

SUMMIT

**JBoss
WORLD**

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**LEARN. NETWORK.
EXPERIENCE OPEN SOURCE.**

www.theredhatsummit.com

HTML5 for the Java Developer

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May 5 2011

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Administrator: cmd.exe - Shortcut - run -Djboss.service.binding.set=ports-01

```
c:\server.gcInterval=3600000 -Dorg.jboss.resol
rs=D:\servers\jboss-6.0.0.Final_Keynote_Backe
13:59:21,117 INFO [JMXKernel] Legacy JMX con
13:59:28,978 INFO [AbstractServerConfig] JBo
3.4.1.GA
13:59:29,940 INFO [JSFImplManagementDeployer
[Mojarra-1.2, MyFaces-2.0, Mojarra-2.0]
13:59:40,828 WARNING [FileConfigurationParser
rm, it will fall back to using pure Java NIO.
LibAIO to enable the AIO journal
13:59:40,884 WARNING [FileConfigurationParser
rm, it will fall back to using pure Java NIO.
LibAIO to enable the AIO journal
14:00:03,224 INFO [PersistenceUnitValueMetaA
tName=jboss-ejb3-timer-service-mk2.jar#timerd
14:00:26,192 INFO [Ejb3DependenciesDeployer]
DeploymentContext@21213438{vfs:///D:/servers/
boss-6.0.0.Final/server/default/deploy/demo-h
14:00:26,193 INFO [Ejb3DependenciesDeployer]
DeploymentContext@21213438{vfs:///D:/servers/
boss-6.0.0.Final/server/default/deploy/demo-h
14:00:26,218 INFO [Ejb3DependenciesDeployer]
DeploymentContext@3635144{vfs:///D:/servers/
oss-6.0.0.Final/server/default/deploy/tweetst
14:00:26,219 INFO [Ejb3DependenciesDeployer]
DeploymentContext@3635144{vfs:///D:/servers/
oss-6.0.0.Final/server/default/deploy/tweetst
14:00:27,935 WARNING [FileConfigurationParser
rm, it will fall back to using pure Java NIO.
LibAIO to enable the AIO journal
```

redhat@localhost:/opt/jboss/jboss-eap-5.1/jboss-as/bin

File Edit View Terminal Tabs Help

redhat@localhost:~

redhat@localhost:/opt/jboss/jboss-eap-5.1/jboss-as/bin

```
14:21:32,755 INFO [ConnectionFactory] Connector bisocket://127.0.0.1:4457 has leasing enabled, lease period 1
0000 milliseconds
14:21:32,755 INFO [ConnectionFactory] org.jboss.jms.server.connectionfactory.ConnectionFactory@35043504 start
ed
14:21:32,758 INFO [QueueService] Queue[/queue/DLQ] started, fullSize=200000, pageSize=2000, downCacheSize=200
0
14:21:32,759 INFO [ConnectionFactory] Connector bisocket://127.0.0.1:4457 has leasing enabled, lease period 1
0000 milliseconds
14:21:32,771 INFO [ConnectionFactory] org.jboss.jms.server.connectionfactory.ConnectionFactory@715e715e start
ed
14:21:32,893 INFO [ConnectionFactoryBindingService] Bound ConnectionManager 'jboss.jca:service=ConnectionFact
oryBinding,name=JmsXA' to JNDI name 'java:JmsXA'
14:21:33,062 INFO [TomcatDeployment] deploy, ctxPath=/admin-console
14:21:33,189 INFO [config] Initializing Mojarra (1.2_13-b01-FCS) for context '/admin-console'
14:21:37,545 INFO [TomcatDeployment] deploy, ctxPath=/
14:21:37,640 INFO [TomcatDeployment] deploy, ctxPath=/calculator
14:21:37,822 INFO [TomcatDeployment] deploy, ctxPath=/jmx-console
14:21:37,910 INFO [ProfileServiceBootstrap] Loading profile: ProfileKey@4bde4bde[domain=default, server=default
lt, name=default]
14:21:37,918 INFO [Http11Protocol] Starting Coyote HTTP/1.1 on http-127.0.0.1-8080
14:21:37,965 INFO [AjpProtocol] Starting Coyote AJP/1.3 on ajp-127.0.0.1-8009
14:21:37,970 INFO [ServerImpl] JBoss (Microcontainer) [5.1.0 (build: SVNTag=JBAPP_5_1_0 date=201006282158)]
Started in 1m:14s:642ms
```

java

```
13:24:47,916 INFO [ConnectionFactory] Connector bi
leasing enabled, lease period 10000 milliseconds
13:24:47,916 INFO [ConnectionFactory] org.jboss.jm
nnectionFactory@bf38f5d started
13:24:48,019 INFO [ConnectionFactoryBindingService] Bound ConnectionManager 'jb
oss.jca:service=ConnectionFactoryBinding,name=JmsXA' to JNDI name 'java:JmsXA'
13:24:48,140 INFO [TomcatDeployment] deploy, ctxPath=/admin-console
13:24:48,336 INFO [config] Initializing Mojarra (1.2_13-b01-FCS) for context '/'
admin-console'
Mon Apr 25 13:24:50 Jim-Tyrrells-MacBook-Pro-2.local java[33370] <Error>: kCGErr
orIllegalArgumentException: CGSOrderWindowList
Mon Apr 25 13:24:50 Jim-Tyrrells-MacBook-Pro-2.local java[33370] <Error>: kCGErr
orFailure: Set a breakpoint @ CGErrorBreakpoint() to catch errors as they are lo
gged.
13:24:52,494 INFO [TomcatDeployment] deploy, ctxPath=/
13:24:52,563 INFO [TomcatDeployment] deploy, ctxPath=/jmx-console
13:24:52,596 INFO [ProfileServiceBootstrap] Loading profile: ProfileKey@4cdbc2
d[domain=default, server=default, name=default]
13:24:52,603 INFO [Http11Protocol] Starting Coyote HTTP/1.1 on http-127.0.0.1-8
080
13:24:52,629 INFO [AjpProtocol] Starting Coyote AJP/1.3 on ajp-127.0.0.1-8009
13:24:52,634 INFO [ServerImpl] JBoss (Microcontainer) [5.1.0 (build: SVNTag=JB
APP_5_1_0 date=201009150028)] Started in 34s:38ms
```

JMImplementation

- [name=Default,service=LoaderRepository](#)
- [type=MBeanRegistry](#)
- [type=MBeanServerDelegate](#)

com.sun.management

- [type=HotSpotDiagnostic](#)

hornetq

- [name=JMSProvider,service=JMSProviderLoader](#)

java.lang

- [name=Code Cache,type=MemoryPool](#)
- [name=CodeCacheManager,type=MemoryManager](#)
- [name=PS Eden Space,type=MemoryPool](#)
- [name=PS MarkSweep,type=GarbageCollector](#)
- [name=PS Old Gen,type=MemoryPool](#)
- [name=PS Perm Gen,type=MemoryPool](#)
- [name=PS Scavenge,type=GarbageCollector](#)
- [name=PS Survivor Space,type=MemoryPool](#)
- [type=ClassLoading](#)
- [type=Compilation](#)
- [type=Memory](#)
- [type=OperatingSystem](#)
- [type=Runtime](#)
- [type=Threading](#)

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• [jboss.web](#)
• [jboss.web.deployment](#)
• [jboss.ws](#)
• [jboss.xnio](#)
• [org.hornetq](#)
• [org.infinispan](#)

iooday amor autofollow borninthebank businessstateofmind

ifollowall instantfollow nowplaying

teamfollowback beckysnightmares

sotellmewhy fb blac barbershop

asapfollowback aficionfoxsports bossbxtchstatus arizona boca

candogseatba RichFaces TweetStream - Mozilla Firefox

bootoofilho

betirealzalei

RichFaces TweetStream
File Edit View History Bookmarks Tools Help
RichFaces TweetStream
http://localhost:8080/tweetstream/pages/home.jsf



TweetStream



khairinaini: @eGranero11 i know this is useless but if you mind to follow me back i'm so glad to hear that :)



Tweliebers: @JBOBSESSEDxxx followed!would you want to join our @justinbieber fan video?:-)



beth_alice193: @jaythewanted + @sivathewanted mine and @NataliaC_TW s conversation about you two ;~) <http://twitpic.com/4tcw0i> 8



twitbabayatiri: bütün akşam led zeppelin dinlemek (Y),



itm_00: なるほど四時じゃねーの #4ji



SmileLikePique: @Lau_coconut perdon? de q hablas? o.O



elinehetebrij: @StefanSchilder hmmm waarschijnlijk vergeet ik het ;p



CrazyAboutSloan: Just back from fitness : 60 min cardio training... Friday I start a new training with Obi-wan Kenobi : 40 km again in June

Top Tags

#sotellmewhy	4
#4ji	3
#obl	3
#rt	3
#teamfollowback	3
#waterlooroad	3
#f4f	2
#fatgirlremix	2
#fb	2
#ff	2

Top Tweeters

Howsonn	2
hauanahauschild	2
topukseocompany	2
02out	1
1brianroberts	1
1kbk	1

Developer Evolution

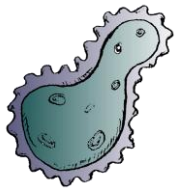
70s

80s

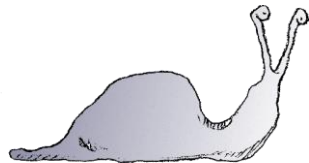
90s

00s

10s



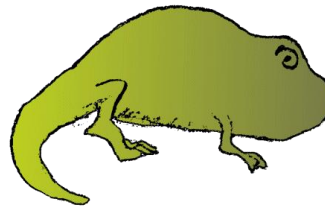
COBOL



C/C++
CORBA
4GLs
RDBMS/SQL
Unix



HTML
CGI
GET/POST
Cookies
Java
Servlet
EJB
Windows
Solaris/AIX



MVC - Struts
DI- Spring
ORM- Hibernate
XML
WS-*
JSF
RIA-AJAX
Agile
Automated Testing
CI
DSLs
SVN



EE6
GWT
Mobile
iOS/Android
jQuery/Ext JS
Groovy/Grails
Ruby/Rails
Scala
OpenSocial
Widgets/Gadgets
Maven
Git
Mercurial



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UI Tier/Layer

Innovates faster than other application tiers

Dozens of libs/frameworks always trying to outdo each other

The most dynamic & exciting place to focus on for Web-oriented Java developers

Involves some of the most challenging programming – cross-browser RIA support

It is a matter of taste
– no obvious single winner (beyond Struts).



RichFaces



apache
tapestry 5
Code less, deliver more.

Spring

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Mobile +
Cloud



Impact?

Browser

2002

2006

2010

Mid-2011

2012-13+

Web

HTML

HTML
+ AJAX

HTML
+ AJAX

HTML
+ AJAX

HTML5
CSS3
JavaScript
JSON
?

