Wix Apps Workshop

Building Applications for websites

Lior Shefer SDK Team Lead

Agenda

- What is a Wix app
- App Market
- The Vine app - sample app for the London hackathon
- Anatomy of a Wix application
- Registering an app in Wix Dev Center
- JS SDK
- Widget, Page and Settings endpoints

What is a Wix app

A web application, built using HTML5 technologies.

Installed into websites.

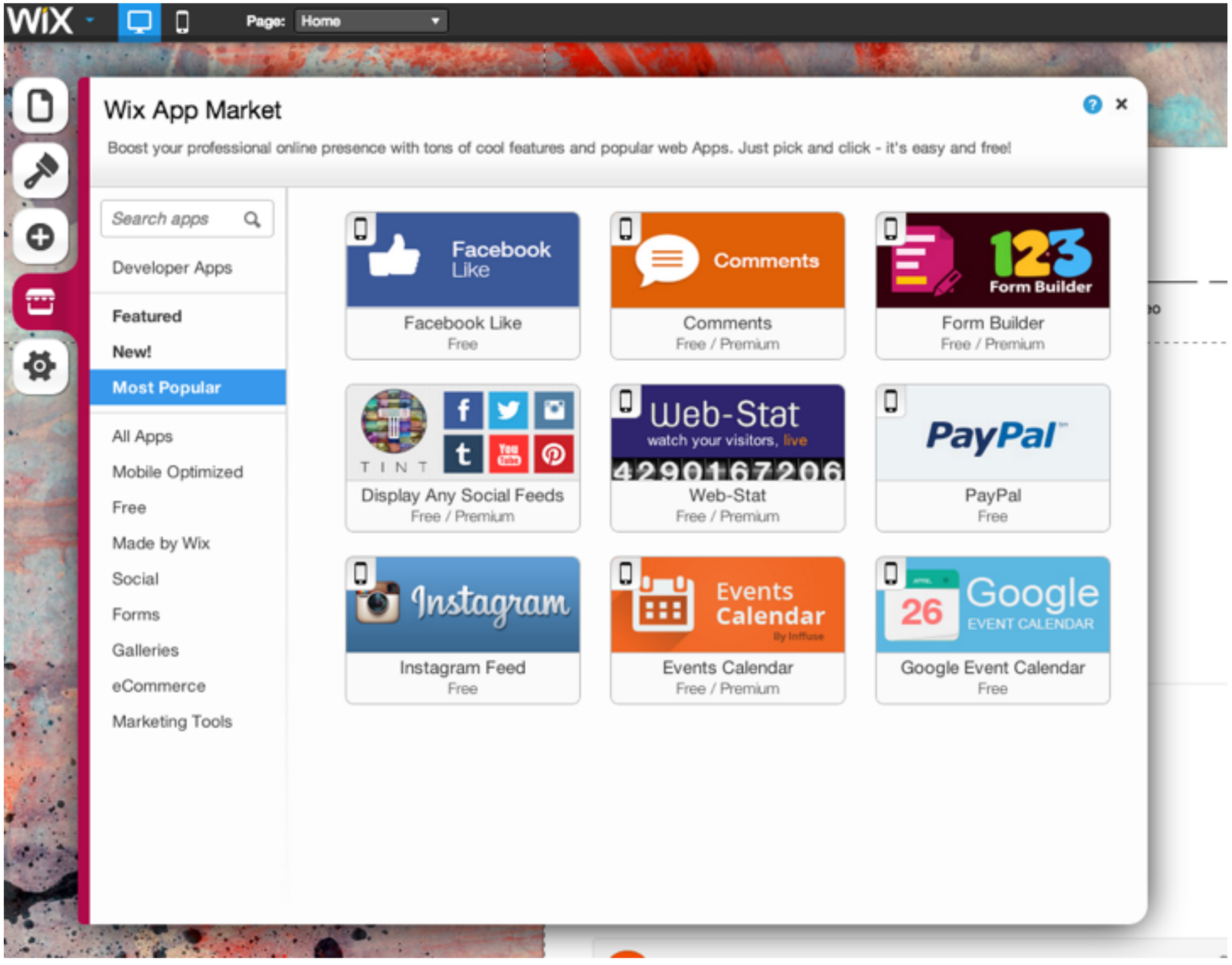
With Deep Linking and SEO support.

Delivered as multiple iframes.

You can use any programming language you like

Java, Ruby, Javascript, Python, C#, Scala etc.

Anatomy of a Wix Application



Anatomy of a Wix Application

Types of applications:

Widget app

Page app

Multi Widget app

Back Office app

Hybrid app

Building Apps For the App Market

In this workshop, we will build a Wix App using Node.js and Angular.

However, a Wix App can be built using any web technology.

Our toolbox:

Express - Version 3+

Angular - Version 1.2+

Heroku for hosting our app.

Getting the Sample App Code

The Wix Sample App for the hackathon is on Github:

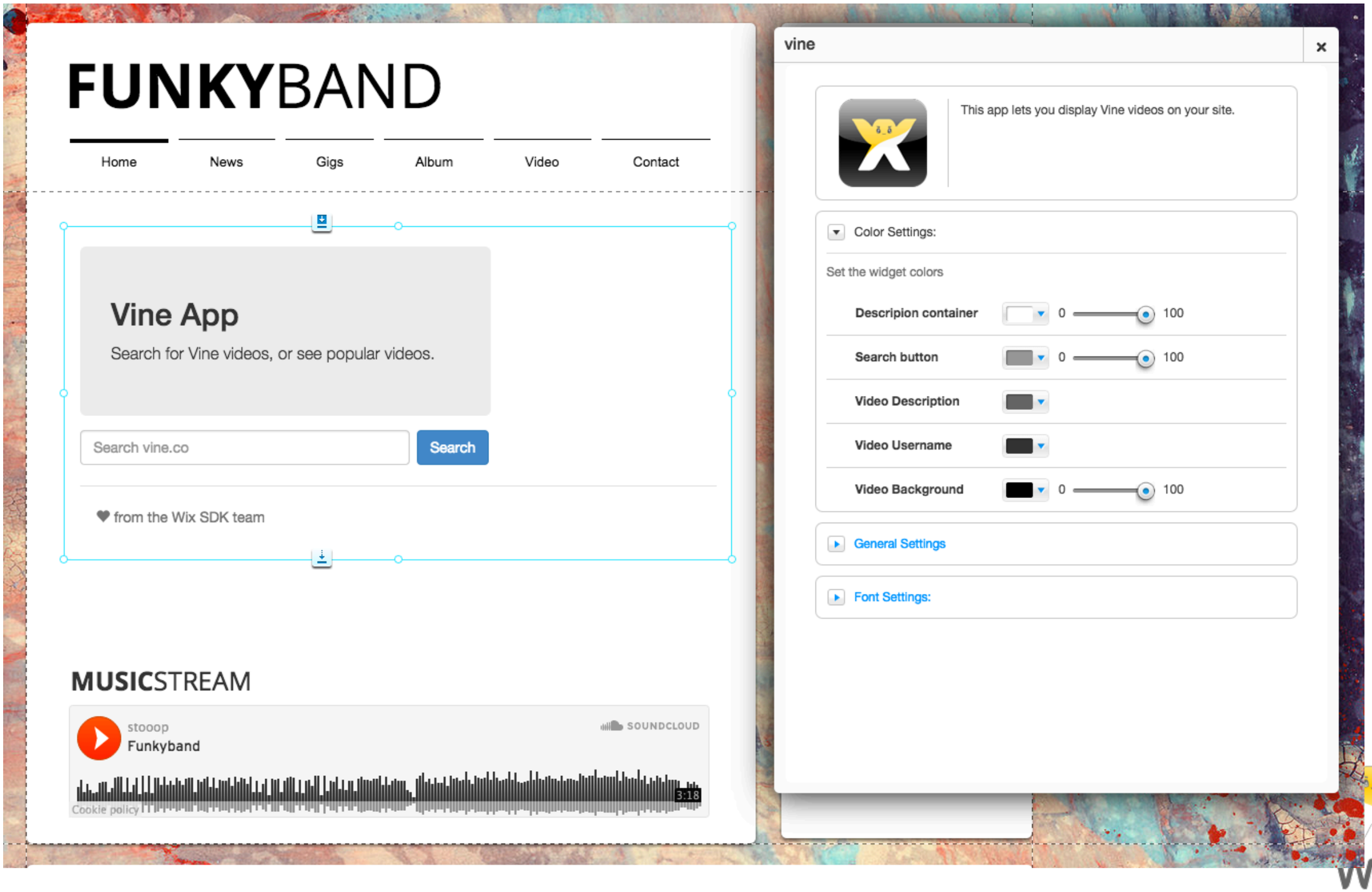
https://github.com/wix/london-hackathon-vine-app

Run the app locally:

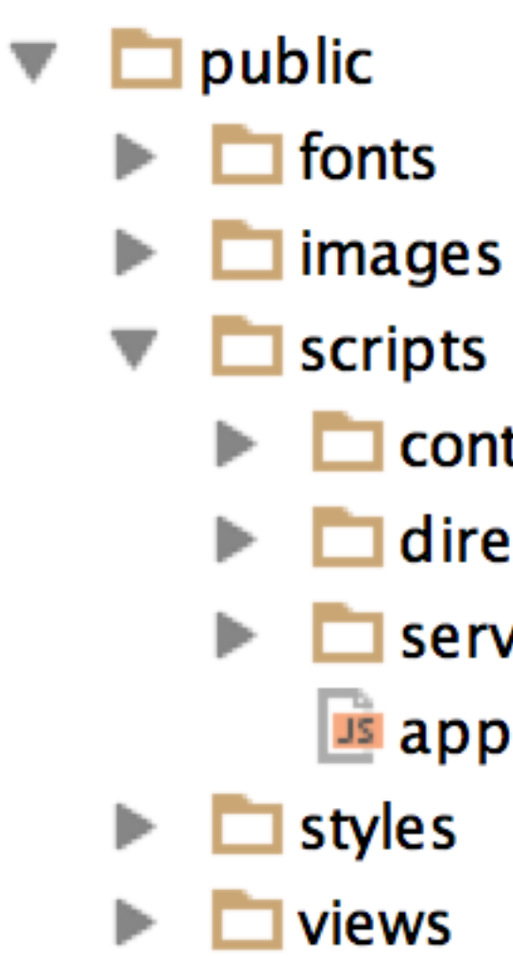
git clone git@github.com:wix/london-hackathon-vine-app.git

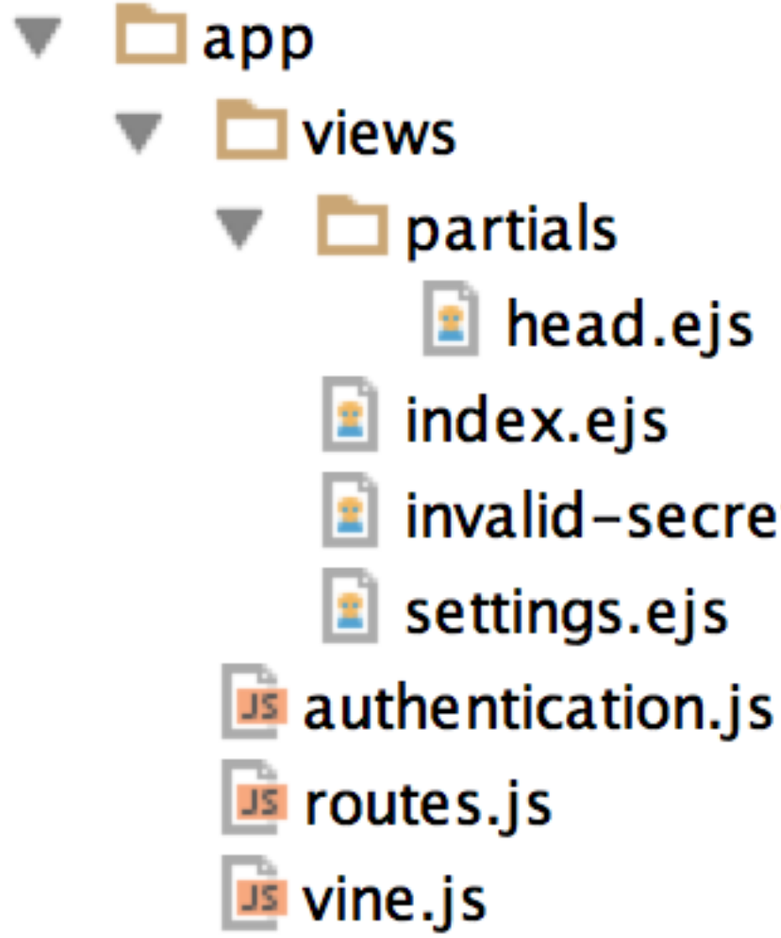
npm start

The Vine App


FUNKYBAND
Home
News
Gigs
Album
Video
Contact
Vine App
Search for Vine videos, or see popular videos.
Search vine.co
Search
from the Wix SDK team
MUSICSTREAM
stooop
Funkyband
SOUNDCLOUD
3:18
Cookie policy
vine
This app lets you display Vine videos on your site.
Color Settings:
Set the widget colors
Descripion container
0
100
Search button
0
100
Video Description
Video Username
Video Background
0
100
General Settings
Font Settings:

The Project Structure





server.js

```
...

//API
app.get('/vine/popular/:size', routes.vinePopular);
app.get('/vine/search/:q/:size', routes.vineSearch);
app.get('/vine/:videoId', routes.vineGetVideo);

//Templates
app.get('/widget', authenticate, routes.widget);
app.get('/settings', authenticate, routes.settings);


function authenticate(req, res, next) {
    if (req.query.debug) {
        next();
    } else {
        var authentication = new Authentication();
        authentication.authenticate(req, res, next);
    }
}


...
```

authentication.js

```
var url = require('url');
var APP_SECRET = '2a918fb5-3c64-42fd-a429-44ee53c59fe7';
var crypto = require("crypto");

function Authentication() {
    this.authenticate = function(req, res, next) {
        var url_parts = url.parse(req.url, true);
        var query = url_parts.query;
        if (query.instance || query.origCompId || query.compId) {
            verify = verifyInstance(query.instance, APP_SECRET);
            if (verify.valid) {
                var key = JSON.parse(verify.key).instanceId + ':';
                if (query.origCompId) {
                    key = key + query.origCompId;
                } else if (query.compId) {
                    key = key + query.compId;
                }
                req.key = key;
                next();
            } else {
                res.render('invalid-secret');
            }
        } else {
            res.render('invalid-secret');
        }
    }
}
```

routes.js

```
var vine = require('./vine.js');

exports.widget = function(req, res) {
    res.render('index', { debug: req.query.debug || false});
};

exports.settings = function(req, res) {
    res.render('settings', { });
};

exports.vineSearch = function(req, res){
    vine.search(req.params.q || 'funny', req.params.size || 6, function(data){
        res.setHeader('Content-Type', 'application/json');
        res.end(JSON.stringify(data));
    });
};

...
```

index.ejs

```
<!doctype html>
<html class="no-js">
<head>
    <% include ../views/partials/head %>
    <style wix-style>
        body {
            background-color: {{style.bgColor}};
        }
        .jumbotron {
            background-color: {{style.searchBoxColor}};
        }
        .btn-primary {
            background-color: {{style.buttonColor}};
        }
        .meta p.description {
          color: {{style.descriptionColor}};
          {{style.descriptionFont Body-S}};
        }
        .meta .username {
           color: {{style.usernameColor}};
           {{style.usernameFont Body-S}};
        }
    </style>
</head>
<body ng-app="vineApp">
<div class="container" ng-view=""></div>
</body>

<script>
    angular.module('vineApp').constant('config', {
      standAlone: <%- debug %>
    });
</script>
</html>
```

head.ejs

```
...
<script src="/bower_components/jquery/dist/jquery.js"></script>
<script src="/bower_components/angular/angular.js"></script>
<script src="/bower_components/bootstrap/dist/js/bootstrap.js"></script>
<script src="/bower_components/angular-resource/angular-resource.js"></script>
<script src="/bower_components/angular-cookies/angular-cookies.js"></script>
<script src="/bower_components/angular-sanitize/angular-sanitize.js"></script>
<script src="/bower_components/angular-route/angular-route.js"></script>
<script src="/bower_components/angular-animate/angular-animate.js"></script>
<script src="/bower_components/underscore/underscore.js"></script>
<script src="/bower_components/angular-loading-bar/src/loading-bar.js"></script>
<script src="http://sslstatic.wix.com/services/js-sdk/1.39.0/js/Wix.js"></script>
...
```

settings.ejs

```
<!doctype html>
<html class="no-js">
<head>
    <link type="text/css"
href="/bower_components/wix-ui-lib2/ui-lib.min.css" rel="stylesheet">
    <% include ../views/partials/head %>
    <script src="/bower_components/wix-ui-lib2/ui-lib.min.js"></script>
</head>
<body ng-app="vineApp" class="settings">
<div class="container" ng-view=""></div>
</body>
<script>
    angular.module('vineApp').constant('config', {
        view: 'settings'
    });
</script>
</html>
```

app.js

```
angular
    .module('vineApp', [
        'vineApp.services',
        ...
    ])
    .config(function ($routeProvider, config) {
           $routeProvider
                .when('/', {
                    templateUrl: '/views/search.html',
                    controller: 'MainCtrl'
                })
                .when('/popular/:size', {
                    templateUrl: '/views/popular.html',
                    controller: 'PopularCtrl'
                })
                .when('/video/:id', {
                    templateUrl: '/views/fullPage.html',
                    controller: 'VideoCtrl'
                })
               ...
    }
});
```

main.js

```
angular.module('vineApp')
    .controller('MainCtrl', function ($scope, $window, $sce, $routeParams, $timeout,
Wixservice, DataService, config, Search) {
        $scope.search = function (q) {
            var keyword = q || config.query;
            if(!config.standAlone){
                Wixservice.getStyleParam('numbers', 'numberOfVideos', function(size) {
                    doSearch(keyword, size);
                });
            } else {
                doSearch(keyword, config.size || 6);
            }
        };

        var doSearch = function (keyword, size) {
            $scope.keyword = keyword + ": getting " + size + " results";
            Search.query({term: keyword, size: size}, function (data) {
                var videos = data;
                _.each(videos, function (video) {
                    video.videoUrl = $sce.trustAsResourceUrl(video.videoUrl);
                    video.avatarUrl = $sce.trustAsResourceUrl(video.avatarUrl);
                });
                $scope.videos = videos;
                …
            });
        };

        if ($routeParams.q) {
            $scope.search($routeParams.q);
        }
});
```

Registering applications with Heroku

Register to Heroku
You will need to login to Heroku at
http://www.heroku.com

Download Heroku toolbelt
https://toolbelt.heroku.com

Registering applications with Heroku

Create and deploy an App

git init
git add
git commit –m ‘my commit message’
heroku login
heroku create
git push heroku master

Anatomy of a Wix Application

How it works:

You (the app developer) provide iframe endpoints.

A **Site Owner** uses the WIX editor to add apps to their website using drag & drop from the app market.

The **Wix Platform** generates a new instance for every website.

The Site Owner publishes their website.

Site Visitors view the Wix user's websites with the installed apps.

