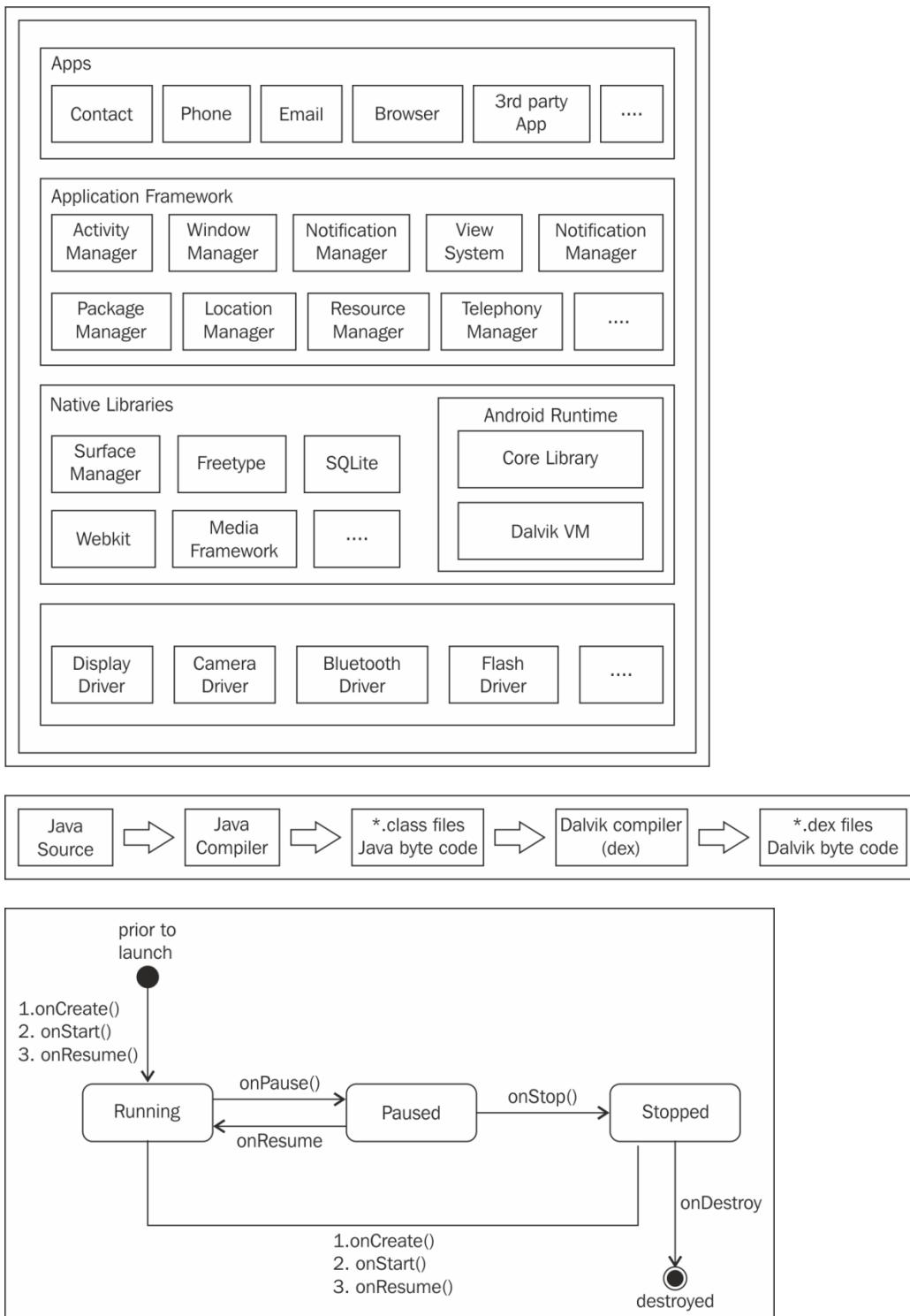
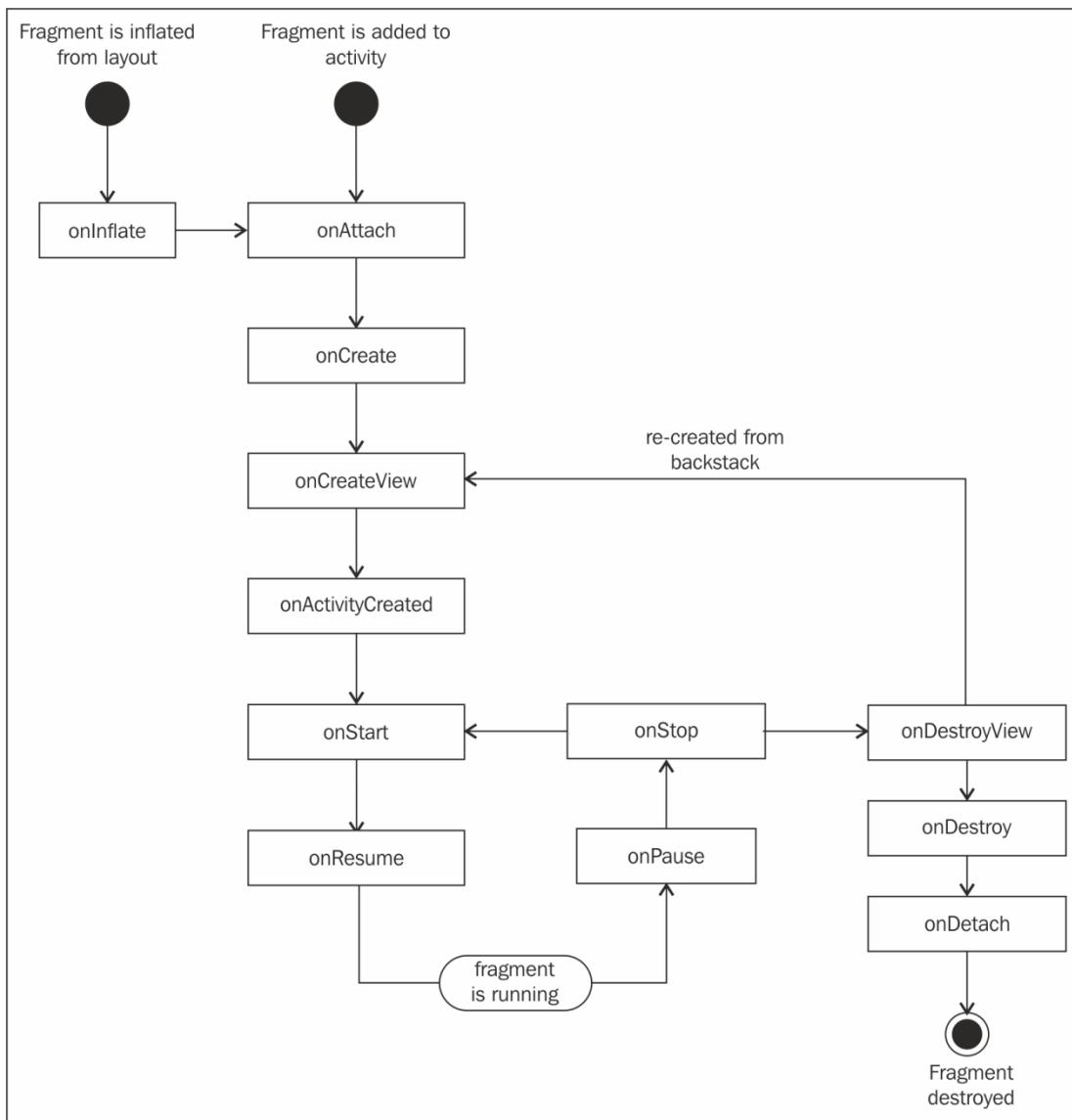
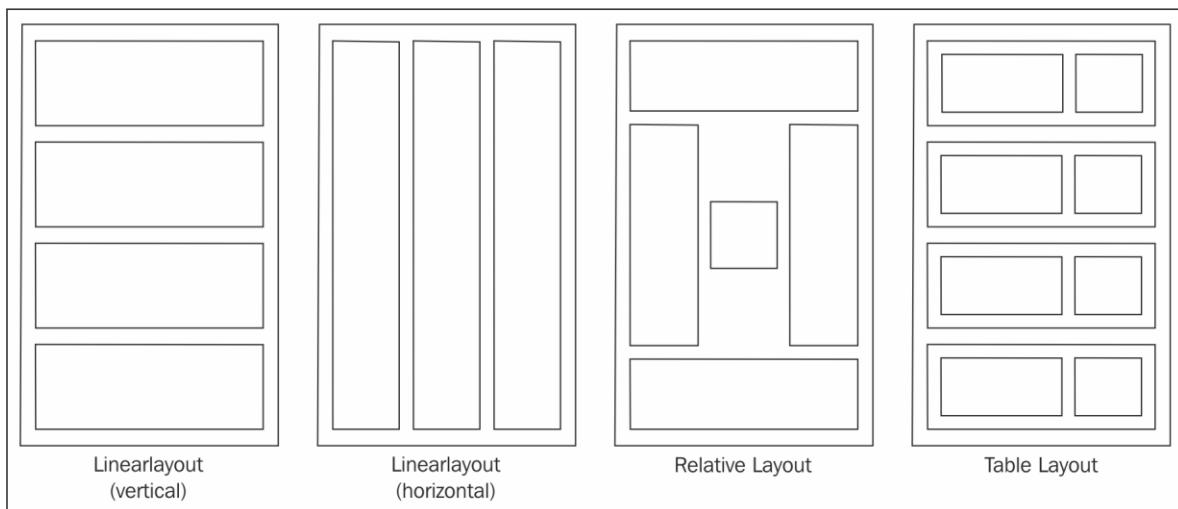
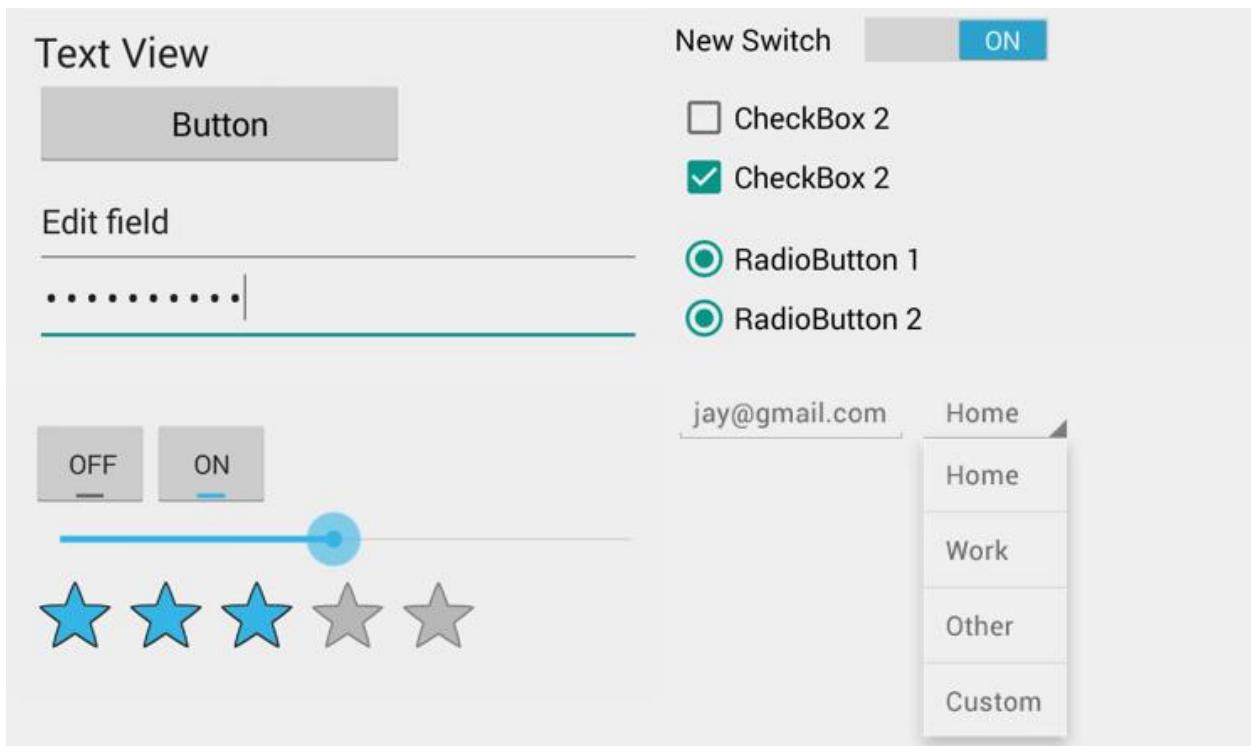


