Mobile HTML5 Applications

In Hours, Not Days.

Build Amazing Apps with Web Standards
QCon SF
@adityabansod

Aditya Bansod

VP, Product Marketing

@adityabansod

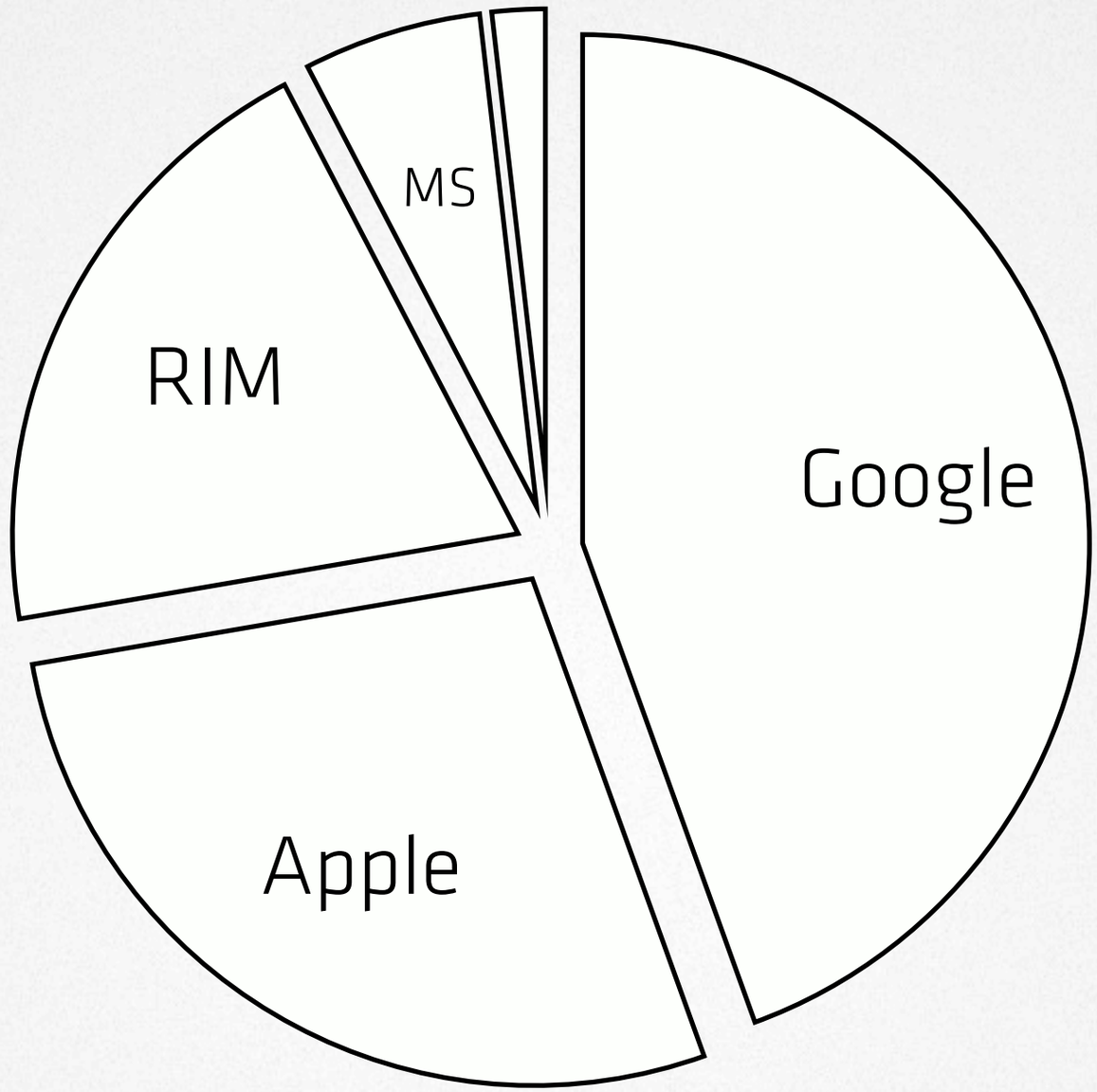
aditya@sencha.com

Mobile app development is hard

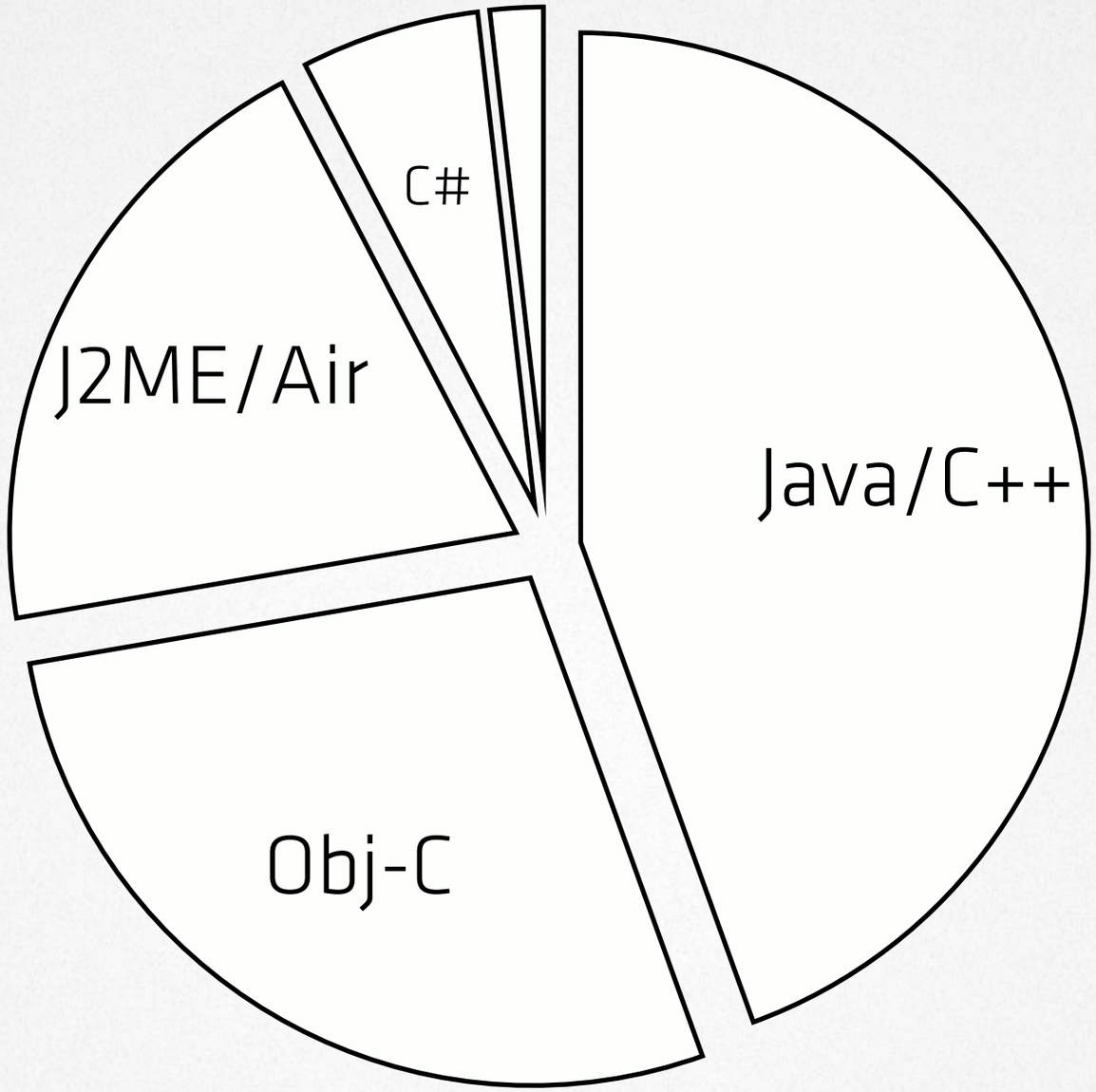
The Native Route

HTML

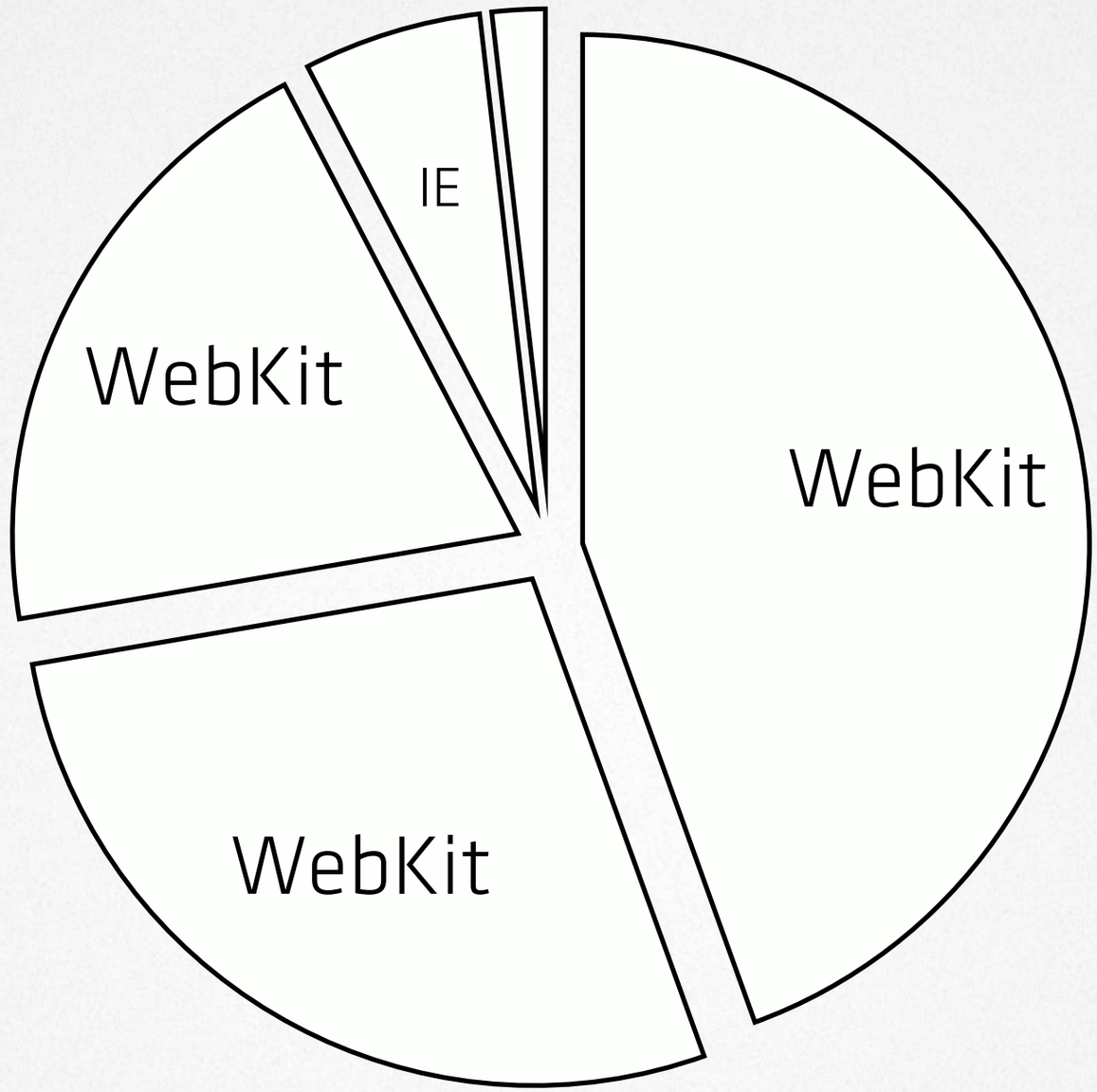
A badge for all these ways
the web is changing



