



Apps for Office

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office in the world

1 billion office
users (1 in 7)

3.5 million office
online users

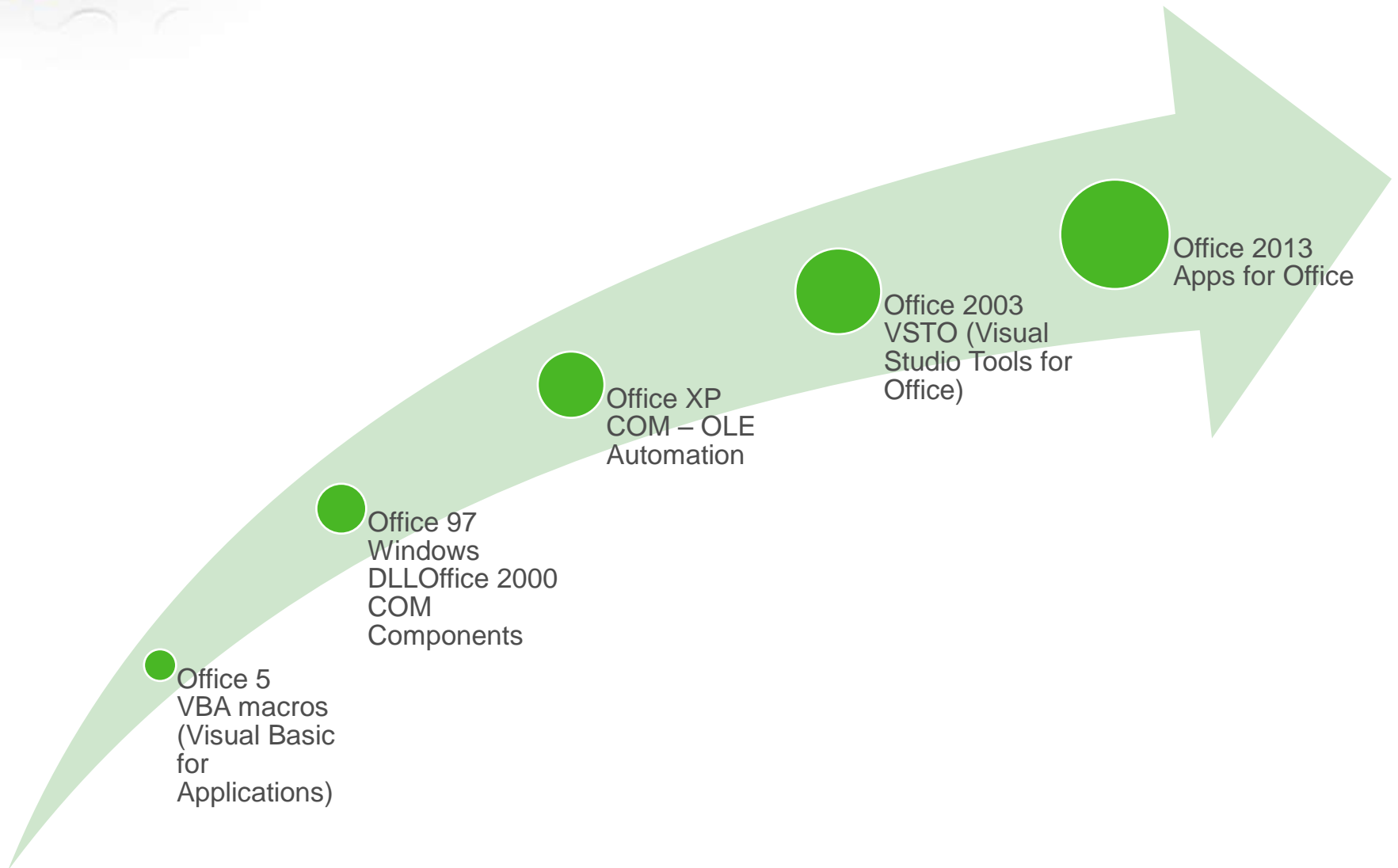
250 million
people use
onedrive

50% of fortune
500 use Azure

office works on
the web,
phones, tablets,
desktops

yammer
lync
sharepoint
cloud

a little history





before today...