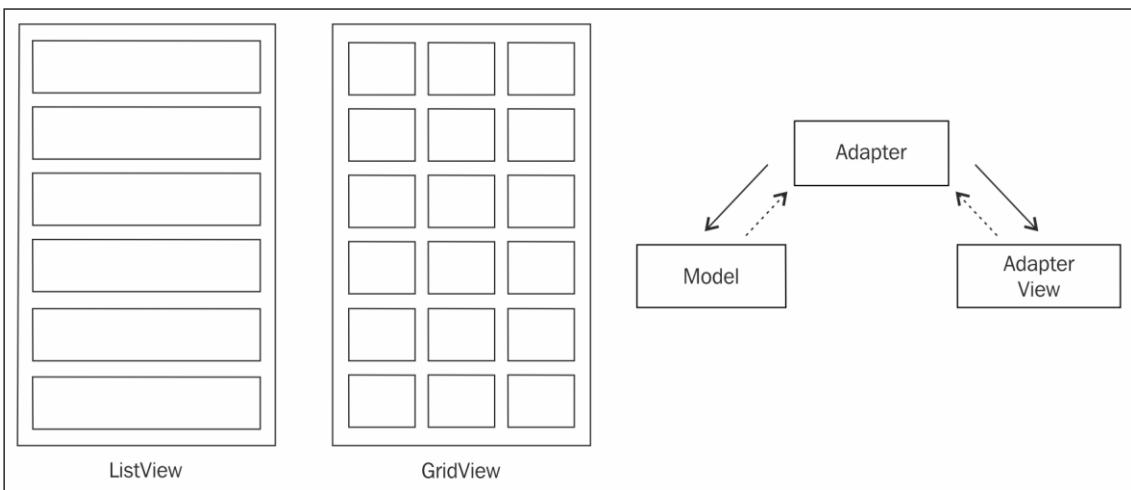
Chapter 1: The Anatomy of an Android App



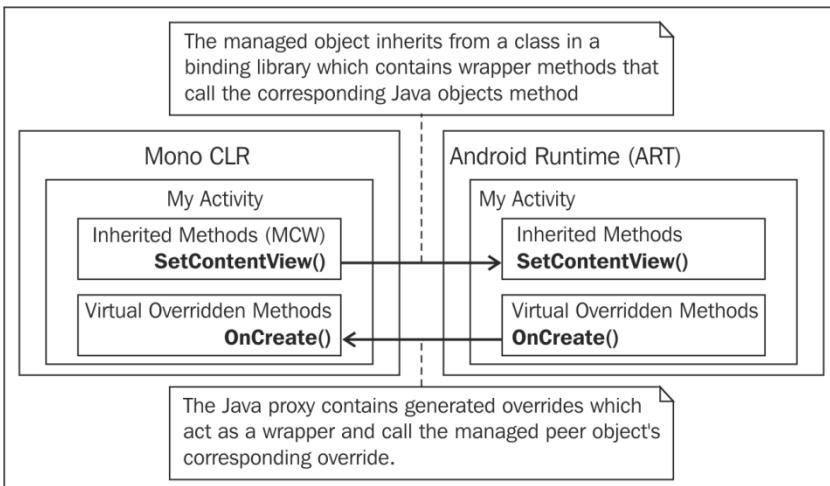
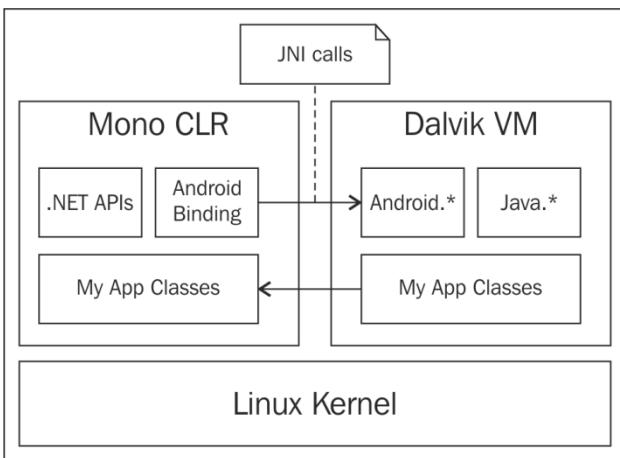