UI

Struts

Struts

JSF1+Richfaces3*
or
SpringMVC
or
GWT

JSF2+Richfaces4*
or
SpringMVC
or
GWT

JSF2+RichFaces4*
or
SpringMVC or GWT
or
RESTful UI Engine

Bus
Logic

EJB2

Struts
Action

Spring
+
Hibernate

Spring or Seam2
+
Hibernate/JPA

EJB 3.1 or Spring
+
Hibernate/JPA

JAX-RS?
+
Hibernate & NoSQL

DB

Stored
Procedures

Stored
Procedures

Stored
Procedures

Stored
Procedures

NoSQL
Cloud-based
Services

and
RDBMS

* Or IceFaces/Primefaces

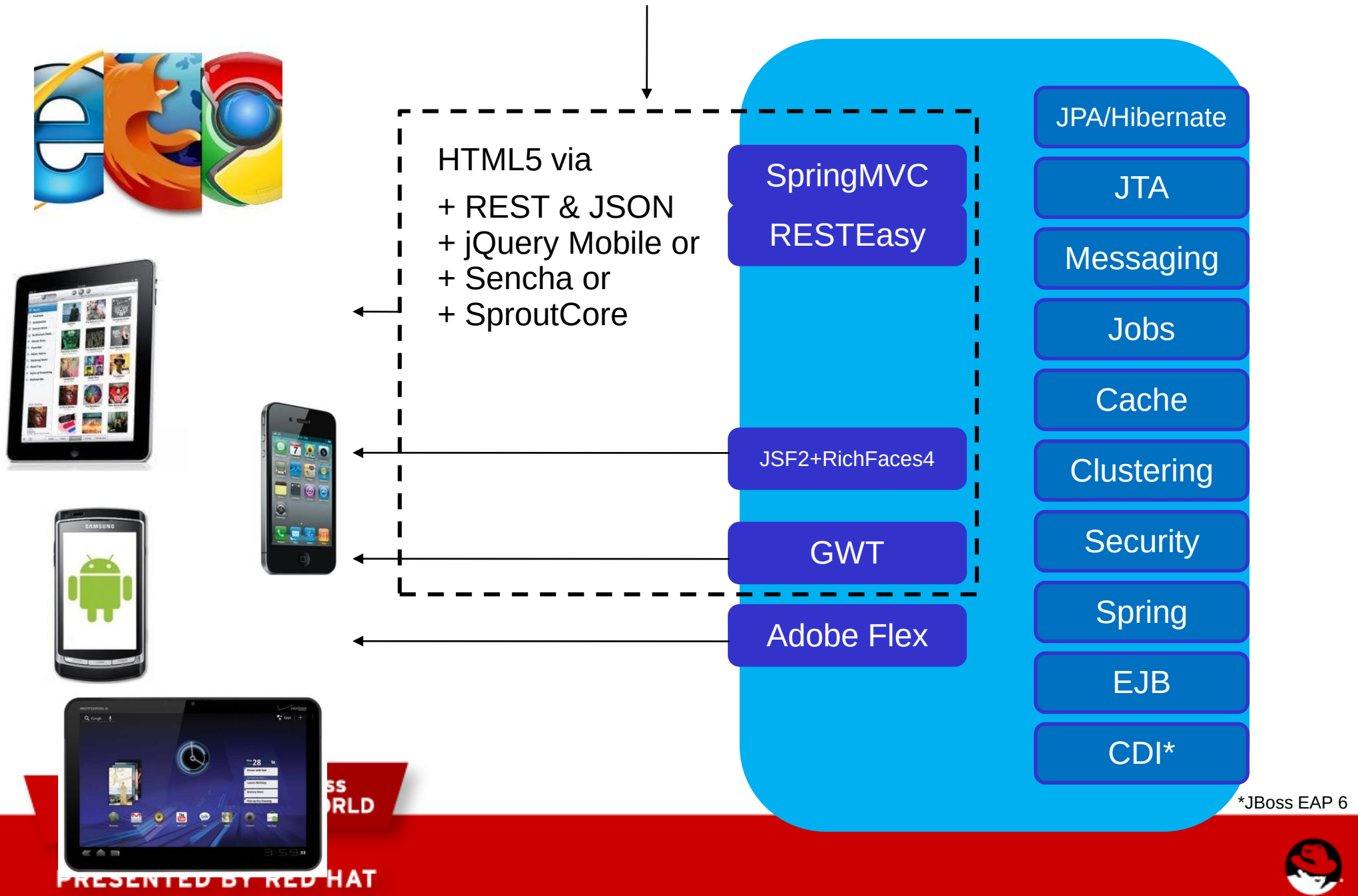
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JBoss Focus for UI



new

In order to turn on Ajax loading – just specify clientRows attribute with number of rows to be loaded on the client

Navigate

- Browse
- Knowledge Bases
- Create New
- Packages
 - defaultPackage
 - mortgages
 - Business rule assets
 - Technical rule assets
 - Functions
 - DSL configurations
 - Model
 - Processes
 - Enumerations
 - Test Scenarios
 - XML, Properties
 - Other assets, documentation
 - WorkingSets
- Global Area
 - Business rule assets
 - Technical rule assets
 - Functions
 - DSL configurations
 - Model
 - Processes
 - Enumerations
 - Test Scenarios
 - XML, Properties
 - Other assets, documentation
 - WorkingSets

Find CreditApprov Business rule No bad credi no NINJAs WorkingSets WorkingSets Other assets Model [mort MortgageMo Snap

Package name: mortgages
Copy Rename Archive

Configuration

Configuration: Imported types Globals Advanced view

Description: Mortgages that aren't stupid

Category Rules: + i

Save and validate configuration

Build and validate

Build whole package Use built-in selector Use custom selector

Build package using following assets:

When status : =

When category : =

Build binary package: Build package

Building a package will collect all the assets, validate and take snapshot.

Take snapshot: Create snapshot

GWT at JBoss

BPM Console

Tasks

Processes

Reporting

Report Templates

Report Templates

Report configuration

Process Summary

A summary for one specific process definition.

Please enter a process definition.

GWT Console Application

Back Forward Refresh Stop Compile/Browse

http://localhost:8888/org.jboss.bpm.console.Application/Application.html

Go

jBPM

admin Logout

Settings

Processes

Process Definitions Definition List

Process Definitions

Process Instances

1

State: RUNNING

Start Date: Wed May 27 15:33:00 CEST 2009

Messages

Transferring data from localhost...

Future Web = HTML5+REST

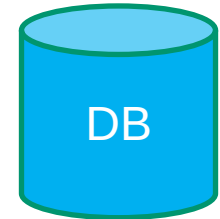


HTML5+CSS3+jQuery/EXT JS

JSON
REST
Websocket



SpringMVC
RESTEasy
Play!
Rails



Cloud Service

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jQuery + RESTEasy

```
$(function() {  
  
    $("#listOfCustomObjects").click(function() {  
        console.log("listOfCustomObjects clicked");  
        $.getJSON("collectionjson/customers", function(returnedCustomers) {  
            console.log("returned are " + returnedCustomers);  
            alert("returned: " + returnedCustomers);  
            $.each(returnedCustomers, function(index, aCustomer) {  
                console.log(aCustomer.firstName);  
                console.log(aCustomer.lastName);  
                console.log(aCustomer.state);  
                console.log(aCustomer.status);  
            });  
        });  
    });  
});
```

```
@GET  
@Path("customers")  
@Produces("text/json")  
public List<Customer> getCustomers() {  
    Customer myCustomer = new Customer();  
    myCustomer.setFirstName("Burr");  
    myCustomer.setLastName("Sutter");  
    myCustomer.setState("GA");  
    myCustomer.setStatus(1);  
    myCustomer.setUserName("dude");  
    List<Customer> customers = new ArrayList<Customer>();  
    customers.add(myCustomer);  
    System.out.println("getCustomers: " + customers);  
    return customers;  
}
```

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SpringMVC RESTful Controllers

```
@RequestMapping(value="/newsticker/getdata", method=RequestMethod.GET)

public @ResponseBody List<NewsItem> getAvailability() {

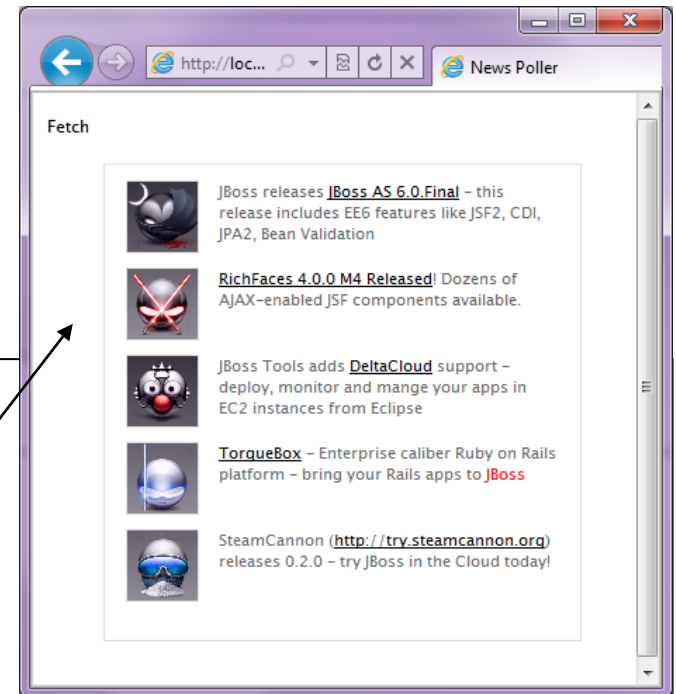
    List<NewsItem> items = newsItemService.findNewsItems();

    return items;

}
```

jQuery in JSP

```
//fetches list from server
function goFetchItems(){
$.getJSON("newsticker/getdata", function(items) {
    $("#listticker").empty();
    produceList(items);
});
}
// creates the UL's LI's
function produceList(items) {
    $.each(items, function(index,value) {
        $("#listticker").prepend('<li><span class="news-text">'
        + value.body + '</span></li>');
    });
}
```



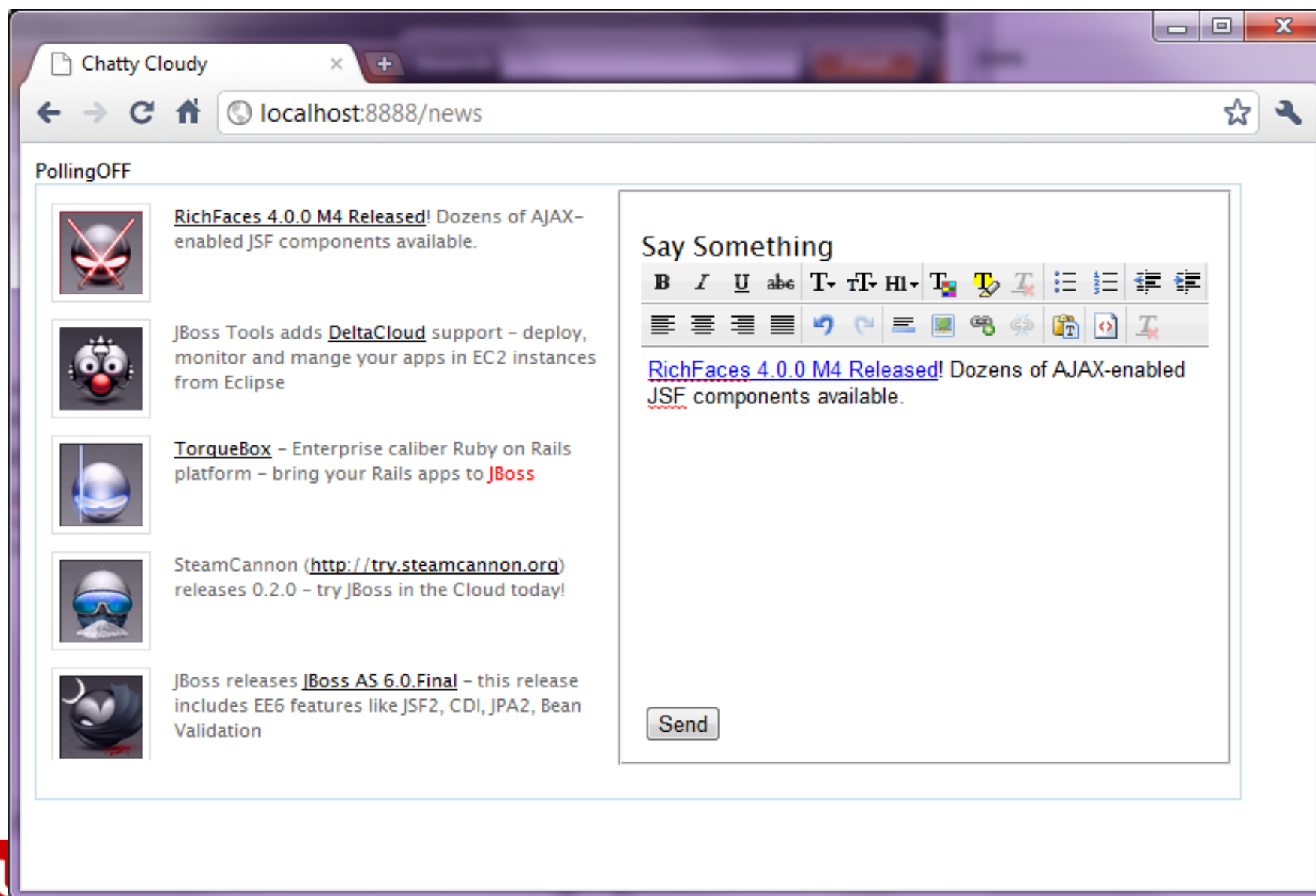
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Demo - ChattyCloudy



SL



Demo: jQuery RESTEasy

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What is HTML5?

1991	HTML
1994	HTML 2
1996	CSS 1 + JavaScript
1997	HTML 4
1998	CSS 2
2000	XHTML 1
<i>2002</i>	Tableless Web Design
<i>2005</i>	AJAX
<i>2009</i>	HTML 5

HTML5 $\sim$ HTML + CSS + JS

* From HTML5Rocks.com



Why the hype now?

- Chrome Browser Happened
- WHAT Working Group – standard based on reality
www.whatwg.org
- iPhone vs Adobe (no Flash)
- Smartphones outship Desktops
- 10s of millions of tablets sold
- We are ready

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HTML5 for Designers

- <article>, <aside>, <footer>
- Hue/saturation/luminance
- @font-face
- Border-radius (rounded corners)
- Transforms, transitions
- Canvas 2D & 3D
- Video
- Audio

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<header>

<nav>

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum id sapien at purus adipiscing tempus.
Sed accumsan nisi sed leo convallis tristique. Praesent dignissim mi ac felis tempus accumsan faucibus urna porta.
Nulla sit amet urna vel lectus dignissim semper. Lorem ipsum dolor sit amet, consectetur adipiscing elit.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum id sapien at purus adipiscing tempus.
Sed accumsan nisi sed leo convallis tristique. Praesent dignissim mi ac felis tempus accumsan faucibus urna porta.
Nulla sit amet urna vel lectus dignissim semper. Lorem ipsum dolor sit amet, consectetur adipiscing elit.