- deployment was done with DLLs where Office is installed
- code executes within the Excel process
- data stays within the XLS file
- code is outside the XLS file (except for VBA)
- deployment – update cycle is horrible
- with locked down computers, users cannot install plugins themselves, relying on IT instead



what changed

the cloud

byod

office web
apps & office
rt

smart phones
&
tablets

web
technologies

web
deployment
model & store



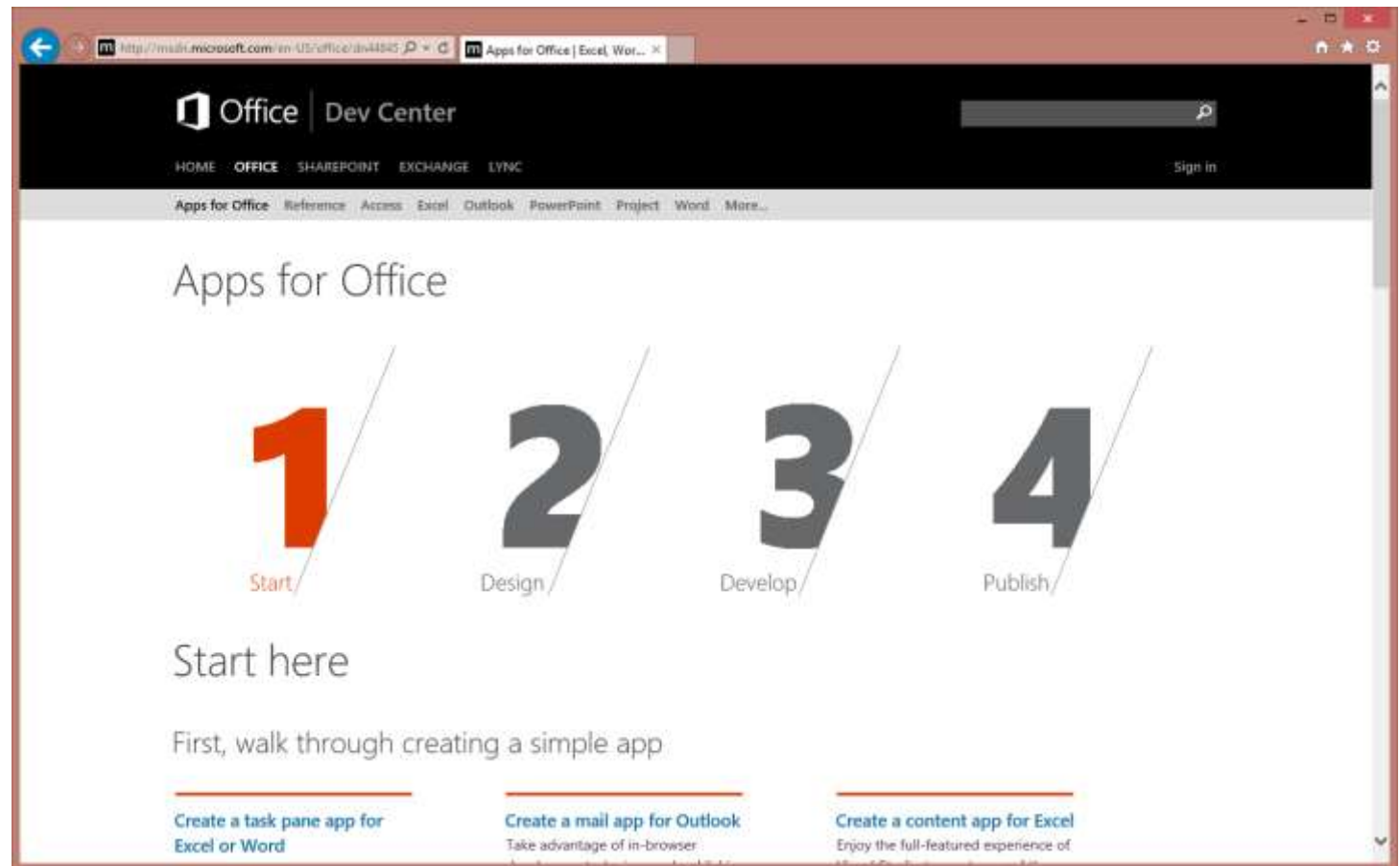
enter apps for office

- a new extension model that works on desktops, tablets, phones, the web and beyond
- an API exposed through Javascript, consumable by web technologies
- discoverable through a store (80% royalty back to the developer)
- the app is actually a web site, displaying it's content within office

