



December 1st, 2012

Introduction to the new SharePoint 2013 App Model

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SHAREPOINT **SATURDAY**
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OTTAWA

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SHAREPOINT SATURDAY

OTTAWA

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 OTTAWA

Thank you to all of our Sponsors!!



Speaker Bio

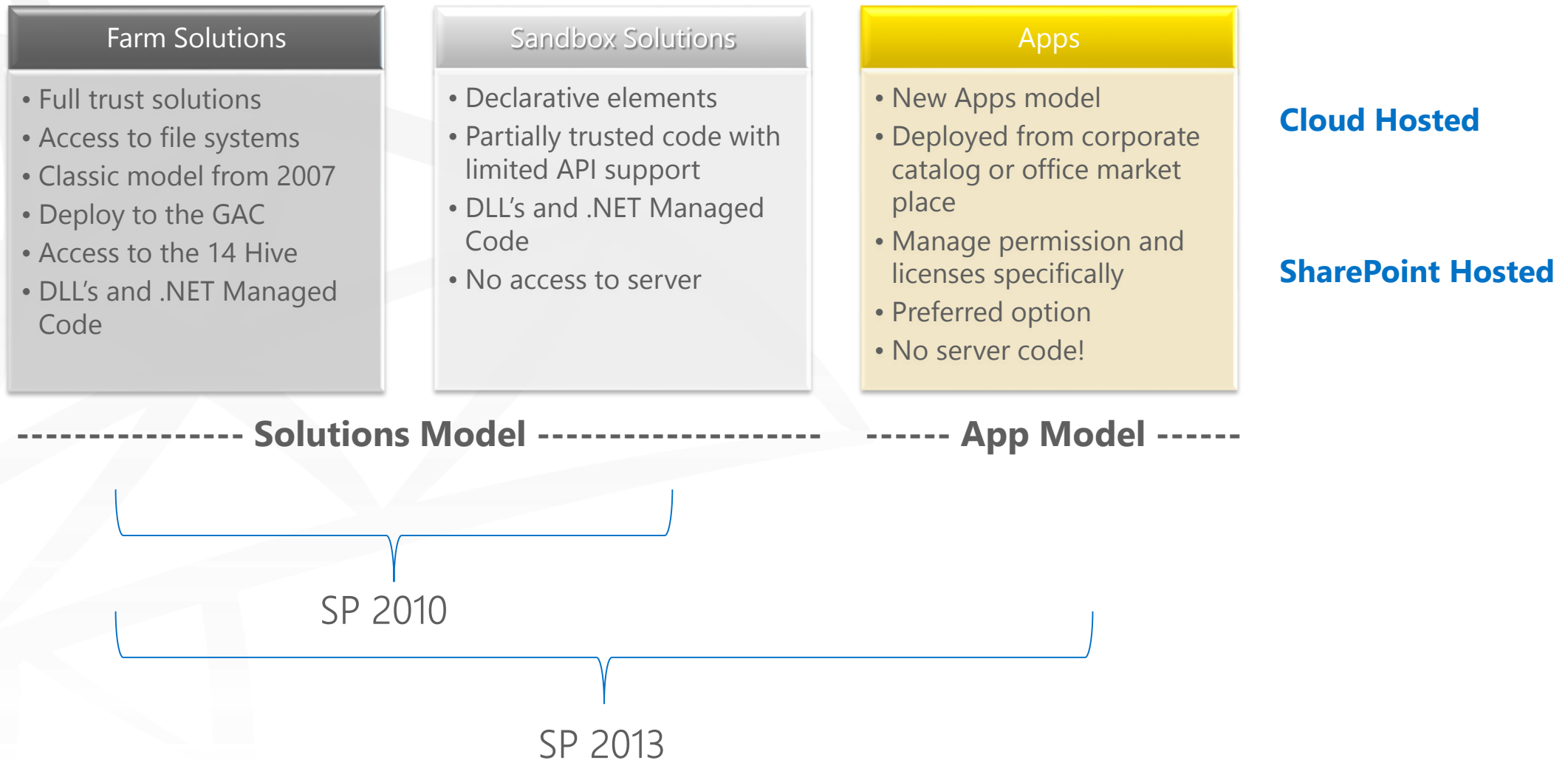
- Noorez Khamis aka "Rez"
 - SharePoint Architect
 - Microsoft MVP