<article>

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum id sapien at purus adipiscing tempus.
Sed accumsan nisi sed leo convallis tristique. Praesent dignissim mi ac felis tempus accumsan faucibus urna porta.
Nulla sit amet urna vel lectus dignissim semper. Lorem ipsum dolor sit amet, consectetur adipiscing elit.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum id sapien at purus adipiscing tempus.
Sed accumsan nisi sed leo convallis tristique. Praesent dignissim mi ac felis tempus accumsan faucibus urna porta.
Nulla sit amet urna vel lectus dignissim semper. Lorem ipsum dolor sit amet, consectetur adipiscing elit.

Phasellus in faucibus tortor. Integer nec augue mi. In elit mauris, vulputate quis viverra ut, hendrerit nec elit. Maecenas vel turpis id augue fringilla ornare nec vel dui. In at mi at arcu cursus venenatis. Nulla facilisi. Sed elementum scelerisque ipsum, nec adipiscing leo feugiat ultrices.

<aside>

<footer>

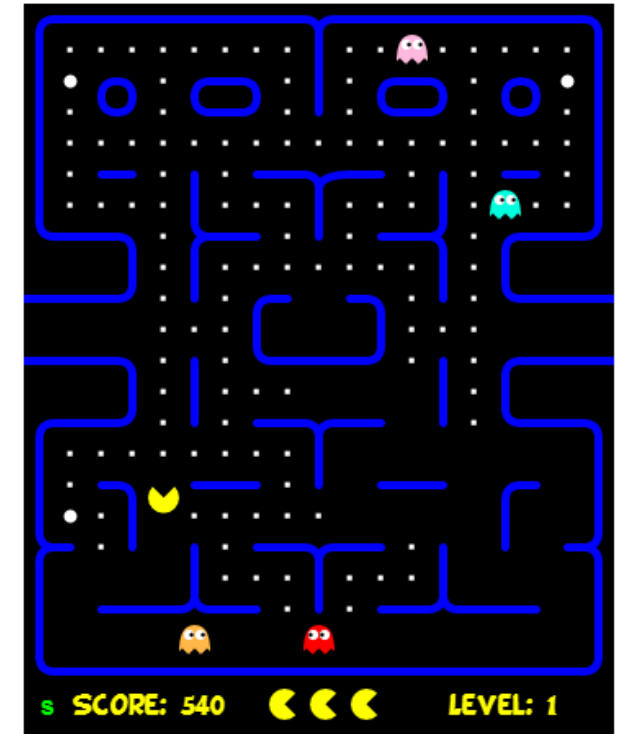
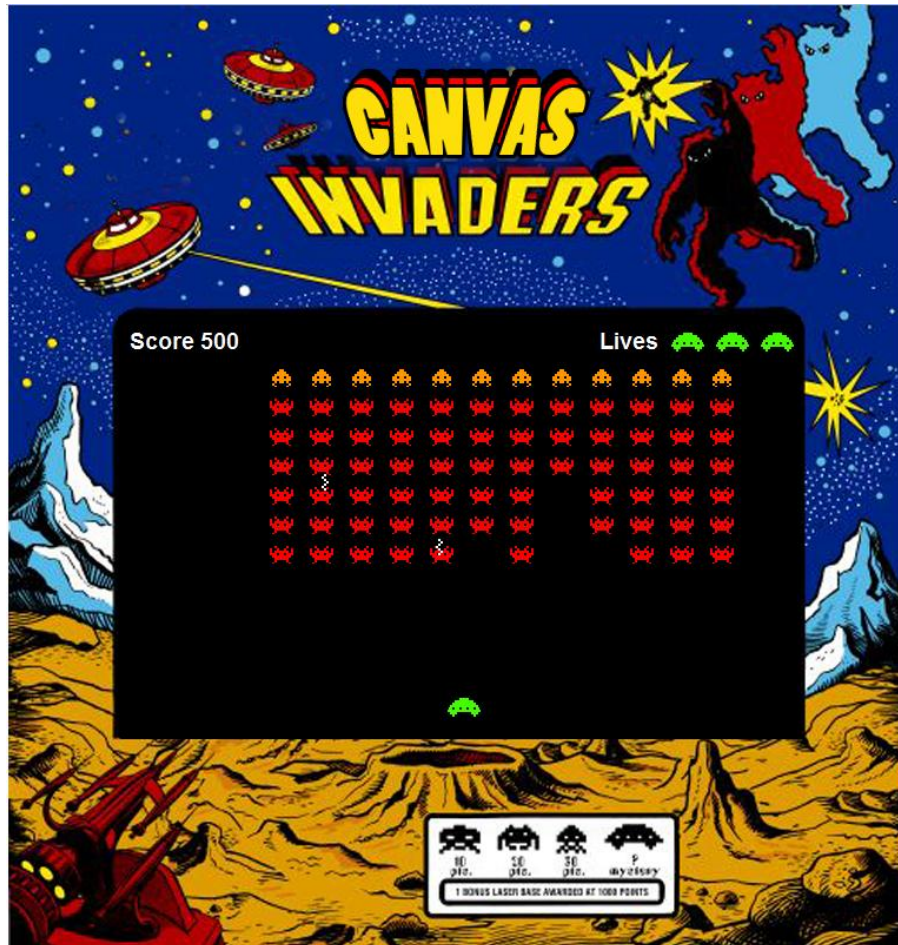
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HTML5 Canvas Games

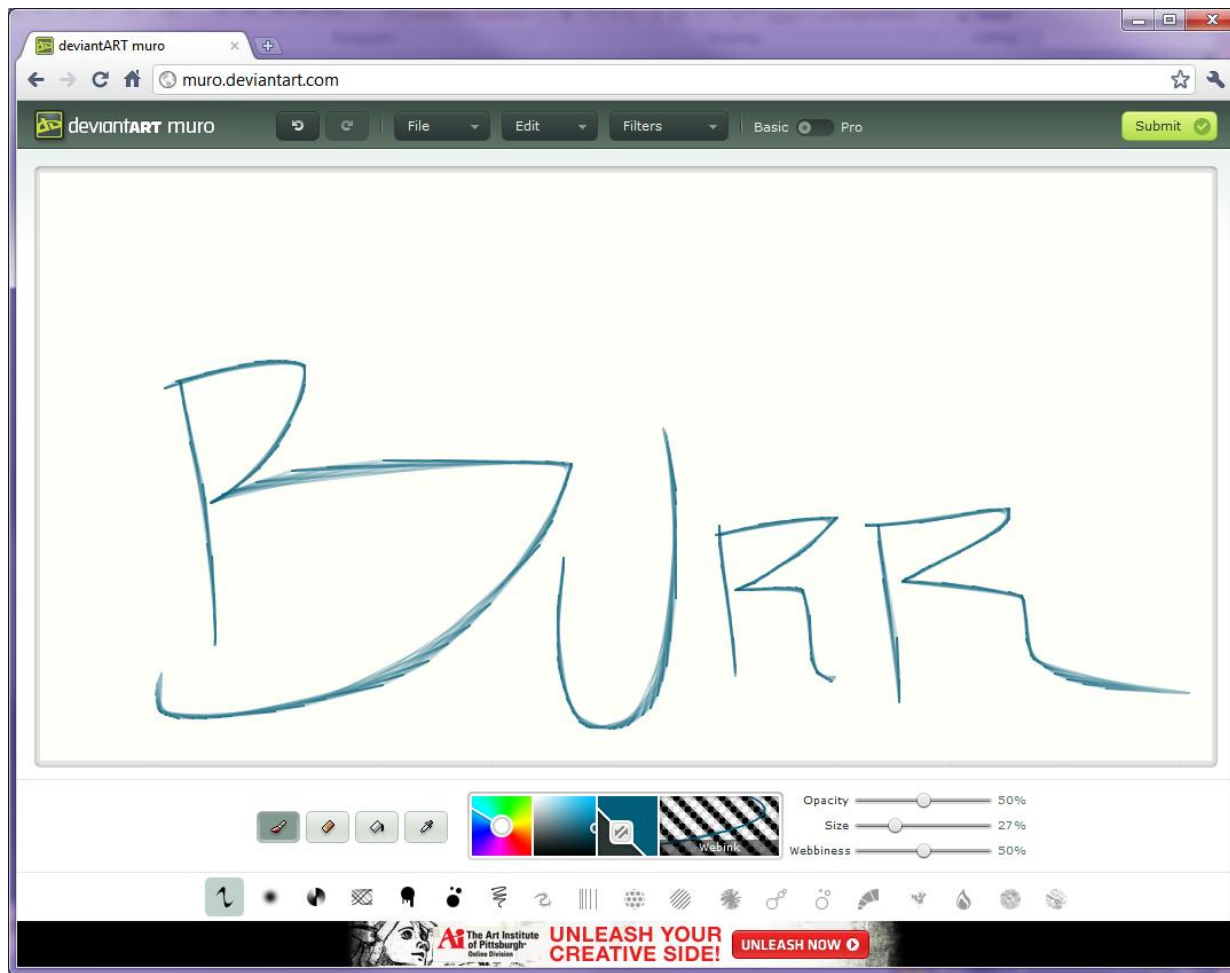


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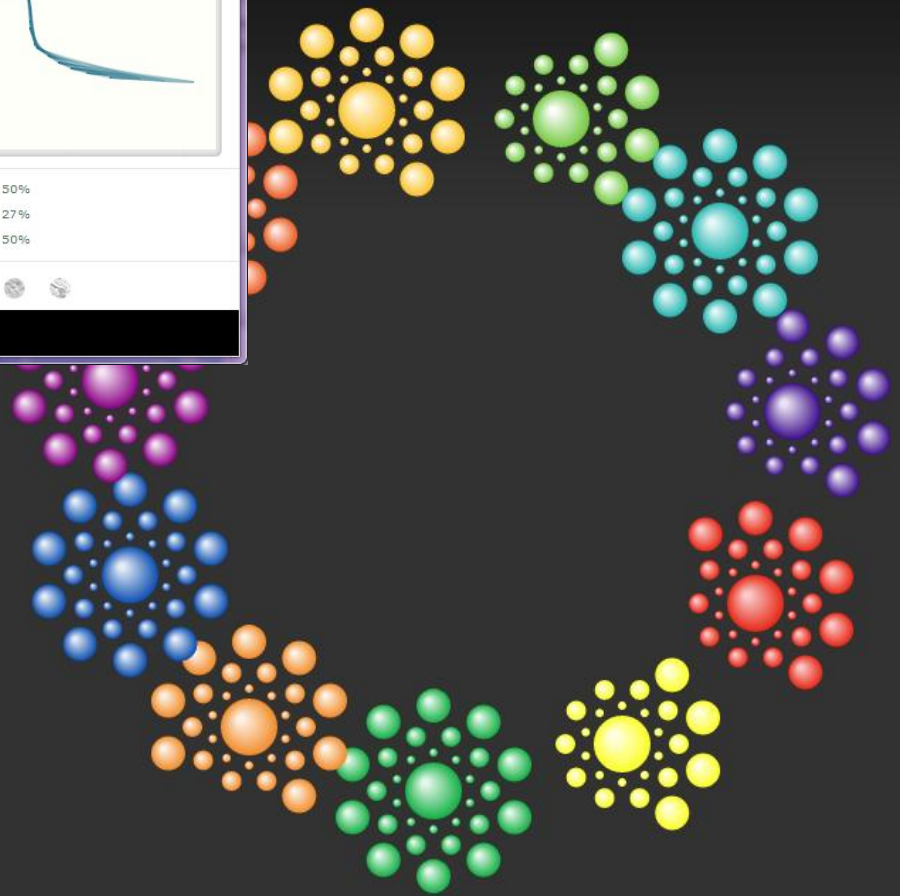