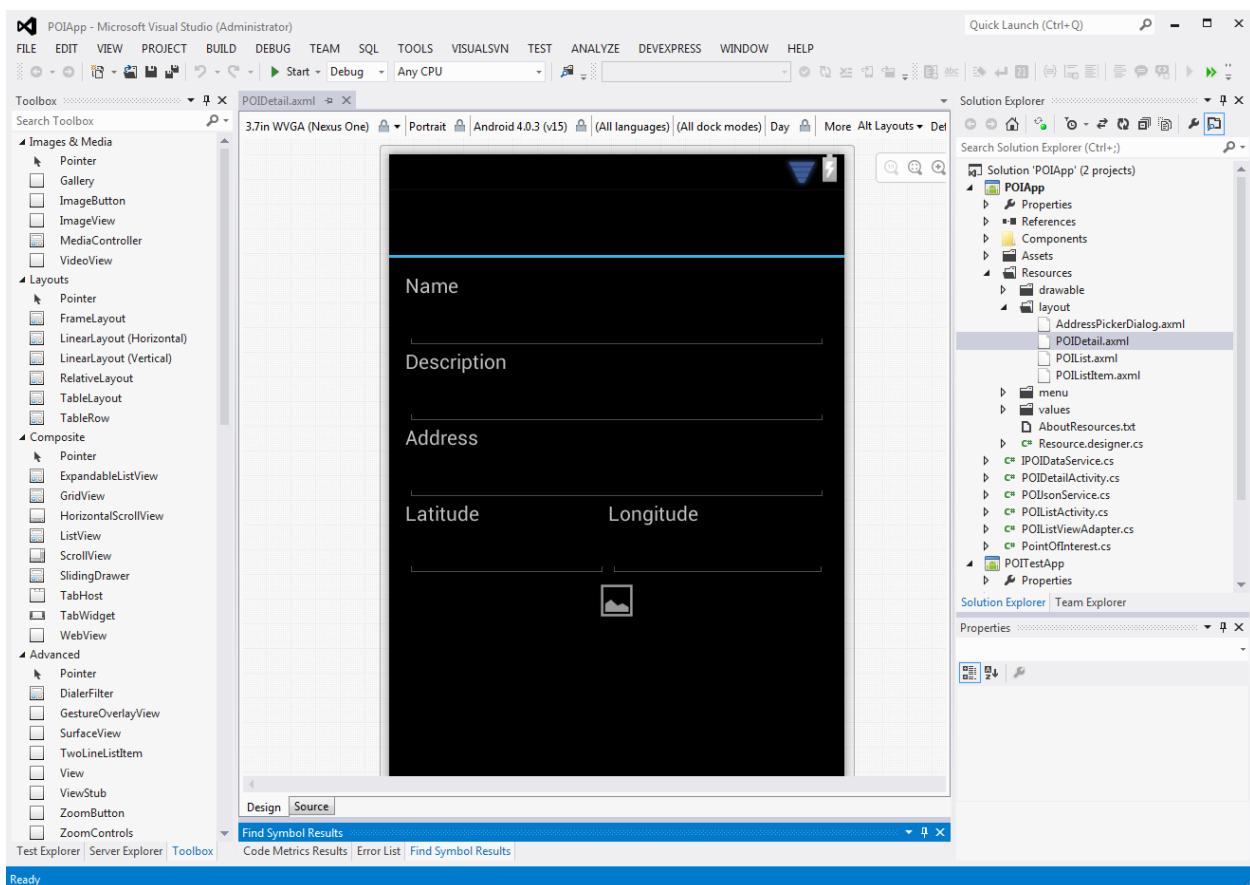
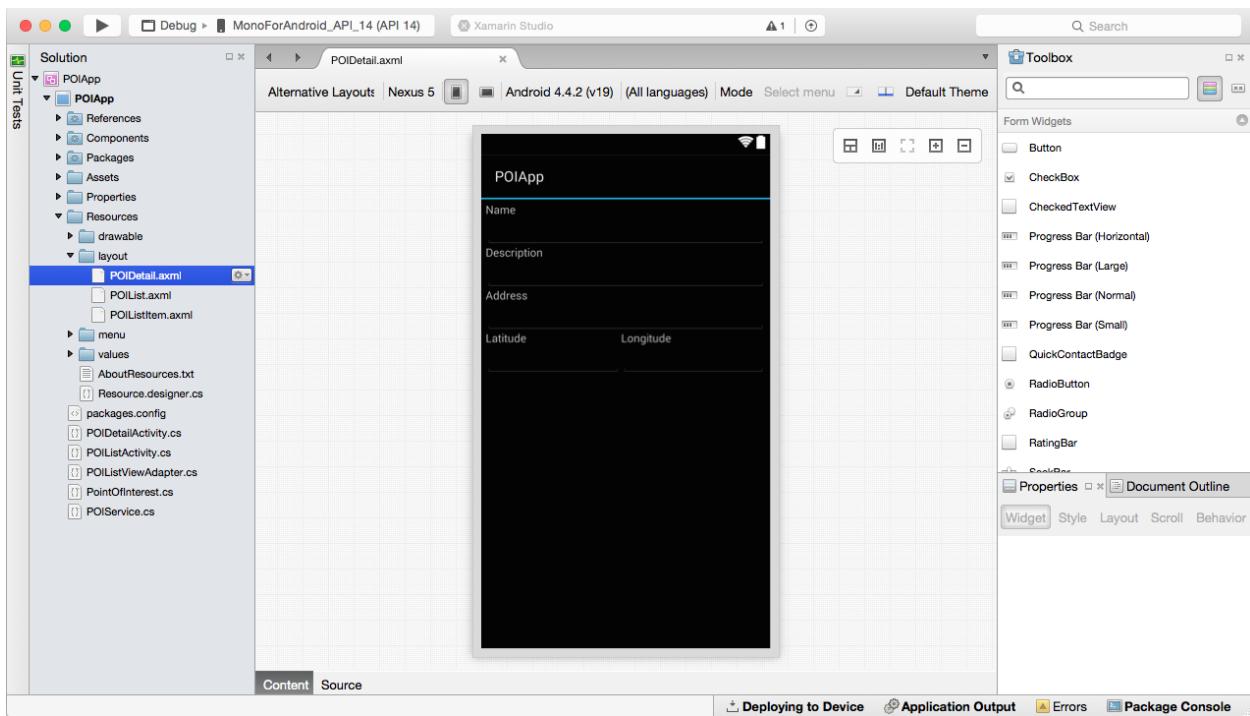