twitter: @nkhamis blog: Rez's SharePoint Blog Spot - <http://www.khamis.net>

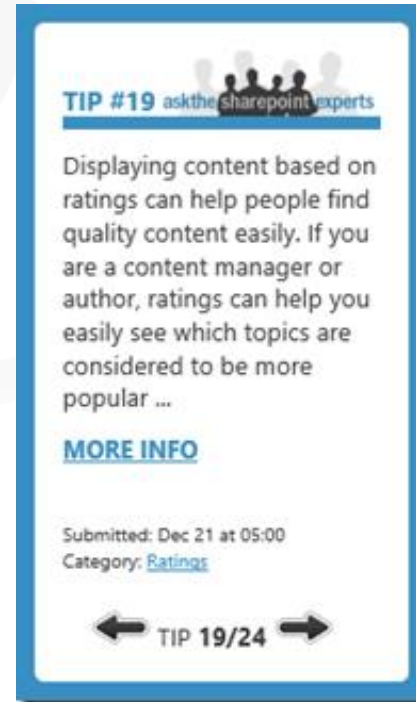
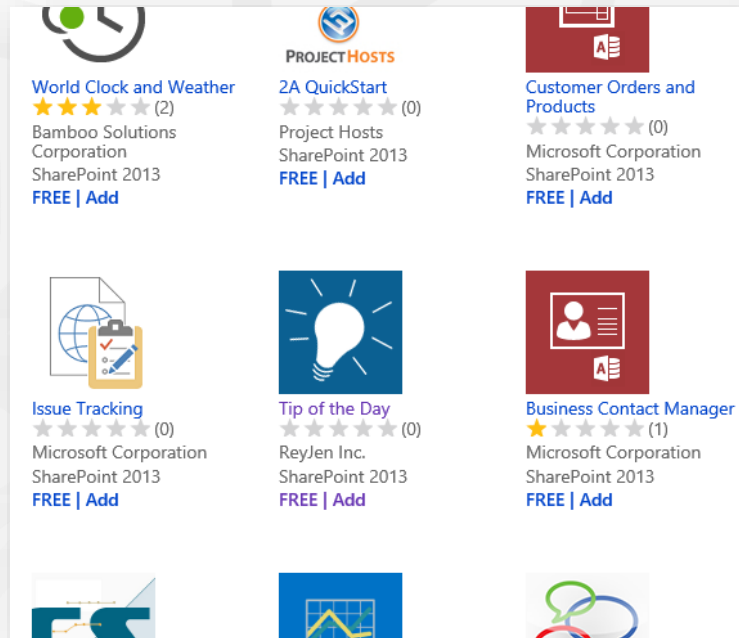
- About me:
 - Director at StoneShare
 - Technical Consultant at ReyJen Inc.
 - 13+ years in managing, leading, designing and implementing SharePoint business solutions across a wide variety of verticals
 - Involved in hundreds of projects spanning entire SharePoint spectrum including enterprise scale document and records management systems
 - Active blogger and involved in GTA SharePoint community
 - MBA, MCTS, MCDBA, MCSD, MVP

First things first – we aren't losing anything! (yet)



AskTheSharePointExperts.com Tip of the Day App

- Now live on the SharePoint Store!
- <http://officepreview.microsoft.com/en-us/store/apps-for-sharepoint-FX102804987.aspx>