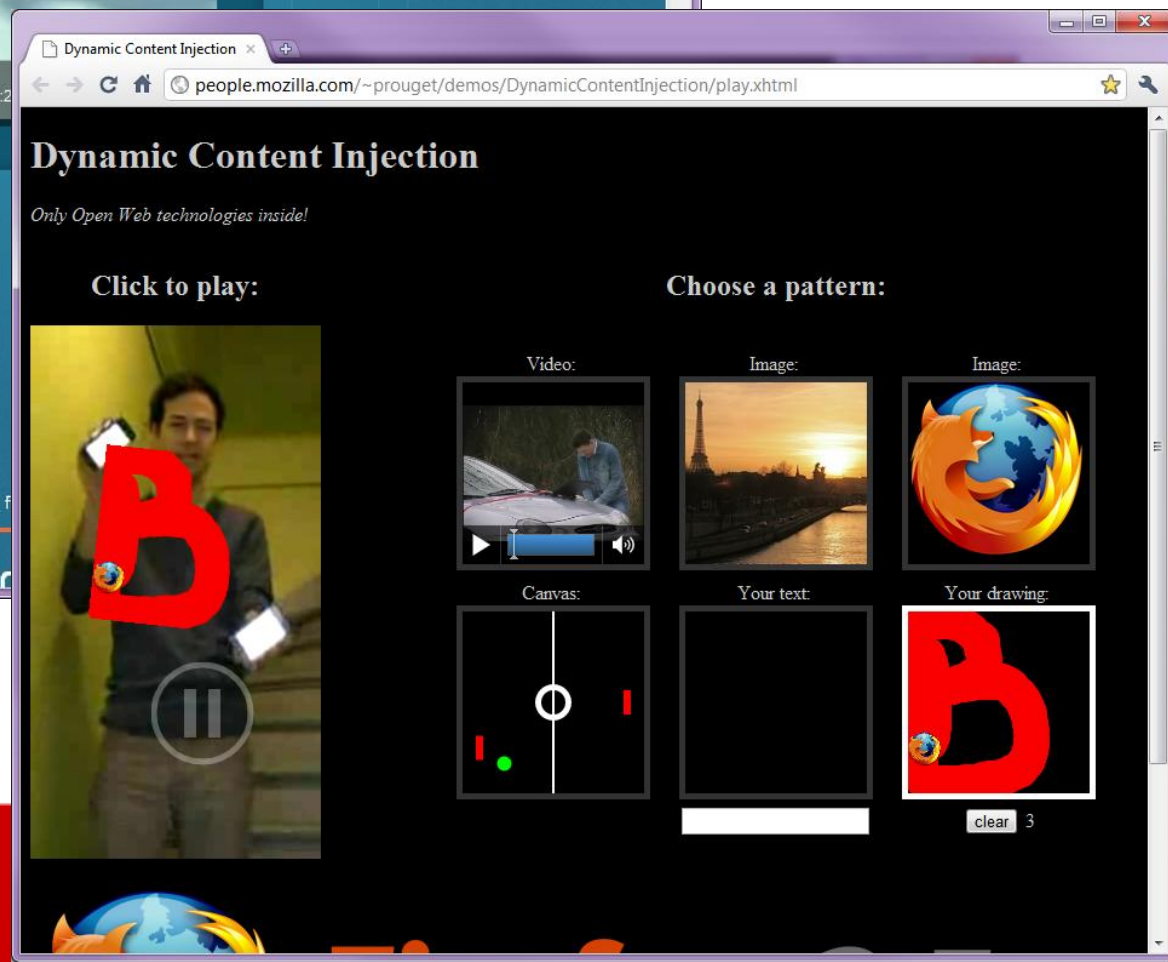
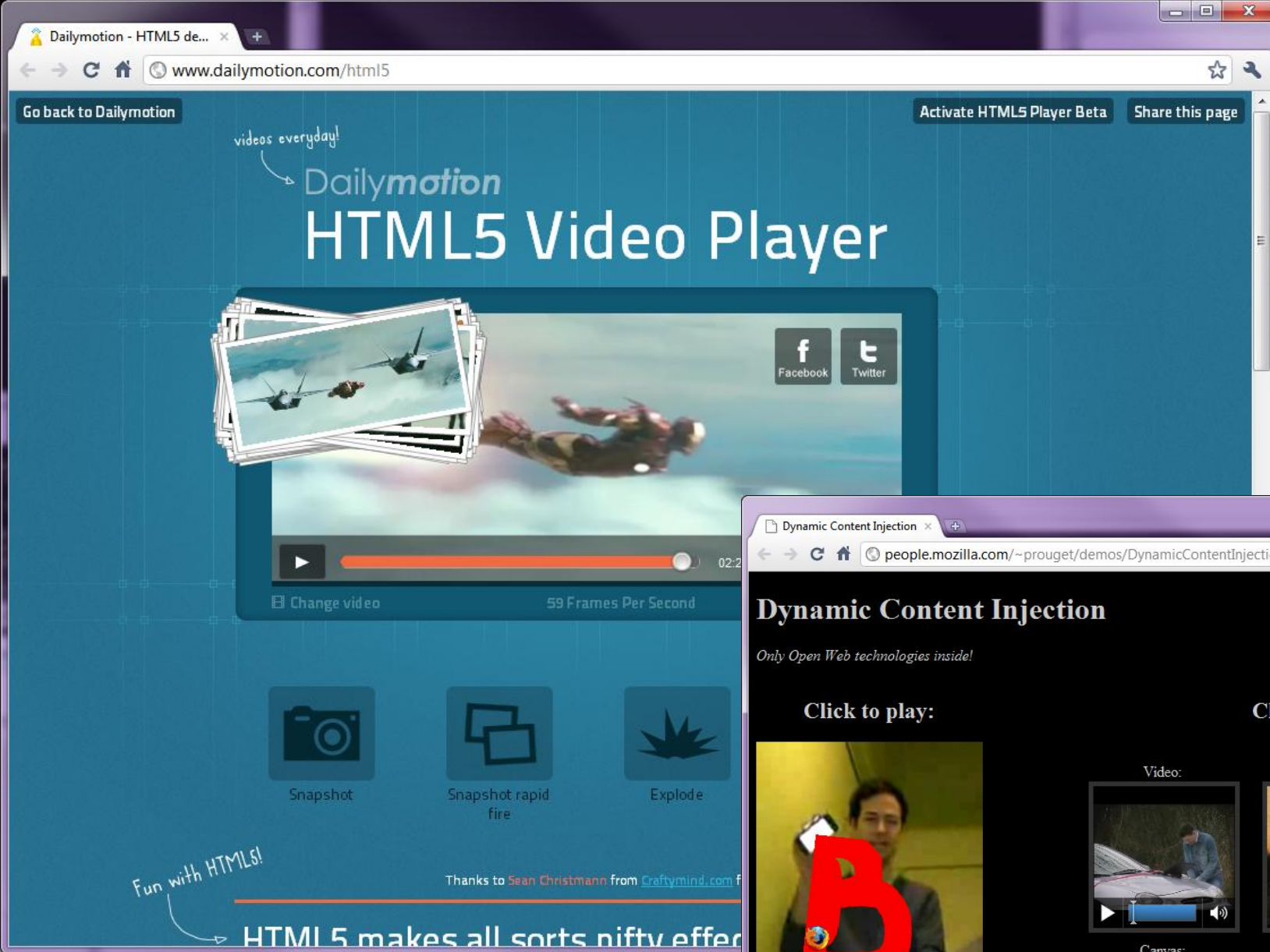
Canvas

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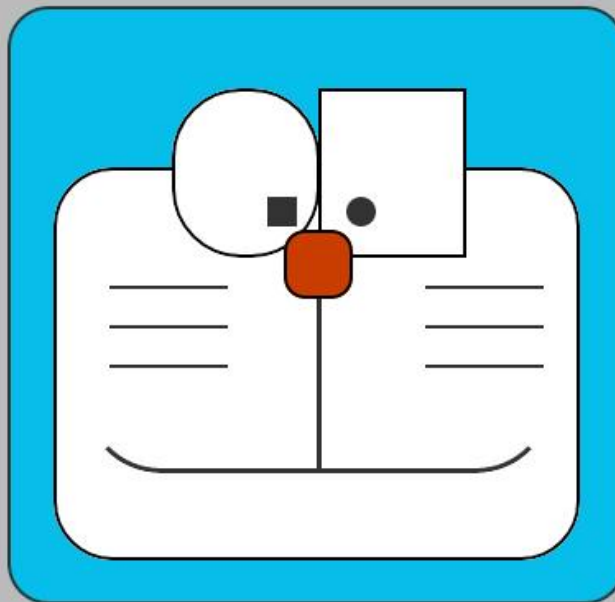
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CSS Rounded corners

```
face: border-radius: 21px;
left eye: border-radius: 35px;
right eye: border-radius: 0px;
base white: border-radius: 30px;
mouth: border-radius: 41px;
nose: border-radius: 11px;
left black eye: border-radius: 0px;
right black eye: border-radius: 32px;
```



HTML5 for Programmers

- Web Storage, Workers & Sockets
- Server Side Events
- type=email, date, range, search, tel, color, number
- <meter>, <progress>
- Application Cache
- Notifications
- Geolocation
- Device Orientation

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9



4



10



5

Modernizr detects support for:

@font-face ✓
 Canvas ✓
 Canvas Text ✓
 HTML5 Audio ✓
 HTML5 Video ✓
 rgba() ✓
 hsla() ✓
 border-image: ✓
 border-radius: ✓
 box-shadow: ✓
 text-shadow: ✓
 opacity: ✓
 Multiple backgrounds ✓
 Flexible Box Model ✓
 CSS Animations ✓
 CSS Columns ✓
 CSS Gradients ✓
 CSS Reflections ✓
 CSS 2D Transforms ✓
 CSS 3D Transforms ✓
 CSS Transitions ✓
 Geolocation API ✓
 localStorage ✓
 sessionStorage ✓
 SVG ✓
 SMIL ✓
 SVG Clipping ✓
 Inline SVG ✓
 Drag and Drop ✓
 hashchange ✓
 X-window Messaging ✓
 History Management ✓
 applicationCache ✓
 Touch events ✓
 Web Sockets ✓
 Web Workers ✓
 Web SQL Database ✓
 WebGL ✓
 IndexedDB ✓
 Input Types†
 Input Attributes‡

Modernizr detects support for:

@font-face ✓	Geolocation API ✓
Canvas ✓	localStorage ✓
Canvas Text ✓	sessionStorage ✓
HTML5 Audio ✓	SVG ✓
HTML5 Video ✓	SMIL ✓
rgba() ✓	SVG Clipping ✓
hsla() ✓	Inline SVG ✓
border-image: ✓	Drag and Drop ✓
border-radius: ✓	hashchange ✓
box-shadow: ✓	X-window Messaging ✓
text-shadow: ✓	History Management ✓
opacity: ✓	applicationCache ✓
Multiple backgrounds ✓	Touch events ✓
Flexible Box Model ✓	Web Sockets ✓
CSS Animations ✓	Web Workers ✓
CSS Columns ✓	Web SQL Database ✓
CSS Gradients ✓	WebGL ✓
CSS Reflections ✓	IndexedDB ✓
CSS 2D Transforms ✓	Input Types†
CSS 3D Transforms ✓	Input Attributes‡
CSS Transitions ✓	

A green checkmark behind a feature indicates your current browser supports this.

Modernizr detects support for:

@font-face ✓	Geolocation API ✓
Canvas ✓	localStorage ✓
Canvas Text ✓	sessionStorage ✓
HTML5 Audio ✓	SVG ✓
HTML5 Video ✓	SMIL ✓
rgba() ✓	SVG Clipping ✓
hsla() ✓	Inline SVG ✓
border-image: ✓	Drag and Drop ✓
border-radius: ✓	hashchange ✓
box-shadow: ✓	X-window Messaging ✓
text-shadow: ✓	History Management ✓
opacity: ✓	applicationCache ✓
Multiple backgrounds ✓	Touch events ✓
Flexible Box Model ✓	Web Sockets ✓
CSS Animations ✓	Web Workers ✓
CSS Columns ✓	Web SQL Database ✓
CSS Gradients ✓	WebGL ✓
CSS Reflections ✓	IndexedDB ✓
CSS 2D Transforms ✓	Input Types†
CSS 3D Transforms ✓	Input Attributes‡
CSS Transitions ✓	

Modernizr detects support for:

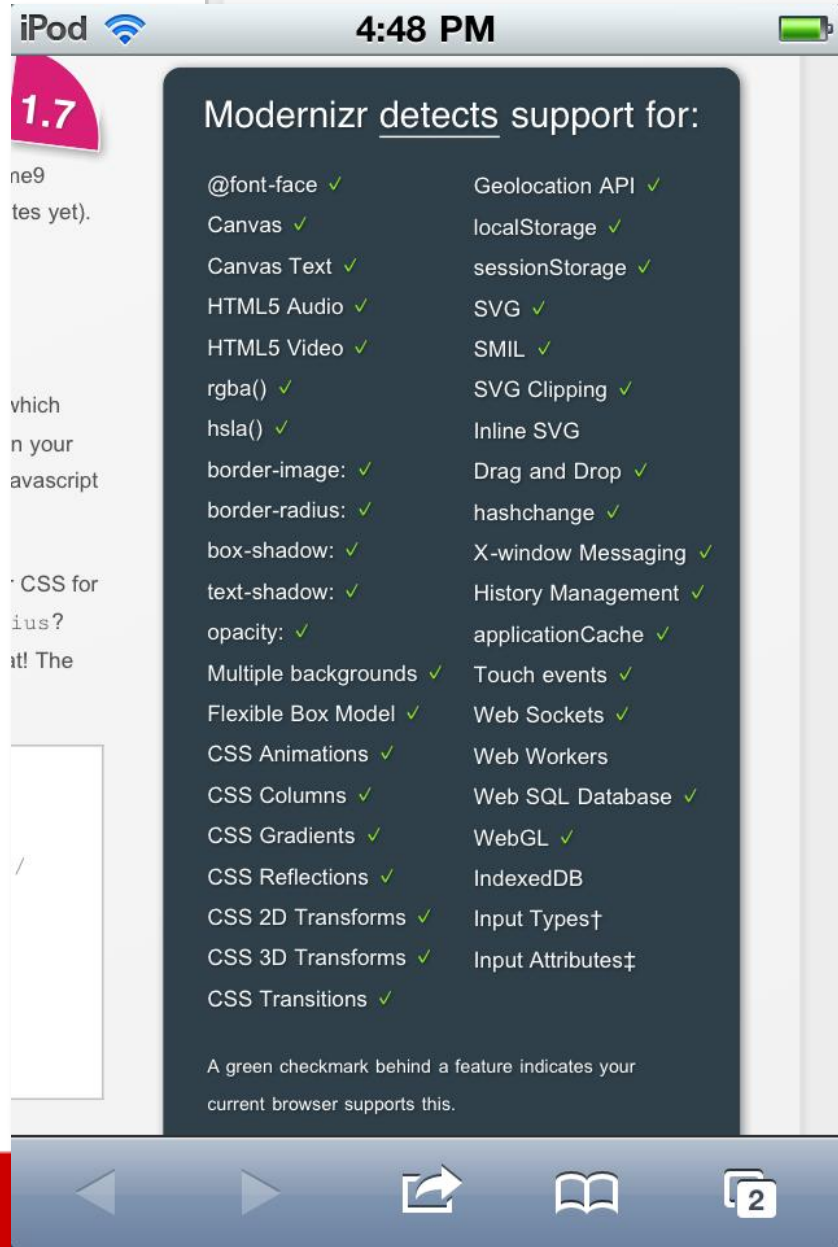
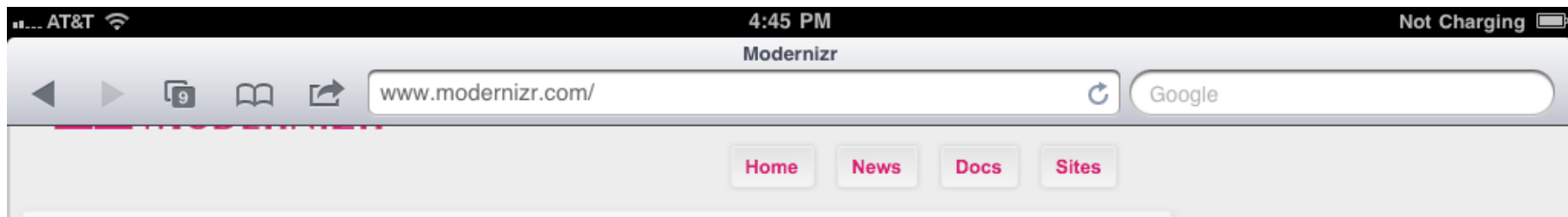
@font-face ✓	Geolocation API ✓
Canvas ✓	localStorage ✓
Canvas Text ✓	sessionStorage ✓
HTML5 Audio ✓	SVG ✓
HTML5 Video ✓	SMIL ✓
rgba() ✓	SVG Clipping ✓
hsla() ✓	Inline SVG ✓
border-image: ✓	Drag and Drop ✓
border-radius: ✓	hashchange ✓
box-shadow: ✓	X-window Messaging ✓
text-shadow: ✓	History Management ✓
opacity: ✓	applicationCache ✓
Multiple backgrounds ✓	Touch events ✓
Flexible Box Model ✓	Web Sockets ✓
CSS Animations ✓	Web Workers ✓
CSS Columns ✓	Web SQL Database ✓
CSS Gradients ✓	WebGL ✓
CSS Reflections ✓	IndexedDB ✓
CSS 2D Transforms ✓	Input Types†
CSS 3D Transforms ✓	Input Attributes‡
CSS Transitions ✓	

HTML 5 Support for Desktop Browsers

**JBoss
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RED HAT





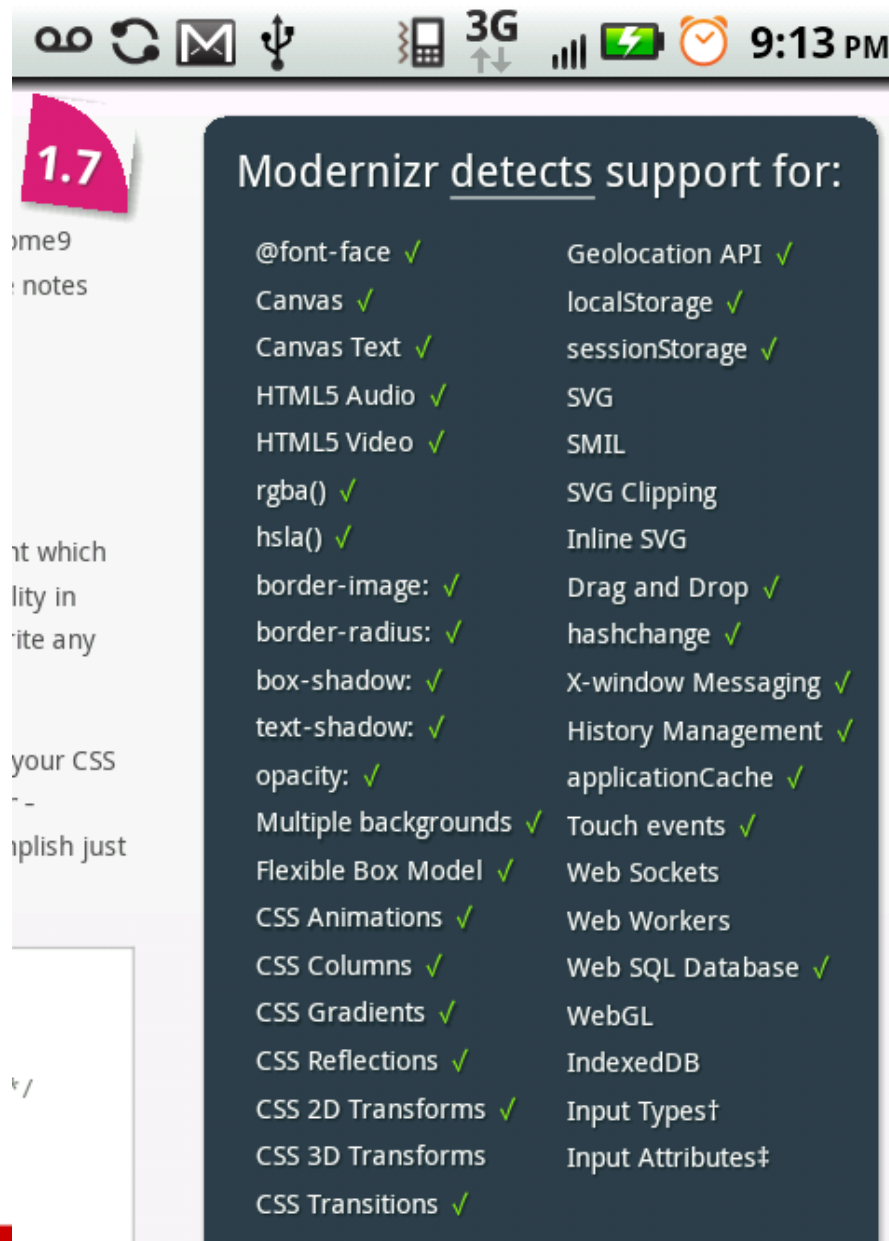
iPod 4

iOS 4.3

iPad 2



Android



1.7

Modernizr detects support for:

@font-face ✓	Geolocation API ✓
Canvas ✓	localStorage ✓
Canvas Text ✓	sessionStorage ✓
HTML5 Audio ✓	SVG
HTML5 Video ✓	SMIL
rgba() ✓	SVG Clipping
hsla() ✓	Inline SVG
border-image: ✓	Drag and Drop ✓
border-radius: ✓	hashchange ✓
box-shadow: ✓	X-window Messaging ✓
text-shadow: ✓	History Management ✓
opacity: ✓	applicationCache ✓
Multiple backgrounds ✓	Touch events ✓
Flexible Box Model ✓	Web Sockets
CSS Animations ✓	Web Workers
CSS Columns ✓	Web SQL Database ✓
CSS Gradients ✓	WebGL
CSS Reflections ✓	IndexedDB
CSS 2D Transforms ✓	Input Types†
CSS 3D Transforms	Input Attributes‡
CSS Transitions ✓	

Android 2.2.1

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1.7

Modernizr detects support for:

@font-face ✓	Geolocation API ✓
Canvas ✓	localStorage ✓
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HTML5 Audio ✓	SVG
HTML5 Video ✓	SMIL
rgba() ✓	SVG Clipping
hsla() ✓	Inline SVG
border-image: ✓	Drag and Drop ✓
border-radius: ✓	hashchange ✓
box-shadow: ✓	X-window Messaging ✓
text-shadow: ✓	History Management ✓
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CSS Gradients ✓	WebGL
CSS Reflections ✓	IndexedDB
CSS 2D Transforms ✓	Input Types†
CSS 3D Transforms	Input Attributes‡
CSS Transitions ✓	

Android 2.3.3



iPod 4 – iOS 4.3

iPod 4:48 PM

1.7

Modernizr detects support for:

@font-face ✓	Geolocation API ✓
Canvas ✓	localStorage ✓
Canvas Text ✓	sessionStorage ✓
HTML5 Audio ✓	SVG ✓
HTML5 Video ✓	SMIL ✓
rgba() ✓	SVG Clipping ✓
hsla() ✓	Inline SVG
border-image: ✓	Drag and Drop ✓
border-radius: ✓	hashchange ✓
box-shadow: ✓	X-window Messaging ✓
text-shadow: ✓	History Management ✓
opacity: ✓	applicationCache ✓
Multiple backgrounds ✓	Touch events ✓
Flexible Box Model ✓	Web Sockets ✓
CSS Animations ✓	Web Workers
CSS Columns ✓	Web SQL Database ✓
CSS Gradients ✓	WebGL ✓
CSS Reflections ✓	IndexedDB
CSS 2D Transforms ✓	Input Types†
CSS 3D Transforms ✓	Input Attributes‡
CSS Transitions ✓	

A green checkmark behind a feature indicates your current browser supports this.

Android 2.2.1

Android 2.2.1 9:13 PM

1.7

Modernizr detects support for:

@font-face ✓	Geolocation API ✓
Canvas ✓	localStorage ✓
Canvas Text ✓	sessionStorage ✓
HTML5 Audio ✓	SVG
HTML5 Video ✓	SMIL
rgba() ✓	SVG Clipping
hsla() ✓	Inline SVG
border-image: ✓	Drag and Drop ✓
border-radius: ✓	hashchange ✓
box-shadow: ✓	X-window Messaging ✓
text-shadow: ✓	History Management ✓
opacity: ✓	applicationCache ✓
Multiple backgrounds ✓	Touch events ✓
Flexible Box Model ✓	Web Sockets
CSS Animations ✓	Web Workers
CSS Columns ✓	Web SQL Database ✓
CSS Gradients ✓	WebGL
CSS Reflections ✓	IndexedDB
CSS 2D Transforms ✓	Input Types†
CSS 3D Transforms	Input Attributes‡
CSS Transitions ✓	



THE HTML5 TEST - HOW WELL DOES YOUR BROWSER SUPPORT HTML5?

your browser other browsers

your browser scores

182

AND NO BONUS POINTS

out of a total of 400 points

Parsing rules 1/11

HTML5test.com PRESENTED BY HAT

THE HTML5 TEST - HOW WELL DOES YOUR BROWSER SUPPORT HTML5?

your browser other browsers

your browser scores

206

AND 7 BONUS POINTS

out of a total of 400 points

ABOUT THE TEST

The HTML5 test score is only an indication of how well your browser supports the upcoming HTML5 standard and related specifications. It does not try to test all of the new features offered by HTML5, nor does it try to test the functionality of each feature it does detect. Despite these shortcomings we hope that by quantifying the level of support users and web developers will get an idea of how hard the browser manufacturers work on improving their browsers and the web as a development platform. Please note that the HTML5 test is not affiliated with the W3C or the HTML5 working group.

The score is calculated by testing for the many new features of HTML5. Each feature is worth one or more points. Apart from the main HTML5 specification and other specifications created the W3C HTML Working Group, this test also awards points for supporting related drafts and specifications. Some of these specifications were initially part of HTML5, but are now further developed by other W3C working groups. WebGL is also part of this test despite not being developed by the W3C, because it extends the HTML5 canvas element with a 3d context.