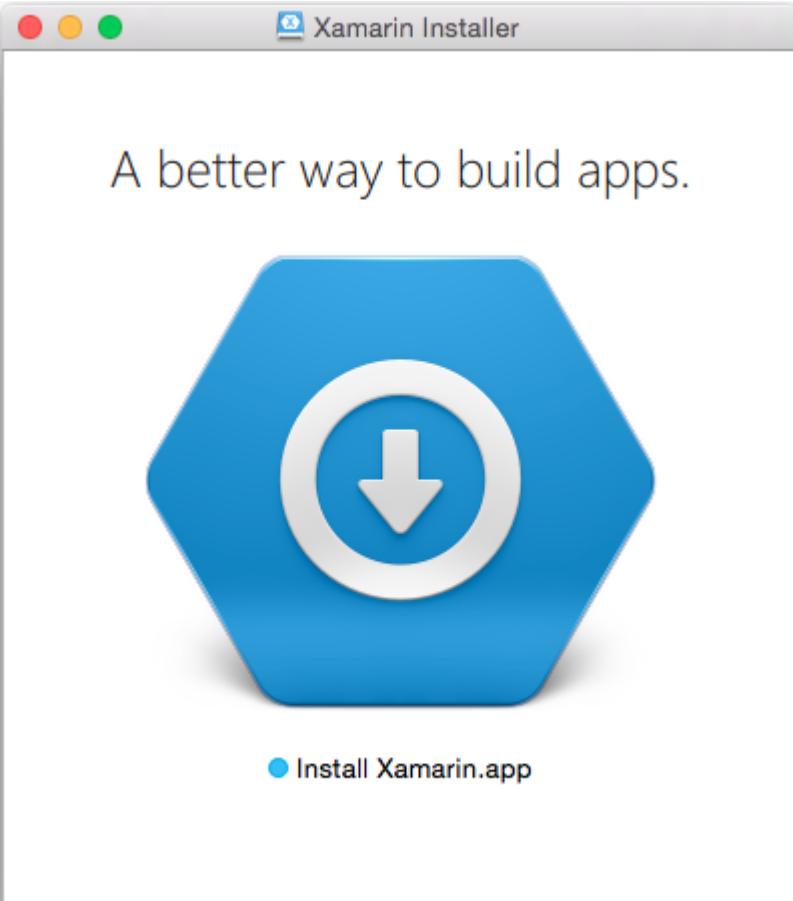


Chapter 2: The Xamarin.Android Architecture



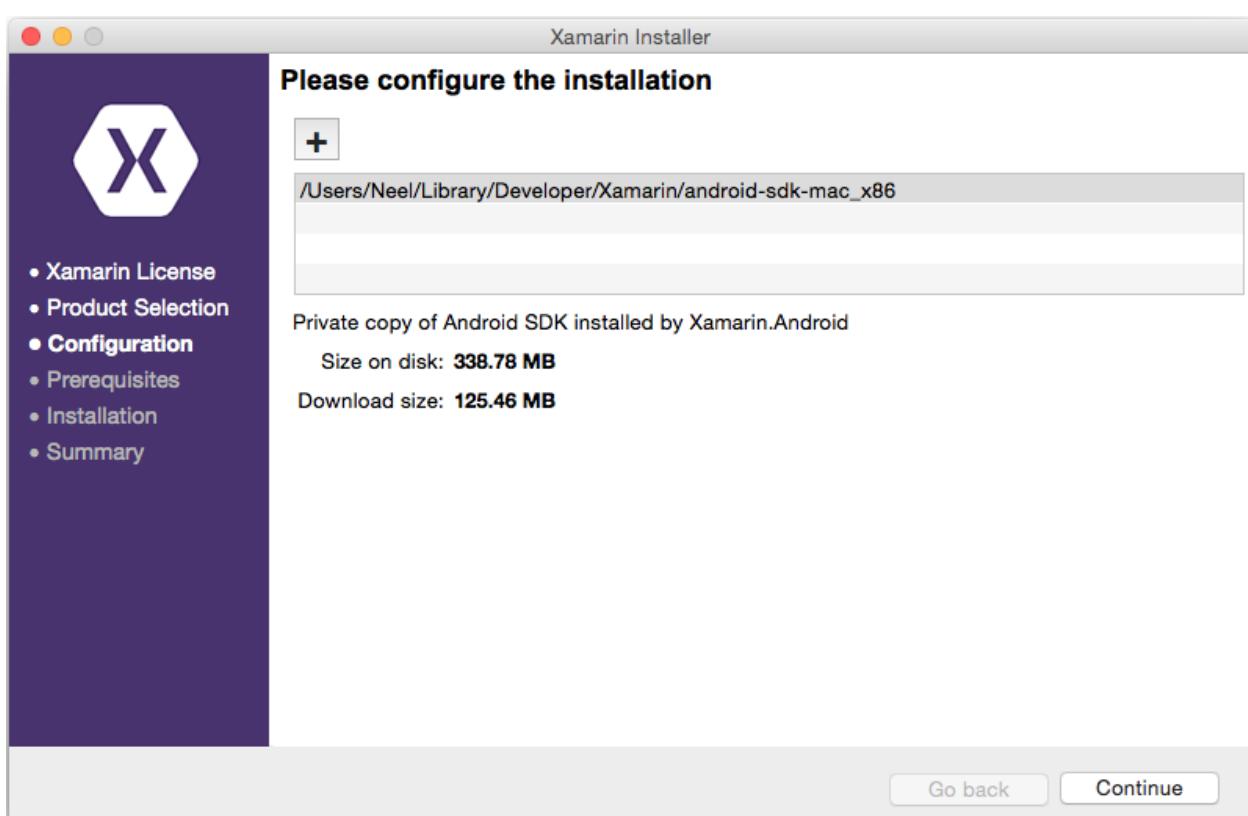
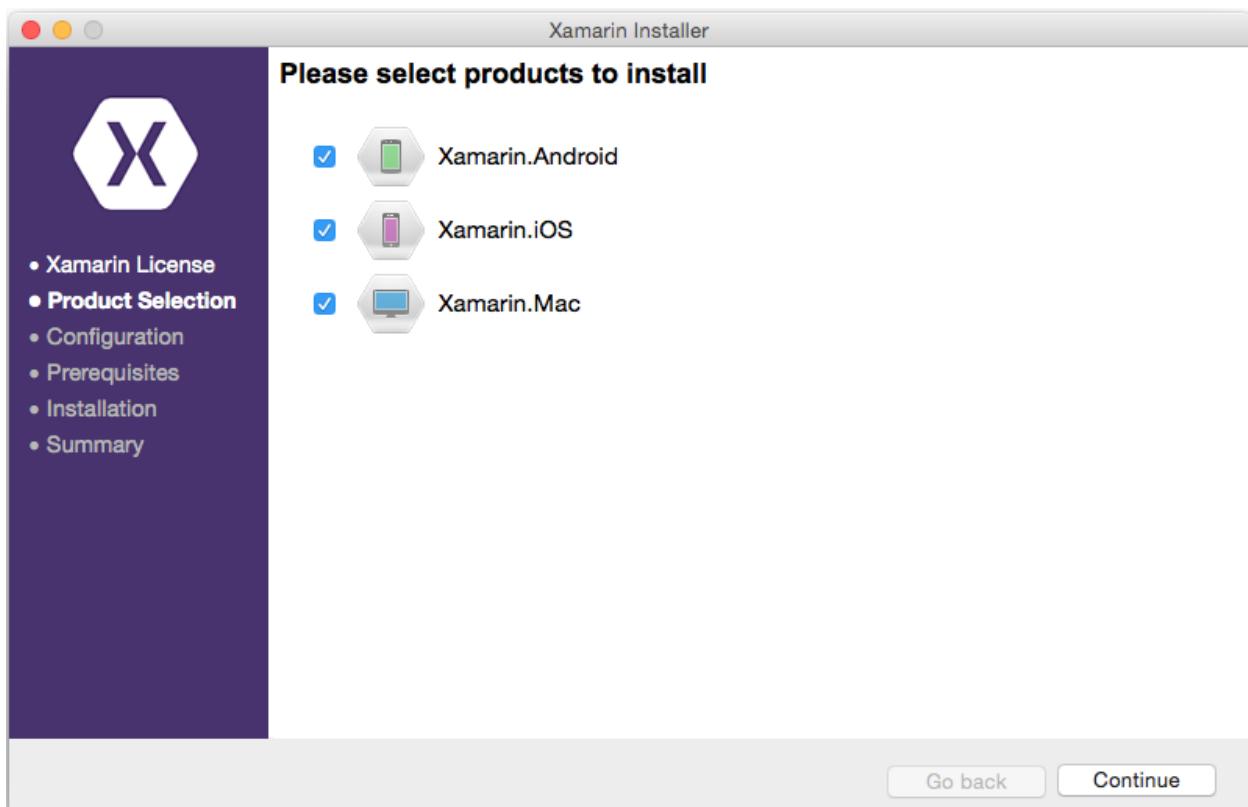


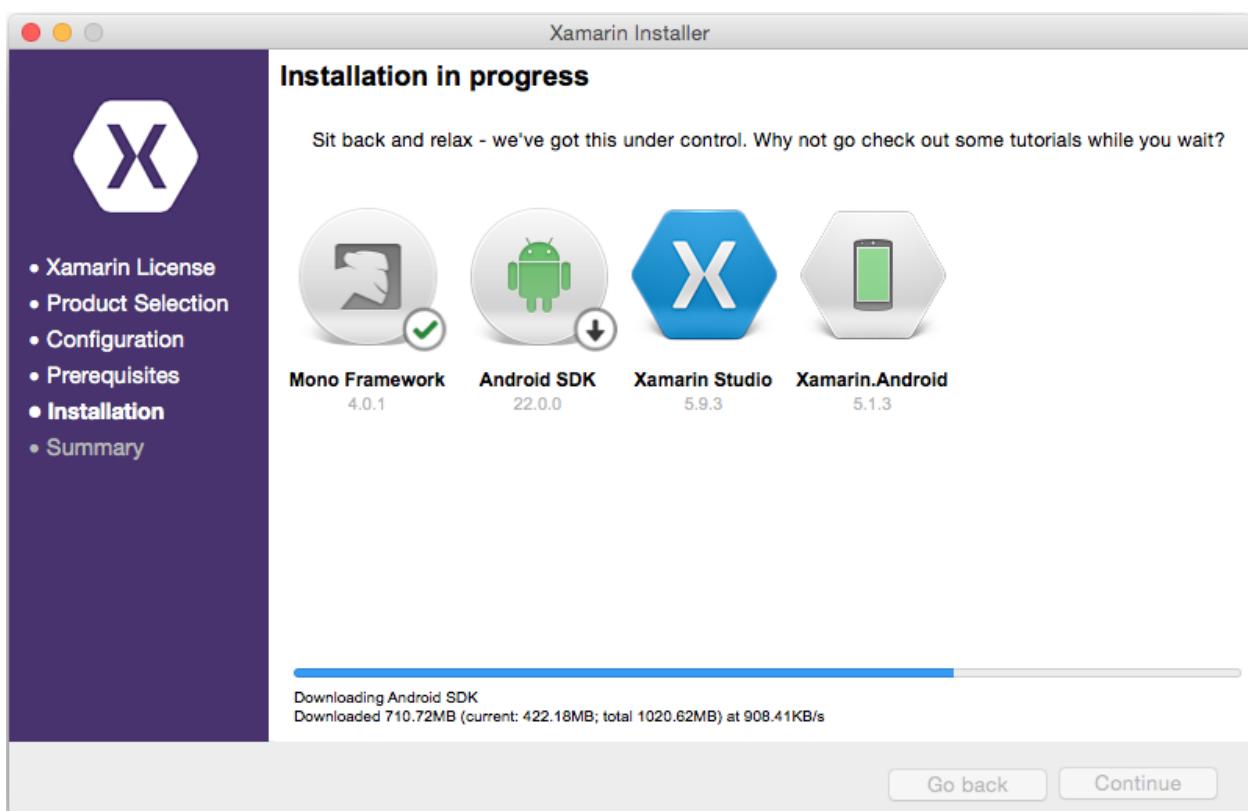
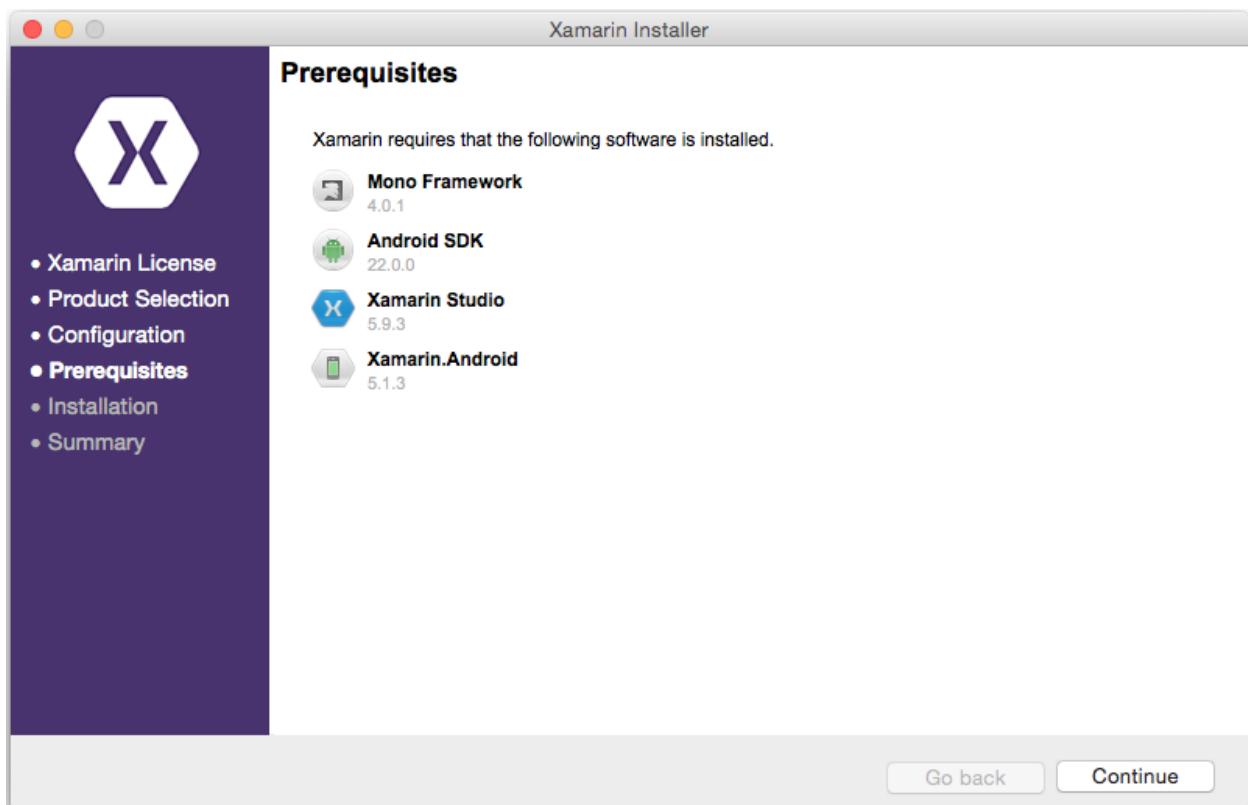
Chapter 3: Creating the Points Of Interest App