Anatomy of a Wix Application

Endpoints are web URLs that when called, render HTML iframes (or SEO inclusion HTML).

Accessed with dedicated URL parameters (the Wix **endpoint API).**

The **Wix Platform** generates a new instance for every website - instance, viewMode, compId, locale, etc.

Include the Wix.js for the use of Wix JS API.

Understanding App Instance

How do I customize (associate) my app for a specific website?

e.g., Associate an account, customize style, data, etc.

When a site owner adds an app component (Widget or Page) to his site, a new “**instanceId**” of the app is generated by the Wix platform.

Understanding App Instance

Site + App → “instanceId”

The “instanceId” is a GUID

AFF5016D-2914-4D63-A38C-A6DC4E432ED7

Unique & persistent for each site-app relation.

The Instance parameter

The instance parameter encodes the “instanceId”

Passes as a URL query parameter for endpoints (and available via the JS SDK)

Encoded & Signed (HMAC-SHA1 256)

The Instance parameter

What it looks like:


```
vrinSv2HB9tqbnJ6RSwoMgVamAIxpmmsA0I6eAan960.eyJpbnN0YW5jZU
lkIjoiYWZmNTAxNmQtMjkxNC00ZDYzLWEzOG
```


Instance JSON

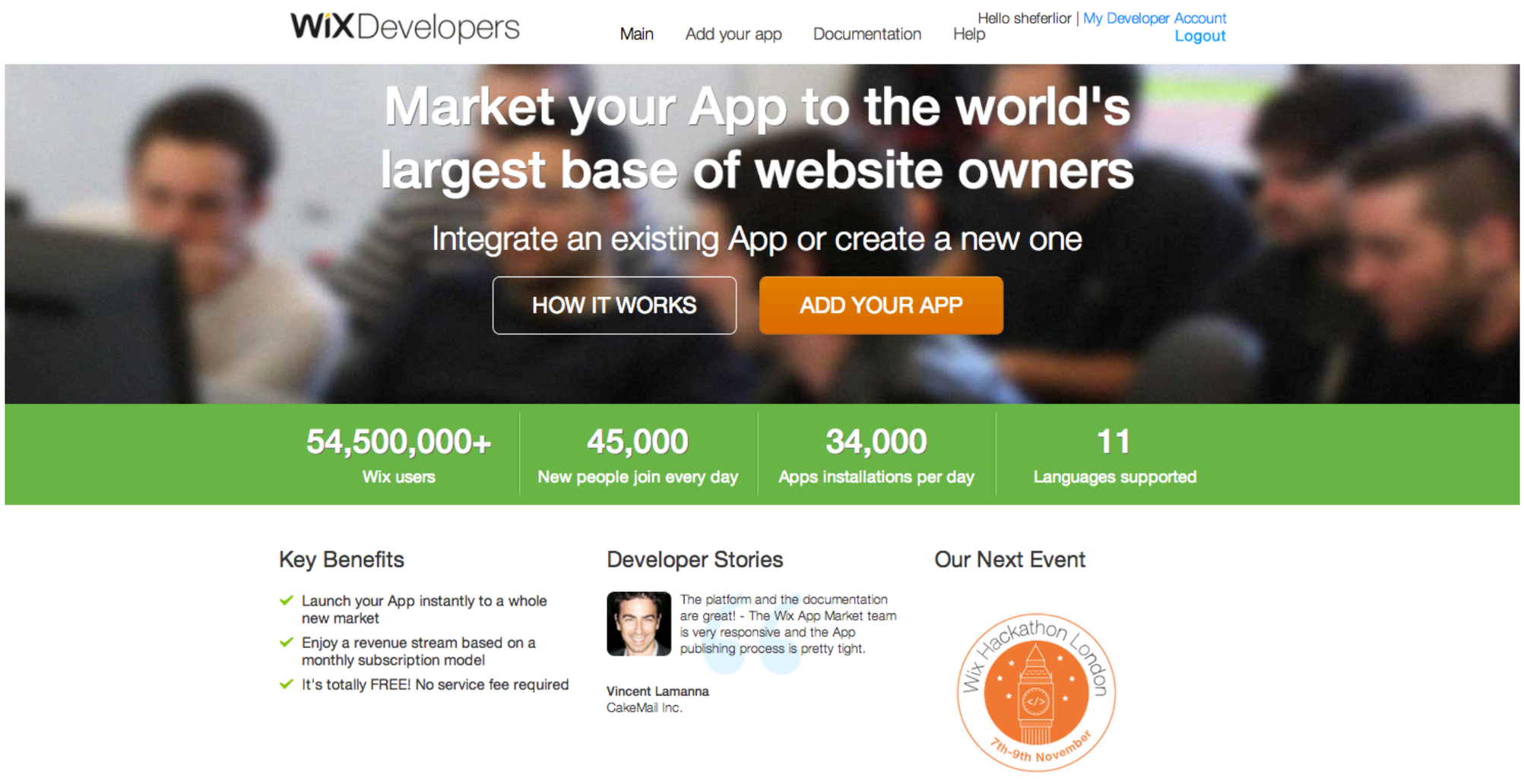

```
{
    "instanceId" : "aff5016d-2914-4d63-a38c-a6dc4e432ed7",
    "signDate" : 1336914487311,
    "uid" : "86c6c550-2042-494e-86cc-ac65f8862e11",
    "permissions" : "OWNER",
    "vendorProductId" : "Premium package name",
    "ipAndPort" : "217.24.15.12/1531",
    "demoMode" : "false"
}
```

The Instance parameter

```
{
    "instanceId" : "aff5016d-2914-4d63-a38c-a6dc4e432ed7",
    "signDate" : 1336914487311,
    "uid" : "86c6c550-2042-494e-86cc-ac65f8862e11",
    "permissions" : "OWNER",
    "vendorProductId" : "Premium package name",
    "ipAndPort" : "217.24.15.12/1531",
    "demoMode" : "false"
}
```

signDate, ipAndPort - Verification that a request for an endpoint is from a Wix Site
uid - Site Users Management
vendorProductId - Premium Package Management
demoMode - Integration with Wix Templates

Registering a Wix App @ the Wix Dev Center



Registering a Wix App @ the Wix Dev Center

WIX Developers

Main | Add your app | Documentation | Help

Hello sheferlior | My Developer Account | Logout

Create a New App

Search documents

Register Your App › App Info › Overview Info › Live Demo › Features › Submit Your App

Create a New App

Get your app keys

App Name: *

Vine London Hackathon

Register Your App

Related documentations

Registration guide >
Test your app >
Marketing materials guideline >

Need more help?