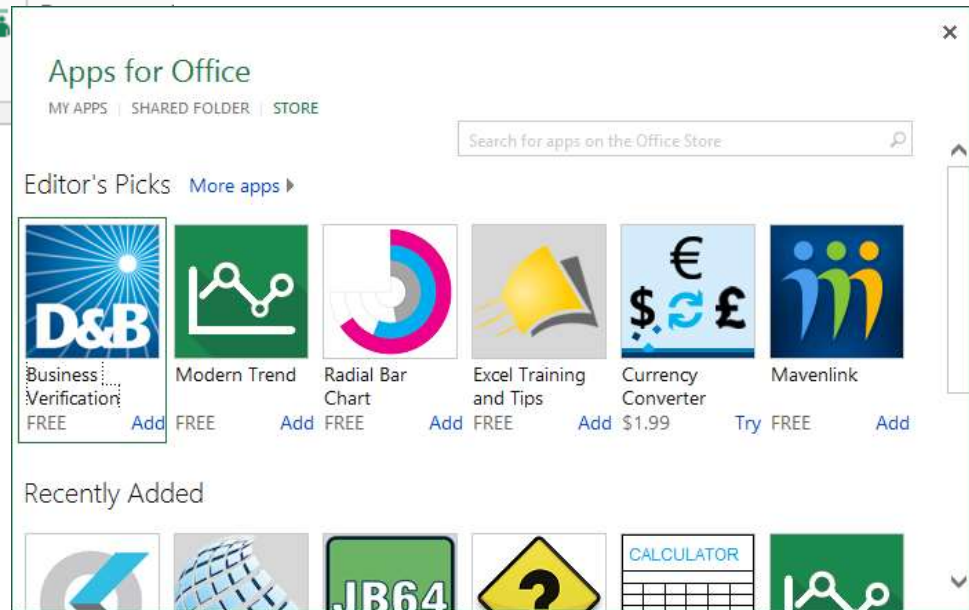
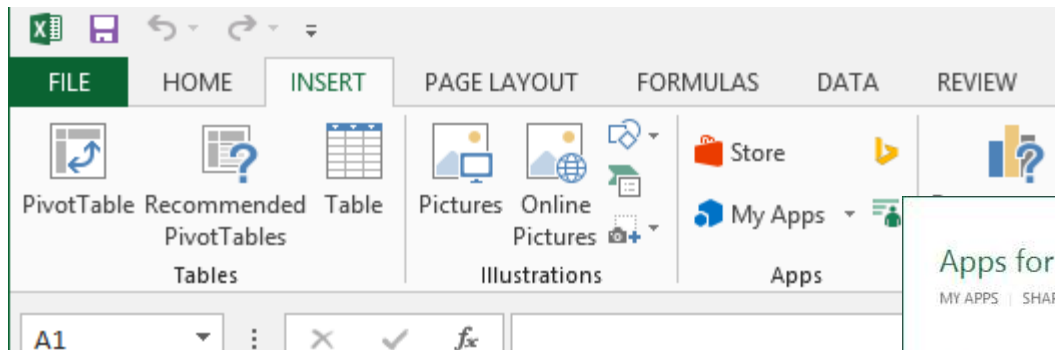
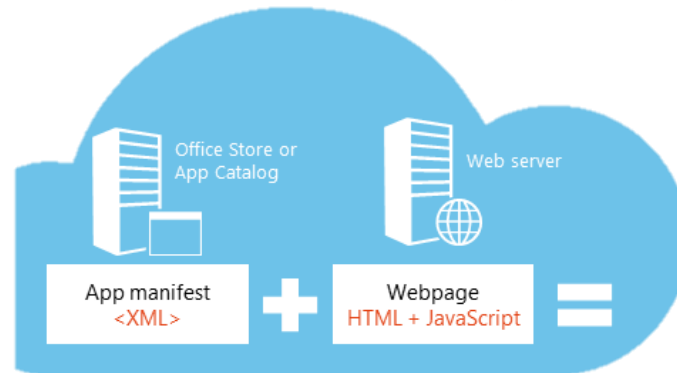