The test also awards bonus points for supporting audio and video codecs and supporting SVG or MathML embedding in a plain HTML document. These test do not count

Parsing rules 1/11

<!DOCTYPE html> triggers standards mode	Yes ✓
HTML5 tokenizer	No ✗
HTML5 tree building	No ✗
<i>HTML5 defines rules for embedding SVG and MathML inside a regular HTML document. Support for SVG and MathML is not required though, so bonus points are awarded if your browser supports embedding these two technologies.</i>	
SVG in text/html	No ✗
MathML in text/html	No ✗

Canvas 20

canvas element	Yes ✓
2D context	Yes ✓
Text	Yes ✓

Video 4 bonus points 21/31

video element	Yes ✓
---------------	-------

HTML5 Form Fields

html5test.com

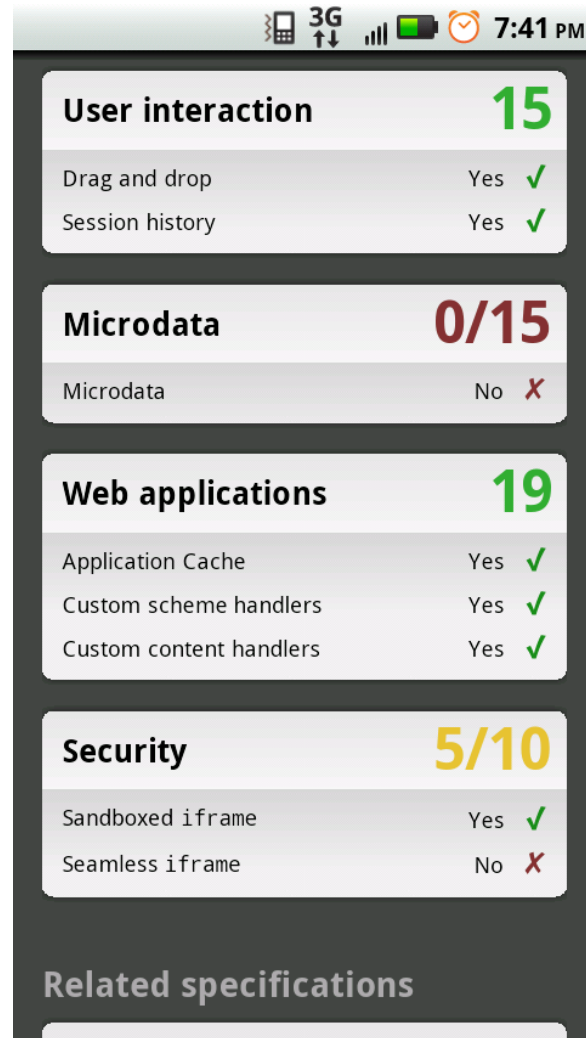
Forms		27/90
Field types		
▶ input type=search	Yes	✓
▶ input type=tel	Yes	✓
▶ input type=url	Yes	✓
▶ input type=email	Yes	✓
▶ input type=datetime	Partial	○
▶ input type=date	Partial	○
▶ input type=month	Partial	○
▶ input type=week	Partial	○
▶ input type=time	Partial	○
▶ input type=datetime-local	Partial	○
▶ input type=number	Partial	○
▶ input type=range	Partial	○
▶ input type=color	Partial	○
▶ input type=checkbox	Yes	✓
▶ select	No	✗
▶ fieldset	No	✗
▶ datalist	No	✗
Fields		
▶ keygen	Partial	○
▶ output	No	✗
▶ progress	No	✗
▶ meter	No	✗
Forms		
▶ Form validation	Yes	✓
▶ Association of controls and forms	Partial	○
▶ Other attributes	Partial	○
▶ CSS selectors	Partial	○
▶ Events	Yes	✓
Forms		
▶ Form validation	Yes	✓
▶ Events	No	✗

Forms		30/90
Field types		
▶ input type=search	Yes	✓
▶ input type=tel	Yes	✓
▶ input type=url	Yes	✓
▶ input type=email	Yes	✓
▶ input type=datetime	Partial	○
▶ input type=date	Partial	○
▶ input type=month	Partial	○
▶ input type=week	Partial	○
▶ input type=time	Partial	○
▶ input type=datetime-local	Partial	○
▶ input type=number	Partial	○
▶ input type=range	Partial	○
▶ input type=color	Partial	○

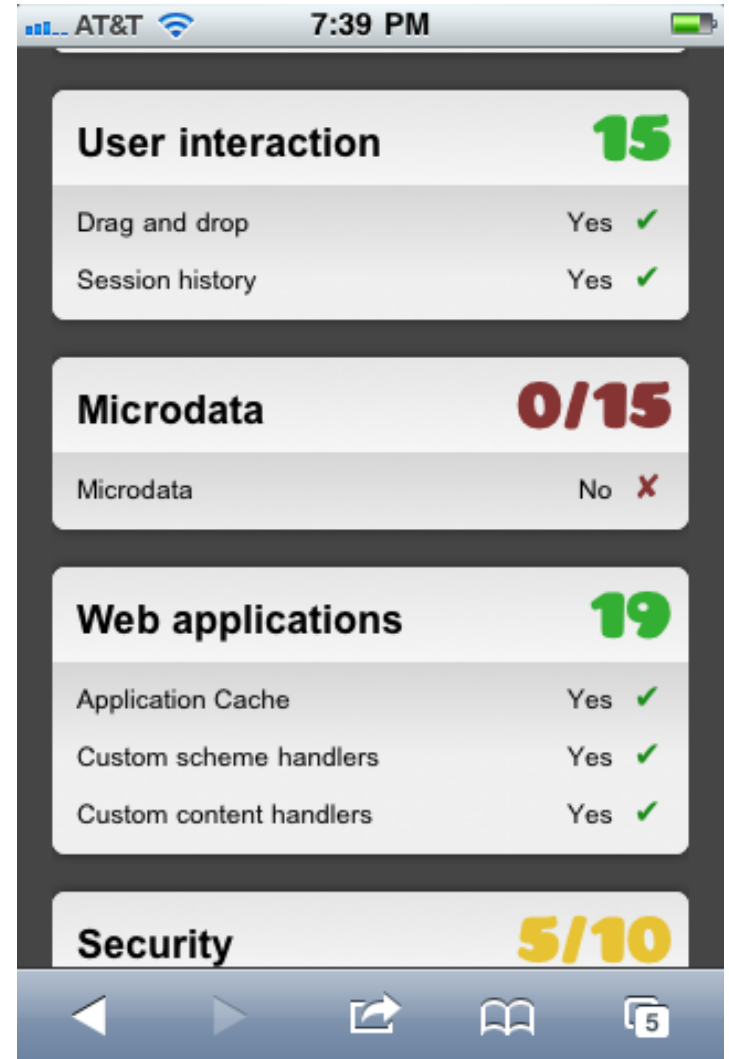
Forms		7:27 PM
Field types		
▶ input type=color	Partial	○
▶ input type=checkbox	Yes	✓
▶ select	No	✗
▶ fieldset	No	✗
▶ datalist	No	✗
▶ keygen	Partial	○
▶ output	No	✗
▶ progress	No	✗
▶ meter	No	✗
Fields		
▶ Field validation	Yes	✓
▶ Association of controls and forms	Partial	○
▶ Other attributes	Partial	○
▶ CSS selectors	Partial	○
▶ Events	Yes	✓
Forms		
▶ Form validation	Yes	✓
▶ Events	No	✗

Application Cache

Android 2.2.1 Droid X



User interaction 15	
Drag and drop	Yes ✓
Session history	Yes ✓
Microdata 0/15	
Microdata	No ✗
Web applications 19	
Application Cache	Yes ✓
Custom scheme handlers	Yes ✓
Custom content handlers	Yes ✓
Security 5/10	
Sandboxed iframe	Yes ✓
Seamless iframe	No ✗
Related specifications	



User interaction 15	
Drag and drop	Yes ✓
Session history	Yes ✓
Microdata 0/15	
Microdata	No ✗
Web applications 19	
Application Cache	Yes ✓
Custom scheme handlers	Yes ✓
Custom content handlers	Yes ✓
Security 5/10	

iOS 4.3 on iPhone 3G

SUMMIT

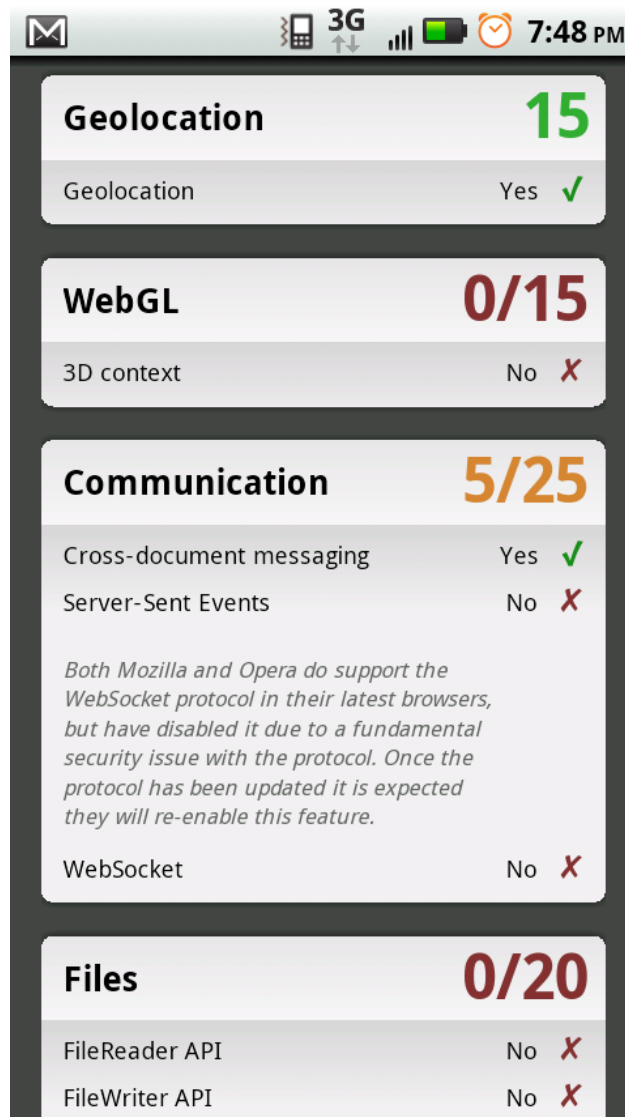
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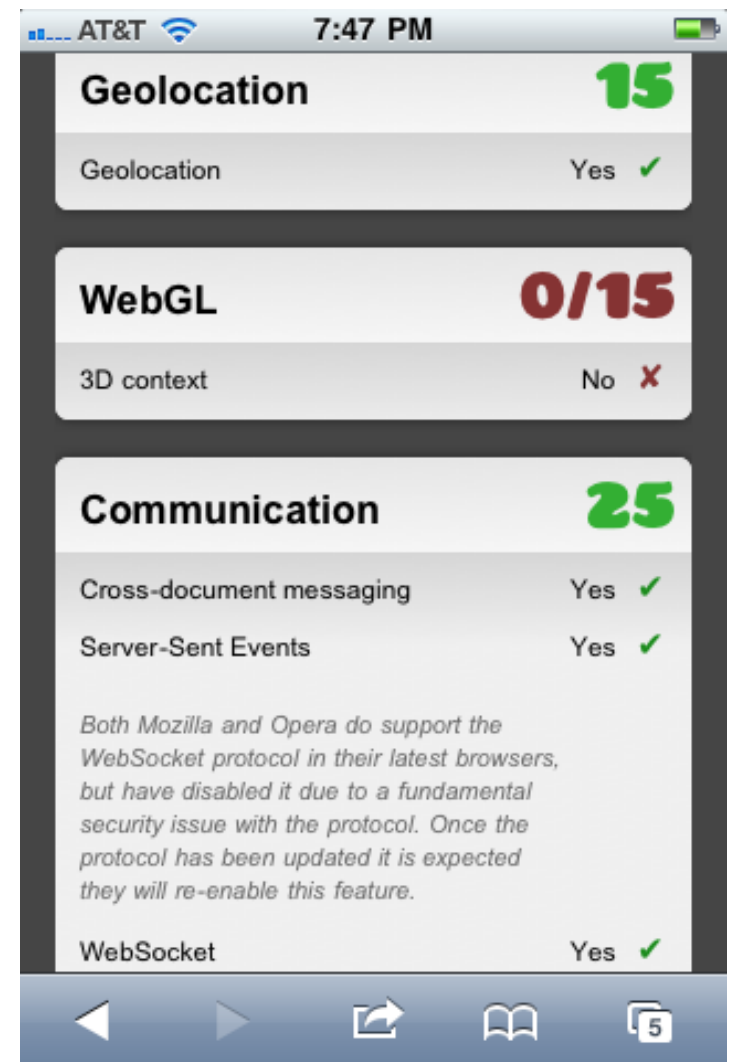
Websockets or SSE

Android 2.2.1 Droid X



The screenshot shows the status bar at the top with icons for mail, 3G, signal strength, battery, and alarm, along with the time 7:48 PM. Below is a table of feature support.