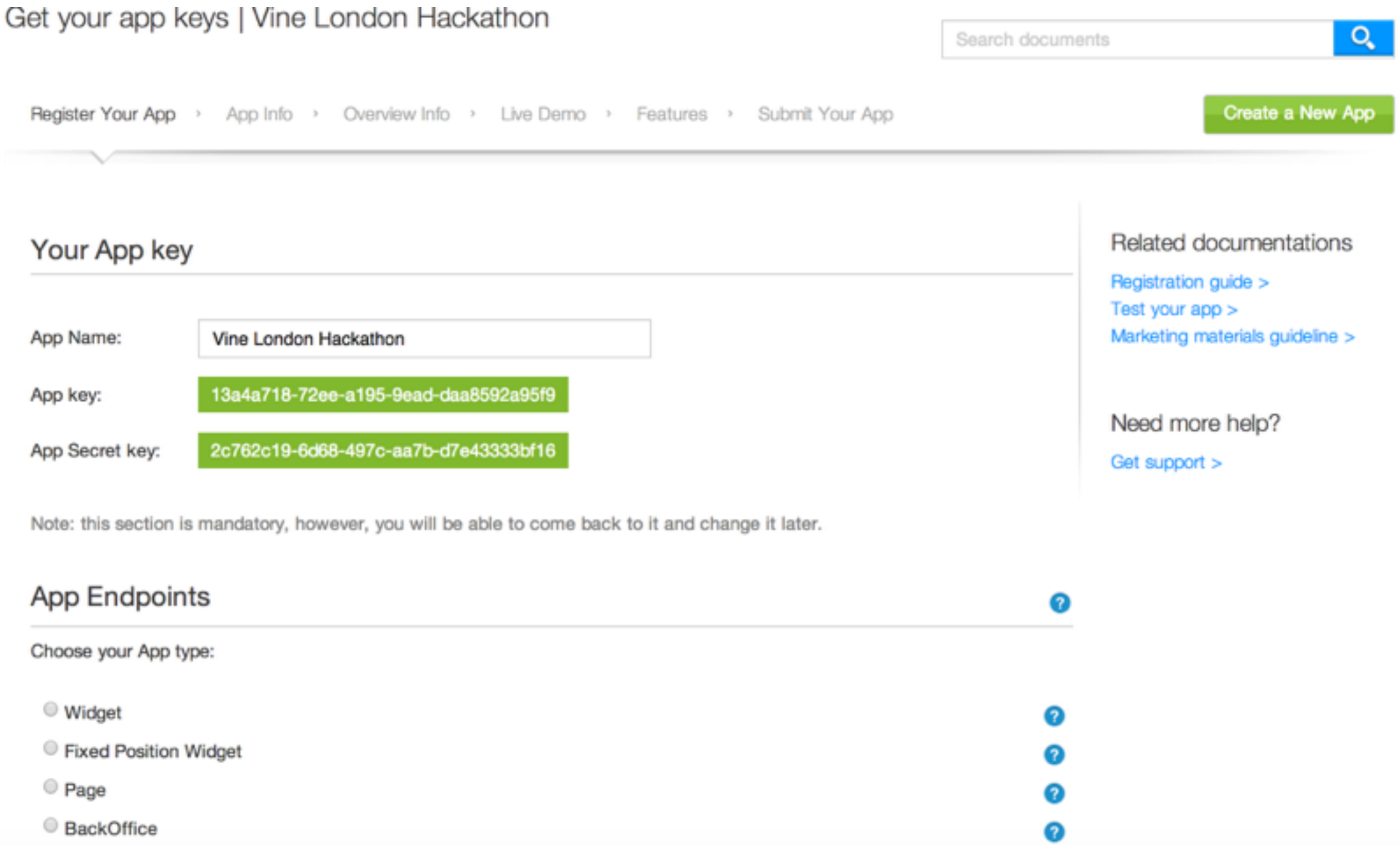
Get support >

About Wix | Investor Relations | Blog | Help | Jobs | Terms of Use | Privacy | Affiliate | Abuse | Sitemap | Creating a Website | Contact us

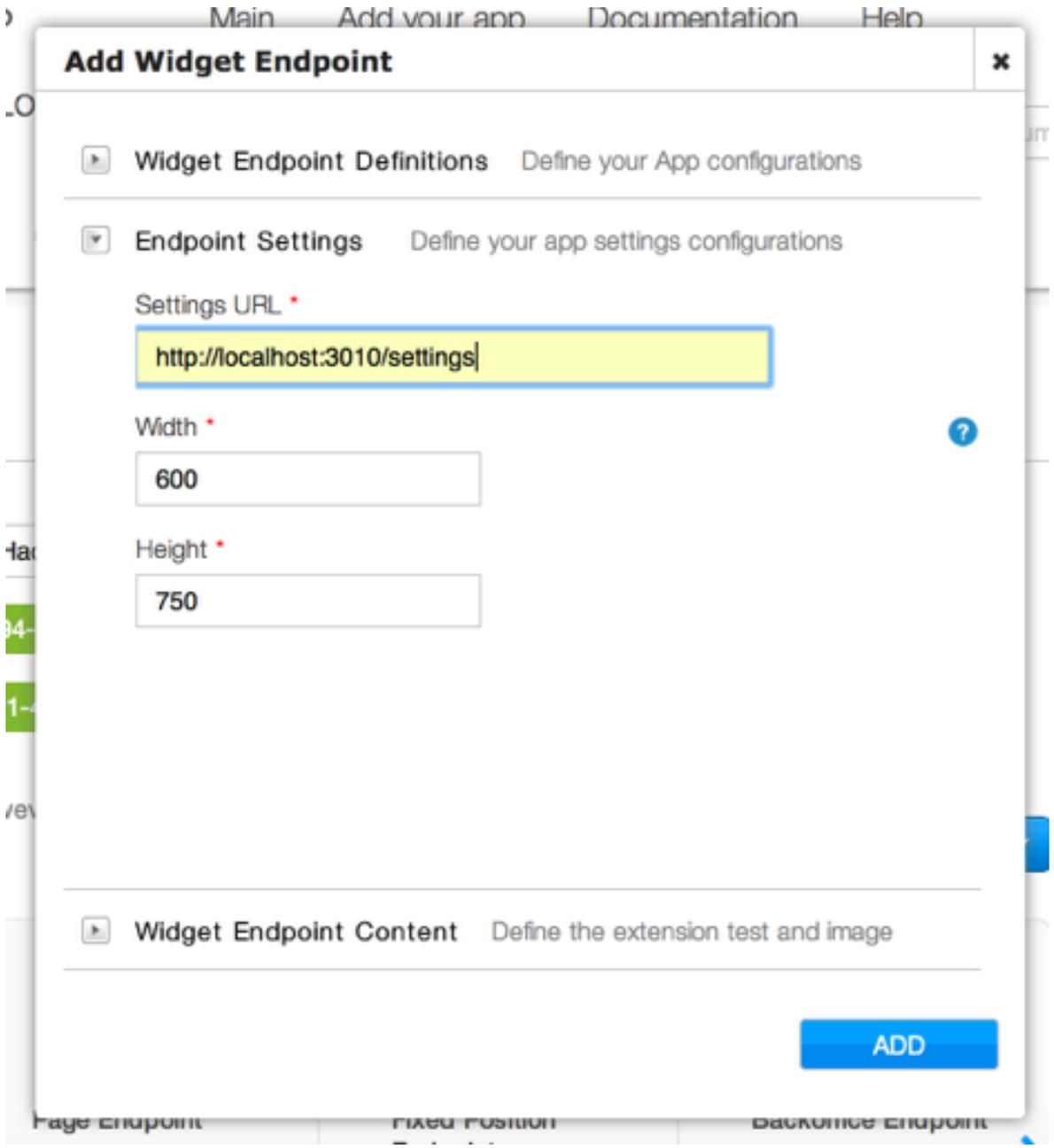
Promote your business, showcase your art, set up an online shop or just test out new ideas. Wix has everything you need to build a fully-personalized, high-quality free website. Browse our collection of beautiful website templates. You'll find loads of stunning designs, ready to be customized. Find us on Google+