Top US Smartphone Platforms
August 2011, **comScore** MobiLens



Native **programming languages** you'll need
US Smartphones, August 2011



Browser platforms to target
US Smartphones, August 2011

But at least we are using
one language,
one markup,
one style system

One Stack

HTML

Camera

Location

Contacts

SMS

Orientation

Gyro

WebFont | Video | Audio | Graphics

CSS Styling & Layout

JavaScript

Semantic HTML

HTTP

AJAX

Events

Sockets

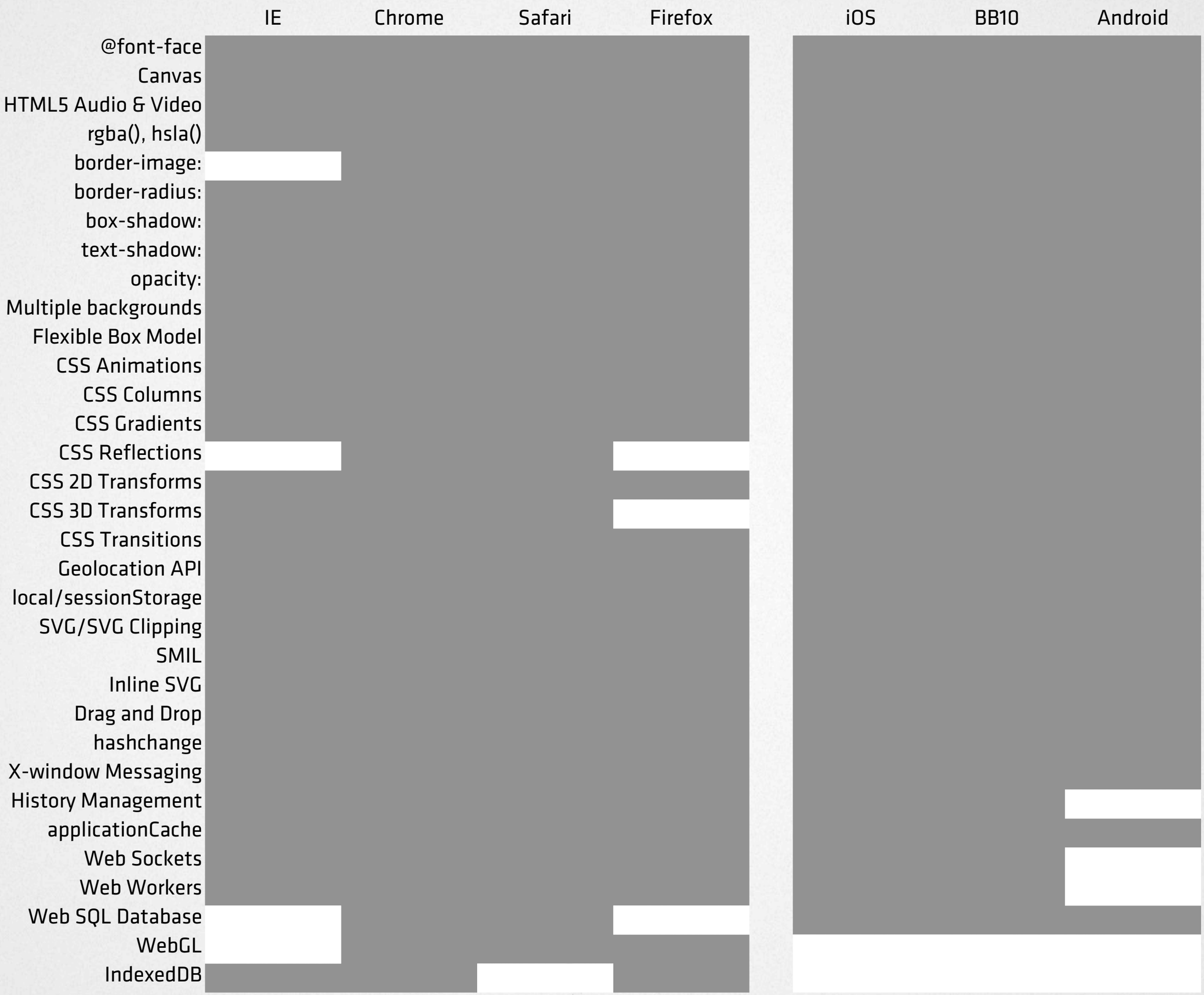
SSL

File Systems
Databases
App Caches

Workers &
Parallel
Processing

Cross-App
Messaging

(all the elements of a modern application platform)

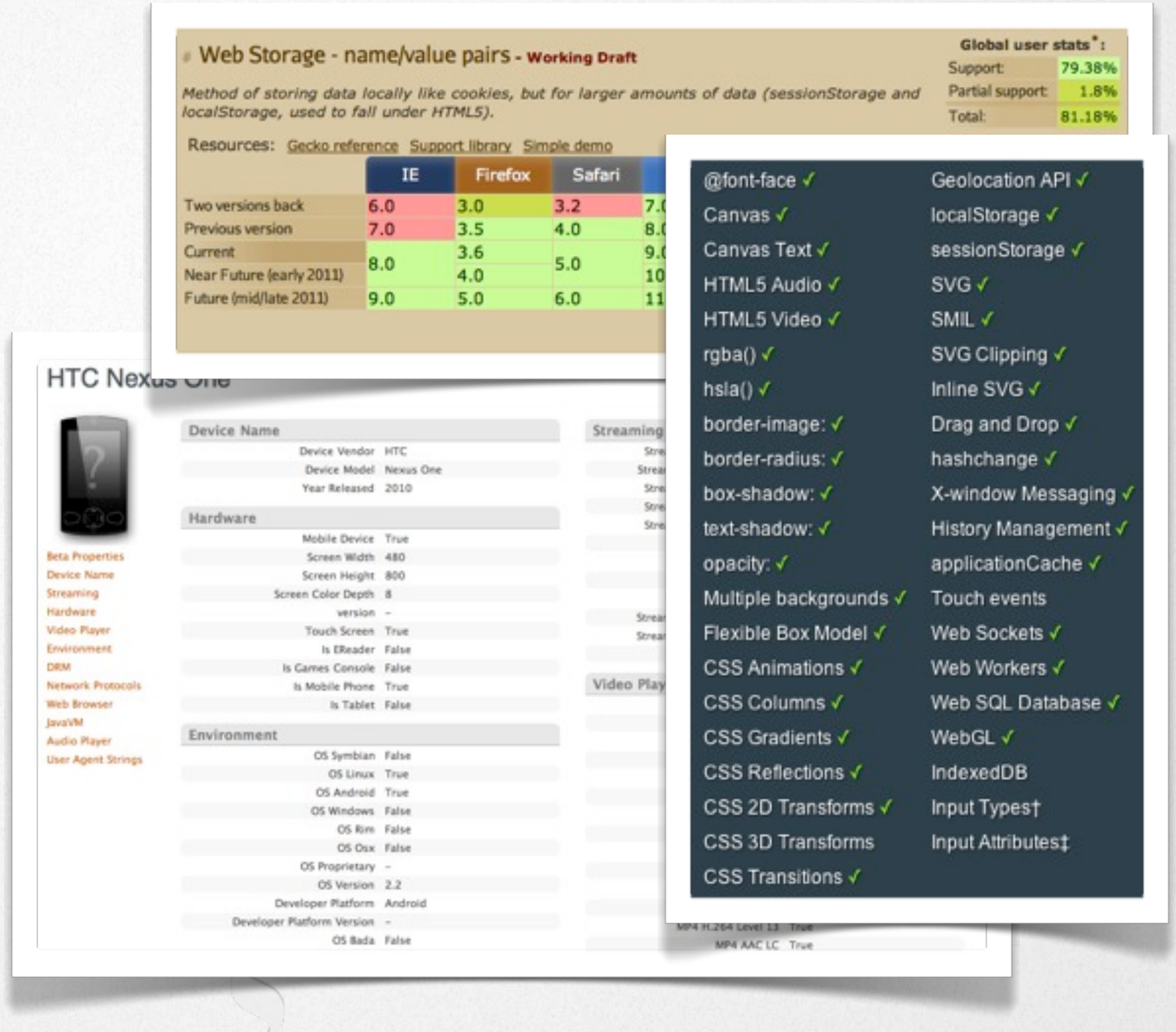

IE
Chrome
Safari
Firefox
iOS
BB10
Android
@font-face
Canvas
HTML5 Audio & Video
rgba(), hsla()
border-image:
border-radius:
box-shadow:
text-shadow:
opacity:
Multiple backgrounds
Flexible Box Model
CSS Animations
CSS Columns
CSS Gradients
CSS Reflections
CSS 2D Transforms
CSS 3D Transforms
CSS Transitions
Geolocation API
local/sessionStorage
SVG/SVG Clipping
SMIL
Inline SVG
Drag and Drop
hashchange
X-window Messaging
History Management
applicationCache
Web Sockets
Web Workers
Web SQL Database
WebGL
IndexedDB