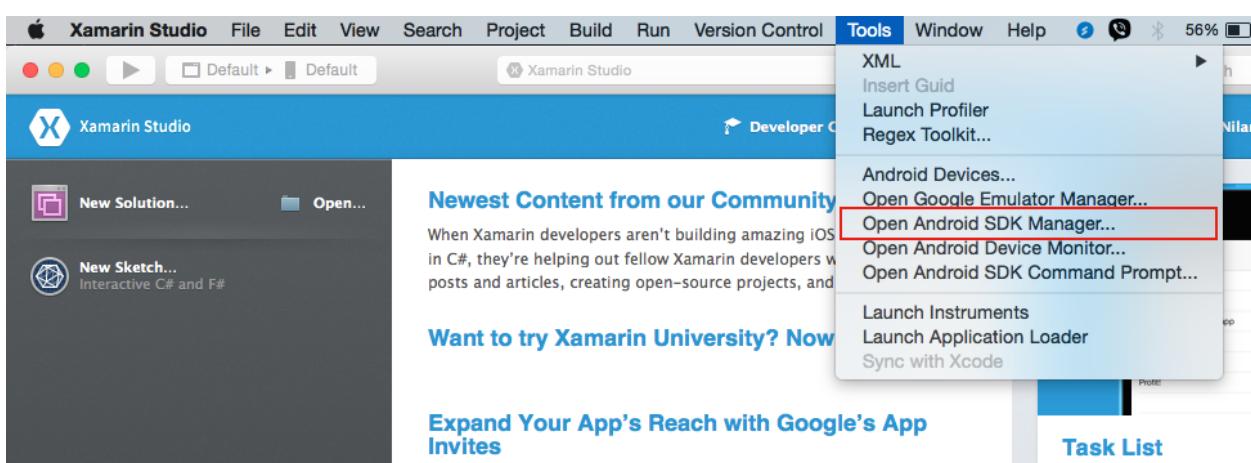
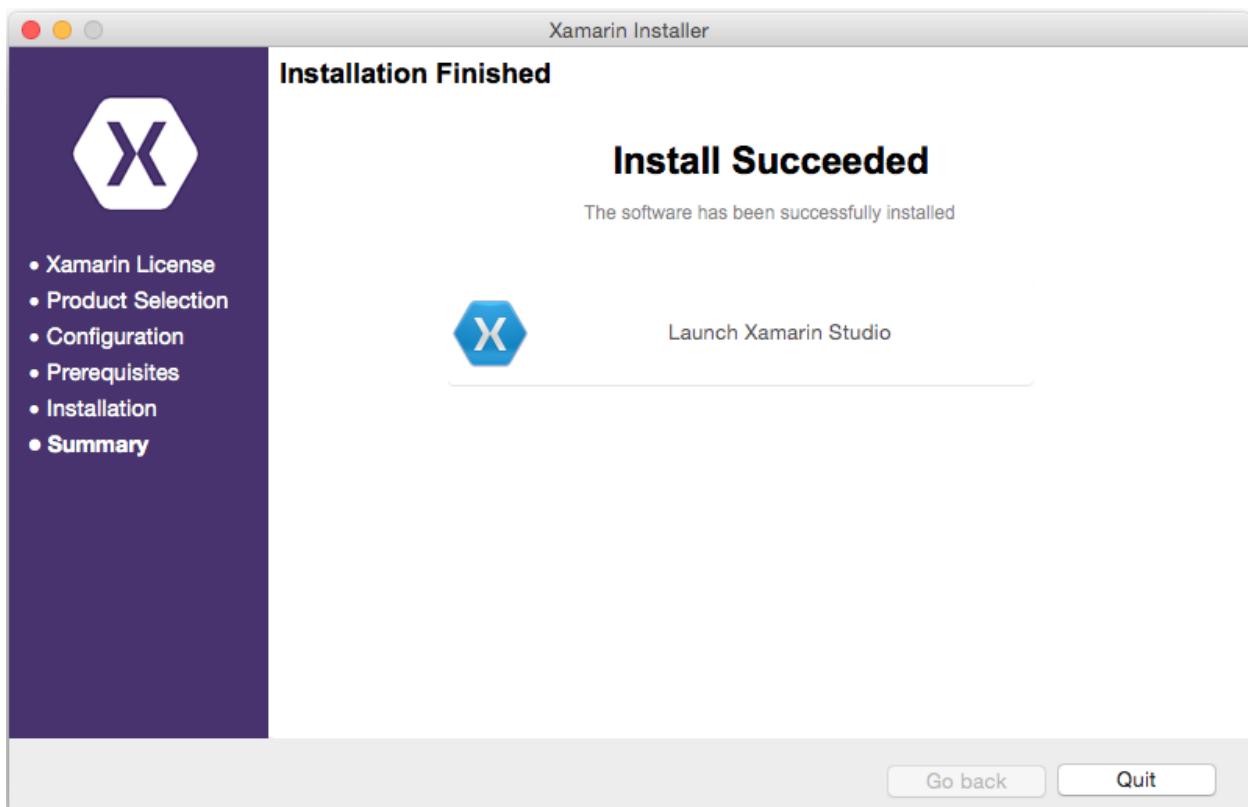


A better way to build apps.