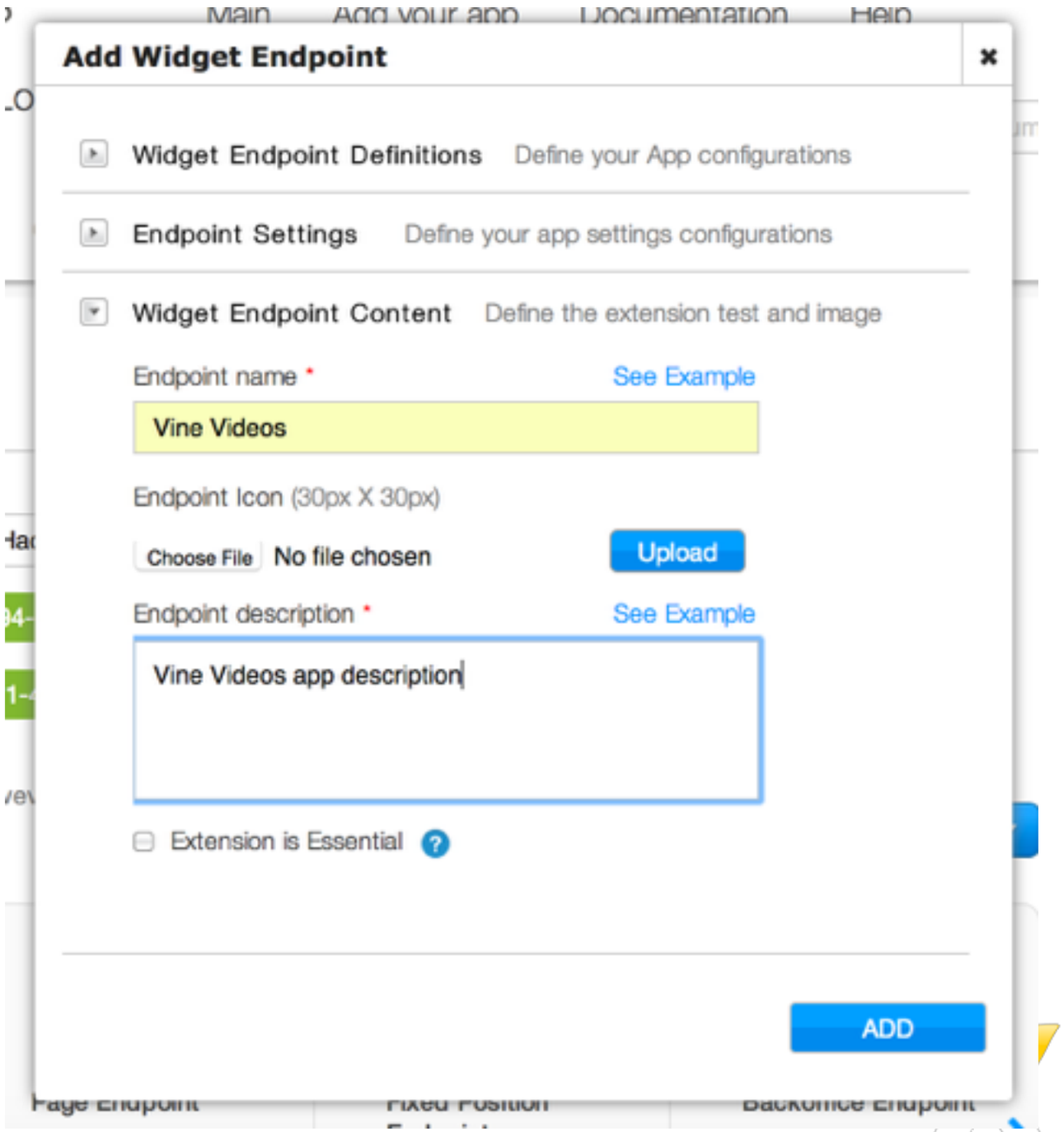
© 2006-2012 Wix.com, Inc

Registering a Wix App @ the Wix Dev Center



Registering a Wix App @ the Wix Dev Center





Set your endpoints

In the app we registered, the endpoints are in the **Server.js** class.

Widget:
http://<heroku-app-name>.herokuapp.com/widget

Settings:
http://<heroku-app-name>.herokuapp.com/settings

The javascript SDK

The Javascript SDK exposes operations to be used by the App

Wix.* APIs

Can be used by: widgets, pages and modal dialog endpoints.
Can change: widget height, refresh app, get site info, history and event listeners

Wix.Settings.* APIs

Can be used by settings endpoints
Can open billing page, get site info, refresh app

Wix.Utils.*

Can be used by all endpoints
Getters for different attributes (locale, uid, demo mode, etc).

