Standard**
 - What HTML5 is Not
- The new HTML5 structural elements and attributes
- The new HTML5 form input types and attributes

What HTML5 is Not

- It's Not XHTML
 - `<div id=container>This is a div
</div>`
 - `<div id="container">This is another div
</div>`
- It's Not HTML4+1
- HTML5 is Not Just Markup
 - Not just tags
 - It's also a set of JavaScript APIs
 - Provide a richer user experience

HTML5 is The New HTML Standard



THE TECHNOLOGY

Imagination, meet implementation. HTML5 is the cornerstone of the W3C's open web platform; a framework designed to support innovation and foster the full potential the web has to offer. Heralding this revolutionary collection of tools and standards, the HTML5 identity system provides the visual vocabulary to clearly classify and communicate our collective efforts.

CLASS: SEMANTICS ~ 1 of 8 ~

Giving meaning to structure, semantics are front and center with HTML5. A richer set of tags, along with RDFa, microdata, and microformats, are enabling a more useful, data driven web for both programs and your users.

HTML5 is The New HTML Standard

HTML5 is The New HTML Standard

HTML



HTML5

- New Elements
- New Attributes
- Full CSS3 Support
- Video and Audio
- 2D/3D Graphics
- Local Storage
- Local SQL Database
- Web Applications



HTML5 is The New HTML Standard

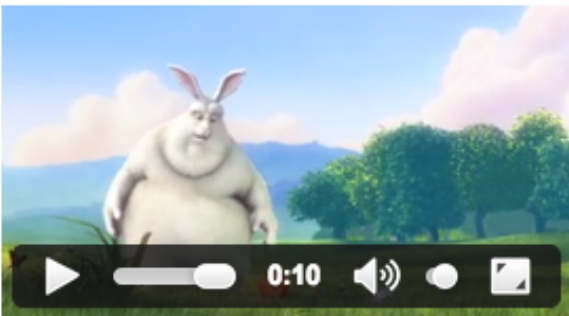
- New Elements
- New Attributes
- Full CSS3 Support
- Video and Audio
- 2D/3D Graphics
- Local Storage
- Local SQL Database
- Web Applications



HTML5 Multimedia

With HTML5, playing video and audio is easier than ever.

- HTML5 `<video>`
- HTML5 `<audio>`



```
<!DOCTYPE HTML>
<html>
<body>

<video width="320" height="240" controls>
  <source src="movie.mp4" type="video/mp4">
  <source src="movie.ogv" type="video/ogg">
  Your browser does not support the video tag.
</video>

</body>
</html>
```

HTML5 Graphics

With HTML5, drawing graphics is easier than ever:

- Using the `<canvas>` element
- Using inline SVG
- Using CSS3 2D/3D



HTML5 Applications

With HTML5, web application development is easier than ever.

- Local data storage
- Local file access
- Local SQL database
- Application cache
- Javascript workers
- XMLHttpRequest 2



Semantic Elements

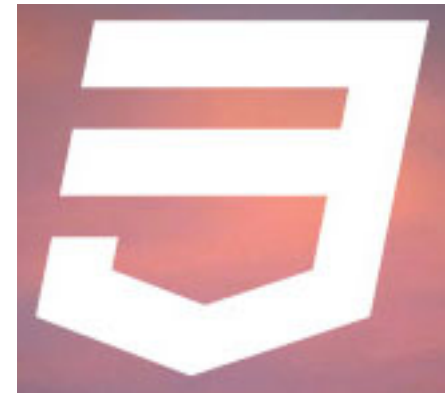
HTML5 Forms

- Semantic Elements
 - New elements for **headers, footers, menus, sections, and articles.**
- HTML5 Forms
 - New form elements,
 - new attributes,
 - new input types,
 - automatic validation.



HTML5 uses CSS3

- New **Selectors**
- New Properties
- Animations
- 2D/3D Transformations
- Rounded Corners
- Shadow Effects
- Downloadable Fonts



HTML5

index.html

```
<!DOCTYPE html>  
<html>  
  <head>  
    <meta charset="UTF-8">  
    <title>My Title</title>  
  </head>  
  <body>  
    Hello World  
  </body>  
</html>
```

CSS3

CSS



Cascading Style Sheets (CSS)

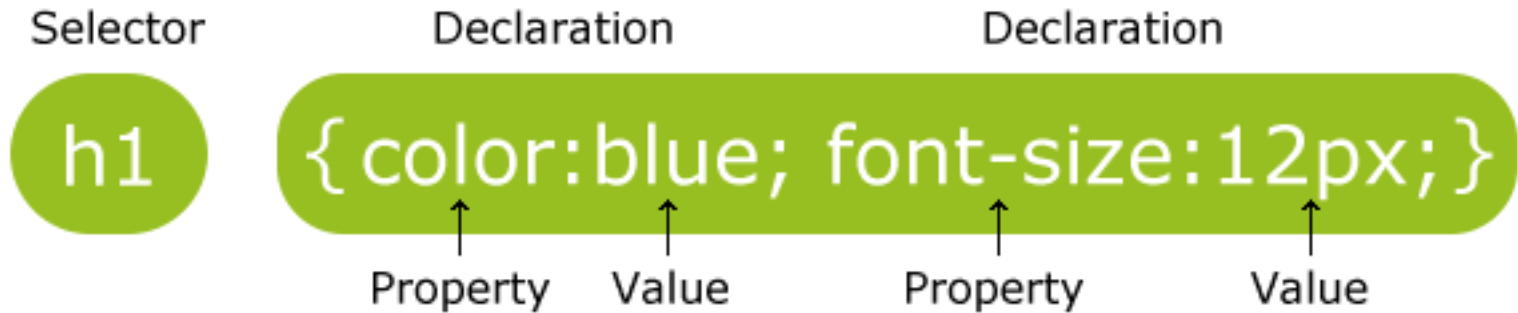
- a simple mechanism for adding style (e.g., fonts, colors, spacing) to Web documents.

```
<style>
  body {background-color:yellow;}
  h1 {color:green}
  p {color:red;}
  div {color:blue; font-size:18px;}
</style>
```


CSS3

- CSS3 is the latest standard for CSS.
- CSS3 is completely backwards-compatible with earlier versions of CSS.

CSS



CSS

```
<link rel="stylesheet"  
type="text/css"  
href="mystyle1.css">
```

CSS

```
<style>
  body {background-color:yellow;}
  h1 {color:green}
  p {color:red;}
  div {color:blue; font-size:18px;}
</style>
```

JavaScript



JavaScript

- JavaScript is a **Scripting Language**
 - A scripting language is a **lightweight** programming language.
 - JavaScript is **programming code** that can be inserted into **HTML pages**.
 - JavaScript code can be executed by all **modern web browsers**.
 - JavaScript is easy to learn.

```
<script language="javascript">
  function sayHello()
  {
    var strNameInput = document.getElementById('txtNameInput').value;
    var strOutput = "Hello, my friend, " + strNameInput;
    document.getElementById('divOutput').innerHTML = strOutput;
  }
</script>
```

JavaScript: Writing Into HTML Output

```
document.write("<h1>This is a  
heading</h1>");  
document.write("<p>This is a  
paragraph</p>");
```