 [Install Xamarin.app](#)







Android SDK Manager

SDK Path: /Users/Neel/Library/Developer/Xamarin/android-sdk-mac_x86

Packages

Name	API	Rev.	Status
Tools			
Android SDK Tools	24.3.3	✓ Installed	
Android SDK Platform-tools	22	✓ Installed	
Android SDK Build-tools	23	✓ Installed	
Android SDK Build-tools	22.0.1	✓ Installed	
Android SDK Build-tools	21.1.2	✗ Not installed	
Android SDK Build-tools	21.1.1	✓ Installed	
Android SDK Build-tools	20	✗ Not installed	
Android SDK Build-tools	19.1	✗ Not installed	
Android SDK Build-tools	17	✓ Installed	

Android SDK Manager

SDK Path: /Users/Neel/Library/Developer/Xamarin/android-sdk-mac_x86

Packages

Name	API	Rev.	Status
Android 4.4.2 (API 19)			
SDK Platform	19	4	✓ Installed
Samples for SDK	19	6	✗ Not installed
ARM EABI v7a System Image	19	3	✓ Installed
Intel x86 Atom System Image	19	3	✓ Installed
Google APIs (x86 System Image)	19	14	✗ Not installed
Google APIs (ARM System Image)	19	14	✗ Not installed
Glass Development Kit Preview	19	11	✗ Not installed
Sources for Android SDK	19	2	✗ Not installed
Extras			
Android Support Repository	15		✗ Not installed
Android Support Library	22.1.1		✗ Update available: rev. 22.2
Google Play services	25		✗ Not installed
Google Repository	19		✗ Not installed
Google Play APK Expansion Library	3		✗ Not installed
Google Play Billing Library	5		✗ Not installed
Google Play Licensing Library	2		✗ Not installed
Android Auto API Simulators	1		✗ Not installed
Google USB Driver	11		✗ Not compatible with Mac OS
Google Web Driver	2		✗ Not installed
Intel x86 Emulator Accelerator (HAXM installer)	5.3		✗ Not installed



Create new Android Virtual Device (AVD)

AVD Name: Nexus5

Device: Nexus 5 (4.95", 1080 × 1920: xxhdpi)

Target: Android 4.4.2 - API Level 19

CPU/ABI: Intel Atom (x86)

Keyboard: Hardware keyboard present

Skin: Skin with dynamic hardware controls

Front Camera: Webcam0

Back Camera: Webcam0

Memory Options: RAM: 2048 VM Heap: 64

Internal Storage: 512 MiB

SD Card:

Size: 1024 MiB
 File:

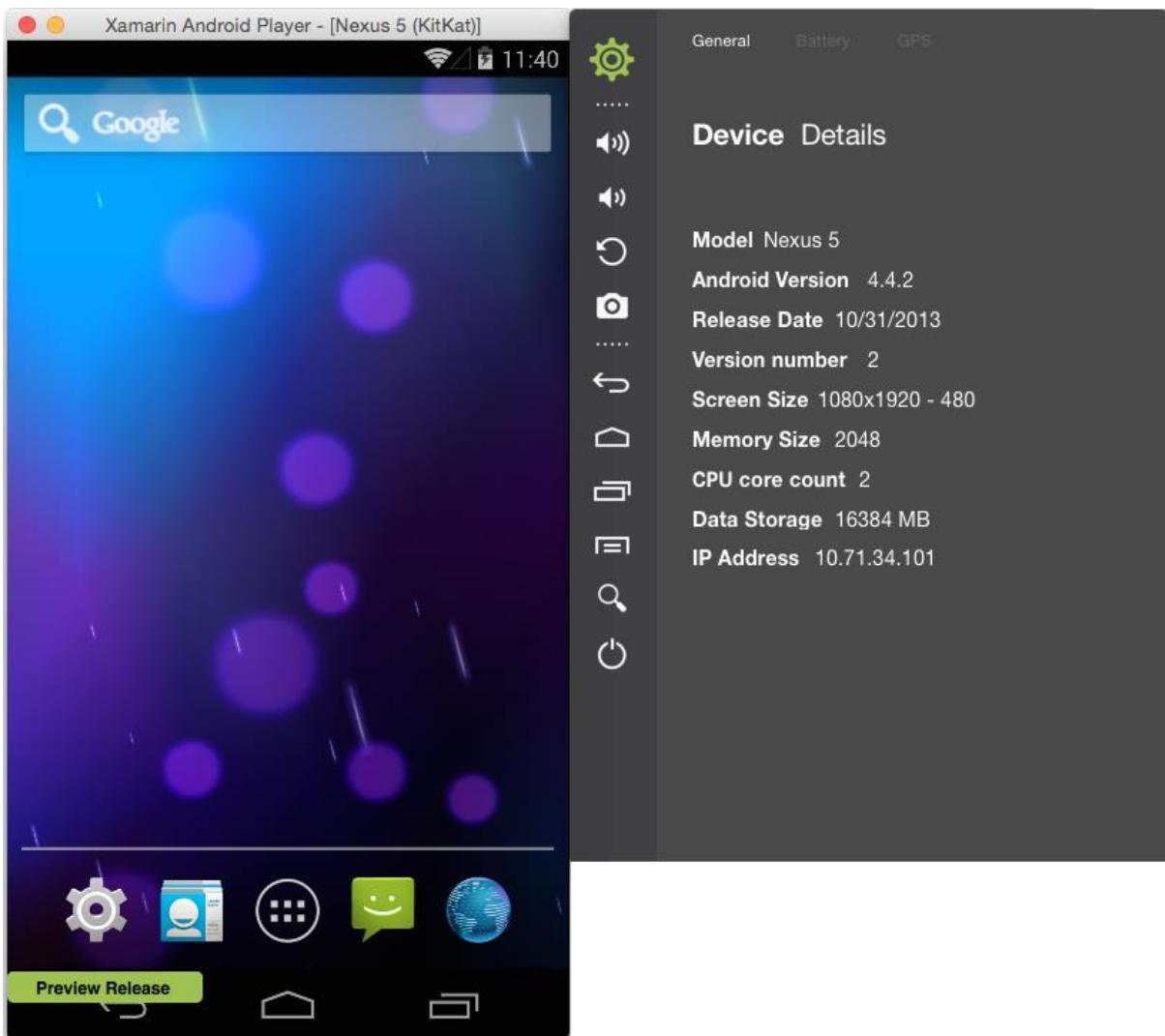
Emulation Options: Snapshot Use Host GPU

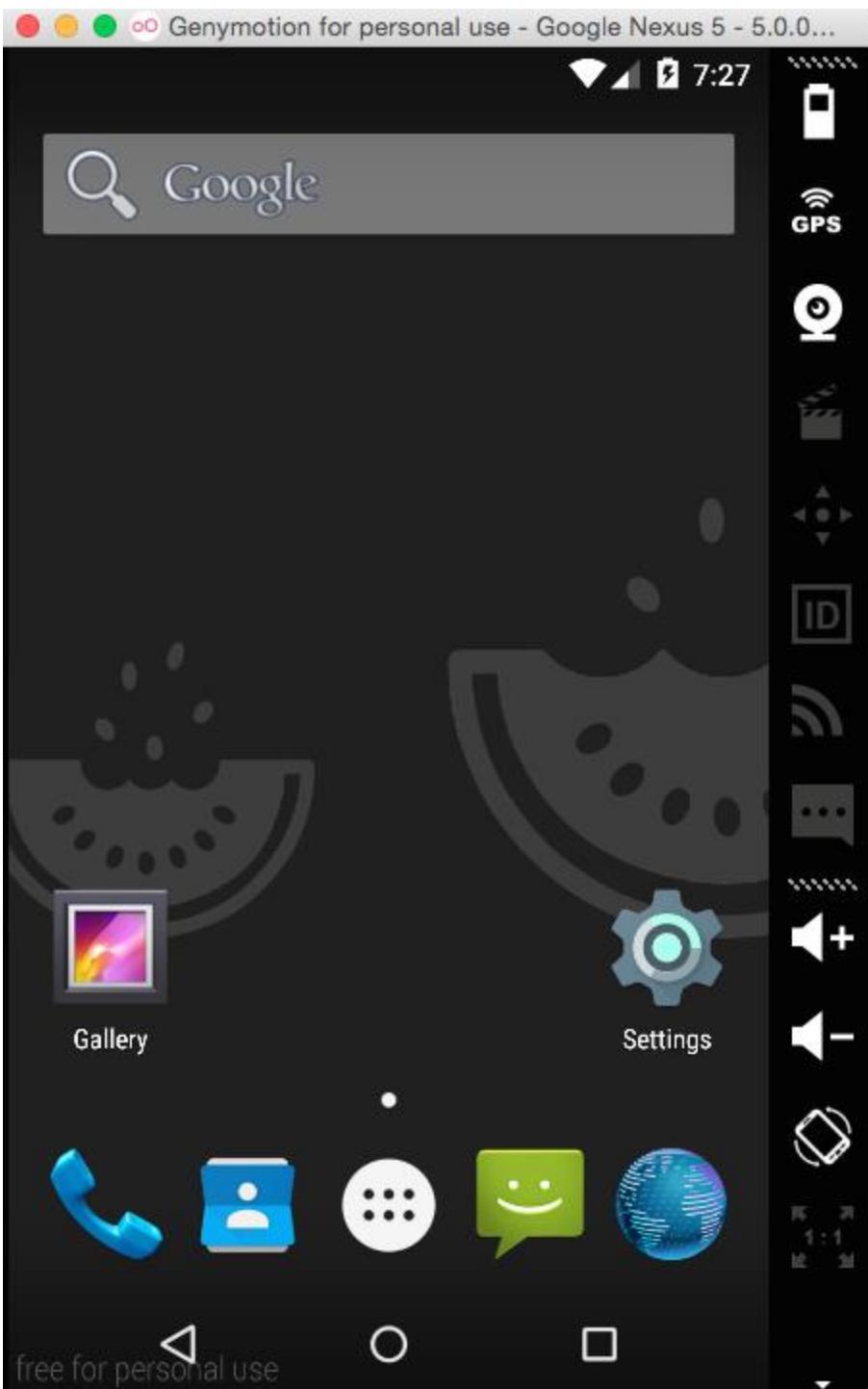
Override the existing AVD with the same name