Widget Application

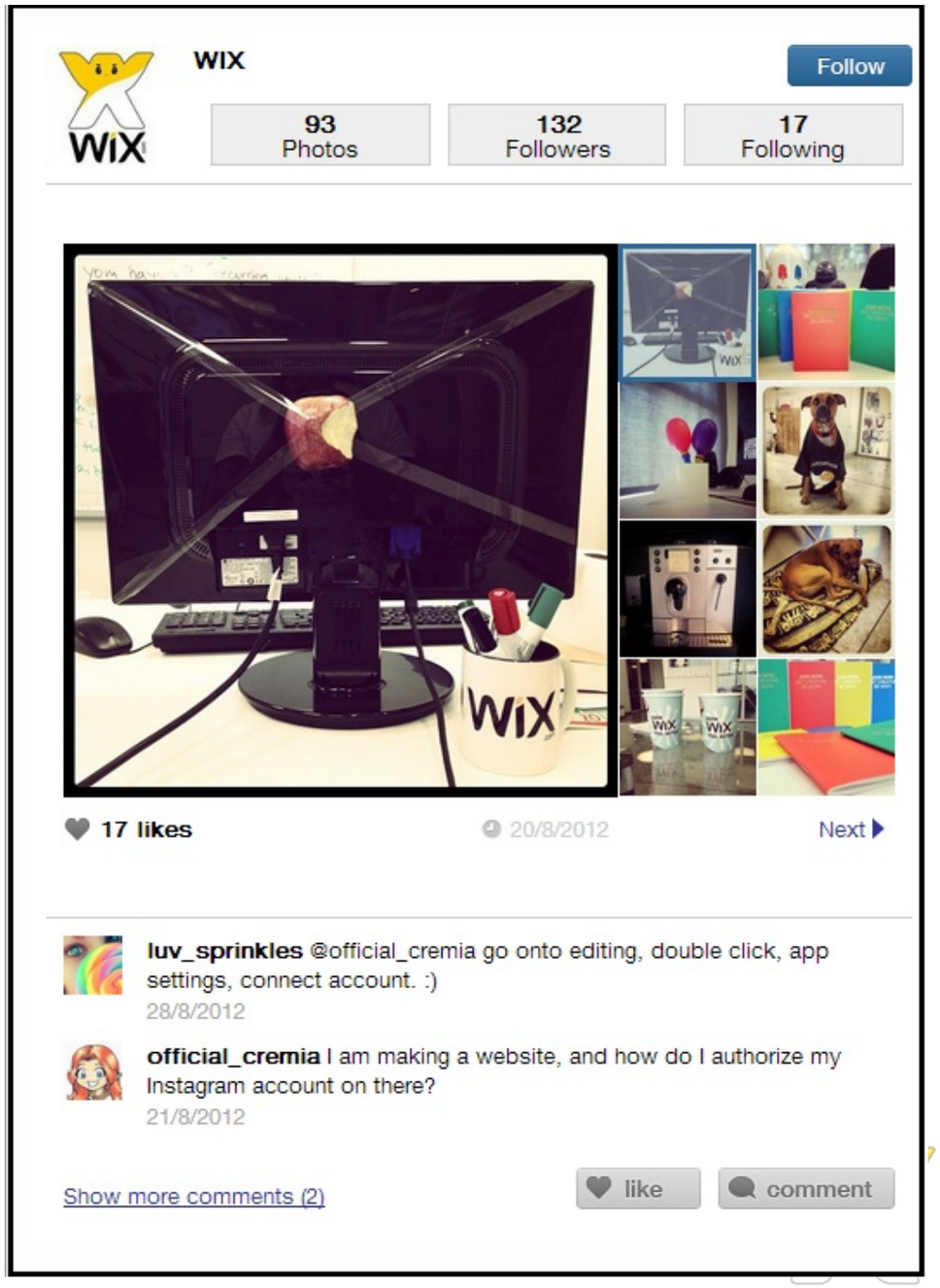
A Widget App is an element within a page.

The Site Owner can position and resize the Widget app, to fit it into a desired location within the page.

A Widget app is simply an iframe which contains your Widget.

The app also has an endpoint for an SEO version of the content in your Widget.

The Site Owner interacts with a Widget App like he does with any other Wix Component!



Widget endpoint

[**web-endpoint-url**]?
instance=[**signed-instance-data**]&
cacheKiller**=[cacheKiller]&**
compId**=[compId]&**
viewMode**=[viewMode]&**
deviceType**=[deviceType]&**
local**=[locale]**

Widget endpoint

Name	Value
web-endpoint-url	The endpoint URL as supplied during the app registration in the dev center.
instance	The signed instance as described here
cacheKiller	The cacheKiller is there to ensure no caching of the iframe content by the host browser
compId	The ID of the Wix component which is the host of the iframe. The compId can be used to distinguish between multiple instances of the same Widget in a site.
viewMode	Site view mode i.e., preview or site
deviceType	Site device type i.e., desktop or mobile
local	Site locale e.g., ‘en’

Page Application

A Page App is a full-page app with internal pages.

When a site owner adds a Page app, a new page will be created within his website.

This type of app is useful for you if you are interested in creating an app which has internal pages, such as

- a blog
- a forum
- a product catalog

Each internal page of your app will have
its own URL (deep-linking)
Its own content for SEO

Page endpoint

[**web-endpoint-url**]?
instance=[**signed-instance-data**]&
cacheKiller**=[cacheKiller]&**
compId**=[compId]&**
viewMode**=[viewMode]&**
deviceType**=[deviceType]&**
local**=[locale]&**
section-url**=[section-url]&**
width**=[width]&**
target**=[target]**