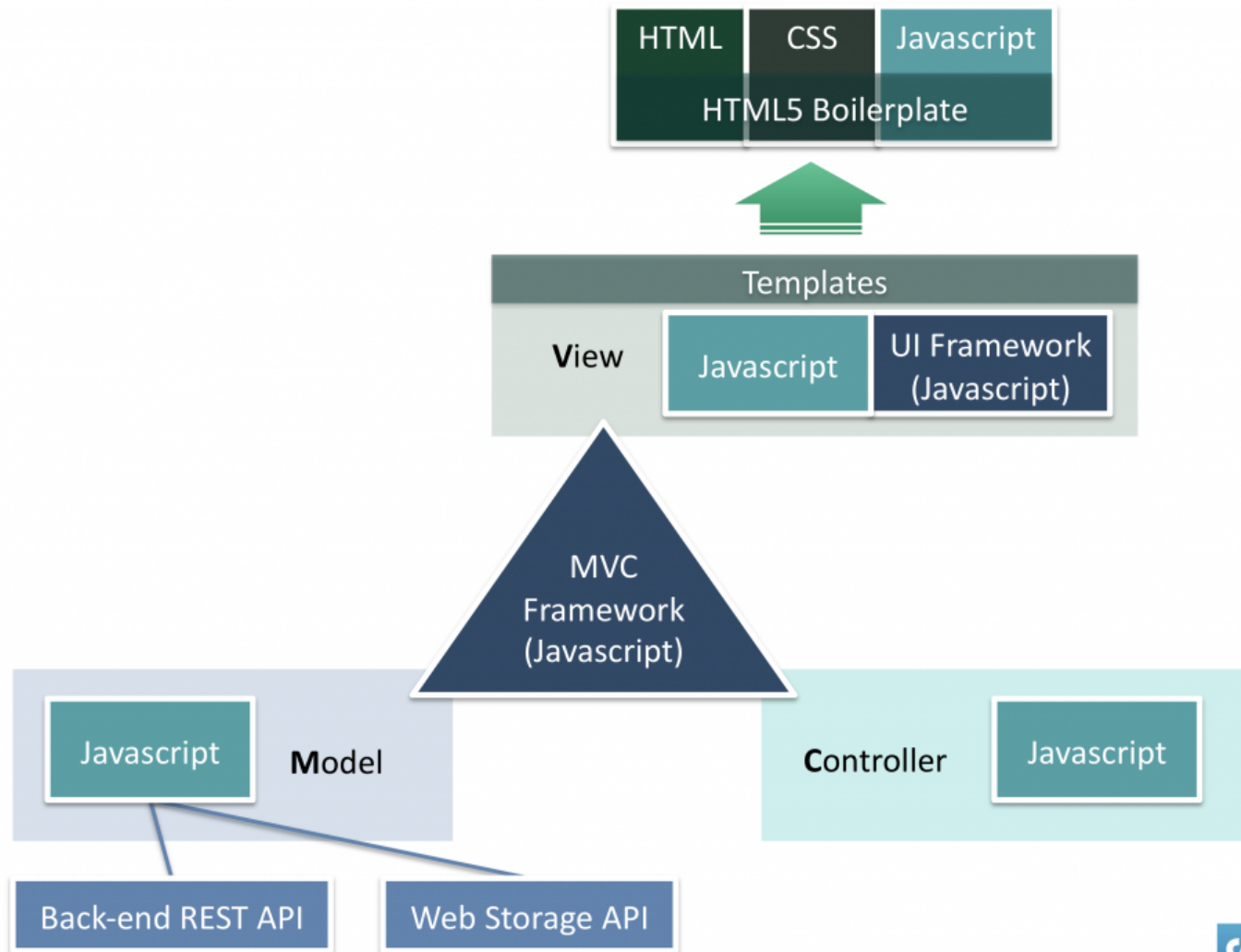
JavaScript: Reacting to Events

```
<button type="button"  
onclick="alert( 'Welcome! ' ) ">  
Click Me!</button>
```


JavaScript: Changing HTML Content

```
x=document.getElementById( "demo" );  
x.innerHTML="Hello JavaScript";
```

MVC Framework of Mobile Apps (HTML5, CSS3, JavaScript)



HTML5 Editors

Maqetta: Online HTML5 WYSIWYG Editor

The screenshot displays the Maqetta website homepage. At the top, there is a browser window showing the URL `maqetta.org`. Below the browser, the Maqetta logo is on the left, and a search bar is on the right. A dark blue navigation bar contains the following links: Home, Overview, Features, Tutorials, Documentation, News, Community, and FAQ. The main content area features a large heading: "Visual authoring of HTML5 user interfaces - in the browser!". Below this heading is a paragraph: "Maqetta is an open source project that provides WYSIWYG visual authoring of HTML5 user interfaces. The Maqetta application itself is authored in HTML, and therefore runs in the browser without requiring additional plugins or downloads." To the right of the text is a "LAUNCH MAQETTA" button. Below the text is a screenshot of the Maqetta Designer application. The application interface includes a "Palette" on the left with various widgets like "Drap Containers", "Drap Controls", "HTML", "Dejox Mobile", "ScrollableView", "SwappView", "View", "Heading", "ToggleButton", "RoundRectCategory", "RoundRectList", "RoundRectDataList", "EdgeToEdgeCategory", "EdgeToEdgeList", "ListItem", "Button", "ToggleToggleButton", "Switch", "Slider", "Checkbox", "RadioButton", and "TextBlock". The central area shows a mobile device preview with a "My Dashboard" header, "Alerts" and "Status" sections, and a map of Italy. A callout bubble points to the map with the text "Click here to go to Maqetta's YouTube channel". To the right of the preview is a "Design" panel with various properties like "id", "font-family", "font-size", "font-weight", "font-style", "text-align", "vertical-align", "white-space", "text-indent", and "line-height". Below the preview is a "Files" panel showing a project structure. To the right of the application screenshot is a "News" section with a blue header and a text box: "Maqetta Release 10 is now available!". Below that is a "Quick Links" section with a blue header and a list of links: "Project Summary", "Help and Support", "Community", "Issue Tracking", and "Open Source".

<http://maqetta.org/>

Aloha Editor: HTML5 WYSIWYG editor

Aloha Editor - HTML5 WYSIWYG Editor

[About](#) [Features](#) [Demos](#) [Guides](#) [Blog](#) [Wiki](#) [Issue](#)

You can contribute as translator, designer, blogger, community angel, cook, javascript lover.

Aloha Editor - HTML5 WYSIWYG Editor

The world's most **advanced** browser HTML5 based WYSIWYG editor lets you experience a whole new way of editing. It's faster than existing technologies and offers unprecedented WYSIWYG functionalities.

Like 1,150 people like this. Be the first of your friends.

Aloha Editor is available for:

Download Aloha Editor
Version 0.23.20

Available in en, fr, de [more](#) [GPLv2 License](#)

CDN · 5 Minute Setup Guide
[cdn.aloha-editor.org](#)

Commercial license · Buy now!
[www.aloha-editor.com](#)

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your email address

Subscribe

jQuery Europe 2014
28th of February / 1st of March 2014
Palais Liechtenstein, Vienna

<http://www.aloha-editor.org/>

Adobe Dreamweaver

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Adobe Creative Cloud / Dreamweaver CC

Overview Features Tech specs Reviews FAQ Showcase Membership plans

The new standard in web standards.

New features, instant access to new updates, and more efficient tools let you work faster and code smarter.

Watch the video >

Log in to Creative Cloud >

Get it as part of...

Creative Cloud
Everything you need to create anything.

Annual plan for US \$49.99 per month

Join

Try

Existing CS customers: Save 40%. Last chance — Dec. 3

Adobe Dreamweaver CC
Build sites and apps using a modern, all-in-one web design tool.

Annual plan for US \$19.99 per month

Join

Try

Student and teacher pricing >

Develop more web content, more quickly. A streamlined user interface, connected tools, and new visual CSS editing tools let you code efficiently and intuitively. And now, Dreamweaver® CC lets you share work directly from within the application, and helps you keep up with web standards by giving you access to new features as soon as they're available. Your entire creative world, together in one place. Only in

★★★★☆
Read all reviews

<http://www.adobe.com/products/dreamweaver.html>

BlueGriffon: WYSIWYG content editor

BlueGriffon™
The next-generation Web Editor
based on the rendering engine of Firefox

HOME EPUB EDITION BLOG COMMUNITY DOWNLOAD ADD-ONS PRESS DOCS FORUM CONTACT

BlueGriffon 1.7.2 released 19-jun-2013

General HTML 5 CSS 3 SVG MathML Languages Extensibility

BlueGriffon is a new WYSIWYG content editor for the World Wide Web. Powered by Gecko, the rendering engine of Firefox, it's a modern and robust solution to edit Web pages in conformance to the latest Web Standards.