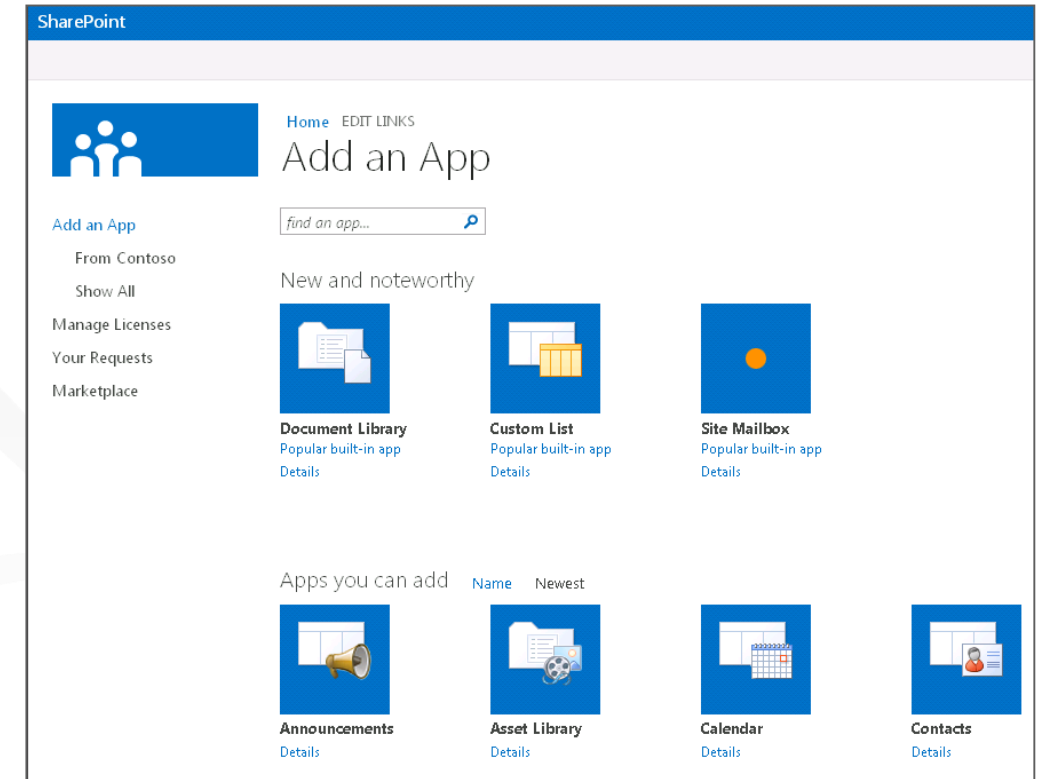
Apps – What are they?

- a la Microsoft: “Apps for SharePoint are self-contained pieces of functionality that extend the capabilities of a SharePoint website”
 - Stand-alone applications that are easy to install, use, manage, upgrade and remove
 - Ability to download and purchase apps from the Office Marketplace or from an organization's private App Catalog
 - Allow developers capability to create any application they want but..... running outside of the core SharePoint framework
 - Uses familiar web standards like HTML, JS, CSS, etc...
-

Now - Everything is an App!

DEMO

- Lists
- Libraries
- Templates
- Calendars
- Tasks
- Issues
- Custom Components



Why use Apps?

1. App Isolation

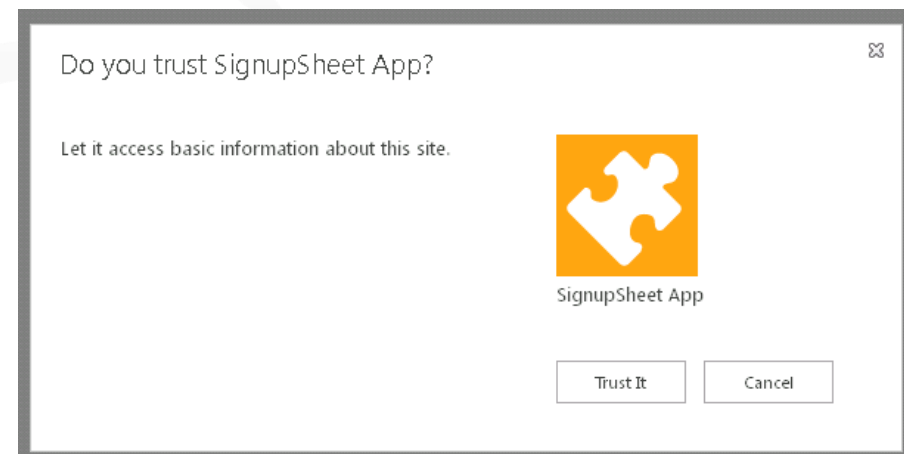
- Protects data
- Avoids security breaches
- Controlled Security Access per App
 - View, Contribute, Manage, Full Control
- Deployed to own "App Web"

2. Hosting Options

- Self/Remote/Developer Hosted
- Azure Auto Hosted
- SharePoint Hosted

3. Monitoring and Managing

- Admins can monitor errors
- See stats on use/licenses
- Site owners manage own apps



Why did Microsoft go down the “App Route”?