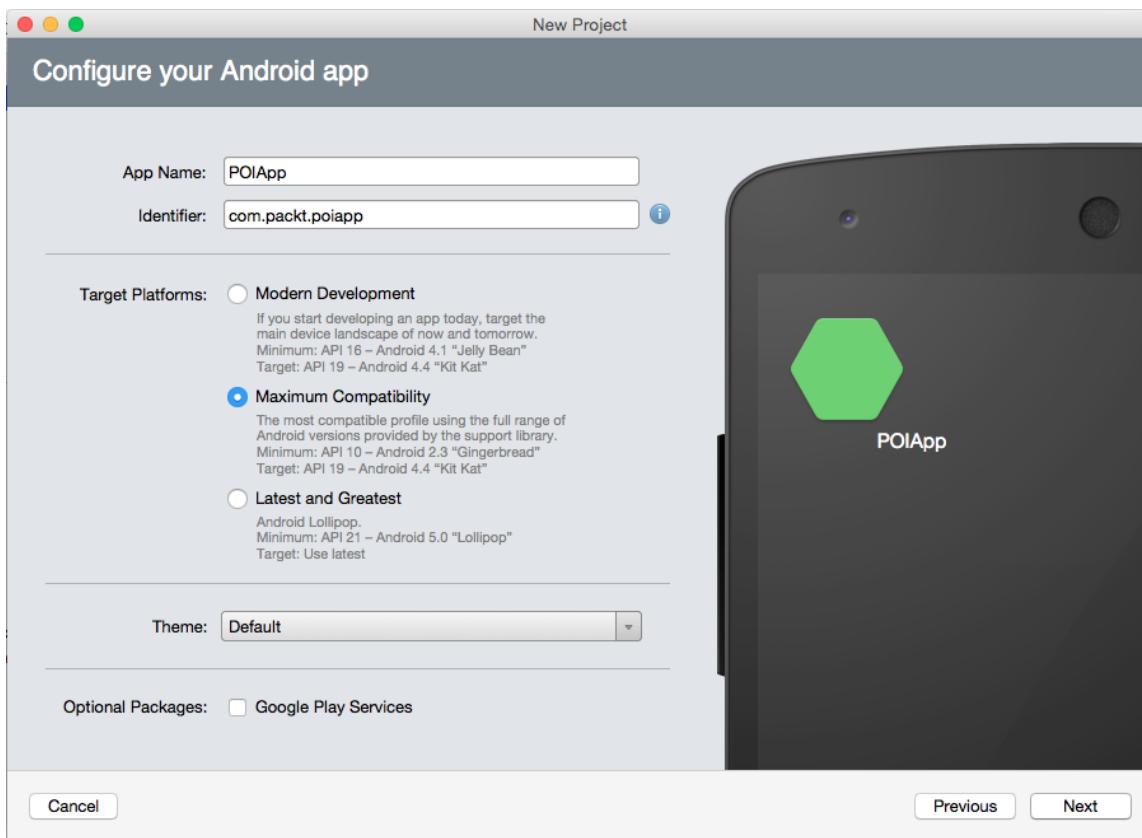
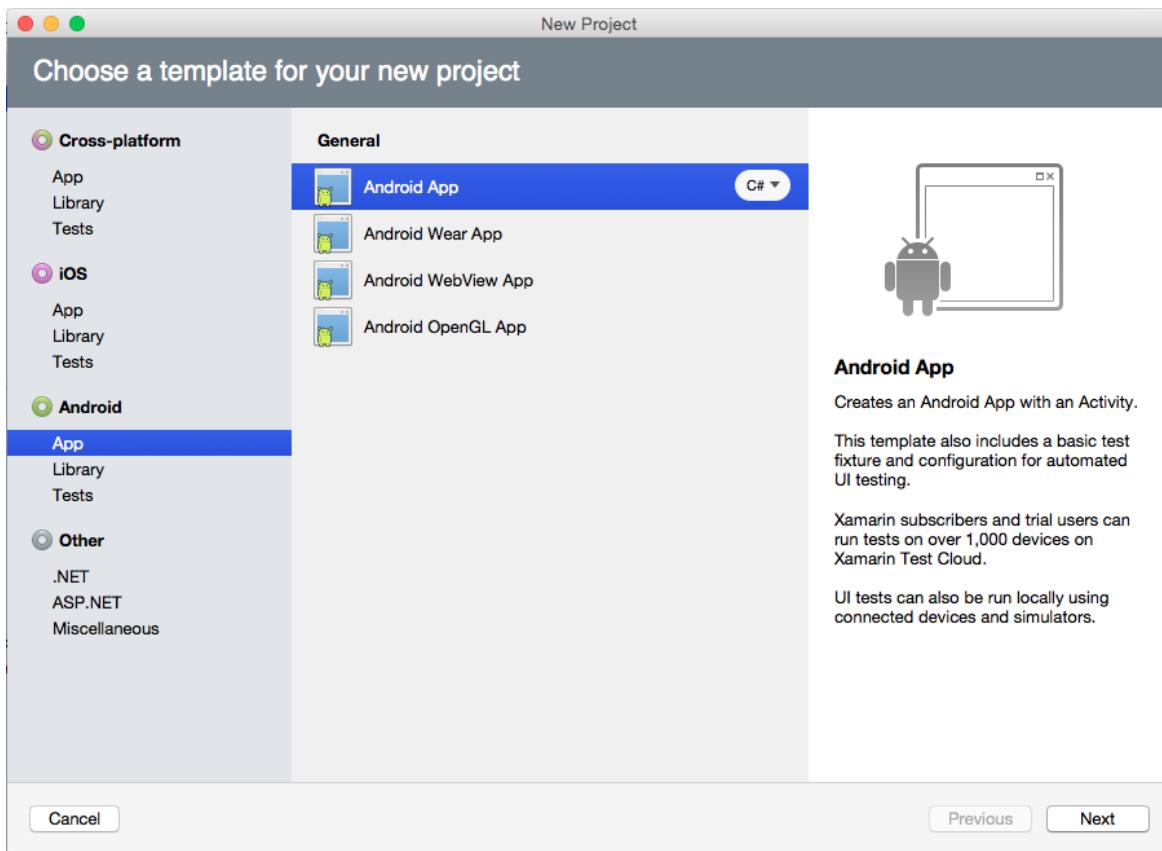
Clone Device