Geolocation	15
Geolocation	Yes ✓
WebGL	0/15
3D context	No ✗
Communication	5/25
Cross-document messaging	Yes ✓
Server-Sent Events	No ✗
<i>Both Mozilla and Opera do support the WebSocket protocol in their latest browsers, but have disabled it due to a fundamental security issue with the protocol. Once the protocol has been updated it is expected they will re-enable this feature.</i>	
WebSocket	No ✗
Files	0/20
FileReader API	No ✗
FileWriter API	No ✗



The screenshot shows the status bar at the top with icons for AT&T, signal strength, battery, and time 7:47 PM. Below is a table of feature support.

Geolocation	15
Geolocation	Yes ✓
WebGL	0/15
3D context	No ✗
Communication	25
Cross-document messaging	Yes ✓
Server-Sent Events	Yes ✓
<i>Both Mozilla and Opera do support the WebSocket protocol in their latest browsers, but have disabled it due to a fundamental security issue with the protocol. Once the protocol has been updated it is expected they will re-enable this feature.</i>	
WebSocket	Yes ✓

iOS 4.3 on iPhone 3G

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WebSocket	No	X
Files	0/20	
FileReader API	No	X
FileWriter API	No	X
Storage	15/20	
Session Storage	Yes	✓
Local Storage	Yes	✓
IndexedDB	No	X
<i>The Web SQL Database specification is no longer being updated and has been replaced by IndexedDB. Because at least 3 vendors have shipped implementations of this specification we still include it in this test.</i>		
Web SQL Database	Yes	✓
Workers	0/10	
Web Workers	No	X

Storage & Workers

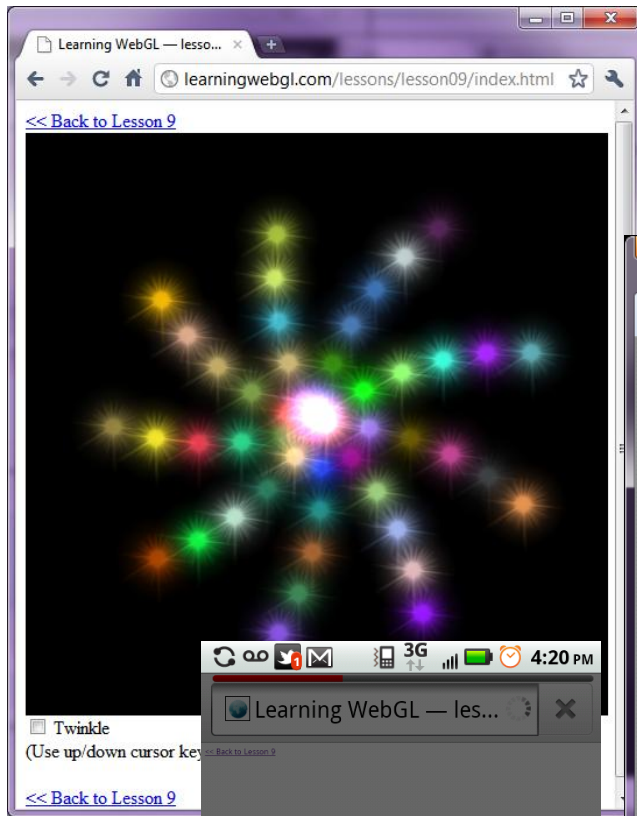
FileReader API	No	X
FileWriter API	No	X
Storage	15/20	
Session Storage	Yes	✓
Local Storage	Yes	✓
IndexedDB	No	X
<i>The Web SQL Database specification is no longer being updated and has been replaced by IndexedDB. Because at least 3 vendors have shipped implementations of this specification we still include it in this test.</i>		
Web SQL Database	Yes	✓
Workers	0/10	
Web Workers	No	X

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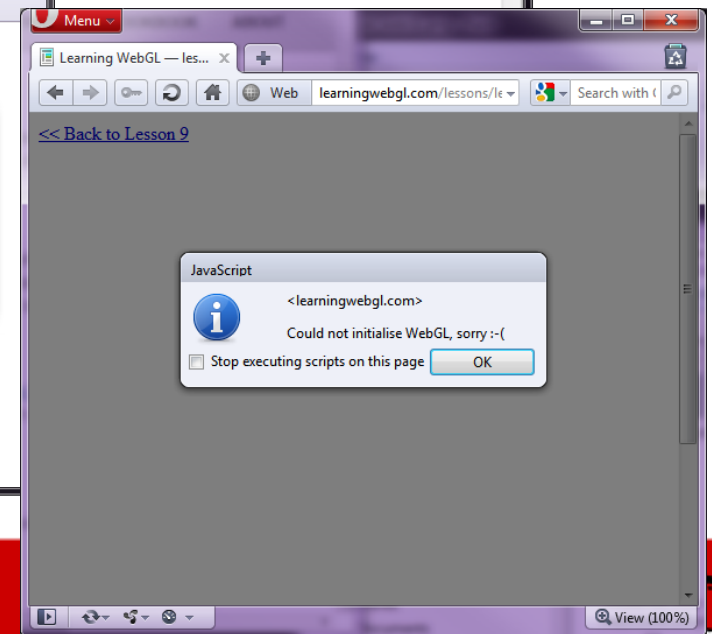
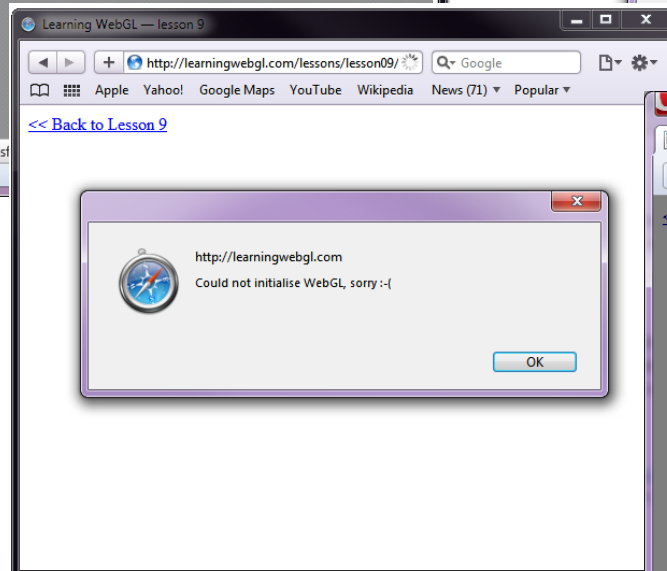
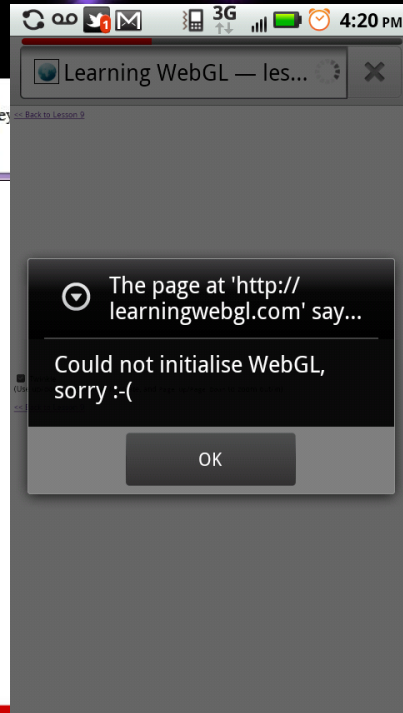
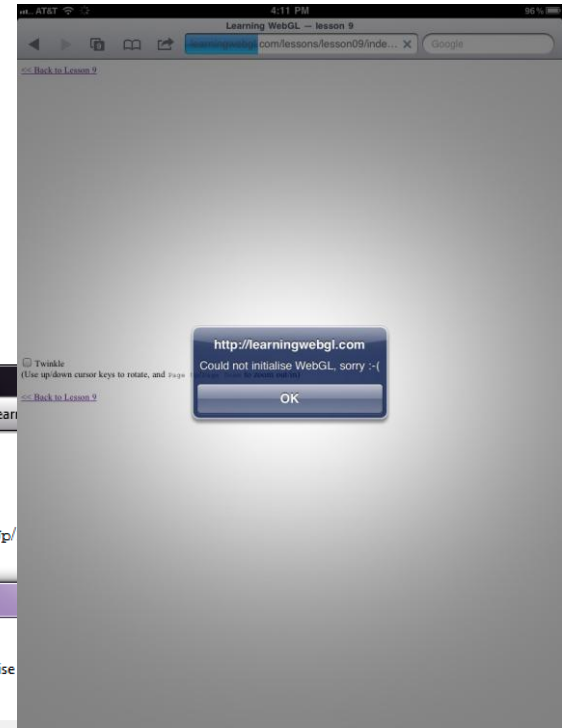
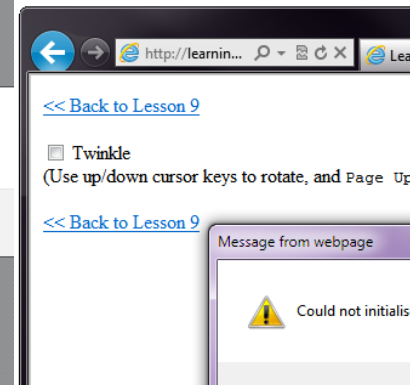
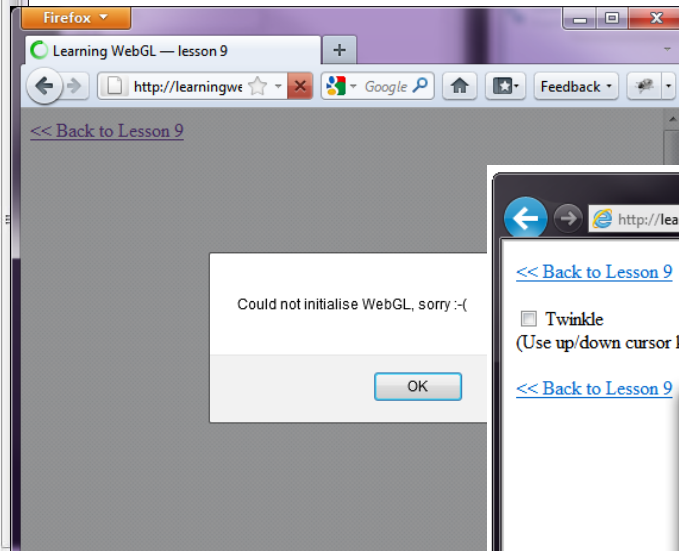
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http://learningwebgl.com/blog/?page_id=1217

<http://learningwebgl.com/lessons/lesson09/index.html>



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Android SDK 3 Emulator

your browser scores
223
AND 3 BONUS
POINTS

Android 2.x

your browser
scores
182

SUMMIT

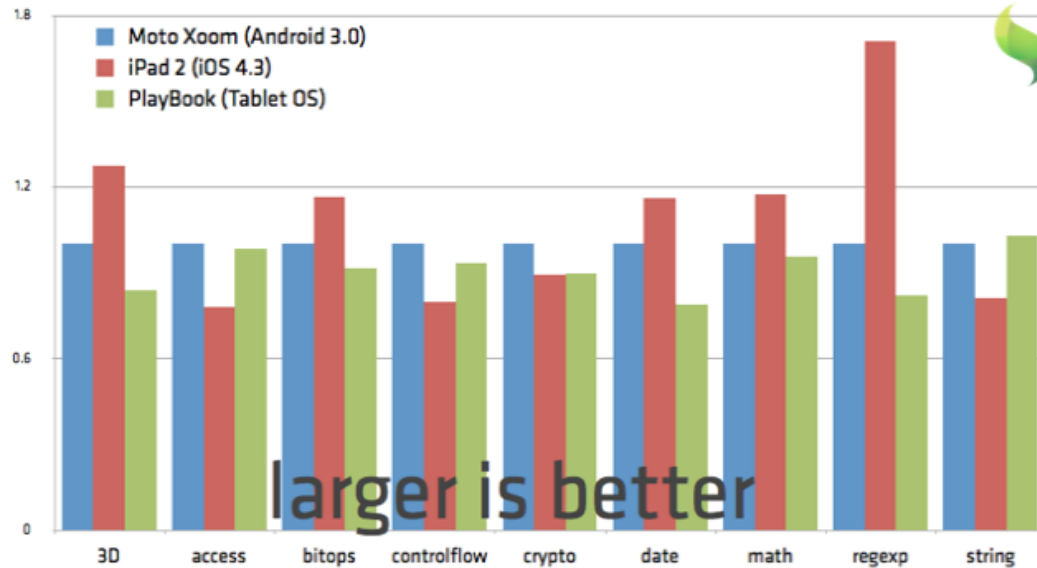
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Modernizr detects support for:

@font-face ✓	Geolocation API ✓
Canvas ✓	localStorage ✓
Canvas Text ✓	sessionStorage ✓
HTML5 Audio ✓	SVG ✓
HTML5 Video ✓	SMIL ✓
rgba() ✓	SVG Clipping ✓
hsla() ✓	Inline SVG ✓
border-image: ✓	Drag and Drop ✓
border-radius: ✓	hashchange ✓
box-shadow: ✓	X-window Messaging ✓
text-shadow: ✓	History Management ✓
opacity: ✓	applicationCache ✓
Multiple backgrounds ✓	Touch events ✓
Flexible Box Model ✓	Web Sockets
CSS Animations ✓	Web Workers
CSS Columns ✓	Web SQL Database ✓
CSS Gradients ✓	WebGL
CSS Reflections ✓	IndexedDB
CSS 2D Transforms ✓	Input Typest
CSS 3D Transforms ✓	Input Attributes†
CSS Transitions ✓	

JavaScript Engine Performance



<http://www.sencha.com/blog/blackberry-playbook-the-html5-developer-scorecard/>

“While one browser may be +5% in one category and -5% in another category, from our testing it’s a wash: all the browsers’ JavaScript engines are now in the same ballpark.”