It's free to download (current stable version is **1.7.2**) and is available on Windows, Mac OS X and Linux.

BlueGriffon is available in English, Dutch, Finnish, French, Czech, German, Hebrew, Hungarian, Italian, Japanese, Korean, Polish, Simplified Chinese, Serbian, Slovenian, Spanish, Swedish and Traditional Chinese

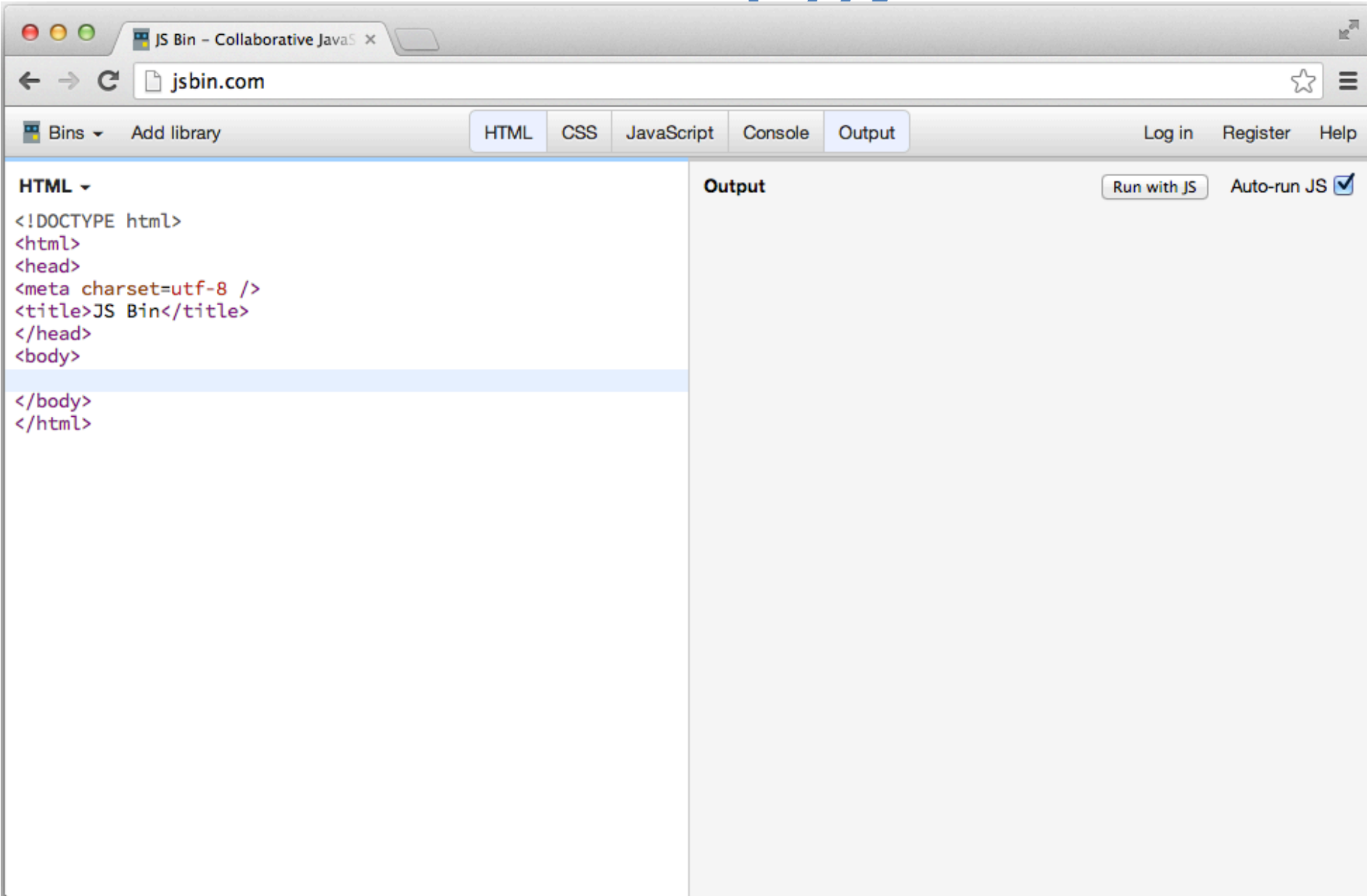
BlueGriffon is an intuitive application that provides Web authors (beginners or more advanced) with a simple User Interface allowing to create attractive Web sites without requiring extensive technical knowledge about Web Standards.

Multilingual Europe META Seal of Recognition Technology Alliance
www.meta-ncl.eu

WEB HOSTING SEARCH CO. RECOMMENDED WEB TOOL 2012
www.webhostingsearch.com

OPEN WORLD FORUM 2010 Innovation Award

Online Editor: <http://jsbin.com>



The screenshot shows a web browser window with the address bar displaying `jsbin.com`. The page title is "JS Bin - Collaborative JavaScript". The interface includes a navigation bar with tabs for "HTML", "CSS", "JavaScript", "Console", and "Output". The "HTML" tab is selected, showing a code editor with the following HTML code:

```
<!DOCTYPE html>
<html>
<head>
<meta charset=utf-8 />
<title>JS Bin</title>
</head>
<body>

</body>
</html>
```

The "Output" panel is empty. In the top right corner of the editor, there are buttons for "Run with JS" and "Auto-run JS" (checked).

Notepad++

Notepad++ Home

notepad-plus-plus.org

more languages

home
demo
download
news
features
resources
contribute
donate
contributors
links

download

Current Version: 6.5

News

- Notepad++ 6.5 released**
Sep 29 2013
- v6.4.5 - Regression fix**
Aug 09 2013
- Notepad++ 6.4.4 released**
Aug 08 2013
- Notepad++ 6.4.3 released**
Jul 28 2013
- Notepad++ 6.4.2 released**
Jul 08 2013
- Notepad++ 6.4.1 released**
Jun 30 2013
- Notepad++ 6.4 released**
Jun 29 2013
- Notepad++ 6.3.3 released**
May 05 2013
- Notepad++ 6.3.2 released**
Apr 02 2013
- Notepad++ 6.3.1 released**
Mar 17 2013

[more news »](#)

About

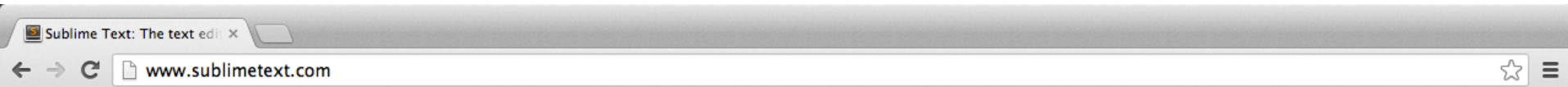
Notepad++ is a free (as in "free speech" and also as in "free beer") source code editor and Notepad replacement that supports several languages. Running in the MS Windows environment, its use is governed by [GPL License](#).

