

CROSS PLATFORM MOBILE APPS WITH PHONEGAP

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ADOBE

@CCOENRAETS

[HTTP://COENRAETS.ORG](http://coenraets.org)



PhoneGap

https://github.com/ccoenraets

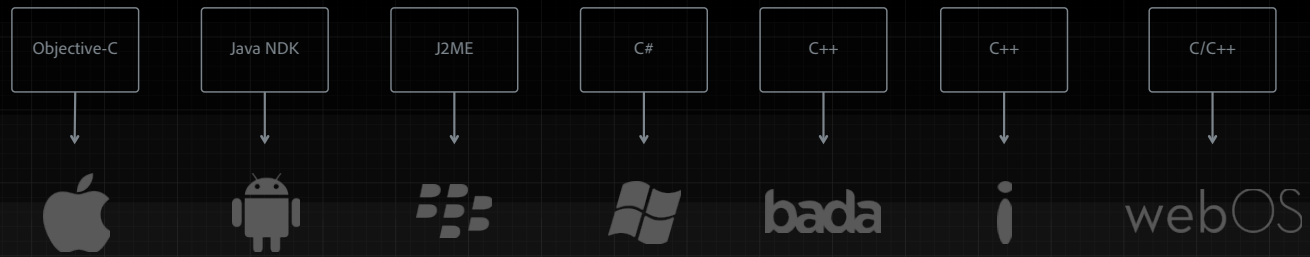
The screenshot shows a web browser window with the URL `https://github.com/ccoenraets`. The browser's address bar also shows "GitHub, Inc. [US]". The page header includes the GitHub logo, a search bar, and navigation links for "Explore", "Gist", "Blog", and "Help". The user's name "ccoenraets" is visible in the top right corner of the page.

The main content area features a profile picture of Christophe Coenraets, his name "Christophe Coenraets", and his GitHub handle "ccoenraets". To the right of the profile picture are tabs for "Repositories" and "Public Activity", along with an "Edit Your Profile" button. Below these is a search bar for "Filter ccoenraets's repositories..." and a filter menu with options: "All", "Public", "Private", "Sources", "Forks", and "Mirrors".

Two repositories are listed:

- phonegap-workshop**: JavaScript, 10 stars, 7 forks. Description: "Lab materials for PhoneGap workshop". Last updated 10 hours ago.
- phonegap-workshop-solutions**: JavaScript, 0 stars, 0 forks. Description: "Step-by-step solutions for the phonegap-workshop". Last updated 11 hours ago.