how to get started

<http://msdn.microsoft.com/en-US/office/dn448457>



architecture





task pane apps

accompanies
the file

The screenshot displays the Microsoft Word interface with the 'Bing Translate' task pane app open on the right side. The ribbon at the top includes tabs for FILE, HOME, INSERT, DESIGN, PAGE LAYOUT, REFERENCE, MAILINGS, REVIEW, VIEW, and DEVELOPER. The 'INSERT' tab is active, showing options like Pages, Table, Pictures, Online Pictures, Shapes, Illustrations, Apps for Office, Online Video, Media, Links, Comment, Header & Footer, Text, and Symbols. The 'Bing Translate' task pane app is titled 'Bing Translate' and features a close button (X). It contains a 'From' dropdown set to 'Auto-Detect' and a 'To' dropdown set to 'Spanish'. Below these is a text input field containing 'Rojo, verde y azul.' and a blue button labeled 'Add translation to document'. The translation result, 'Red, green, and blue.', is shown in a grey box within the document area. The status bar at the bottom indicates 'PAGE 1 OF 1' and '4 OF 4 WORDS'.

Insert Task pane apps from the Insert tab

App name

Task pane app

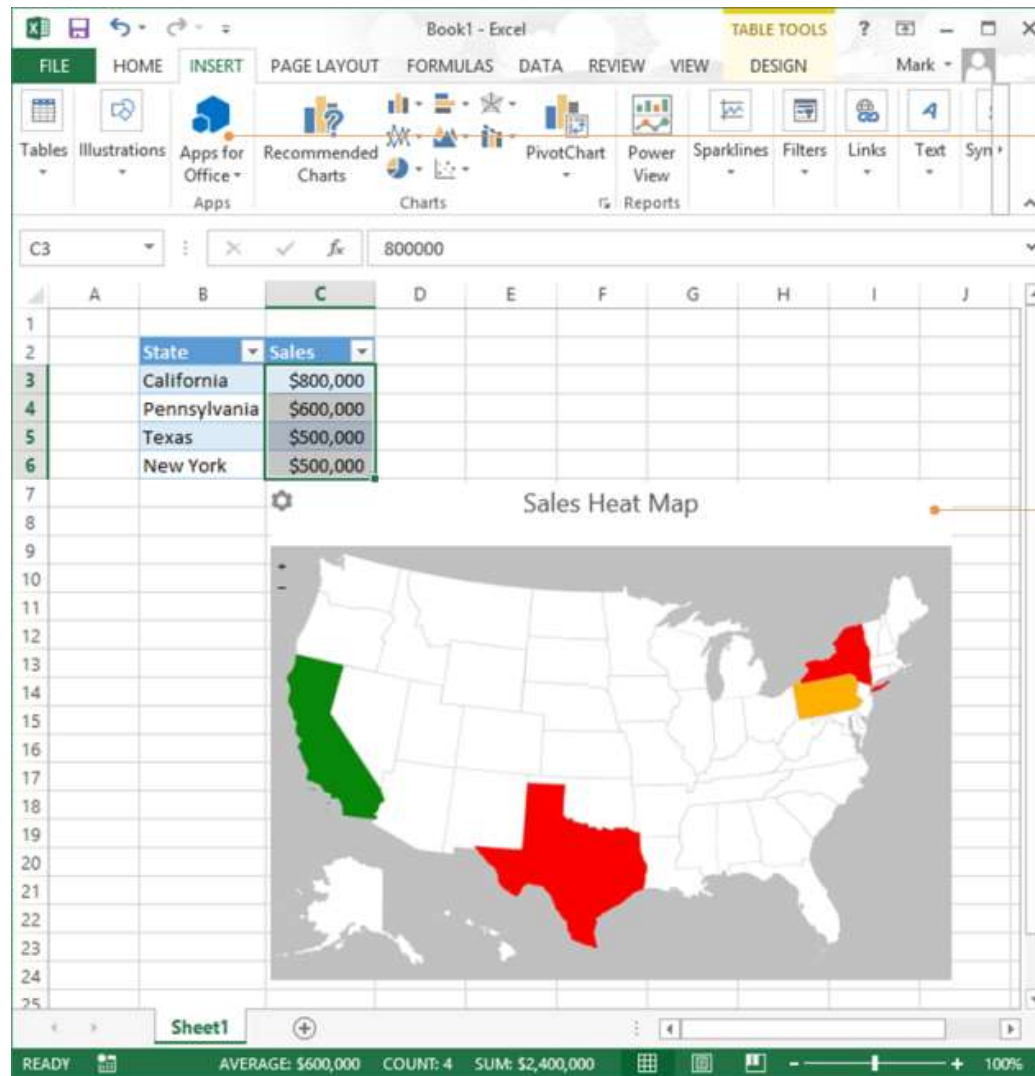
Translation based on user's selection

Red, green, and blue.

PAGE 1 OF 1 4 OF 4 WORDS

content pane apps

part of the file
an image is
saved with the
file as well as
settings to
rehydrate the
pane from the
web



Insert Content
apps from the
insert tab

This Content
app displays a
geographical
heat map of
the selected
data



demo using word (task)

- open word
- add an app, do something with it
- save the file
- open the file
- open the file with no network connectivity
- open the file with 7zip and show the plugin stuff



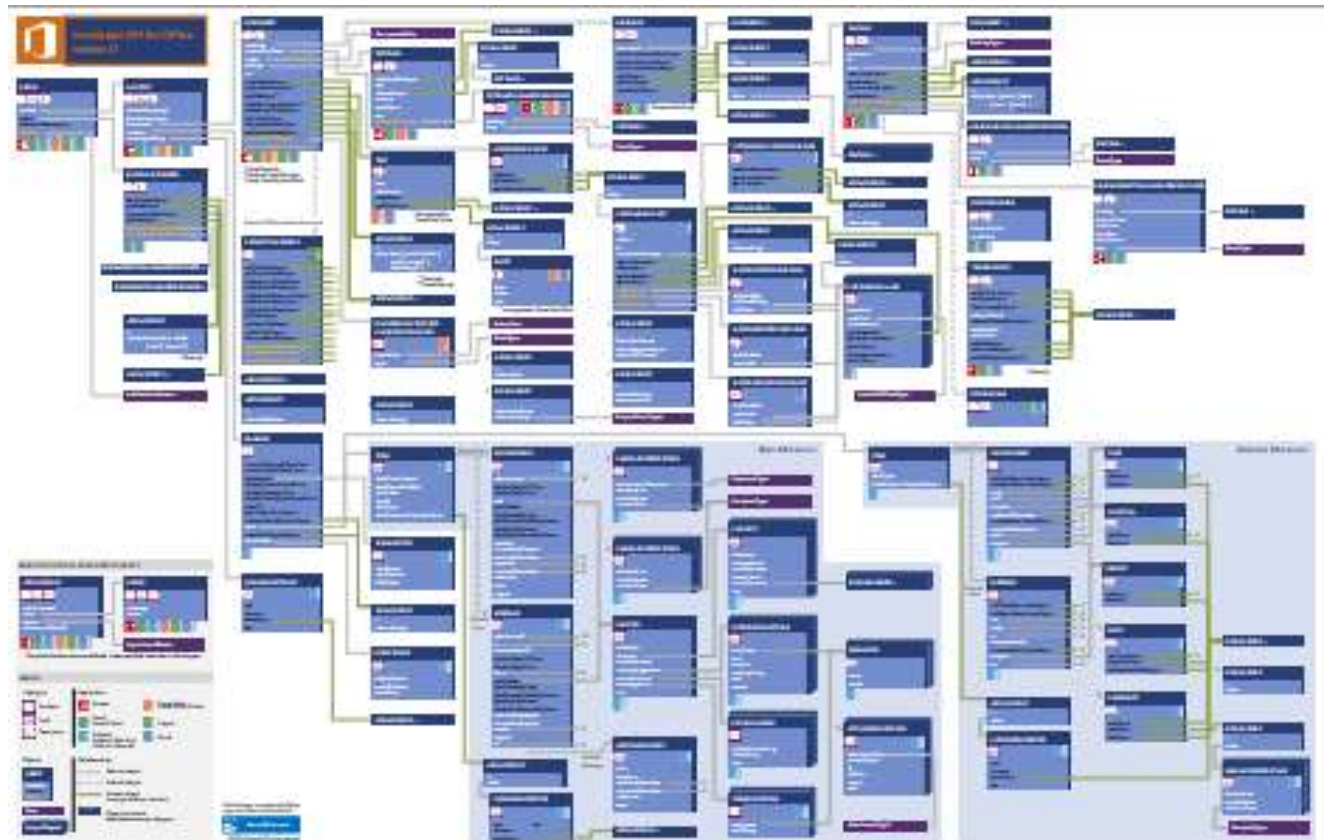
demo using excel (content)