Based on the powerful editing component [Scintilla](#), **Notepad++** is written in C++ and uses pure Win32 API and STL which ensures a higher execution speed and smaller program size. By optimizing as many routines as possible without losing user friendliness, **Notepad++** is trying to reduce the world carbon dioxide emissions. When using less CPU power, the PC can throttle down and reduce power consumption, resulting in a greener environment.

```
*D:\source\notepad4ever.cpp - Notepad++
Notepad_plus.cpp x notepad4ever.cpp x
1  #include <GPL.h>
2  #include <free_software.h>
3
4  void notepad4ever ()
5  {
6      while (true)
7      {
8          Notepad++;
9      }
10 }
11
```

You're encouraged to [translate Notepad++](#) into your native language if there's not already a

Sublime Text



Sublime Text

Sublime Text is a sophisticated text editor for code, markup and prose. You'll love the slick user interface, extraordinary features and amazing performance.

```
31 void base64_encode(const uint8_t * data, size_t length, char * dst)
32 {
33     size_t src_idx = 0;
34     size_t dst_idx = 0;
35     for (; (src_idx + 2) < length; src_idx += 3, dst_idx += 4)
36     {
37         uint8_t s0 = data[src_idx];
38         uint8_t s1 = data[src_idx + 1];
39         uint8_t s2 = data[src_idx + 2];
40
41         dst[dst_idx + 0] = charset[(s0 & 0xfc) >> 2];
42         dst[dst_idx + 1] = charset[((s0 & 0x03) << 4) | ((s1 & 0xf0) >> 4)];
43         dst[dst_idx + 2] = charset[((s1 & 0x0f) << 2) | (s2 & 0xc0) >> 6];
44         dst[dst_idx + 3] = charset[(s2 & 0x3f)];
45     }
46
47     if (src_idx < length)
48     {
49         uint8_t s0 = data[src_idx];
50         uint8_t s1 = (src_idx + 1 < length) ? data[src_idx + 1] : 0;
51
52         dst[dst_idx++] = charset[(s0 & 0xfc) >> 2];
53         dst[dst_idx++] = charset[((s0 & 0x03) << 4) | ((s1 & 0xf0) >> 4)];
54         if (src_idx + 1 < length)
55             dst[dst_idx++] = charset[((s1 & 0x0f) << 2)];
56     }
```

Use Multiple Selections to rename variables quickly.
Here, `⌘D` is used to select the next occurrence of the current word.

◀ 1 / 6 ▶

HTML5 Mobile Apps Simulators

Ripple Emulator

chrome web store

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News & Weather

Productivity

Social & Communication

Utilities

Extensions

Themes

chrome web store

imyday@gmail.com

Ripple Emulator (Beta)

★★★★☆ (289) | [Developer Tools](#) | from ripple.tinyhippos.com | 104,477 users

+ FREE

OVERVIEW | DETAILS | REVIEWS | RELATED

+1 677

HTML5 Mobile Apps: PhoneGap GeoLocation

Information

PhoneGap: Getting Started

Version: 1.0.0

Selected Platform: PhoneGap 10.0

Device: Generic - HVGA (320x480)

OS: Generic Generic

Manufacturer: Generic

Screen: 320x480

Density: 96 FPI

Browser(s): Generic

User Agent: Mozilla/5.0 (X11; U; Linux x86_64; en-US; AppleWebKit/535.3 (KHTML, like Gecko) Chrome/6.0.343.7 Safari/535.3

Platforms

Accelerometer

Storage

Settings

Device & Network Settings

Geo Location

Latitude: 51.499436

Longitude: -0.124753

Altitude: 50

Accuracy: 100

Altitude Accuracy: 10

Heading: 0

Speed: 0

GPS Delay (seconds):

Simulate GPS Timeout

PhoneGap Training App

This is where you are

Go Back

0:00 / 1:46

YouTube

A browser based html5 mobile application development and testing tool

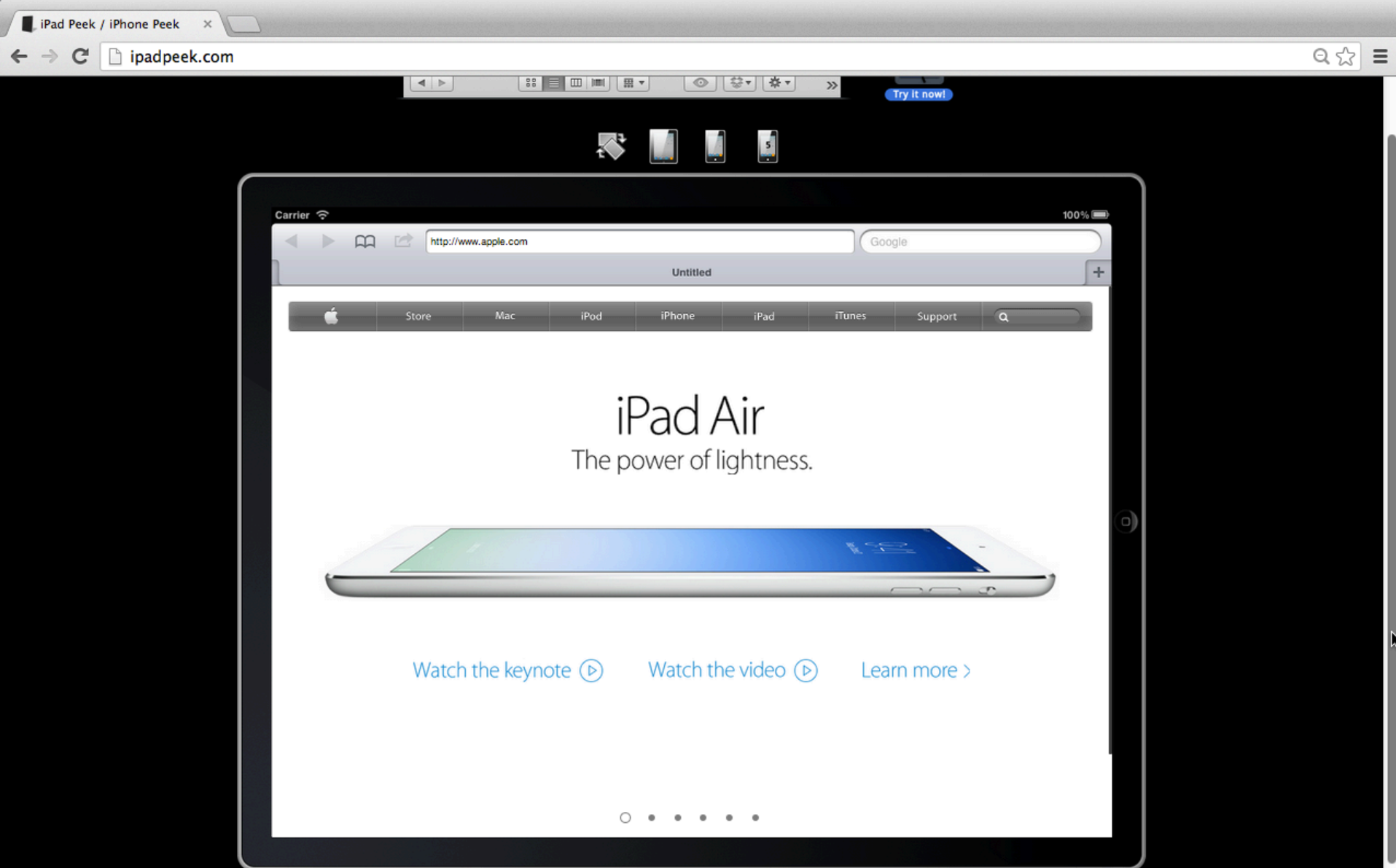
Welcome to Ripple, The Mobile Environment Emulator!

Ripple is a multi-platform mobile environment emulator that is custom-tailored to mobile HTML5 application development and testing. Ripple aims to reduce the challenges being faced by mobile developers caused by today's platform fragmentation in the marketplace.

Ripple is targeted towards WebWorks, PhoneGap, and mobile web development and testing!