N Platforms = N Apps



$N = 1 ?$

Objective-C



Java NDK



J2ME



C#



C++



bada

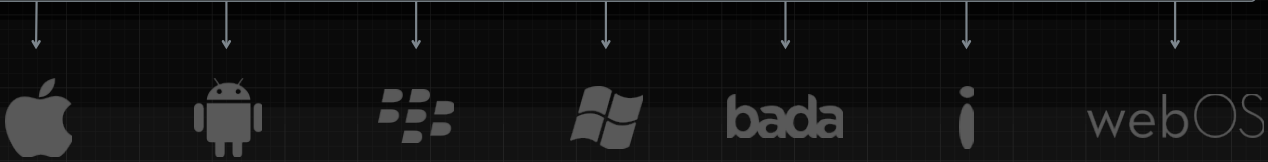
C++



C/C++



webOS





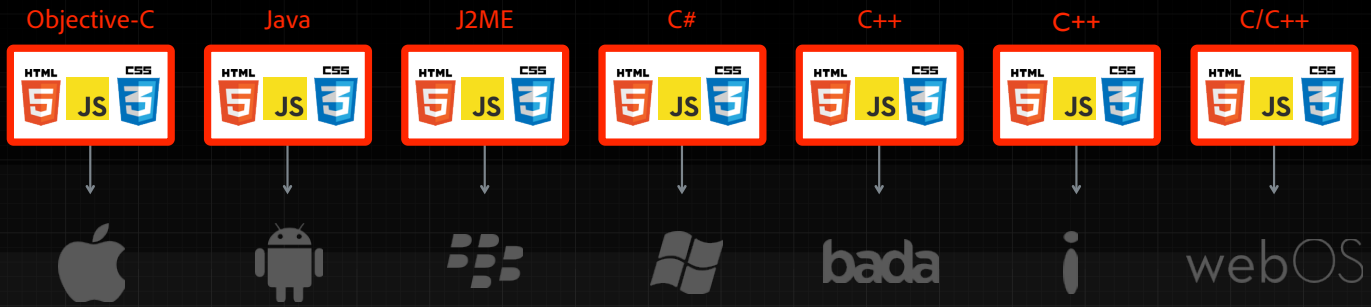
Mobile Sites

Package as App
Access device features

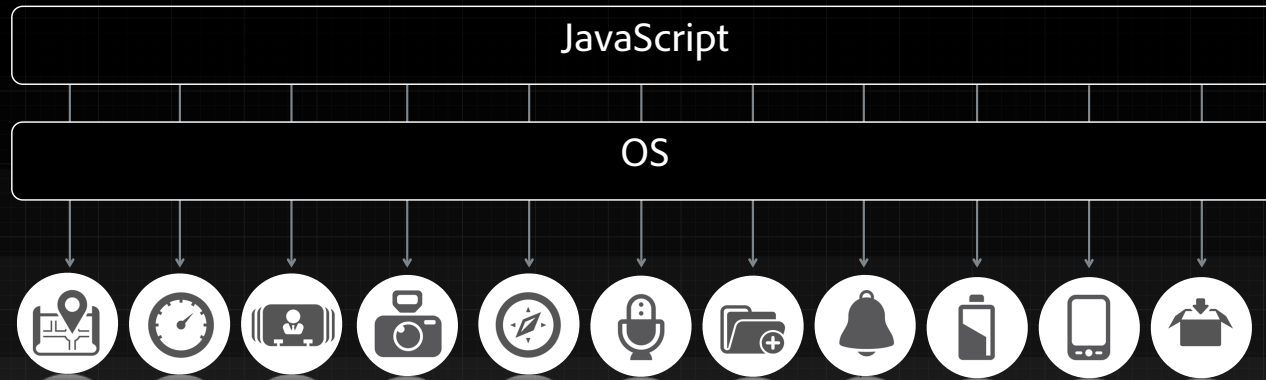
Mobile Apps

PhoneGap

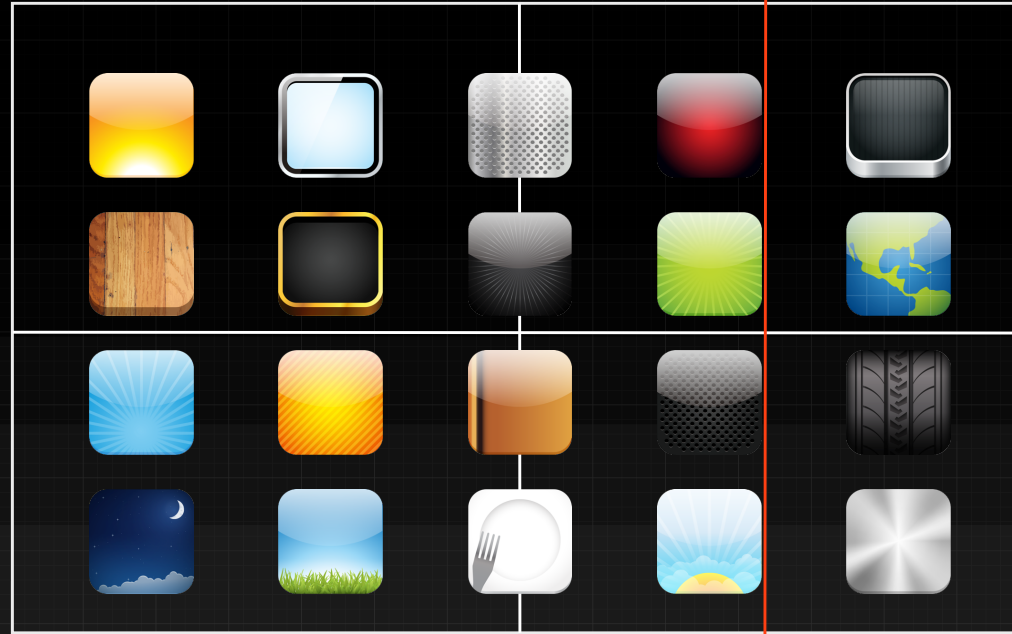
Hybrid Apps



Accessing Device Features

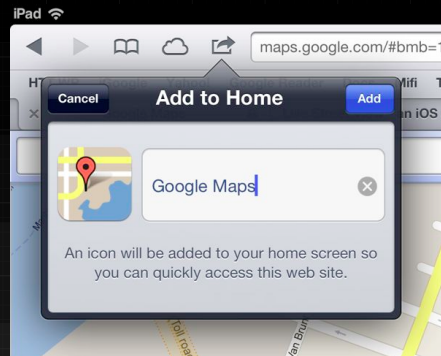


Platforms



User Experience

Is this an App?



	Hybrid App	Native App
Access	App Store	App Store
Updates	App Store + Instant	App Store
Graphic	HTML, Canvas, SVG	Native
Performance	Slower *	Faster *
Device APIs	Yes	No
Language	Web	Objective C / Java / C
Connectivity	Online / Offline	Online / Offline
Push Notification	Yes	Yes

PhoneGap Performance