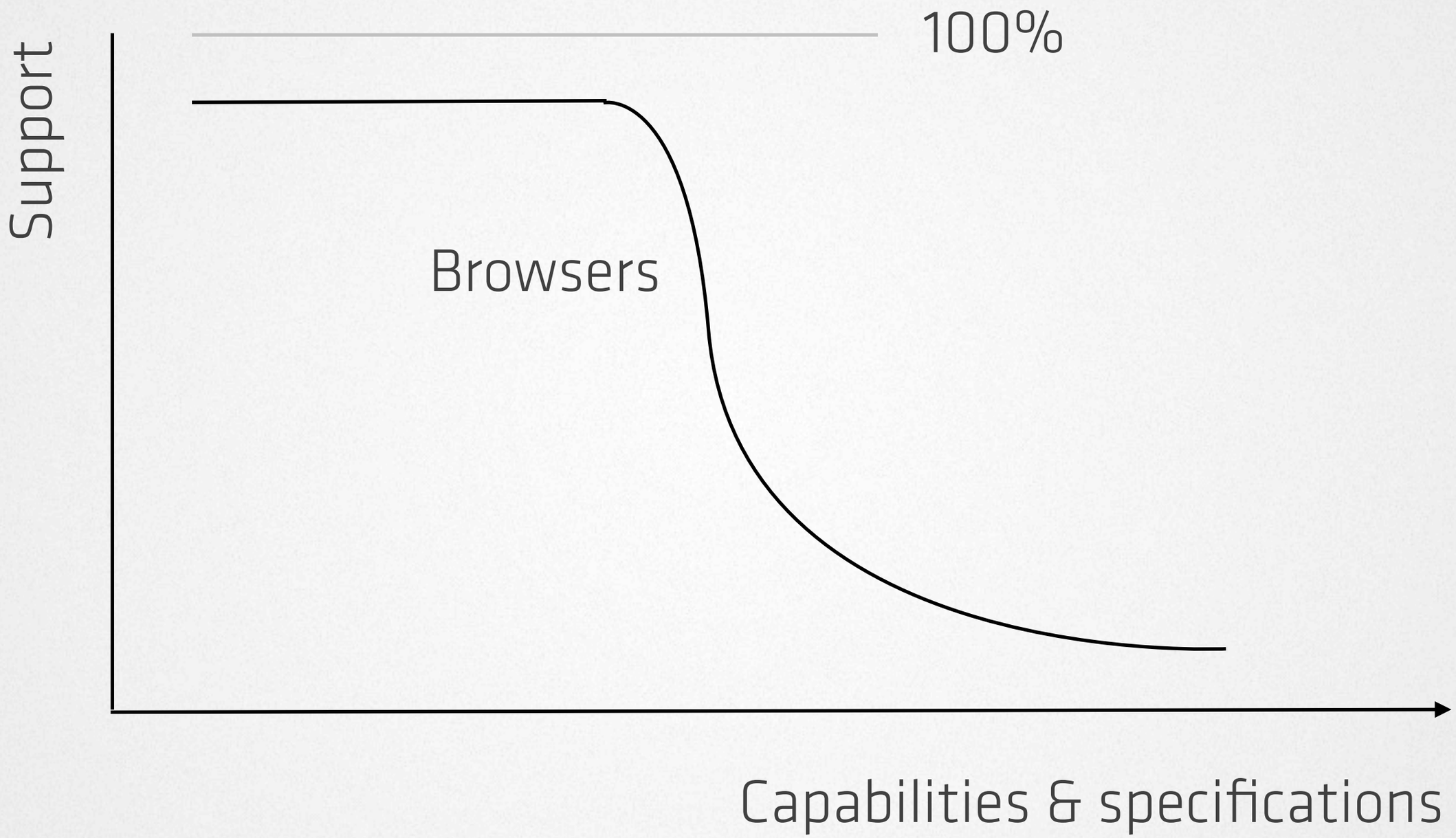
Stay on top of diversity

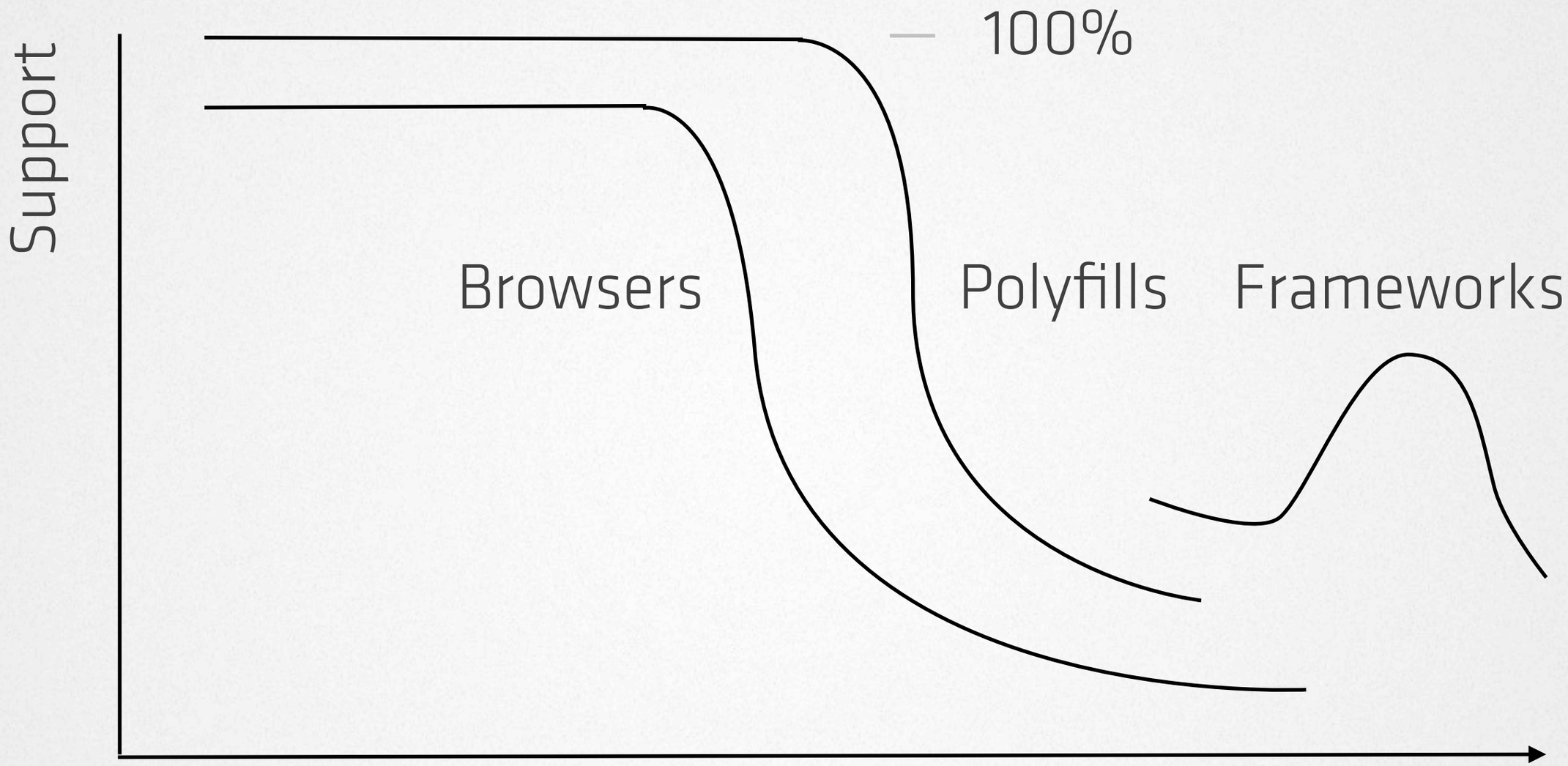
Can I Use?
http://caniuse.com

Modernizr
http://modernizr.com

DeviceAtlas
http://deviceatlas.com




Support
100%
Browsers
Capabilities & specifications


Support
100%
Browsers
Polyfills
Frameworks
Capabilities & specifications

pages interactive apps

Build Amazing Apps with Web Standards

pages interactive apps

MY APPLICATION

Sencha Touch
Mobile

Ext JS
Desktop

BROWSER ENGINES

`HTML` `JavaScript` `CSS`

SERVERS & SERVICES

`HTTP/HTTPS` `Sencha.io` `WebSocket`

MY APPLICATION

- Mobile framework
- Native packaging
- Modern mobile UI

- Desktop framework
- Cross-Browser
- Modern desktop UI

Sencha Touch
Mobile

Ext JS
Desktop

BROWSER ENGINES

`HTML` `JavaScript` `CSS`

SERVERS & SERVICES

`HTTP/HTTPS` `Sencha.io` `WebSocket`

MY APPLICATION

UI: Controls + Containers

Data: Models + Stores + Connectors

Foundation: OOP + MVC + Library

Sencha Touch
Mobile

Ext JS
Desktop

BROWSER ENGINES

HTML JavaScript CSS

SERVERS & SERVICES

HTTP/HTTPS Sencha.io WebSocket

Sencha Touch 2

A JavaScript framework for building
rich mobile apps with **web standards**

www.sencha.com/apps

Carrier
3:10 PM
e-resistible
Quality Online Takeaways
Enter your postcode or town:
eg CV32 5QZ
Go!
or hit 'Go' for a demo
HTML
5

Sencha Basics

Class System

Packages
Inheritance
Scope Management
Class Loading
Mix-ins

Class System

```
Ext.define( 'class_name', { } );
```

```
Ext.create( 'class_name', { } );
```

Classes

```
Ext.define( 'Animal', {
    config: {
        name: null
    },
    constructor: function( config ) {
        this.initConfig( config );
    }
});
```

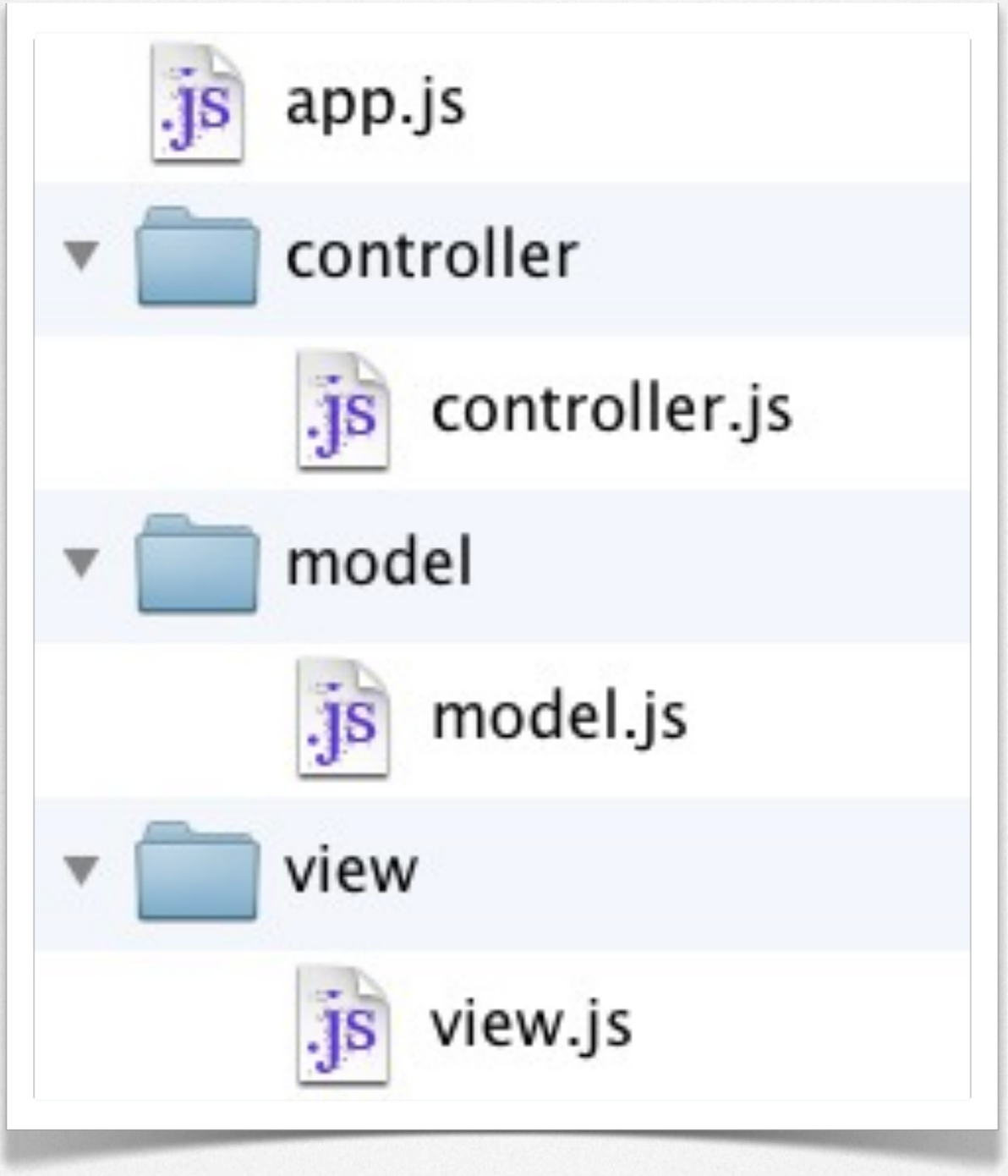
Classes

```
Ext.define( 'Animal', {
    config: {
        name: null
    },
    constructor: function( config ) {
        this.initConfig( config );
    }
});

Ext.define( 'Human', {
    extend: 'Animal',
    speak: function() {
        console.log( this.getName() );
    }
});
```