Get our code out of SharePoint!

- Easier to upgrade to newer versions/patches
 - Create rich apps that tie into SharePoint but not dependent on it
 - Allow developers to use any development platform they like!
 - Reduction of:
 - server outages and downtime
 - errors due to custom code
 - testing
 - performance and scaling problems
 - Fine grain control for administrators
 - Office Marketplace and Cross-Device (i.e. Mobile and Tablets)
-

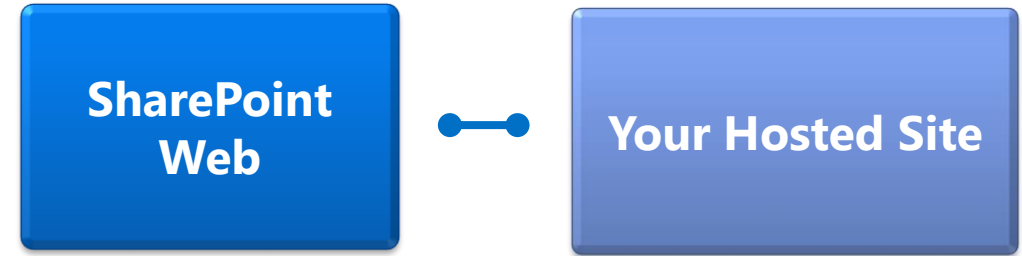
App Hosting Options

Cloud-based Apps

Get remote events from SharePoint
Use CSOM/REST + OAuth to work with SP

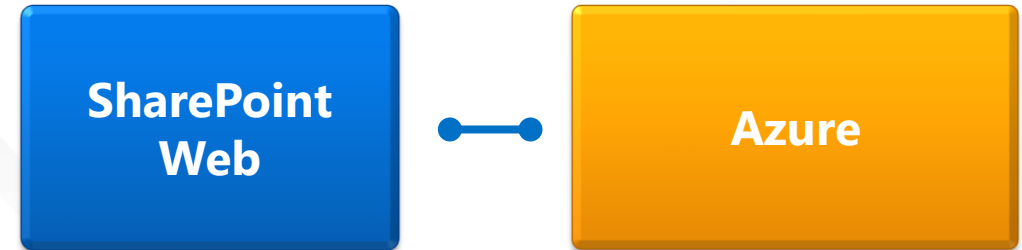
Developer-Hosted App

"Bring your own server hosting infrastructure"
Developers will need to isolate tenants



Azure Auto-Provisioned App

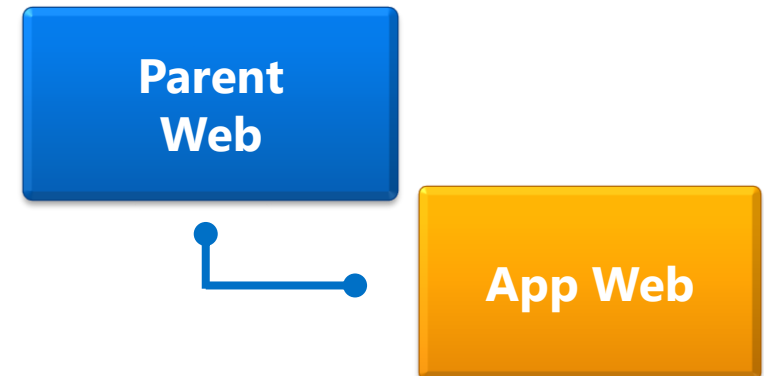
Windows Azure + SQL Azure
provisioned invisibly as apps are installed



SharePoint-hosted App

Provision an isolated sub web on a parent web

- Reuse web elements (lists, files, out-of-box web parts)
- No server code allowed; use client JavaScript for logic, UX