1. Keep small footprint (and avoid unneeded libs)
2. Use Tap events, not Click events
3. Use hardware accelerated CSS transitions

BBC Olympics



BBC OLYMPICS

Usain Bolt storms back to form in Rome

Bryant praise for Team USA **Nadal's knee still causing concern**

Home Schedule Live All sports More

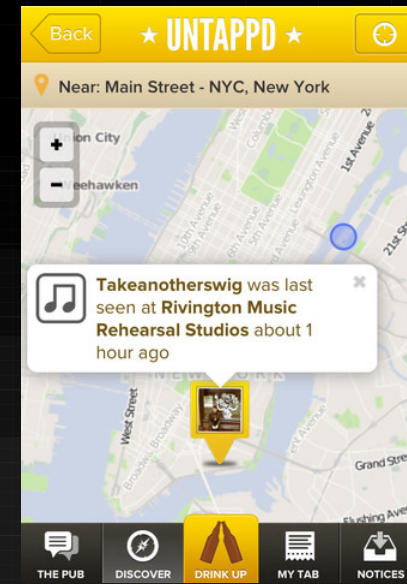
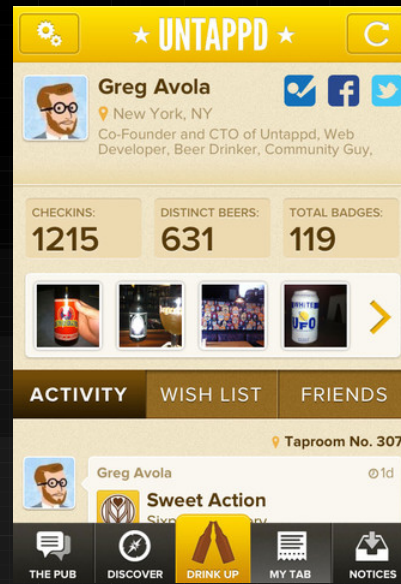
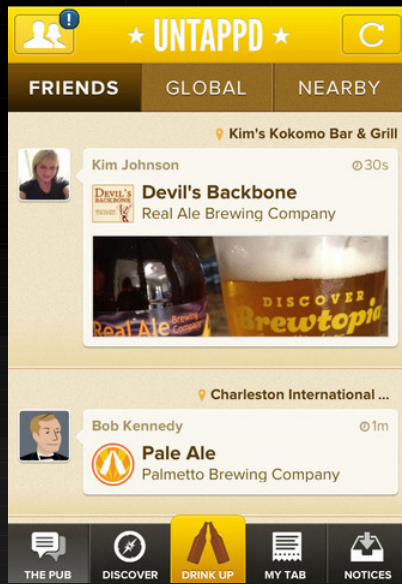
MEDALS

London 2012 Medals Table

Rank	Country				Total
1	CHN	51	21	28	100
2	USA	36	38	36	110
3	RUS	23	21	28	72
4	AUS	19	13	15	47
5	DEU	16	10	15	41
6	GBR	14	15	17	46
7	KOR	13	10	8	31
8	JPN	9	6	10	25
9	ITA	8	10	10	28

Home Schedule Live All sports More

Untappd



Salesforce.com Logger

Navigation bar with icons for clock, search, and settings.