Classes

```
Ext.define( 'Animal', {
    config: {
        name: null
    },
    constructor: function( config ) {
        this.initConfig( config );
    }
});

Ext.define( 'Human', {
    extend: 'Animal',
    speak: function() {
        console.log( this.getName() );
    }
});

var bob = Ext.create('Human', { name: 'Bob' });
bob.speak(); //console: 'Bob'
```

MVC



xtype

```
{
    title: 'Basic',
    xtype: 'form',
    id: 'basicform',
    scroll: 'vertical',
    items: [{
        xtype: 'fieldset',
        title: 'Personal Info',
        defaults: {
            labelWidth: '35%'
        },
        items: [{
            xtype: 'textfield',
            name: 'name',
            label: 'Name',
            placeHolder: 'Enter Name'
        }, {
            xtype: 'passwordfield',
            name: 'password',
            label: 'Password',
            placeHolder: 'Enter Password'
        }]
    }]
}
```

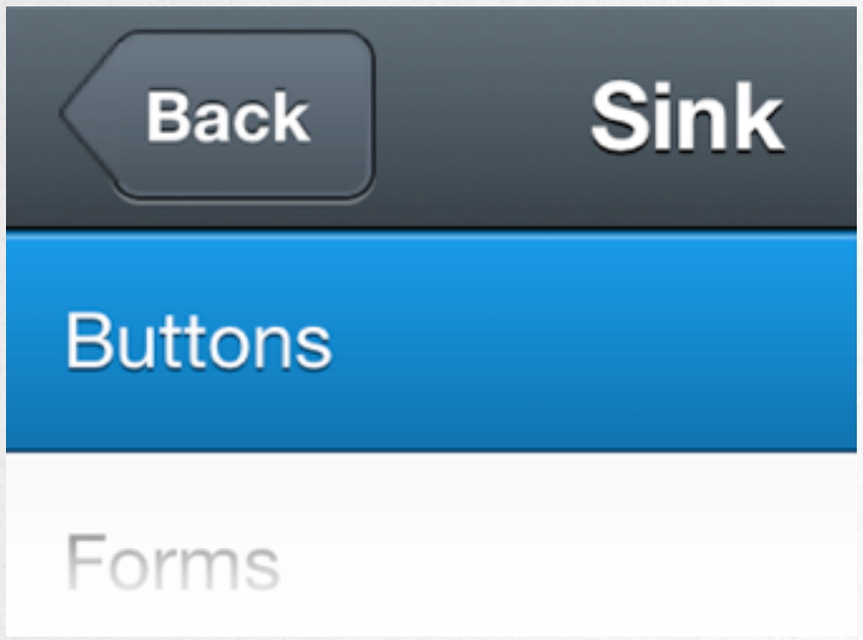
xtemplate

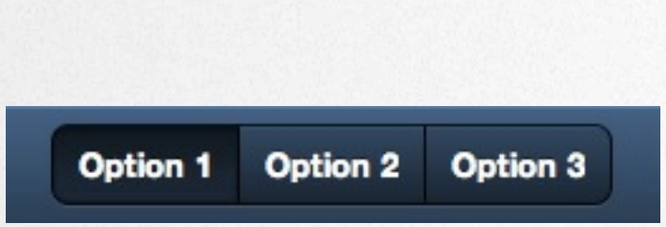
```
var template = new Ext.XTemplate(
    '<p>Name: {name}</p>',
    '<p>Kids: ',
    '<tpl for="kids">',
        '<tpl if="age &gt; 1">',
            '<p>{name}</p>',
            '<p>Dad: {parent.name}</p>',
        '</tpl>',
    '</tpl></p>'
);

template.overwrite( panel.body , data );
```

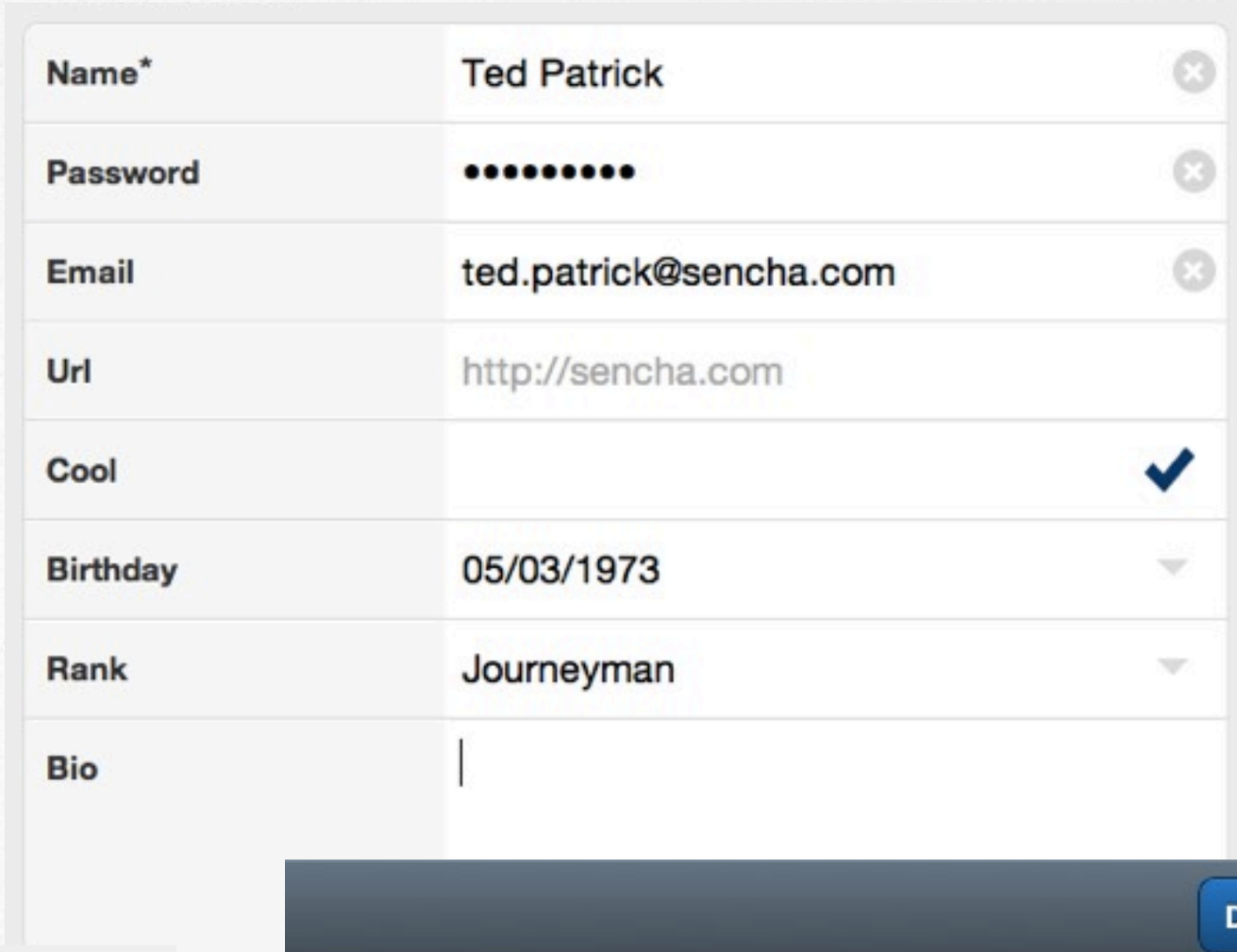
```
var list = Ext.create( 'list', {
    store: store,
    itemTpl: '{firstName} {lastName}',
    grouped: true,
    indexBar: true
});
```