- open excel
- add an app, do something with it
- save the file
- open the file
- open the file with no network connectivity
- open the file with 7zip and show the offline image and settings



apps for office API schema

<http://zoom.it/OinI#full>



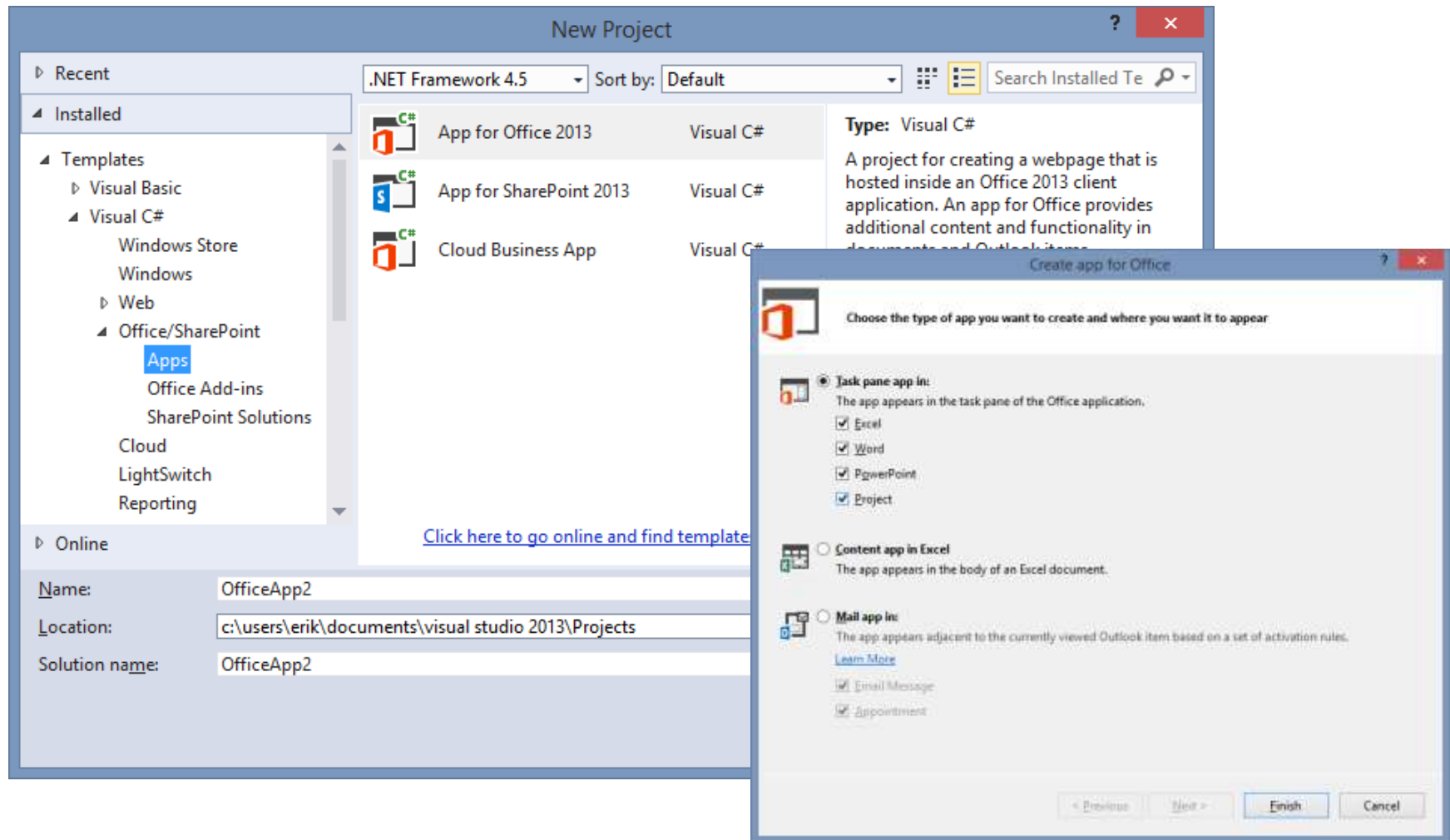


apps for office API in javascript

```
// Queries the binding for its data
function displayDataForBinding(binding) {
    binding.getDataAsync(
        {
            coercionType: Office.CoercionType.Matrix,
            valueFormat: Office.ValueFormat.Unformatted,
            filterType: Office.FilterType.OnlyVisible
        },
        function (result) {
            if (result.status === Office.AsyncResultStatus.Succeeded) {
                displayDataHelper(result.value);
            } else {
                $('#data-display').html(
                    '<div class="notice">' +
                    '    <h2>Error fetching data!</h2>' +
                    '    <a href="../../DataBinding/DataBinding.html">' +
                    '        <b>Bind to a different range?</b>' +
                    '    </a>' +
                    '</div>');
            }
        }
    );
}
```