Development Environment for your Apps

- On Premises Physical or Virtual Server(s)
 - Be aware of the new [hardware and software requirements](#) for SharePoint 2013!
 - Ensure you have at least 10GB RAM or you will get Memory related errors!
 - Not allowed on Windows 7 (or 8) anymore, need Windows Server 2008 R2 SP1 or Windows Server 2012
- Cloud based
 - [CloudShare](#)
 - [Amazon Web Services EC2](#)
 - [Windows Azure Virtual Machines](#)
- Office 365 Preview
 - [Office 365 with SharePoint 2013 Preview](#)
 - [SharePoint 2013 Developer Site](#)



Fastest and easiest way to get started!

App creation options

1. Use the new Visual Studio 2012 project templates
 - Install Microsoft Office Developer Tools for Visual Studio 2012
 - Need to download them separately
 - Good reference to install:
<http://www.elumenotion.com/Blog/Lists/Posts/Post.aspx?ID=155>
 2. Use the new Napa Office 365 Development tools
 - Browser based tools
 - Works with a **Developer site** on Office 365
 - Companion to Visual Studio
-

App Project Anatomy

PAGES

Home.aspx

Main page of the app

Web Part Page

Script and Style references

Elements.xml

Installs home page to the isolated app site

STYLES

App.css

Template style sheet

Elements.xml

Installs css to isolated app site

SCRIPTS

App.js

Template script file

Elements.xml

Installs script file to isolated app site

APP MANIFEST

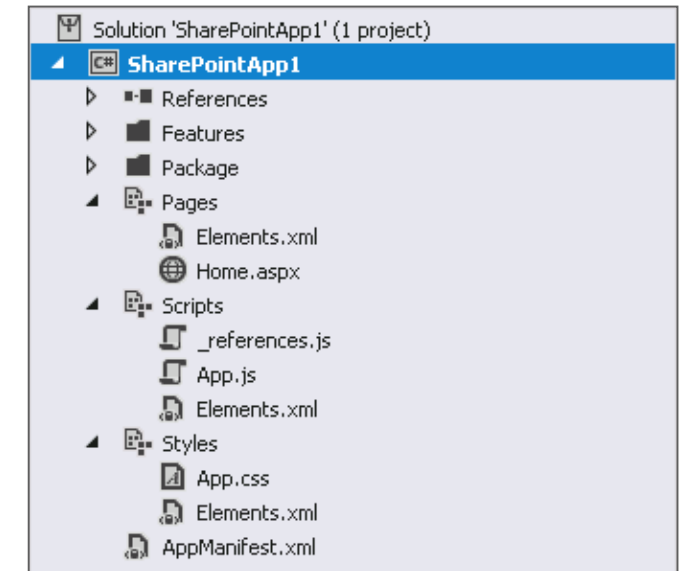
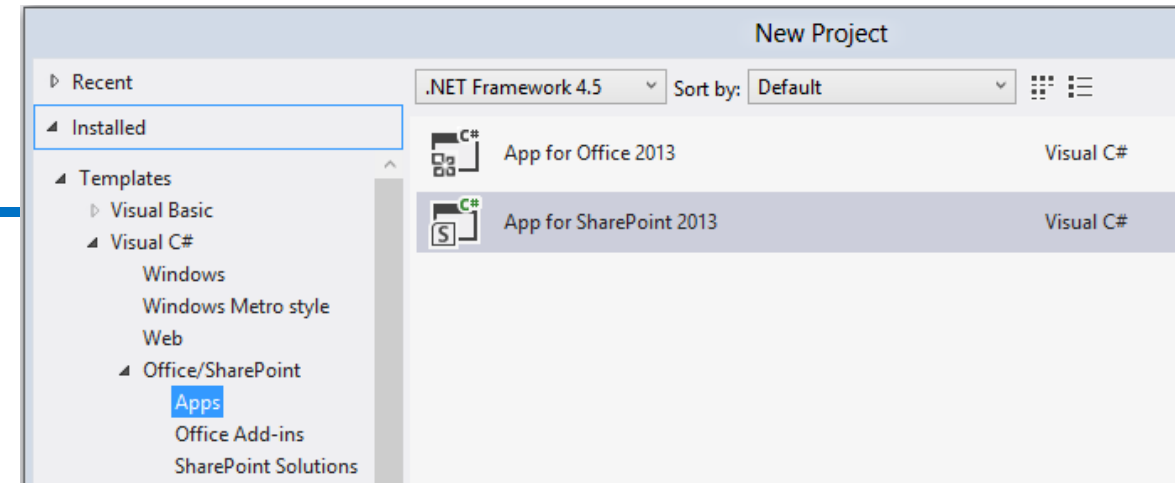
AppManifest.xml