UI

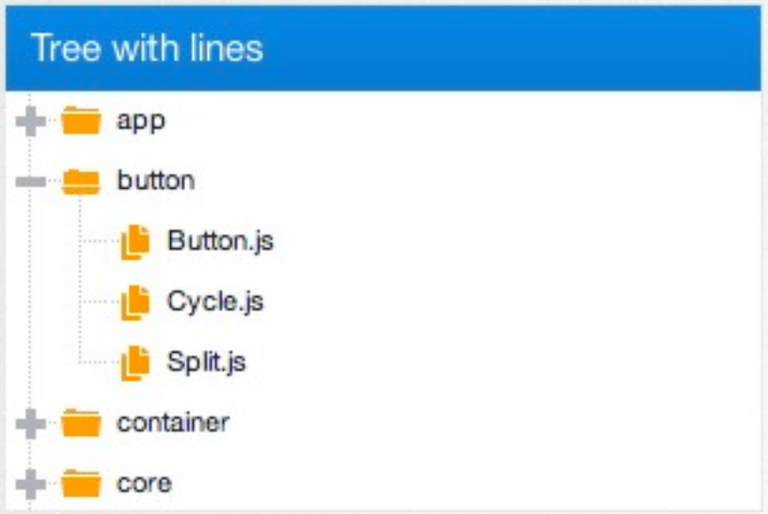
Touch Components

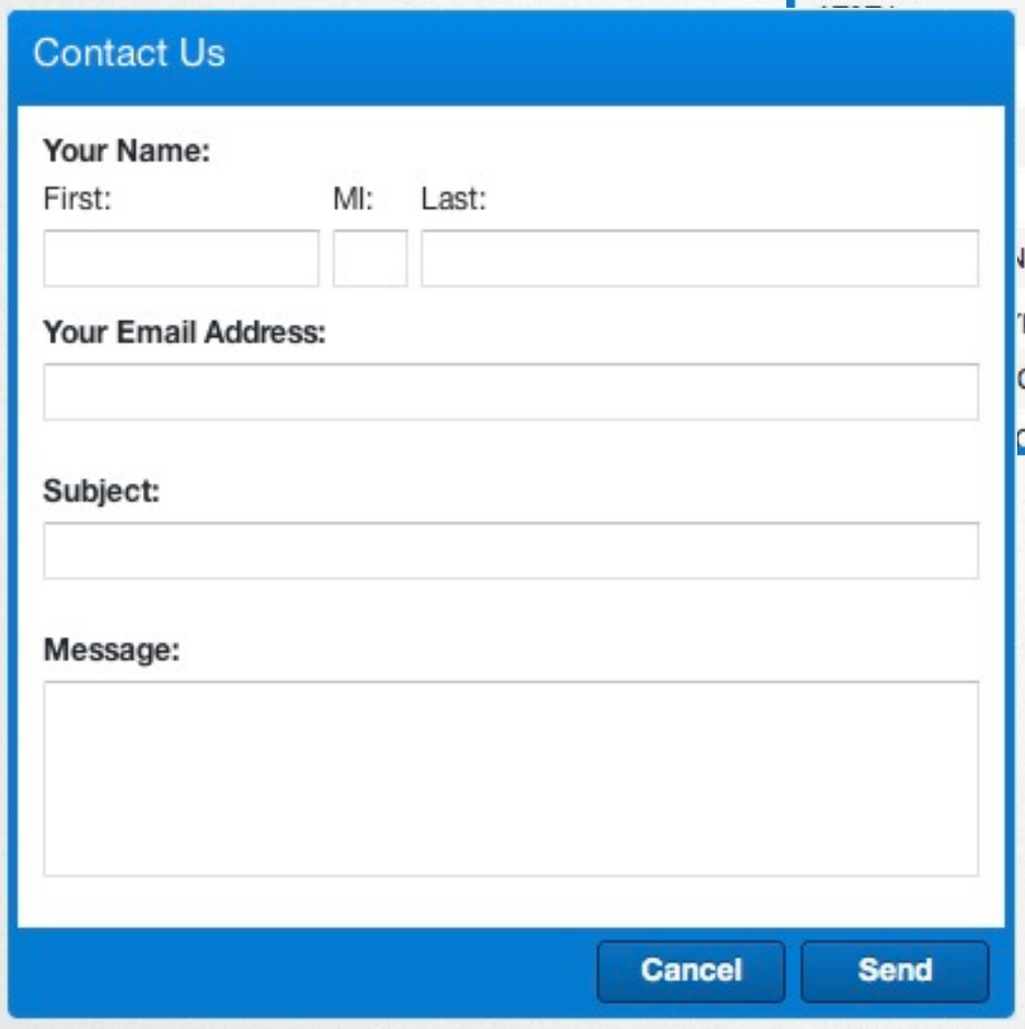


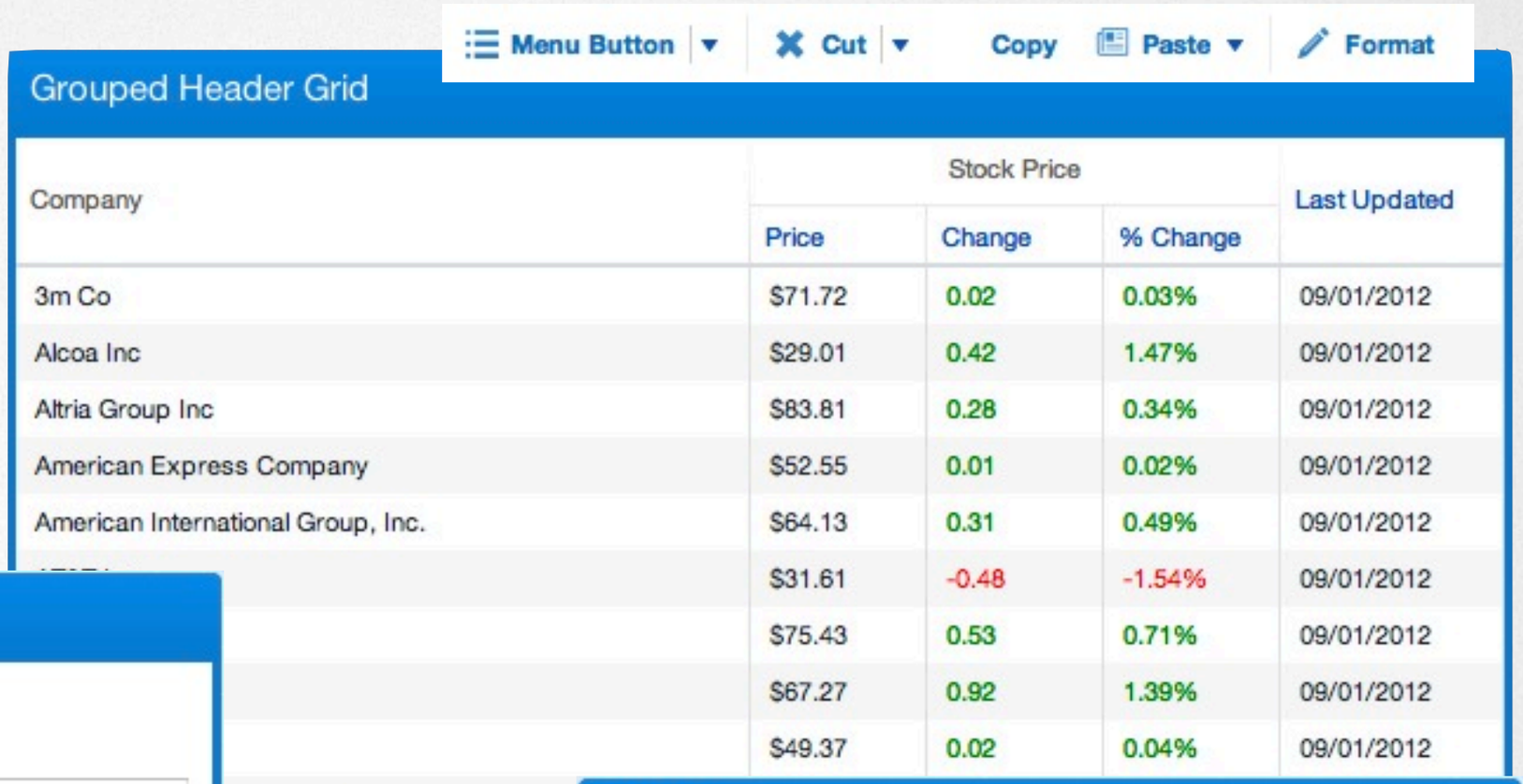


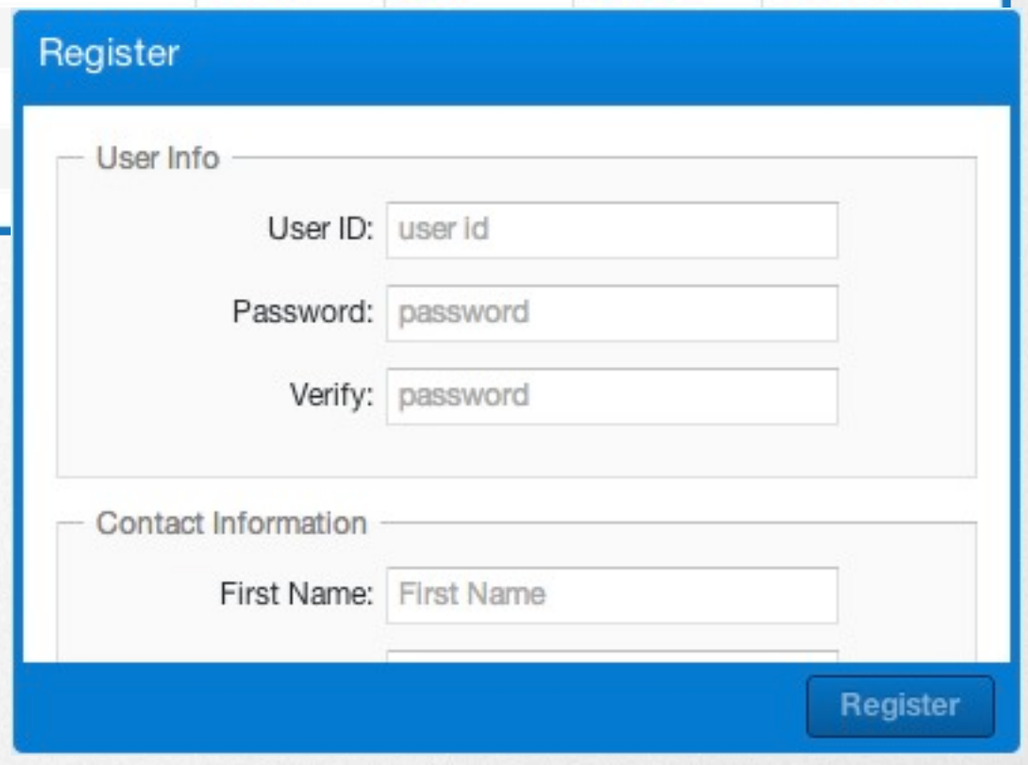


Ext JS Components









“I want to go fast...”