JavaScript Performance
(Smaller is better)

Browser	Seconds	IE10
Chrome	3.006	4.8
Firefox 4.0.1	1.192	1.9
IE 9.0.8112.16421 64	1.485	2.4
IE 10.0.1000.16394	0.617	1.0
Opera 11.10	1.245	2.0
Safari 5.0.5 (7533.21.10)	1.290	2.0

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<http://crockford.com/javascript/performance.html>



Browser Statistics Month by Month

2011	Internet Explorer	Firefox	Chrome	Safari	Opera
March	25.8 %	42.2%	25.0%	4.0%	2.5%
February	26.5 %	42.4%	24.1%	4.1%	2.5%
January	26.6 %	42.8%	23.8%	4.0%	2.5%
2010	Internet Explorer	Firefox	Chrome	Safari	Opera
December	27.5 %	43.5%	22.4%	3.8%	2.2%
November	28.6 %	44.0%	20.5%	4.0%	2.3%
October	29.7 %	44.1%	19.2%	3.9%	2.2%
September	31.1 %	45.1%	17.3%	3.7%	2.2%
August	30.7 %	45.8%	17.0%	3.5%	2.3%
July	30.4 %	46.4%	16.7%	3.4%	2.3%
June	31.0 %	46.6%	15.9%	3.6%	2.1%
May	32.2 %	46.9%	14.5%	3.5%	2.2%

IE 8.0	30.2
Firefox 3.6	24.06
Chrome 10.0	10.62
IE 7.0	9.78
Chrome 9.0	5.39
IE 6.0	4.37
Safari 5.0	3.82
Other	2.73
Firefox 4.0	2.34
Firefox 3.5	2.27
Opera 11.0	1.54
Firefox 3.0	1.07
Safari 4.0	0.43
Chrome 8.0	0.34
Chrome 6.0	0.2
Firefox 2.0	0.2
Chrome 5.0	0.17
Opera 10.6	0.16
Chrome 7.0	0.14
Chrome 4.0	0.12
Opera 10.5	0.05



Loss
WORLD



w3schools.com



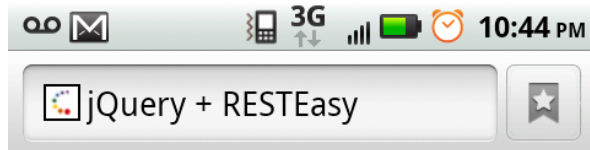
<http://www.w3counter.com/globalstats.php>

Web Browsers

1	Internet Explorer 8	25.96%
2	Firefox 3.6	23.46%
3	Chrome 10	11.28%
4	Internet Explorer 7	9.07%
5	Safari 5	5.15%
6	Firefox 4	3.47%
7	Chrome 9	3.43%
8	Internet Explorer 6	3.23%
9	Firefox 3.5	2.07%
10	Opera 11	1.23%

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Custom CSS



Hello World! Sun Apr 24
22:43:31 EDT 2011

Hello World via JSON+JAX-RS

java.util.List via JSON+JAX-RS

java.util.Set via JSON+JAX-RS

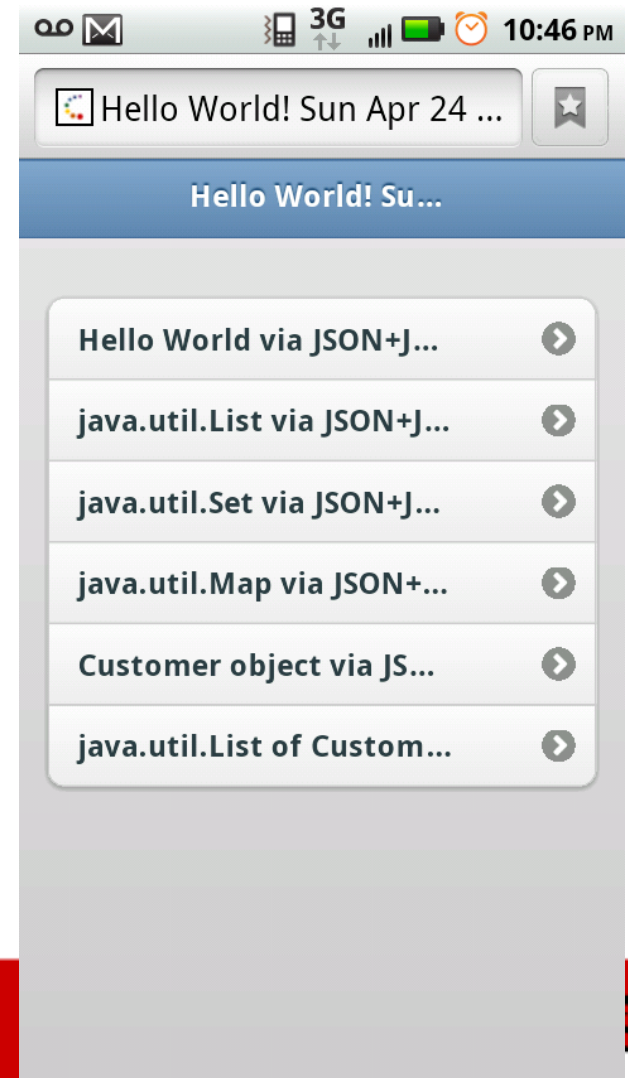
java.util.Map via JSON+JAX-RS

Customer object via JSON+JAX-RS

java.util.List of Customer objects via
JSON+JAX-RS

```
-webkit-border-radius: 10px;  
-khtml-border-radius: 10px;  
-moz-border-radius: 10px;  
border-radius: 10px;  
border: 2px #0687FF;  
box-shadow: inset 0px 0px 50px #777;  
background: #0687FF;  
padding: 5px;  
color: #fff;  
cursor: pointer;
```

jQuery Mobile
(out of the box)



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jQuery Mobile

```
<link rel="stylesheet"
      href="http://code.jquery.com/mobile/1.0a4.1/jquery.mobile-1.0a4.1.min.css" />

<script type="text/javascript"
        src="http://code.jquery.com/mobile/1.0a4.1/jquery.mobile-
        1.0a4.1.min.js"></script>

<script type="text/javascript" src="http://code.jquery.com/jquery-
        1.5.min.js"></script>
```

```
<div data-role="page" data-theme="b">
<div data-role="header" data-theme="b">
  <h2>Hello World! <%=new java.util.Date() %></h2>
</div>
<div data-role="content">
  <ul data-role="listview" data-inset="true" data-theme="c" data-dividertheme="b">
    <li><a href="#" id="helloWorld">Hello World via JSON+JAX-RS</a></li>
  </ul>
</div> <!-- content -->
</div><!-- page -->
```

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Demo: jQuery Mobile

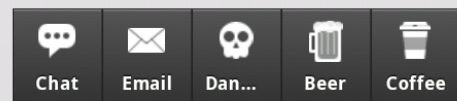
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to the icons and position them in the navbar. Here is an example using Glyphish icons and custom styles (view page source for styles) in our navbar:



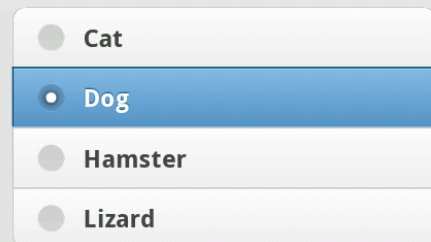
Icons by Joseph Wain / glyphish.com.
Licensed under the [Creative Commons Attribution 3.0 United States License](http://creativecommons.org/licenses/by/3.0/).

Theming navbars

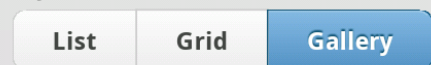
Navbars can be set to any theme color by **data-theme** attribute to the links and specifying any theme swatch.



Switch theme



Layout view:



Choose shipping method:



Collapsible sets

By giving a parent element a data-role of collapsible-set, you can cause other collapsibles within that parent to close whenever a new one is opened, acting like an accordion widget:

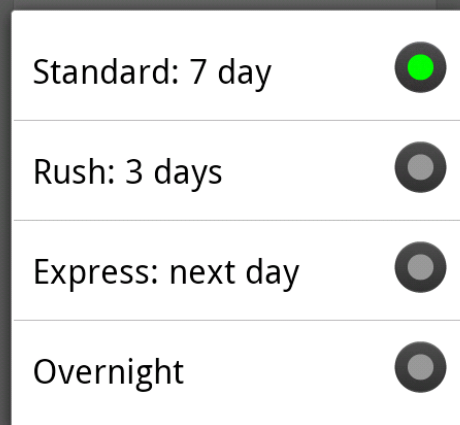
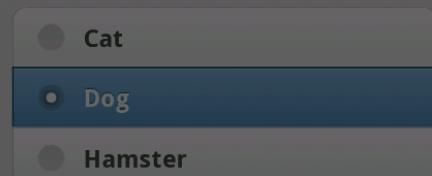
+ I'm a header in a set of colla...

- I'm a header in a set of colla...

I'm the collapsible content. I'm hidden by default because I have the "collapsed" state; you need to expand the header to see me.

+ I'm a header in a set of colla...

Choose a pet:



Standard: 7 day

jQuery Mobile Docs - For...

Back

Form elements

All form elements begin with standard html controls that are enhanced to make them more attractive and easy-to-use. In browsers that don't support the custom controls, they will still have a usable experience because these are all based on native form elements.

Form basics

Form element gallery

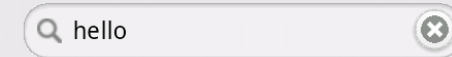
Text inputs

Search inputs

Slider

Flip toggle switch

Search Input:



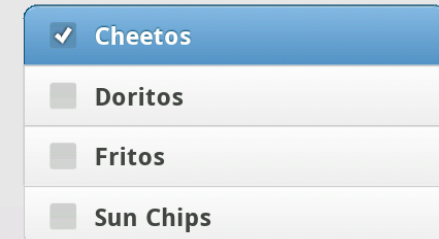
Flip switch:



Slider:



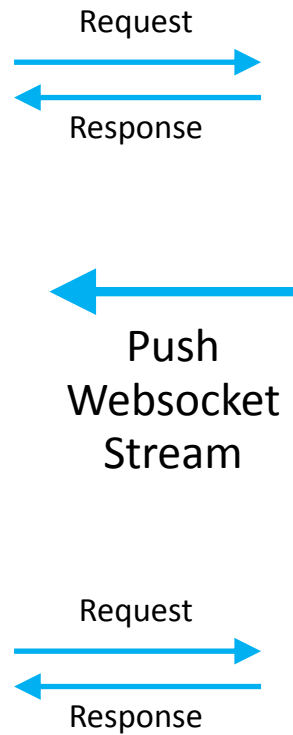
Choose as many snacks as you'd like:



Websocket + JBoss



HTML5+CSS3+jQuery
Mobile Dashboard



JBoss EAP

Cache Update
Broadcast to
JS

Message
Queues
Consumable
In JS

JSON Marshaller
Annotation
Driven

Push Component

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Alternatives Websockets

- Meta-data Refresh
- AJAX Polling – Javascript in the browser, polling a particular URL for updates every N seconds
- Long Polling (Comet) – two connections
- GWT has something “built-in”
- RichFaces 4 has a push component
- Errai for extending CDI to GWT-based clients
- Atmosphere



Demo: Websockets, Errai, HornetQ, TagCanvas

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Resources

- Html5rocks.com
- Modernizr.com
- Diveintohtml5.org
- www.hongkiat.com/blog/48-excellent-html5-demos/
- www.chromeexperiments.com
- Html5demos.com

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GIVE US FEEDBACK

www.redhat.com/summit/survey

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