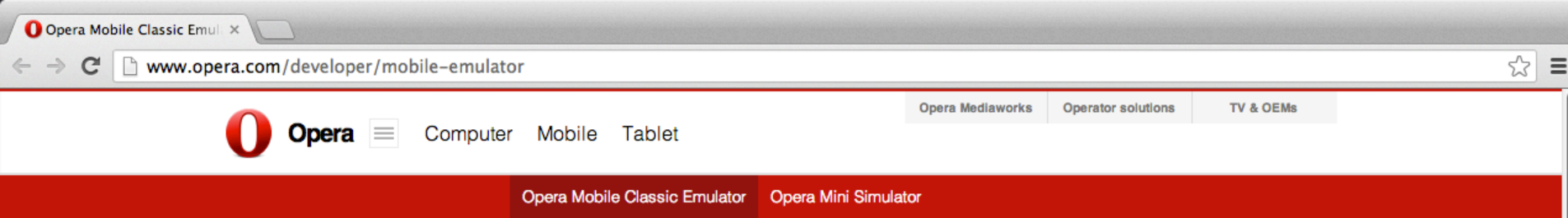
Ripple offers the ability to look under the hood of your mobile application, giving you full visibility into what it is doing. It also allows for the use of existing tools to perform JavaScript debugging, HTML DOM inspection, automated testing, as well as multiple device and screen resolution

Online browser simulator: ipadpeek.com

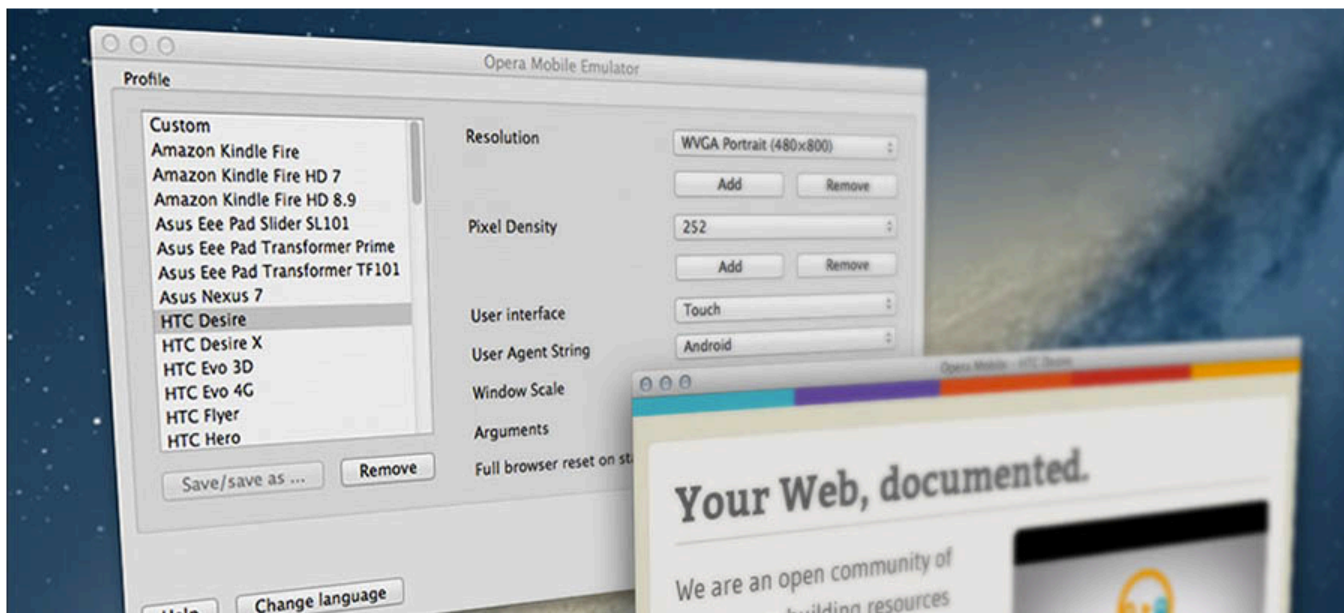


<http://ipadpeek.com/>

Opera Mobile Emulator



Opera Mobile Classic Emulator



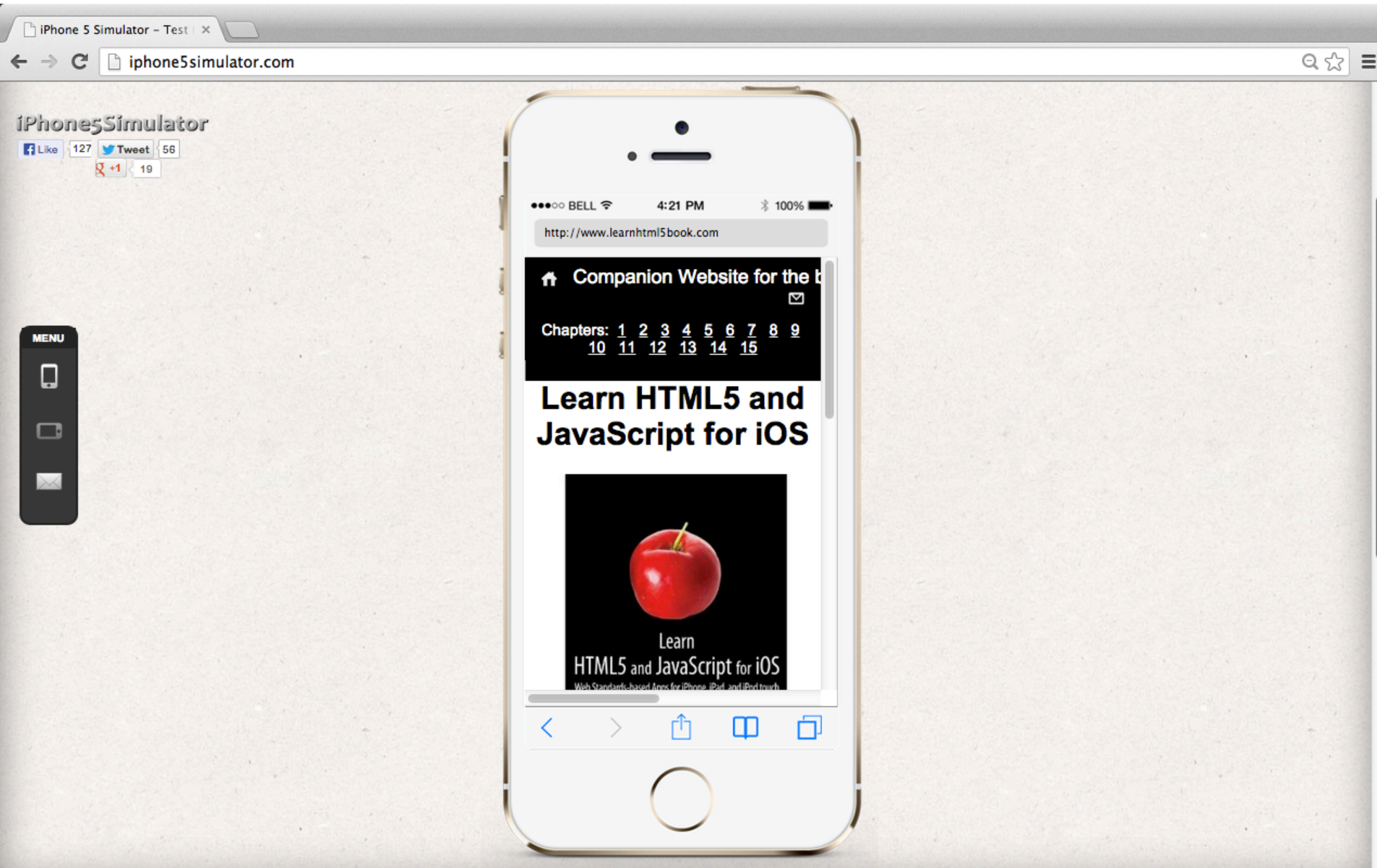
Do your mobile development straight from your desktop, and pair it with Opera Dragonfly for advanced debugging.

[Opera Mobile Classic Emulator 12.1 for Windows](#)

[Opera Mobile Classic Emulator 12.1 for Mac](#)

<http://www.opera.com/developer/mobile-emulator>

iPhone5 Simulator

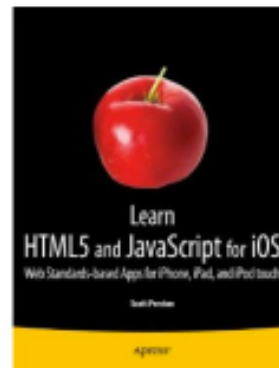


<http://iphone5simulator.com/>

Xcode iPhone Simulator



Learn HTML5 and JavaScript for iOS



<http://grandviewave.com>

Carrier

7:18 AM

grandviewave.com



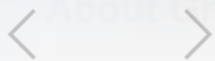
Home

Near Me

Sales

Parking

Tours



Carrier

7:21 AM

grandviewave.com



Business Directory



About Grandview Ave.