Ext Designer 1.2

Design

Develop

Deploy

DEVELOPMENT WORKFLOW

- Ext JS interface builder
- Support for Ext JS Charts
- Code generation for complex UI layouts
- JSON/XML data connectivity
- Export projects and code

Ext Designer

Sencha Architect 2

Design

Develop

Deploy

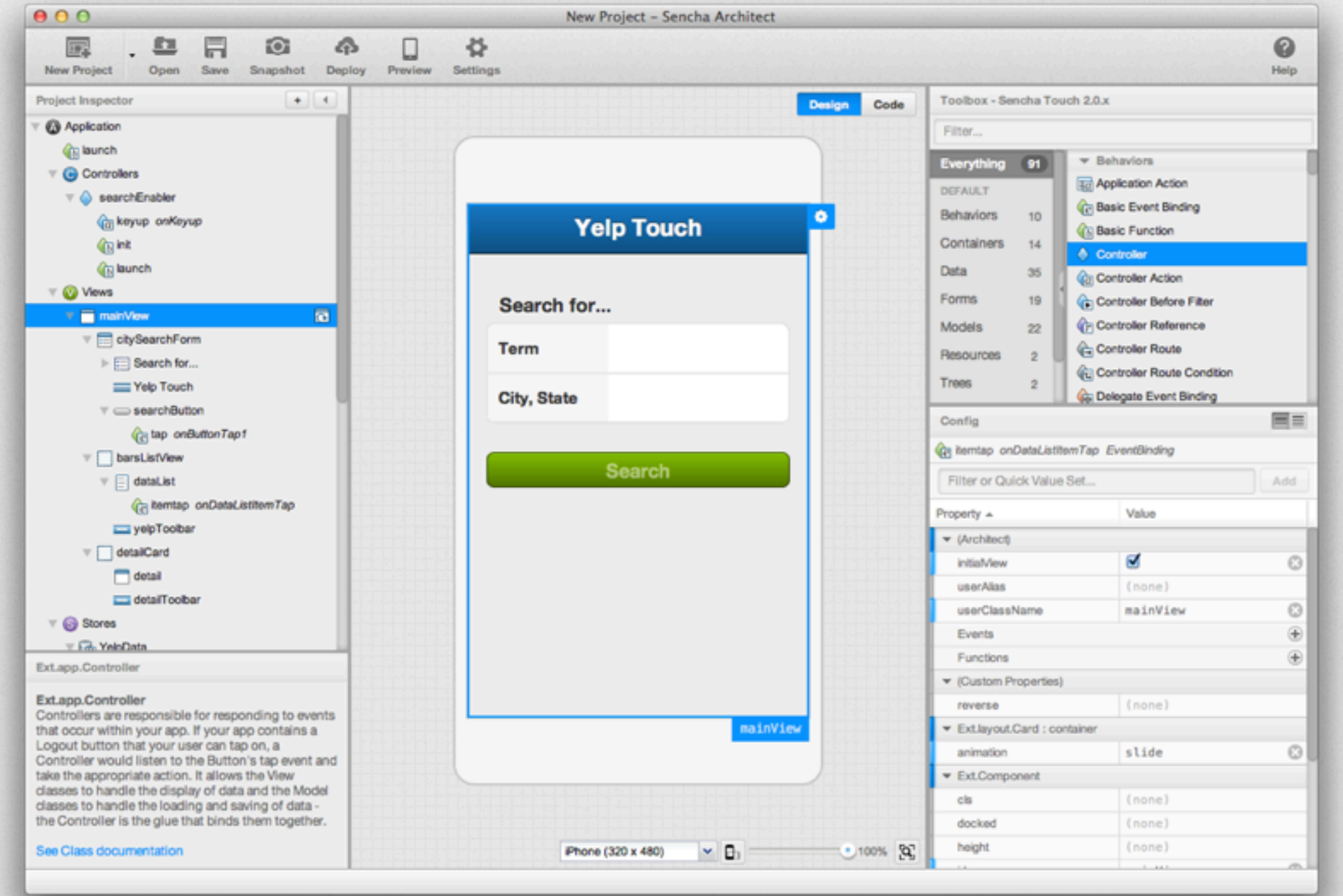
- Everything from Ext Designer 1.2

+

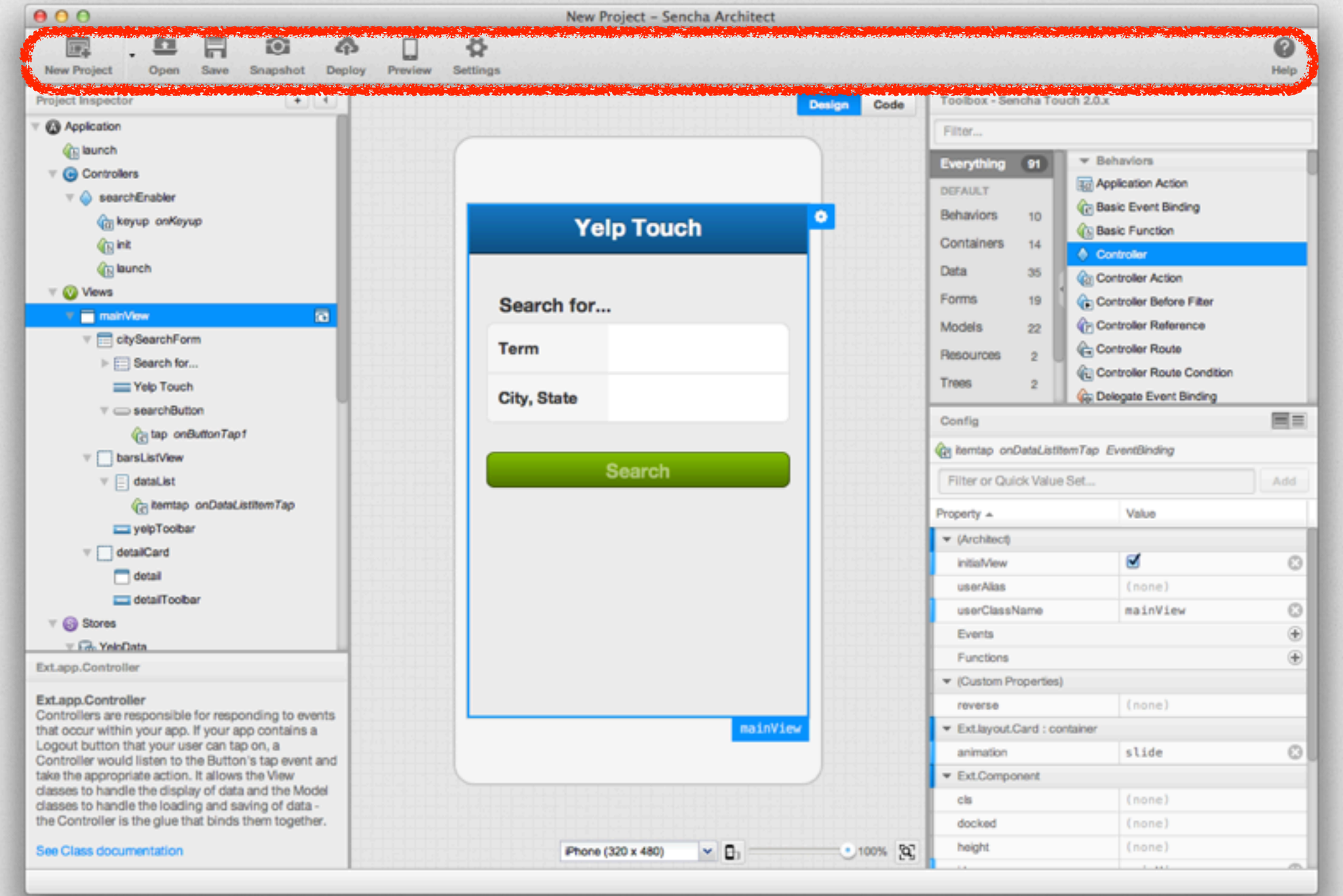
- Sencha Touch 2
- Code Editing
- MVC
- Native Deployment