Contacts Accounts

- Craig Villamor
- Sönke Rohde
- Grant Anderson
- Akhilesh Gupta
- Ronald Fischer
- Edward Stamos
- Artur Kesel

Edward Stamos
President and CEO
Acme

Check-In Follow-Up Take Note

Call Email Map

Acme

Edward Stamos
President and CEO
Acme

Follow-Up

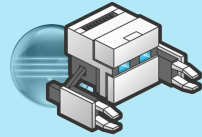
Reminder Date

What do you need to do?

Cancel Save Task

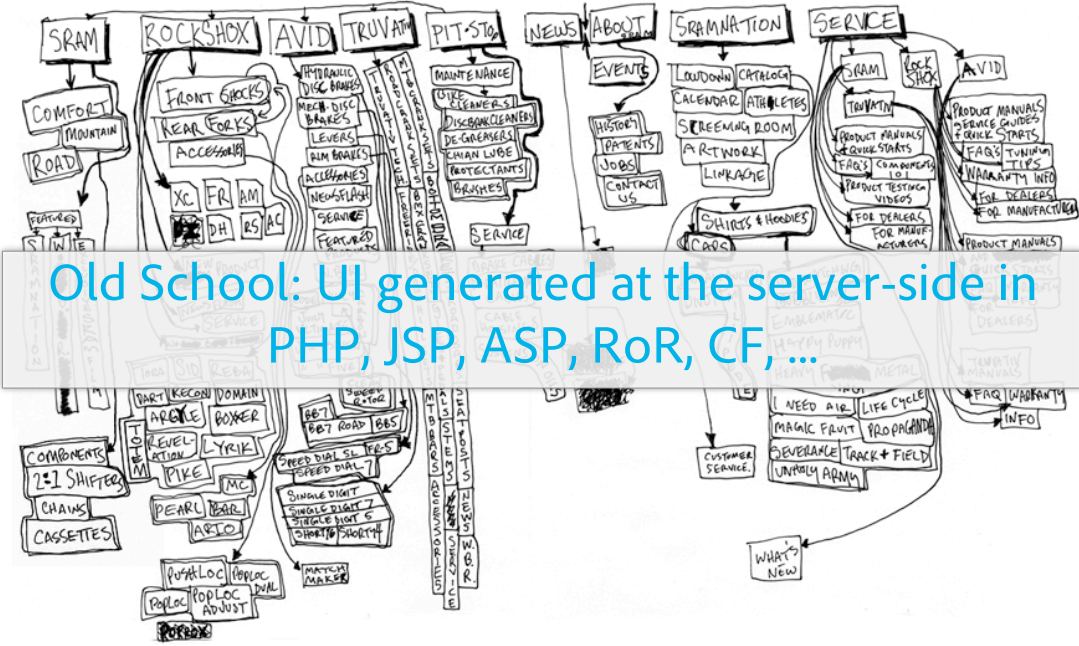
Share on Chatter

Building Hybrid Apps



webOS

ARCHITECTING HYBRID APPS



Old School: UI generated at the server-side in PHP, JSP, ASP, RoR, CF, ...

```
<html>
```

```
<head>
```

```
<title>Hugo App</title>
```

New School: Single Page Application

UI built dynamically at the client-side in JavaScript

```
<script src="hugo-app.js"></script>
```

```
</head>
```

```
<body></body>
```

```
</html>
```

Framework Landscape



Router

```
Router = Backbone.Router.extend({
  routes: {
    "" : "list",
    "employees/:id" : "details"
  },
  list: function() {
    $('#list').html('<div>Employee List</div>');
  },
  details: function(id) {
    $('#details').html('<div>Employee Details</div>');
  }
});
```

View

```
EmployeeView = Backbone.View.extend({
  template: _.template($('#employee-tpl').html()),
  initialize: function () {
    this.render();
  },
  events: {
    "click .save": "save"
  },
  render: function () {
    $(this.el).html(this.template(this.model.toJSON()));
  },
  save: function () {
    this.model.save({firstName: $('#firstName').val()});
  }
});
```

Model

```
Employee = Backbone.Model.extend({  
  urlRoot: "api/employees"  
});  
  
emp = new Employee({firstName: 'Joe', lastName: 'Smith'});  
emp.save();
```


@ccoetraets

<http://coetraets.org>