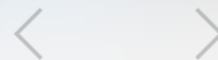
Home

Near Me

Sales

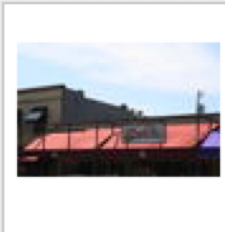
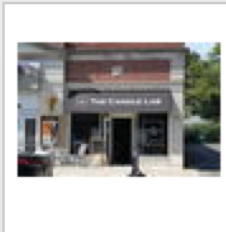
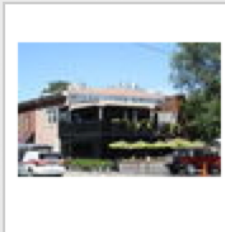
Parking

Tours



<http://grandviewave.com>

grandviewave.com



Spin To Win

Home

Near Me

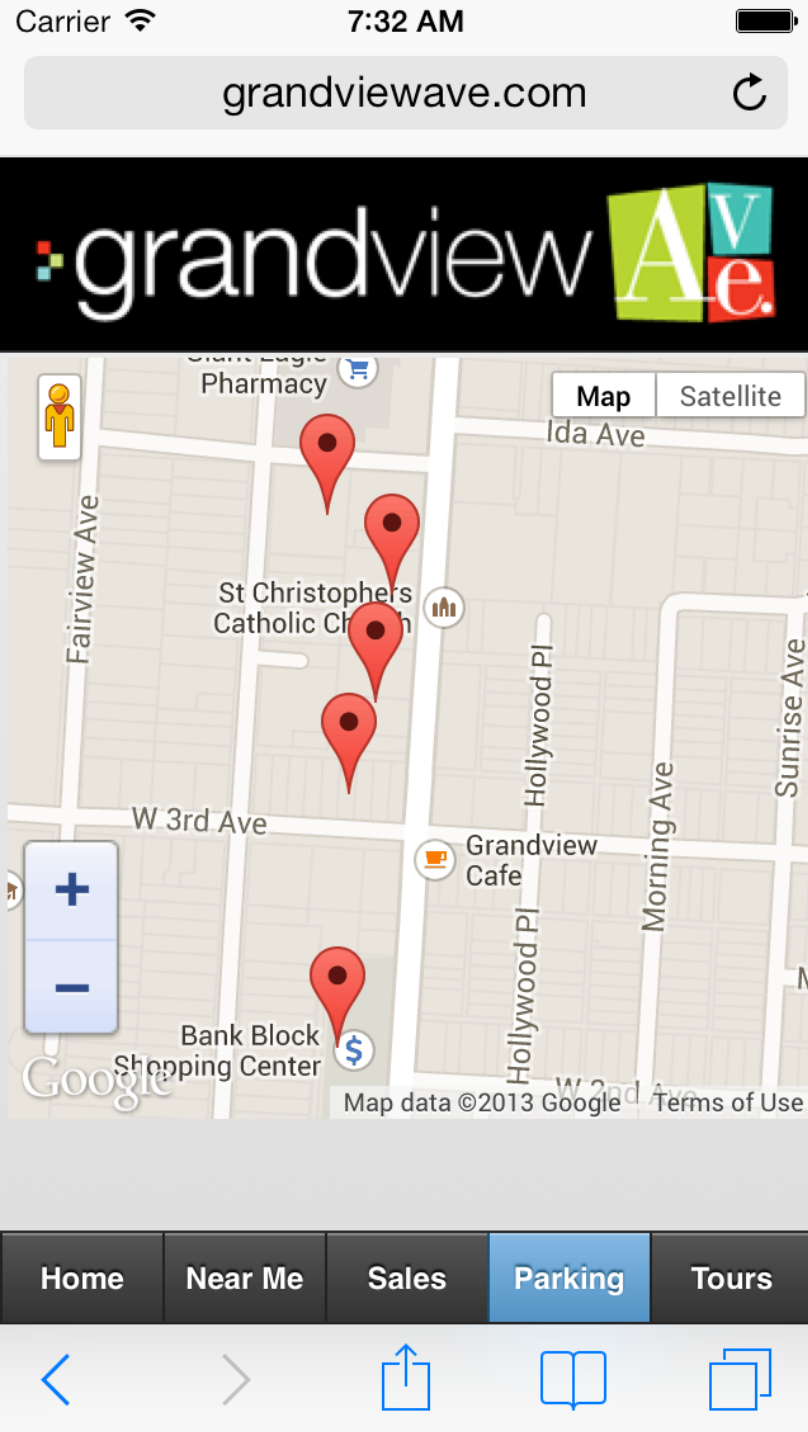
Sales

Parking

Tours



<http://grandviewwave.com>



<http://grandviewave.com>

grandviewave.com



Avenue Tours

Click below to take a tour of The Avenue.



Audio Tours

Five audio tours of Grandview Avenue either sequential or by nearest location.



Video Tours

Three video tours of Grandview Avenue either sequential or by nearest location.



Bar Crawls

[Home](#)[Near Me](#)[Sales](#)[Parking](#)[Tours](#)

Demo

**Building Mobile Apps with
HTML5, CSS3, and JavaScript**

<http://jsbin.com>



HTML5 CSS3 JavaScript

Hello World

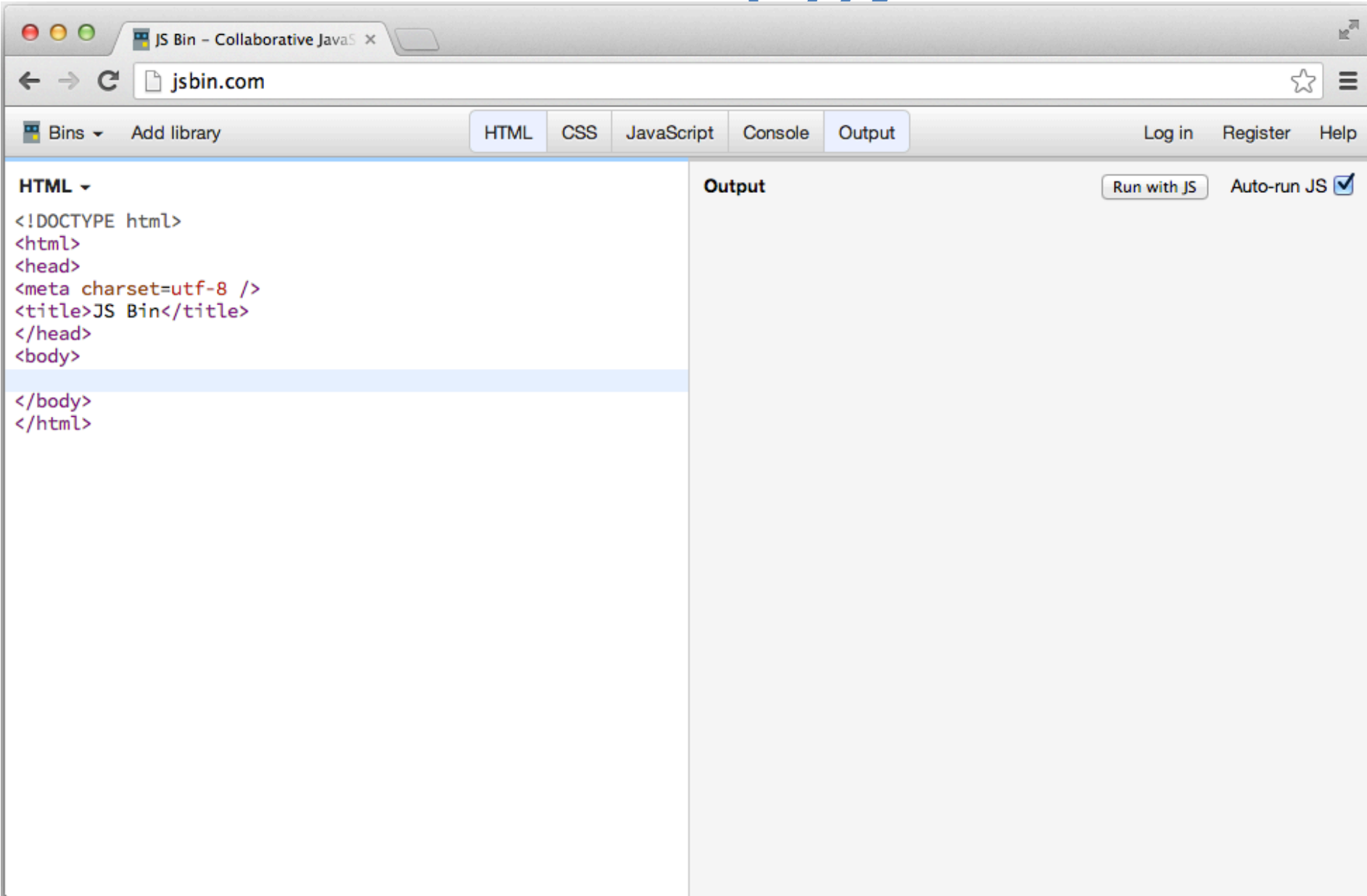
index.html

```
<!DOCTYPE html>
<html>
<head>
  <meta charset=utf-8 />
  <meta name="viewport" content="width=device-width, initial-scale=1" />
  <title>Hello World HTML5 by Myday</title>
  <style>
    body {background-color:yellow;}
    h1 {color:green}
    p {color:red;}
    div {color:blue; font-size:18px;}
  </style>
  <script language="javascript">
    function sayHello()
    {
      var strNameInput = document.getElementById('txtNameInput').value;
      var strOutput = "Hello, my friend, " + strNameInput;
      document.getElementById('divOutput').innerHTML = strOutput;
    }
  </script>
</head>
<body>
  <h1>Hello, World!</h1>
  <p>What's your name?</p>
  <input id="txtNameInput" type="text"><br>
  <button type="button" id="btnClick1" onClick="sayHello()">Press Me!</button><br>
  <div id="divOutput">Hi</div>
</body>
</html>
```