ProductID, Version, Title

Tile and StartPage Urls

AppEvent Urls: Installed, Uninstalling, Upgraded

App Permission requests

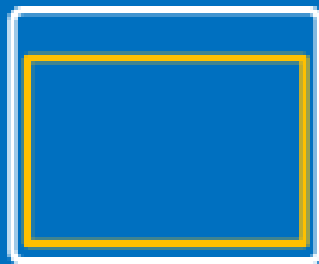


DEMO

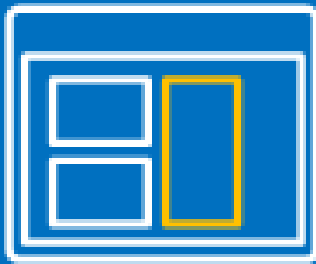
App UI Access Options

DEMO

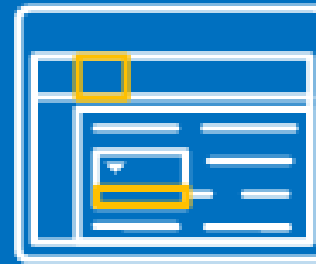
IMMERSIVE
FULL PAGE



PART



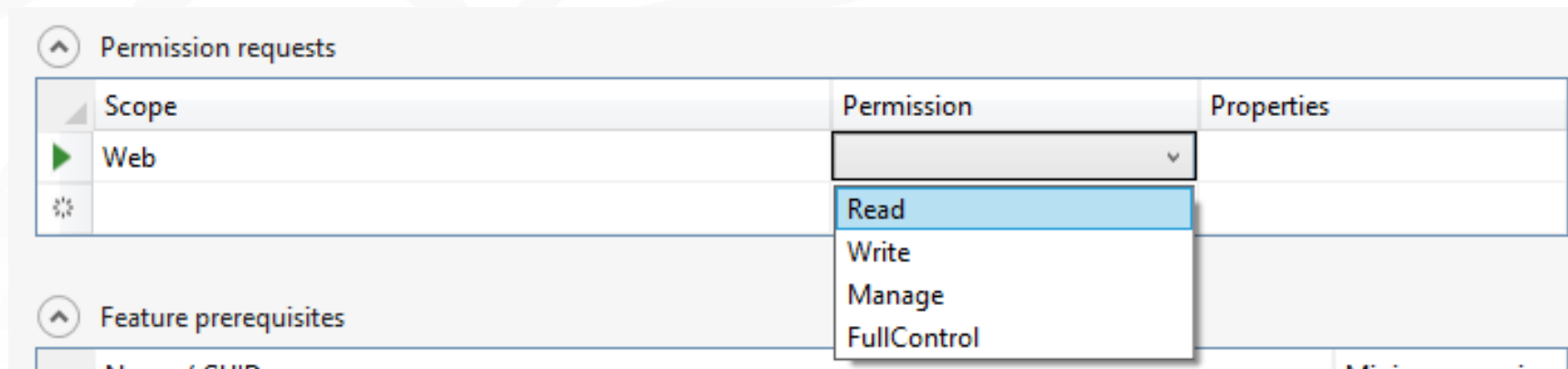
UI CUSTOM
ACTIONS



Communication between Apps & SharePoint

DEMO

- Cloud hosted apps need to interact with SharePoint for data access and manipulation (i.e. read/write list items, edit permissions, etc...)
- Communication is facilitated via Client Side Object Model (CSOM) and REST (new _api construct fully comparable to CSOM)
- Apps are granted Read, Write, Manage and Full Control permissions for access and uses the OAuth 2.0 protocol