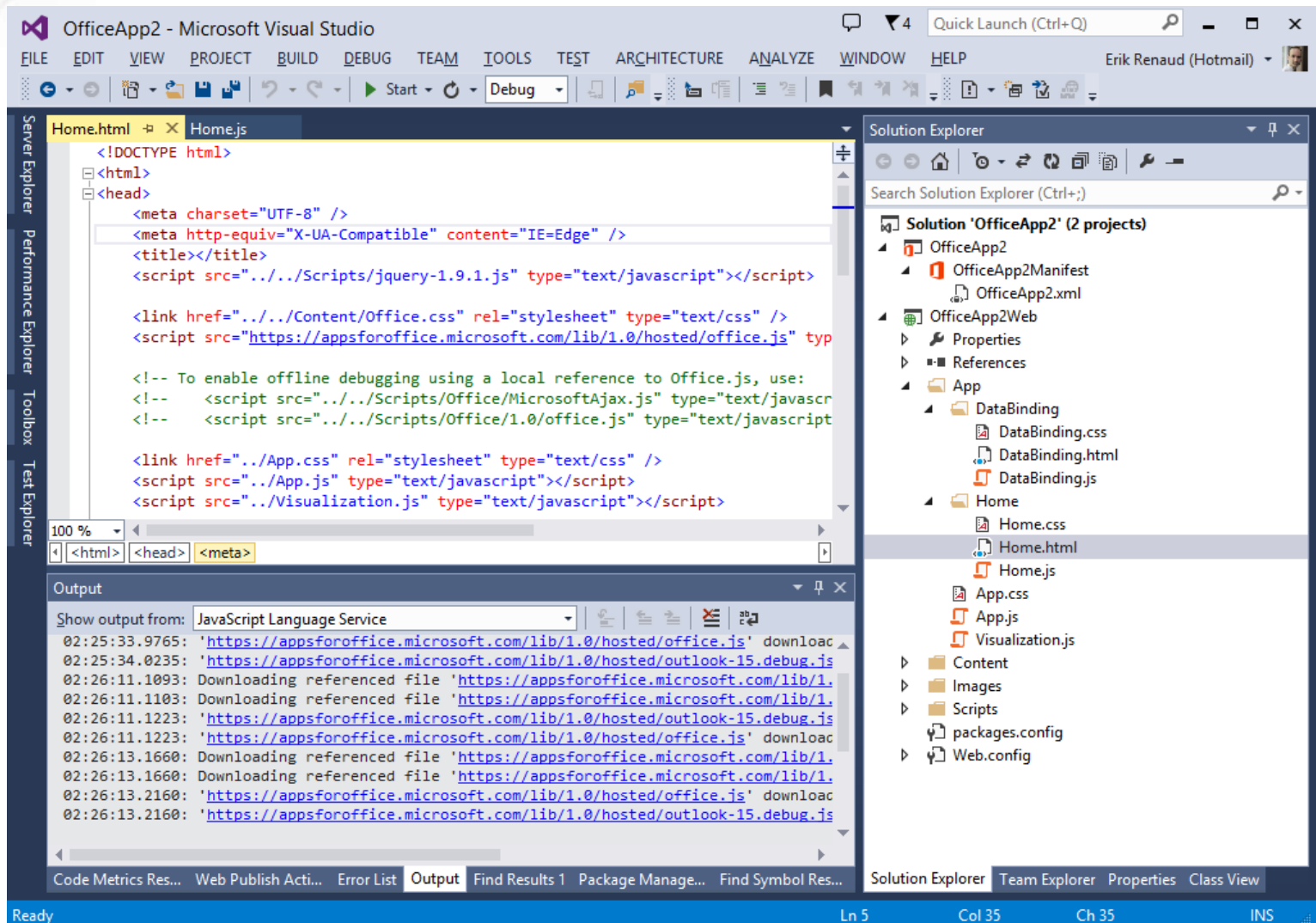
how do we build these new apps

Visual Studio 2013...





and what does that give you



OfficeApp2 - Microsoft Visual Studio

FILE EDIT VIEW PROJECT BUILD DEBUG TEAM TOOLS TEST ARCHITECTURE ANALYZE WINDOW HELP Erik Renaud (Hotmail)

Home.html Home.js

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8" />
  <meta http-equiv="X-UA-Compatible" content="IE=Edge" />
  <title></title>
  <script src="../../Scripts/jquery-1.9.1.js" type="text/javascript"></script>

  <link href="../../Content/Office.css" rel="stylesheet" type="text/css" />
  <script src="https://appsforoffice.microsoft.com/lib/1.0/hosted/office.js" type="text/javascript"></script>

  <!-- To enable offline debugging using a local reference to Office.js, use:
  <!--   <script src="../../Scripts/Office/MicrosoftAjax.js" type="text/javascript"></script>
  <!--   <script src="../../Scripts/Office/1.0/office.js" type="text/javascript"></script>

  <link href="../App.css" rel="stylesheet" type="text/css" />
  <script src="../App.js" type="text/javascript"></script>
  <script src="../Visualization.js" type="text/javascript"></script>
```

100 %

JavaScript Language Service

02:25:33.9765: 'https://appsforoffice.microsoft.com/lib/1.0/hosted/office.js' download
02:25:34.0235: 'https://appsforoffice.microsoft.com/lib/1.0/hosted/outlook-15.debug.js' download
02:26:11.1093: Downloading referenced file 'https://appsforoffice.microsoft.com/lib/1.0/hosted/outlook-15.debug.js'