<http://jsbin.com/oWOsUcl/1>

Online Editor: <http://jsbin.com>



The screenshot shows the jsbin.com online editor interface. The browser window title is "JS Bin - Collaborative JavaScript". The address bar shows "jsbin.com". The interface has a top navigation bar with tabs for "HTML", "CSS", "JavaScript", "Console", and "Output". The "HTML" tab is selected. Below the navigation bar, there are buttons for "Bins", "Add library", "Log in", "Register", and "Help". The main editor area is split into two panes: "HTML" on the left and "Output" on the right. The "HTML" pane contains the following code:

```
<!DOCTYPE html>
<html>
<head>
<meta charset=utf-8 />
<title>JS Bin</title>
</head>
<body>

</body>
</html>
```

The "Output" pane is currently empty. There are two buttons in the top right of the "Output" pane: "Run with JS" and "Auto-run JS" (which is checked).

<http://jsbin.com/>

CompileOnline: Try jQueryMobile Online

The screenshot shows the CompileOnline website interface for trying jQuery Mobile online. The browser address bar shows the URL www.compileonline.com/try_jquerymobile_online.php. The page title is "compileonline.com - Try jQueryMobile online".

The main editor area is titled "HTML with jQuery Mobile" and shows the following code:

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>Page Title</title>
5     <meta name="viewport" content="width=device-width, initial-scale=1" />
6     <script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
7     <link type="text/css" href="http://code.jquery.com/mobile/latest/jquery.mobile.min.css" rel
8   ="stylesheet" />
9     <script type="text/javascript" src="http://code.jquery.com/mobile/latest/jquery.mobile.min.js"
10  ></script>
11  </head>
12  <body>
13    <div data-role="page" id="first" data-theme="a">
14      <div data-role="header">
15        <h1>Page Title1</h1>
16      </div><!-- /header -->
17
18      <div data-role="content">
19        <p>Page content goes here.</p>
20        <a href="#second">Go to second page</a>
21      </div><!-- /content -->
22
23      <div data-role="footer">
24        <h4>Page Footer1</h4>
25      </div><!-- /footer -->
26    </div><!-- /page -->
27
28    <div data-role="page" id="second" data-add-back-btn="true" data-theme="b">
29      <div data-role="header">
30        <h1>Page Title2</h1>
31      </div><!-- /header -->
32
33      <div data-role="content">
34        <p>Page content goes here.</p>
35      </div><!-- /content -->
36
37      <div data-role="footer">
38        <h4>Page Footer2</h4>
39      </div><!-- /footer -->
40    </div><!-- /page -->
41  </body>
42 </html>
```

The right sidebar shows the rendered result of the code. It displays a preview of the first page with the following content:

- Page Title1
- Page content goes here.
- [Go to second page](#)
- Page Footer1

http://www.compileonline.com/try_jquerymobile_online.php

Browser window showing a JS Bin editor for a "Hello World HTML5" page. The URL is jsbin.com/oW0sUcl/1/edit. The editor shows HTML and JavaScript code, and the output shows a yellow background with "Hello, World!" in green, a form for "What's your name?" with the input "iMyday", and a "Press Me!" button. The output also shows "Hello, my friend, iMyday".

```
<!DOCTYPE html>
<html>
<head>
  <meta charset=utf-8 />
  <meta name="viewport" content="width=device-width, initial-scale=1" />
  <title>Hello World HTML5 by Myday</title>
  <style>
    body {background-color:yellow;}
    h1 {color:green}
    p {color:red;}
    div {color:blue; font-size:18px;}
  </style>
  <script language="javascript">
    function sayHello()
    {
      var strNameInput = document.getElementById('txtNameInput').value;
      var strOutput = "Hello, my friend, " + strNameInput;
      document.getElementById('divOutput').innerHTML = strOutput;
    }
  </script>
</head>
<body>
  <h1>Hello, World!</h1>
  <p>What's your name?</p>
  <input id="txtNameInput" type="text"><br>
  <button type="button" id="btnClick1" onClick="sayHello()">Press Me!</button><br>
  <div id="divOutput">Hi</div>
</body>
</html>
```

Output Run with JS Auto-run JS

Hello, World!

What's your name?

iMyday

Press Me!

Hello, my friend, iMyday

HTML5

```
<!DOCTYPE html>
<html>
<head>
  <meta charset=utf-8 />
  <title>Hello World HTML5 by Myday</title>
</head>
<body>
  <h1>Hello, World!</h1>
  <p>What's your name?</p>
  <input id="txtNameInput" type="text"><br>
  <button type="button" id="btnClick1">Press Me!</button><br>
  <div id="divOutput">Hi</div>
</body>
</html>
```

HTML5 Event

```
<!DOCTYPE html>
<html>
<head>
  <meta charset=utf-8 />
  <title>Hello World HTML5 by Myday</title>
</head>
<body>
  <h1>Hello, World!</h1>
  <p>What's your name?</p>
  <input id="txtNameInput" type="text"><br>
  <button type="button" id="btnClick1" onClick="sayHello()">Press Me!</button><br>
  <div id="divOutput">Hi</div>
</body>
</html>
```

HTML5 viewport

```
<!DOCTYPE html>
<html>
<head>
  <meta charset=utf-8 />
  <meta name="viewport" content="width=device-width, initial-scale=1" />
  <title>Hello World HTML5 by Myday</title>
</head>
<body>
  <h1>Hello, World!</h1>
  <p>What's your name?</p>
  <input id="txtNameInput" type="text"><br>
  <button type="button" id="btnClick1">Press Me!</button><br>
  <div id="divOutput">Hi</div>
</body>
</html>
```

HTML5

```
<body>
  <h1>Hello, World!</h1>
  <p>What's your name?</p>
  <input id="txtNameInput" type="text"><br>
  <button type="button" id="btnClick1" onClick="sayHello()">Press Me!</button><br>
  <div id="divOutput">Hi</div>
</body>
```

CSS3