Sencha Architect 2

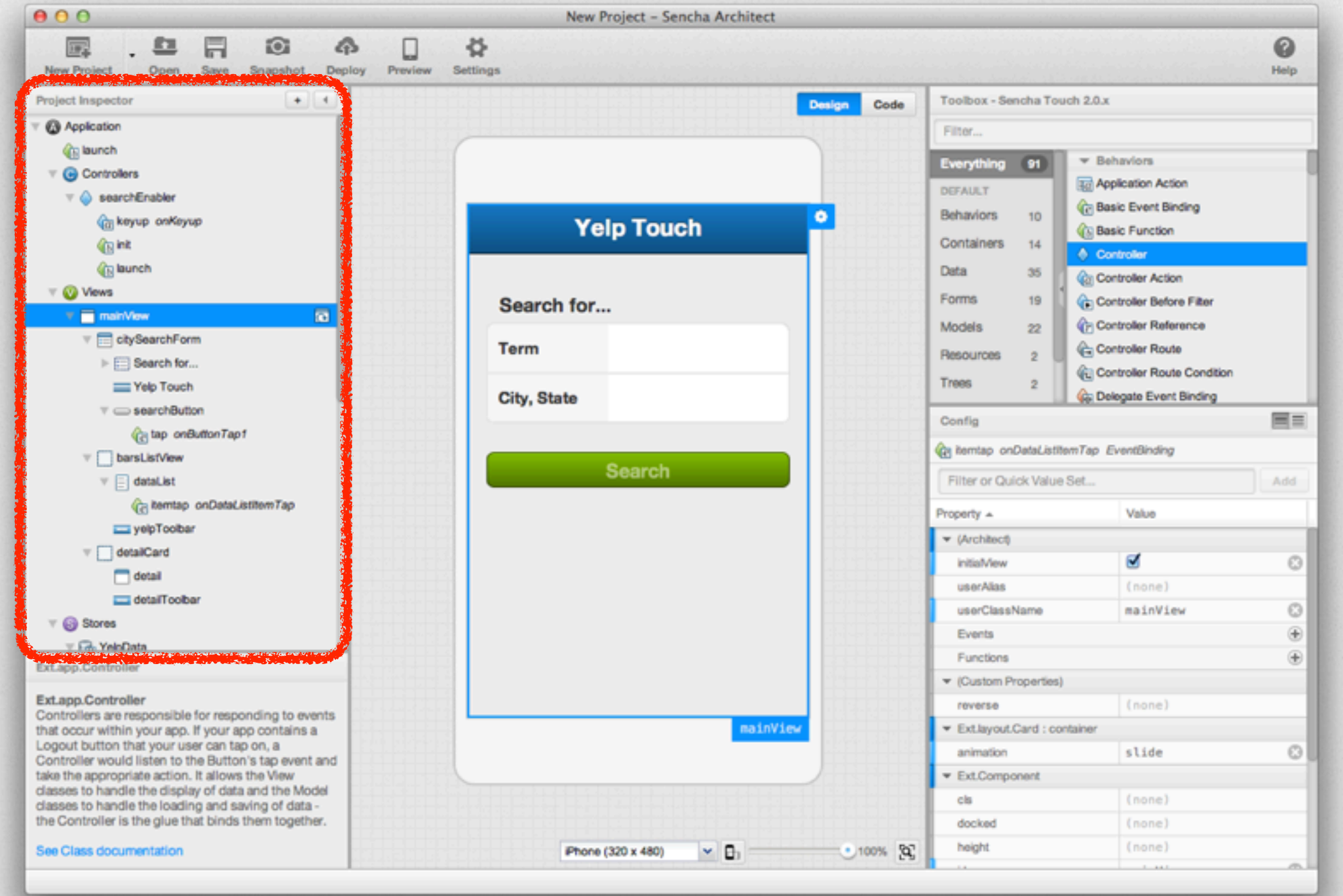
Let’s take a closer look



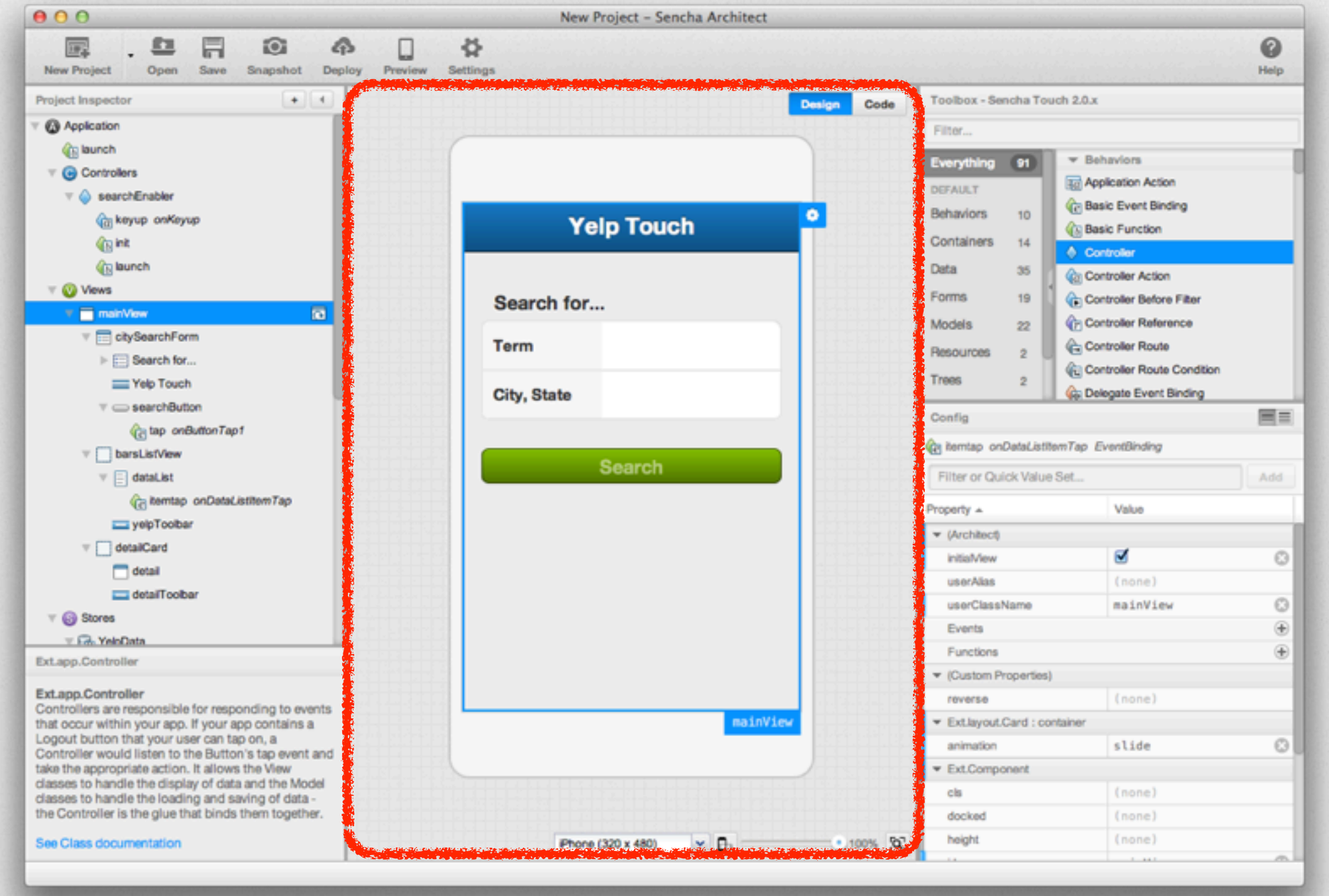
Architect's workspace



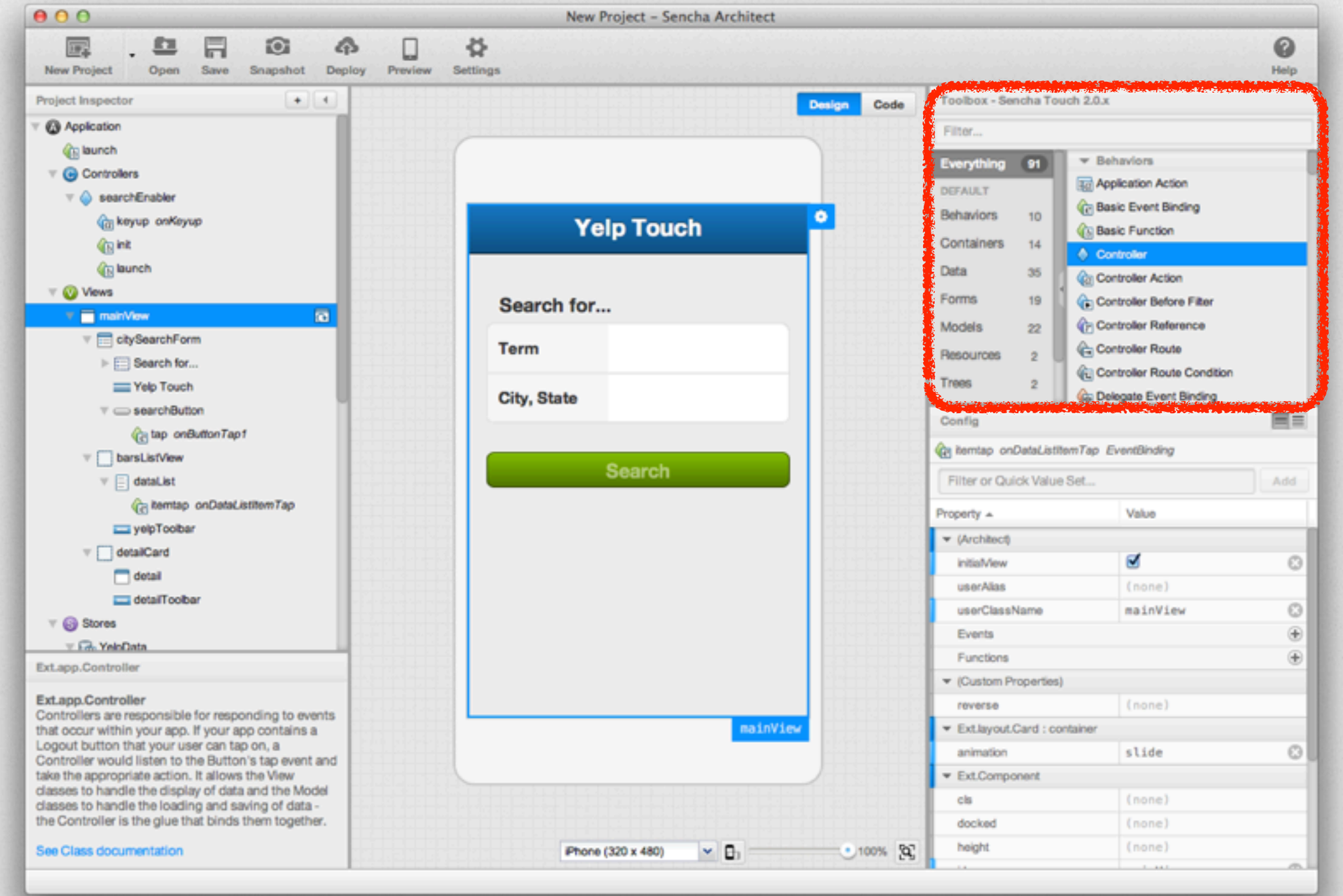
Application Toolbar



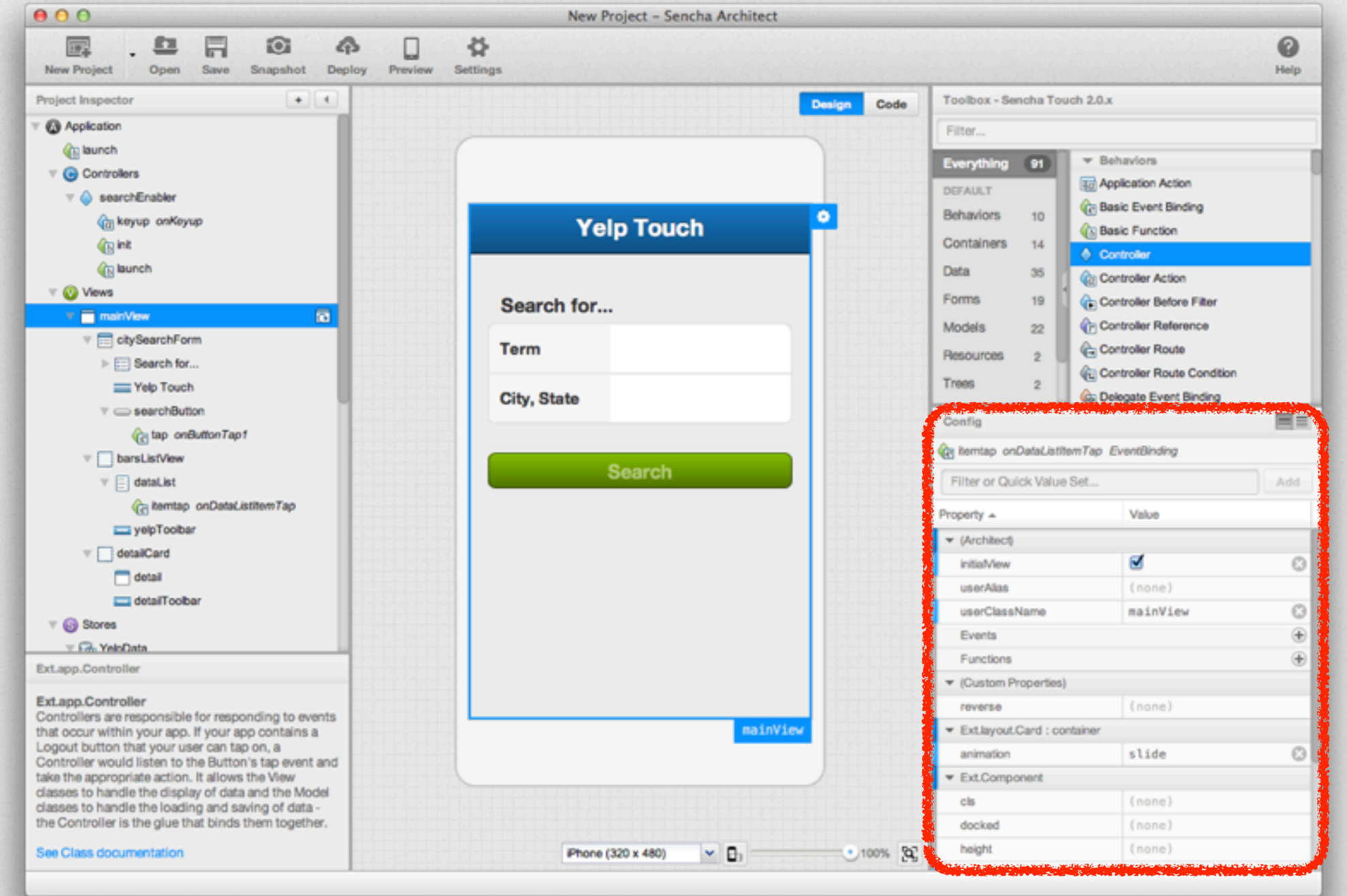
Project Inspector



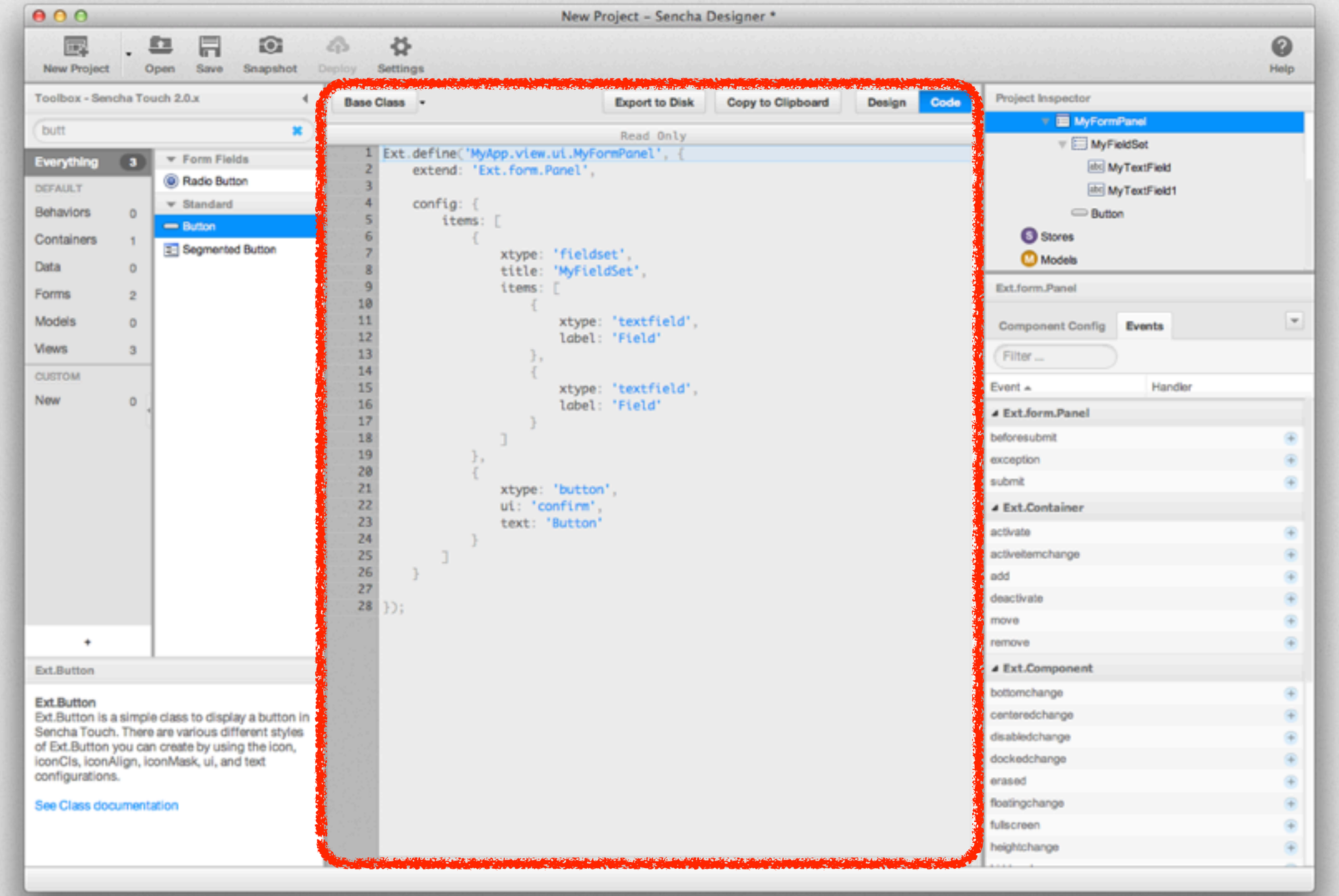
Design Canvas


New Project – Sencha Architect
New Project
Open
Save
Snapshot
Deploy
Preview
Settings
Help
Project Inspector
Application
launch
Controllers
searchEnabler
keyup onKeyup
init
launch
Views
mainView
citySearchForm
Search for...
Yelp Touch
searchButton
tap onButtonTap1
barsListView
dataList
itemtap onDataListItemTap
yelpToolbar
detailCard
detail
detailToolbar
Stores
YelpData
Ext.app.Controller
Ext.app.Controller
Controllers are responsible for responding to events that occur within your app. If your app contains a Logout button that your user can tap on, a Controller would listen to the Button's tap event and take the appropriate action. It allows the View classes to handle the display of data and the Model classes to handle the loading and saving of data - the Controller is the glue that binds them together.
See Class documentation
Design
Code
Yelp Touch
Search for...
Term
City, State
Search
mainView
iPhone (320 x 480)
100%
Toolbox - Sencha Touch 2.0.x
Filter...
Everything 91
DEFAULT
Behaviors 10
Containers 14
Data 35
Forms 19
Models 22
Resources 2
Trees 2
Behaviors
Application Action
Basic Event Binding
Basic Function
Controller
Controller Action
Controller Before Filter
Controller Reference
Controller Route
Controller Route Condition
Delegate Event Binding
Config
itemtap onDataListItemTap EventBinding
Filter or Quick Value Set...