02:26:11.1103: Downloading referenced file 'https://appsforoffice.microsoft.com/lib/1.0/hosted/outlook-15.debug.js'
02:26:11.1223: 'https://appsforoffice.microsoft.com/lib/1.0/hosted/outlook-15.debug.js' download
02:26:11.1223: 'https://appsforoffice.microsoft.com/lib/1.0/hosted/office.js' download
02:26:13.1660: Downloading referenced file 'https://appsforoffice.microsoft.com/lib/1.0/hosted/outlook-15.debug.js'
02:26:13.1660: Downloading referenced file 'https://appsforoffice.microsoft.com/lib/1.0/hosted/outlook-15.debug.js'
02:26:13.2160: 'https://appsforoffice.microsoft.com/lib/1.0/hosted/office.js' download
02:26:13.2160: 'https://appsforoffice.microsoft.com/lib/1.0/hosted/outlook-15.debug.js' download

Code Metrics Res... Web Publish Acti... Error List Output Find Results 1 Package Manage... Find Symbol Res...

Solution Explorer Team Explorer Properties Class View

Ready Ln 5 Col 35 Ch 35 INS



demo building an app for office

- open visual studio
- create a new app for office
- look at the manifest
- look at the web structure
- press f5



more more more

- binding types
- version 1.1
- apps for outlooks are contextual based on the item type
- apps for sharepoint follow a similar philosophy
- apps can be deployed internally through a catalog or through the store
- server technologies range from ASP.NET MVC to AngularJS to bootstrap reactive designs, do not forget authentication



demo of a production app

- open the apps website
- open the app through excel



thank you !

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