```
<style>  
  body {background-color:yellow;}  
  h1 {color:green}  
  p {color:red;}  
  div {color:blue; font-size:18px;}  
</style>
```

JavaScript

```
<script language="javascript">
  function sayHello()
  {
    var strNameInput = document.getElementById('txtNameInput').value;
    var strOutput = "Hello, my friend, " + strNameInput;
    document.getElementById('divOutput').innerHTML = strOutput;
  }
</script>
```

Mobile App with HTML5, CSS3, and JavaScript



```
<!DOCTYPE html>
<html>
<head>
  <meta charset=utf-8 />
  <meta name="viewport" content="width=device-width, initial-scale=1" />
  <title>Hello World HTML5 by Myday</title>
  <style>
    body {background-color:yellow;}
    h1 {color:green}
    p {color:red;}
    div {color:blue; font-size:18px;}
  </style>
  <script language="javascript">
    function sayHello()
    {
      var strNameInput = document.getElementById('txtNameInput').value;
      var strOutput = "Hello, my friend, " + strNameInput;
      document.getElementById('divOutput').innerHTML = strOutput;
    }
  </script>
</head>
<body>
  <h1>Hello, World!</h1>
  <p>What's your name?</p>
  <input id="txtNameInput" type="text"><br>
  <button type="button" id="btnClick1" onClick="sayHello()">Press Me!</button><br>
  <div id="divOutput">Hi</div>
</body>
</html>
```


The image shows a web browser window with a single tab titled "Hello World HTML5 by Myc". The address bar shows the URL "jsbin.com/oWOSUcl/1/edit". The browser interface includes navigation buttons (back, forward, refresh), a search icon, and a menu icon. Below the address bar, there are tabs for "Bins", "Add library", "Share", "HTML", "CSS", "JavaScript", "Console", and "Output". The "HTML" tab is selected, showing the following code:

```
<!DOCTYPE html>
<html>
<head>
  <meta charset=utf-8 />
  <meta name="viewport" content="width=device-width, initial-scale=1" />
  <title>Hello World HTML5 by Myday</title>
  <style>
    body {background-color:yellow;}
    h1 {color:green}
    p {color:red;}
    div {color:blue; font-size:18px;}
  </style>
  <script language="javascript">
    function sayHello()
    {
      var strNameInput = document.getElementById('txtNameInput').value;
      var strOutput = "Hello, my friend, " + strNameInput;
      document.getElementById('divOutput').innerHTML = strOutput;
    }
  </script>
</head>
<body>
  <h1>Hello, World!</h1>
  <p>What's your name?</p>
  <input id="txtNameInput" type="text"><br>
  <button type="button" id="btnClick1" onClick="sayHello()">Press Me!</button><br>
  <div id="divOutput">Hi</div>
</body>
</html>
```

The "Output" tab is also visible, showing a live preview of the code. The preview has a yellow background and contains the following text:

Hello, World!

What's your name?

iMyday

Press Me!

Hello, my friend, iMyday

HTML5 CSS3 JavaScript

Hello World

index.html

```
<!DOCTYPE html>
<html>
<head>
  <meta charset=utf-8 />
  <meta name="viewport" content="width=device-width, initial-scale=1" />
  <title>Hello World HTML5 by Myday</title>
  <style>
    body {background-color:yellow;}
    h1 {color:green}
    p {color:red;}
    div {color:blue; font-size:18px;}
  </style>
  <script language="javascript">
    function sayHello()
    {
      var strNameInput = document.getElementById('txtNameInput').value;
      var strOutput = "Hello, my friend, " + strNameInput;
      document.getElementById('divOutput').innerHTML = strOutput;
    }
  </script>
</head>
<body>
  <h1>Hello, World!</h1>
  <p>What's your name?</p>
  <input id="txtNameInput" type="text"><br>
  <button type="button" id="btnClick1" onClick="sayHello()">Press Me!</button><br>
  <div id="divOutput">Hi</div>
</body>
</html>
```



<http://jsbin.com/oWOsUcl/1>

HTML5 CSS3 JavaScript

Hello World

index.html

```
<!DOCTYPE html>
<html>
<head>
  <meta charset=utf-8 />
  <meta name="viewport" content="width=device-width, initial-
  <title>Hello World HTML5 by Myday</title>
  <style>
    body {background-color:yellow;}
    h1 {color:green}
    p {color:red;}
    div {color:blue; font-size:18px;}
  </style>
  <script language="javascript">
    function sayHello()
    {
      var strNameInput = document.getElementById('txtNameInpu
      var strOutput = "Hello, my friend, " + strNameInput;
      document.getElementById('divOutput').innerHTML = strOut
    }
  </script>
</head>
<body>
  <h1>Hello, World!</h1>
  <p>What's your name?</p>
  <input id="txtNameInput" type="text"><br>
  <button type="button" id="btnClick1" onClick="sayHello()">Press Me!</button><br>
  <div id="divOutput">Hi</div>
</body>
</html>
```



HTML5 CSS3 JavaScript

Hello World

index.html

```
<!DOCTYPE html>
<html>
<head>
  <meta charset=utf-8 />
  <meta name="viewport" content="width=device-width, initi
  <title>Hello World HTML5 by Myday</title>
  <style>
    body {background-color:yellow;}
    h1 {color:green}
    p {color:red;}
    div {color:blue; font-size:18px;}
  </style>
  <script language="javascript">
    function sayHello()
    {
```



```
<style>
  body {background-color:yellow;}
  h1 {color:green}
  p {color:red;}
  div {color:blue; font-size:18px;}
</style>
```



HTML5 CSS3 JavaScript

```
<script language="javascript">
```

```
function sayHello()
```

```
{
```

```
var strNameInput = document.getElementById('txtNameInput').value;
```

```
var strOutput = "Hello, my friend, " + strNameInput;
```

```
document.getElementById('divOutput').innerHTML = strOutput;
```

```
}
```

```
</script>
```



JS

```
<script language="javascript">
```

```
function sayHello()
```

```
{
```

```
var strNameInput = document.getElementById('txtNameInput').value;
```

```
var strOutput = "Hello, my friend, " + strNameInput;
```

```
document.getElementById('divOutput').innerHTML = strOutput;
```

```
}
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<h1>Hello, World!</h1>
```

```
<p>What's your name?</p>
```

```
<input id="txtNameInput" type="text"><br>
```

```
<button type="button" id="btnClick1" onClick="sayHello()">Press Me!</button><br>
```

```
<div id="divOutput">Hi</div>
```

```
</body>
```

```
</html>
```

Press Me!

Hello, my friend, iMyday

Summary

- Mobile Apps
- HTML5
 - Hyper Text Markup Language (version 5)(2012)
 - Content and Structure
- CSS3
 - Cascading Style Sheets (version 3)
 - Presentation, Layout and User Interface
- JavaScript
 - Behavior and Business Logic



References

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- Building Android Apps with HTML, CSS, and JavaScript: Making Native Apps with Standards-Based Web Tools, Jonathan Stark & Brian Jepson, O'reilly, 2012
- Building iPhone Apps with HTML, CSS, and JavaScript: Making App Store Apps Without Objective-C or Cocoa, Jonathan Stark, O'reilly, 2010
- What is HTML5?
 - <https://www.youtube.com/watch?v=4oX9DXH4fiA>
- What is CSS3?
 - <https://www.youtube.com/watch?v=oHmm9dMAW0s>
- What is JavaScript?
 - <https://www.youtube.com/watch?v=955L9-NoBoE>
- HTML5 Tutorial For Beginners
 - <https://www.youtube.com/watch?v=9gTw2EDkaDQ>
- CSS Tutorial for Beginners
 - <https://www.youtube.com/watch?v=Wz2klMXDqF4>
- JavaScript & jQuery Tutorial for Beginners
 - <https://www.youtube.com/watch?v=VRnQOcVclS8>