App most basic form – AppManifest.xml

DEMO

```
<App xmlns="http://schemas.microsoft.com/sharepoint/2012/app/manifest"
      ProductID="{626f8547-39e1-4406-9f11-8bedfcfdb46f}"
      Version="1.0.0.0"
      SharePointMinVersion="15.0.0.0"
      Name="ATSPETipOfTheDay">
  <Properties>
    <Title>Tip of The Day</Title>
    <StartPage>~appWebUrl/Pages/Default.aspx?{StandardTokens}</StartPage>
  </Properties>
  <AppPrincipal>
    <Internal />
  </AppPrincipal>
  <AppPermissionRequests />
</App>
```

Options for Publishing Apps

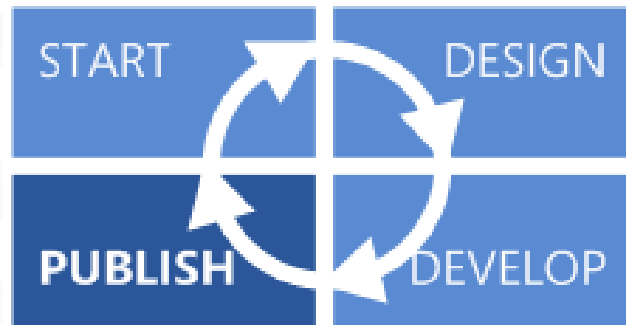
1. **Public Office Marketplace** - Publish your app to the Office Store to make the app publically available, so that it can be acquired by users of any SharePoint deployment.
2. **Internal organization app catalog** - Publish your apps to an internal organization app catalog, hosted on your SharePoint deployment, to make them available to users with access to that SharePoint deployment.

Note: Developers can use the new “Developer” site template to test out their apps

Publishing Apps to the Office Store

DEMO

- Develop -> Test -> Create Seller Dashboard Account -> Submit Required Company and Tax Documentation -> Submit your App Package, Icon, Screenshots, Auth and Descriptive Information -> Wait for Approval -> Correct any errors -> Resubmit
- [http://msdn.microsoft.com/en-us/library/jj164070\(v=office.15\).aspx](http://msdn.microsoft.com/en-us/library/jj164070(v=office.15).aspx)