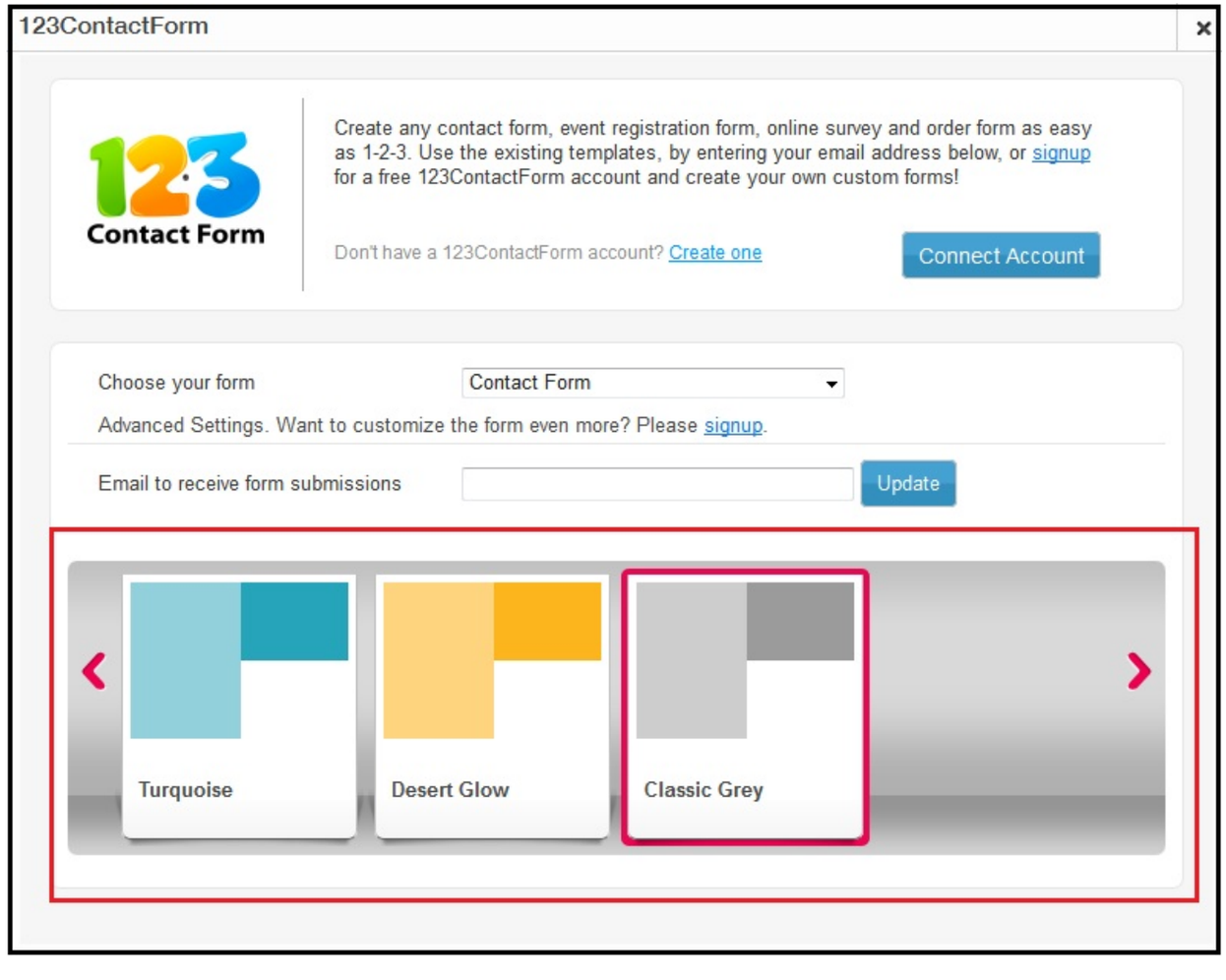
Page endpoint

Name	Value
section-url	The base url of the app section, as it appears in the browser.
target	The target attribute that must be added to all href anchors within the app frame
width	The width of the frame to render in pixels

Application Settings

The Settings of an app encompass anything that the site owner can modify the app or the app's content.

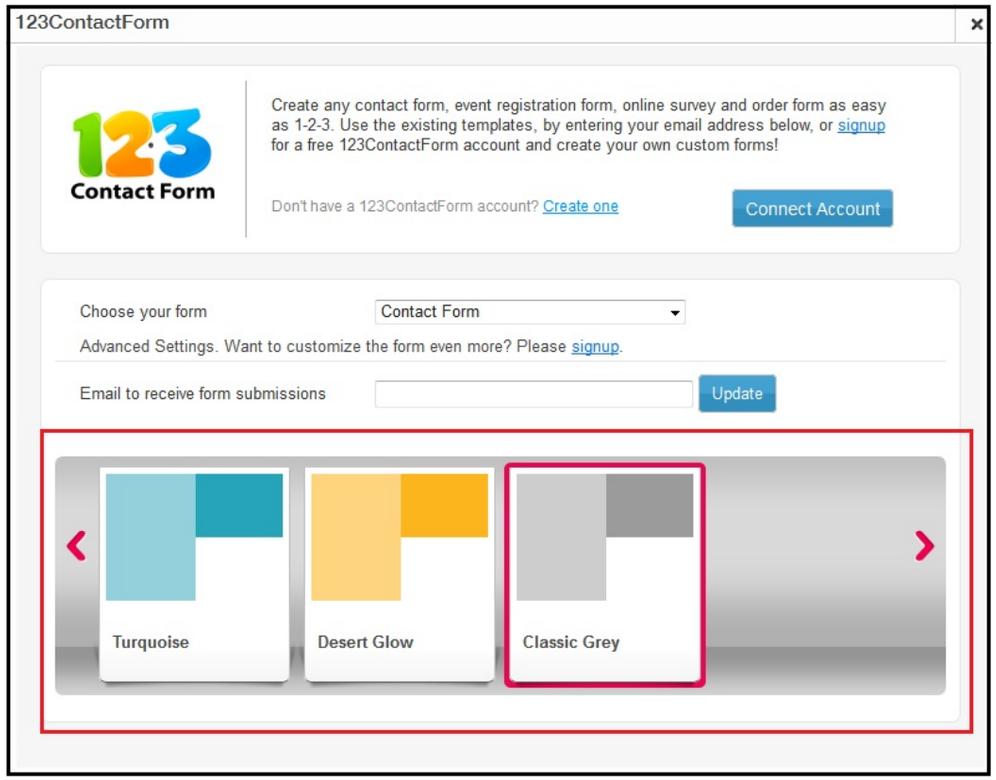
- The settings panel of an app is accessed by clicking the app in the Wix Editor.
- Next to the app, a settings panel opens.



Application Settings

Unlike the app itself, the settings of an app can only be seen and accessed by the site owner.
Use the Settings to

- Tailor the application to a specific site
- Tailor a specific view of the application (in case of multiple widgets)
- Connect Account / Register / Login



Settings endpoint

[**web-endpoint-url**]?
instance=[**signed-instance-data**]&
compId**=[compId]&**
width**=[width]&**
local**=[locale]&**
origCompId**=[origCompId]**

Settings endpoint

Name	Value
web-endpoint-url	The endpoint URL as supplied during the app registration in the dev center.
instance	The signed instance as described here
compId	The ID of the Wix component which is the host of the iframe. The compId can be used to distinguish between multiple instances of the same Widget in a site.
OrigCompId	The ID of the component which associated with the app settings panel (in the site)
Width	The width of the frame to render in pixels
local	Site locale e.g., ‘en’

Q
&
A