Add
Property
Value
(Architect)
initialView
userAlias
(none)
userClassName
mainView
Events
Functions
(Custom Properties)
reverse
(none)
Ext.layout.Card : container
animation
slide
Ext.Component
cls
(none)
docked
(none)
height
(none)

Toolbox

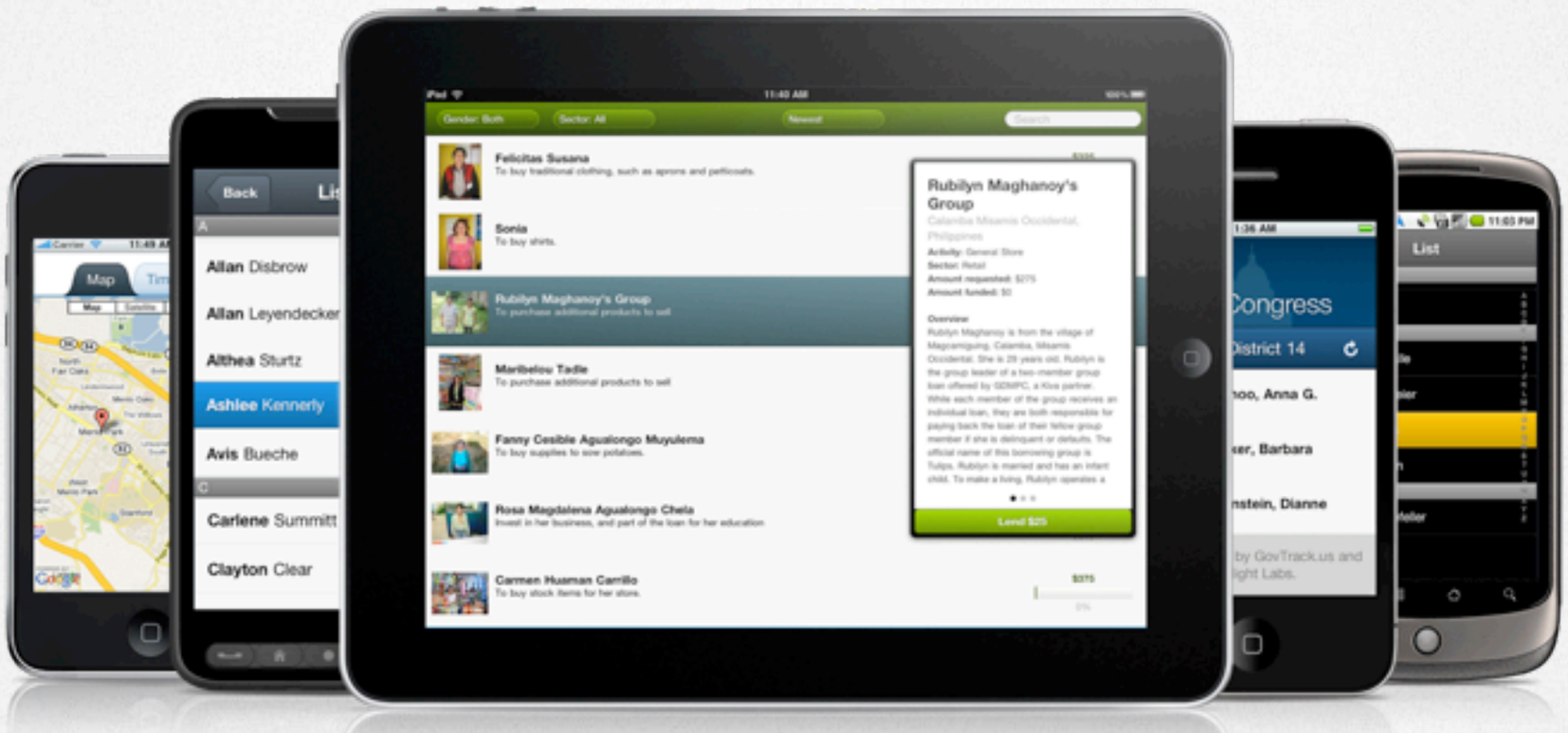


Configuration


New Project – Sencha Designer *
New Project
Open
Save
Snapshot
Deploy
Settings
Help
Toolbox - Sencha Touch 2.0.x
butt
Everything 3
DEFAULT
Behaviors 0
Containers 1
Data 0
Forms 2
Models 0
Views 3
CUSTOM
New 0
Form Fields
Radio Button
Standard
Button
Segmented Button
Ext.Button
Ext.Button
Ext.Button is a simple class to display a button in Sencha Touch. There are various different styles of Ext.Button you can create by using the icon, iconCls, iconAlign, iconMask, ui, and text configurations.
See Class documentation
Base Class
Export to Disk
Copy to Clipboard
Design
Code
Read Only
Ext.define('MyApp.view.ui.MyFormPanel', {
extend: 'Ext.form.Panel',
config: {
items: [
{
xtype: 'fieldset',
title: 'MyFieldSet',
items: [
{
xtype: 'textfield',
label: 'Field'
},
{
xtype: 'textfield',
label: 'Field'
}
]
},
{
xtype: 'button',
ui: 'confirm',
text: 'Button'
}
]
}
});
Project Inspector
MyFormPanel
MyFieldSet
MyTextField
MyTextField1
Button
Stores
Models
Ext.form.Panel
Component Config
Events
Filter ...
Event
Handler
Ext.form.Panel
beforesubmit
exception
submit
Ext.Container
activate
activeitemchange
add
deactivate
move
remove
Ext.Component
bottomchange
centeredchange
disabledchange
dockedchange
erased
floatingchange
fullscreen
heightchange

Code Editor

Wear your helmets for the live demo!



Thanks
Qcon NYC!

Aditya Bansod

VP, Product Marketing

@adityabansod

aditya@sencha.com