Microsoft Office Marketplace Validation Test Results

Application Details

Validation Result: Fail

App Name: Tip of the Day

App ID: 42949673605

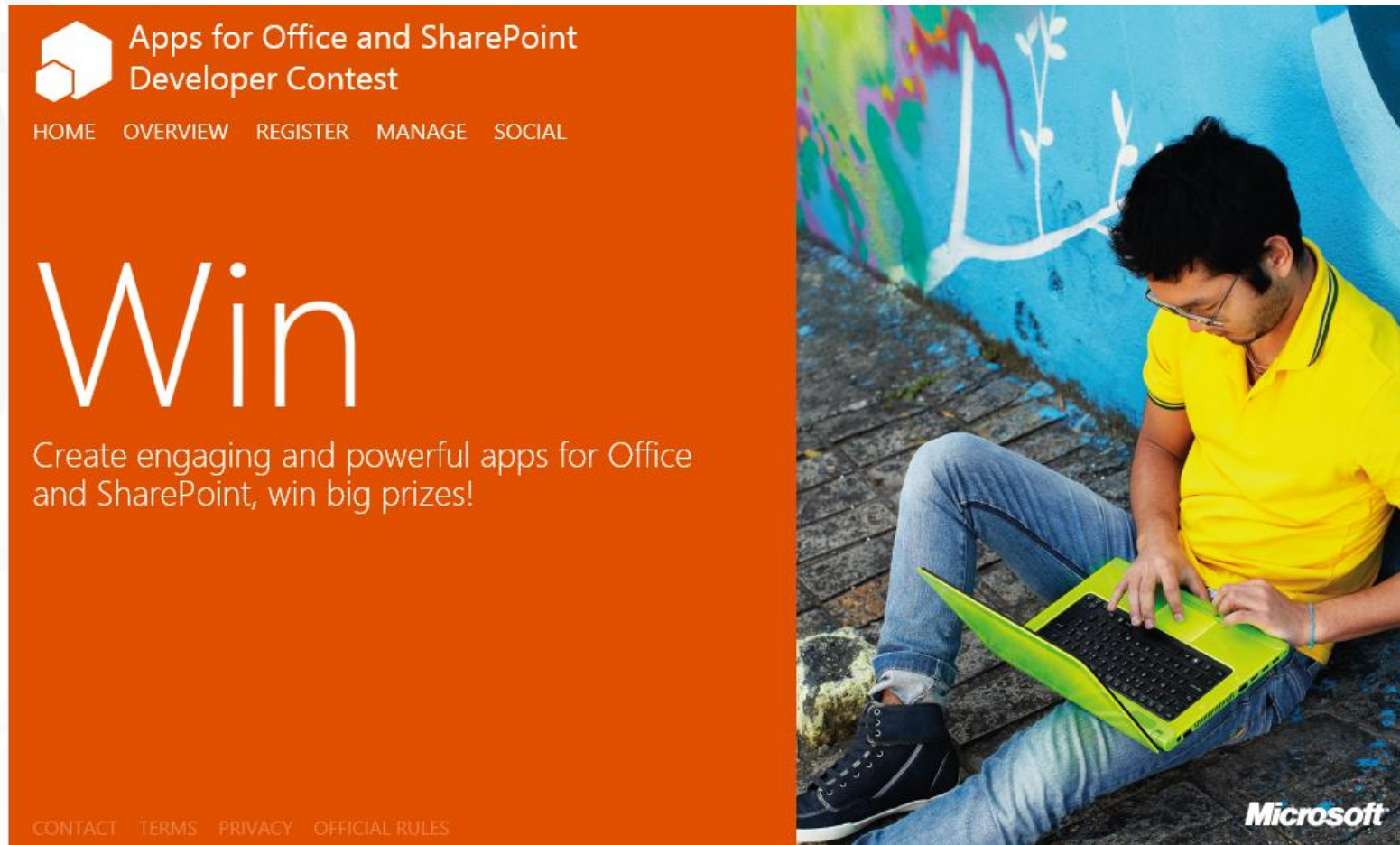
Developer: ReyJen Inc.


Date Validated: September 3rd, 2012

Action: : Please address the comprehensive list of failures below, review the [Validation policies for the apps submitted to the Office Store](#) and resubmit your updated application for Validation. For further assistance, please visit the [Support resources](#) on the Developer Center.

Requirement	Result
7.8. Your app's package must be correctly formatted.	Fail The version number submitted via the sellerdashboard is not the same as that in the app package. These must be the same. The version number in the sellerdashboard does not conform to structure. SharePoint version numbers must use n.n.n.n structure (e.g. 1.0.0.0)
4.3. Your app description, imagery, documentation, and any other associated metadata must be consistent with the functionality of the app.	Fail Changing the properties for the app works only for the first screen. Once you click forward, the app returns to the default settings.

Apps for Office and SharePoint Contest




 Apps for Office and SharePoint
Developer Contest

HOME OVERVIEW REGISTER MANAGE SOCIAL

Win

Create engaging and powerful apps for Office and SharePoint, win big prizes!

CONTACT TERMS PRIVACY OFFICIAL RULES



Microsoft

<http://officeappcontest.com/>

Demo

DEMO

1. Office 365 Preview Site
 2. Apps in Site Content
 3. Developer Site
 4. SharePoint Store
 5. /_api/web
 6. Visual Studio 2012 SharePoint Templates
 7. AppManifest.xml
 8. Napa
 9. AskTheSharePointExperts.com Tip of the Day App Part & Tool Part
-

Q & A

Good References:

<http://social.technet.microsoft.com/wiki/contents/articles/12444.sharepoint-2013-apps-overview-and-resources-for-developers.aspx>

<http://www.andrewconnell.com/blog/archive/2012/07/16/understanding-sharepoint-2013-apps-aka-apps-101.aspx>

[http://msdn.microsoft.com/en-us/library/jj163980\(v=office.15\).aspx](http://msdn.microsoft.com/en-us/library/jj163980(v=office.15).aspx)