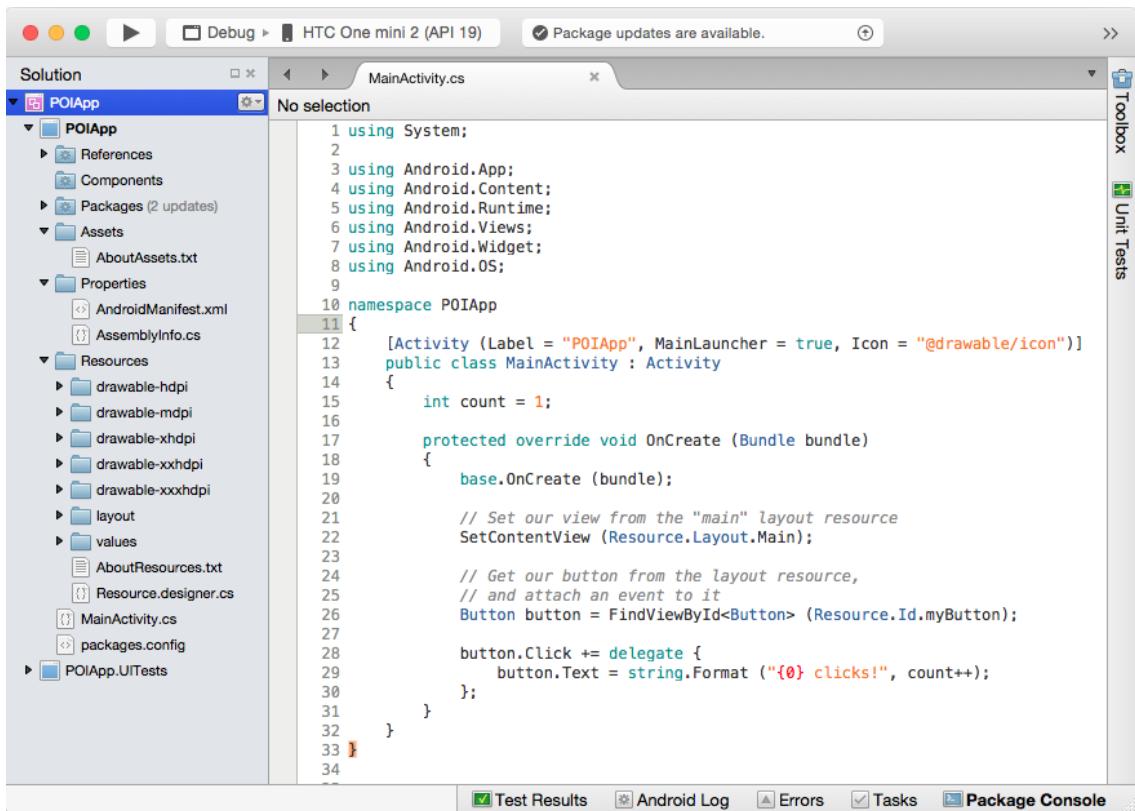
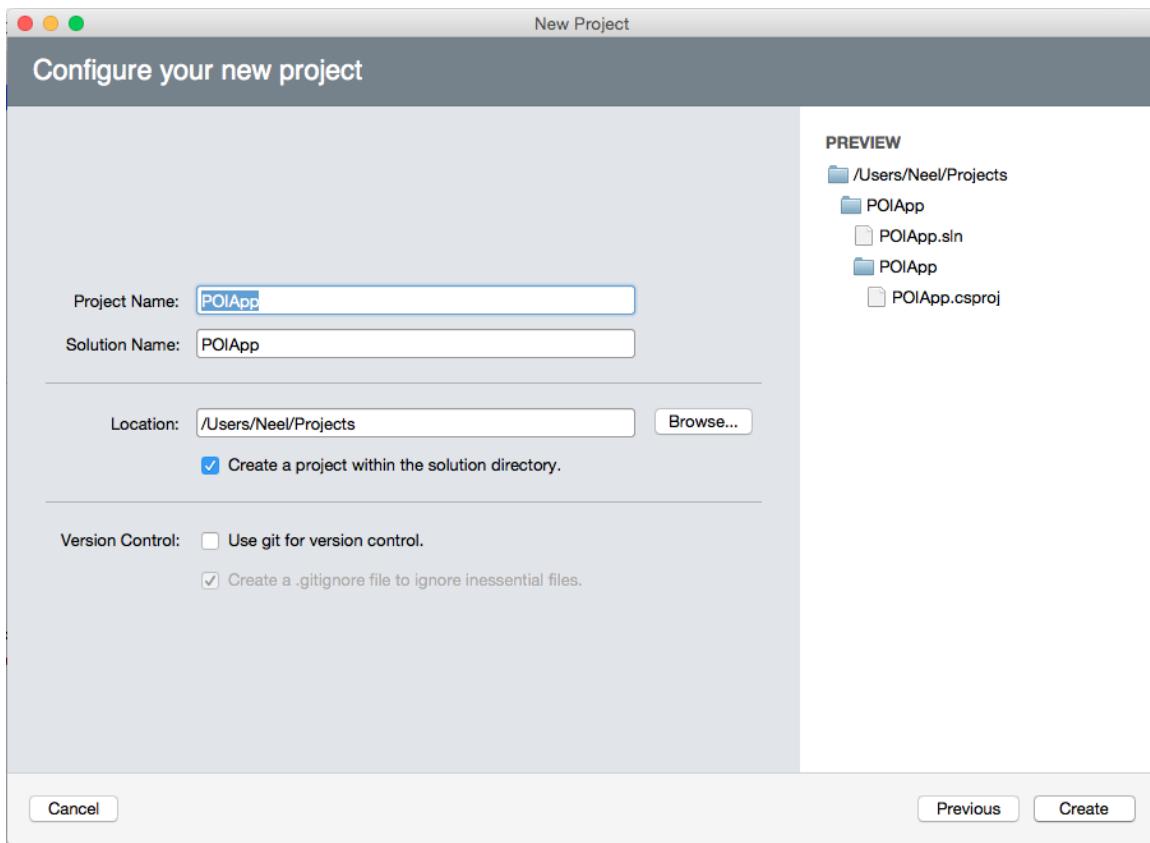
Name: <input type="text" value="Nexus 5"/>	Size: <input type="text" value="normal"/>
Screen Size (in): <input type="text" value="4.95"/>	Screen Ratio: <input type="text" value="notlong"/>
Resolution (px): <input type="text" value="1080"/> x <input type="text" value="1920"/>	Density: <input type="text" value="xxhdpi"/>
Sensors:	<input checked="" type="checkbox"/> Accelerometer <input checked="" type="checkbox"/> Gyroscope <input checked="" type="checkbox"/> GPS <input checked="" type="checkbox"/> Proximity Sensor
Cameras	<input checked="" type="checkbox"/> Front <input checked="" type="checkbox"/> Rear
Input:	<input type="checkbox"/> Keyboard <input checked="" type="radio"/> No Nav <input type="radio"/> DPad <input type="radio"/> Trackball
RAM:	<input type="text" value="2048"/> MiB
Buttons: <input type="text" value="Software"/>	
Device States:	
Portrait: <input checked="" type="checkbox"/> Enabled <input type="checkbox"/> Navigation	
Landscape: <input checked="" type="checkbox"/> Enabled <input type="checkbox"/> Navigation	
Portrait with keyboard: <input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Navigation	
Landscape with keyboard: <input checked="" type="checkbox"/> Enabled <input checked="" type="checkbox"/> Navigation	
<input checked="" type="checkbox"/> Override the existing device with the same name	

**⚠ Only user created devices are editable.
A clone of it will be created under the "User" category.**









HTC One mini 2 (API 19) Package updates are available. Search

Solution POIApp

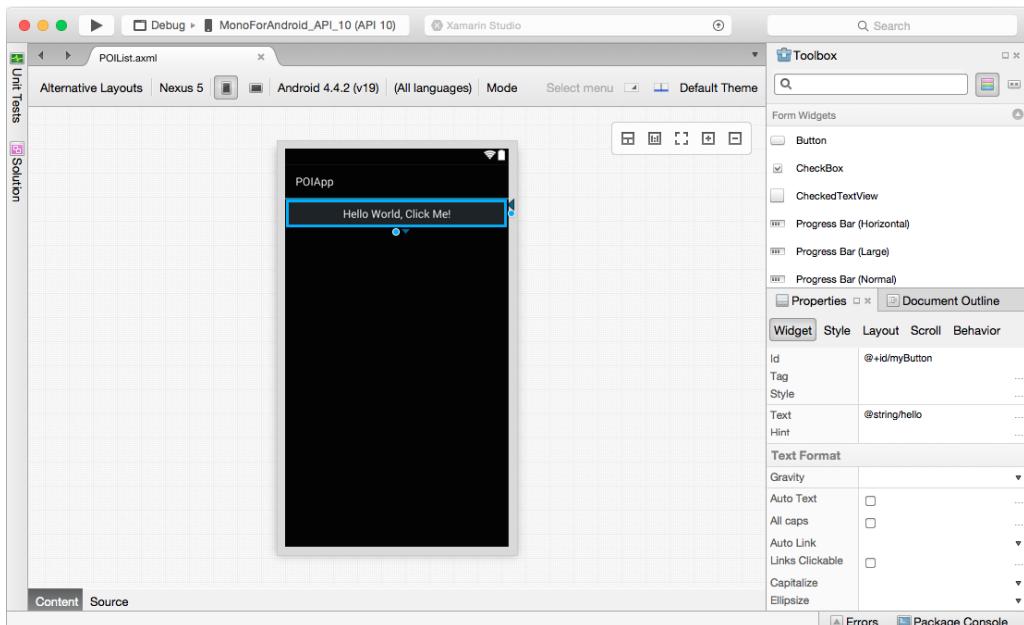
1. POIApp
2. References
3. Components
4. Assets
5. Properties
6. Resources
7. MainActivity.cs
8. POIApp.UITests

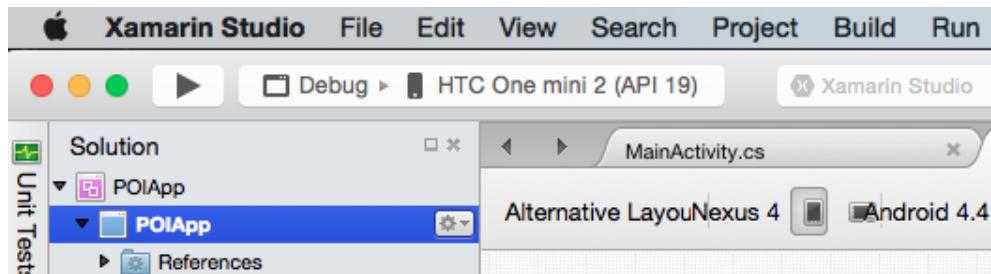
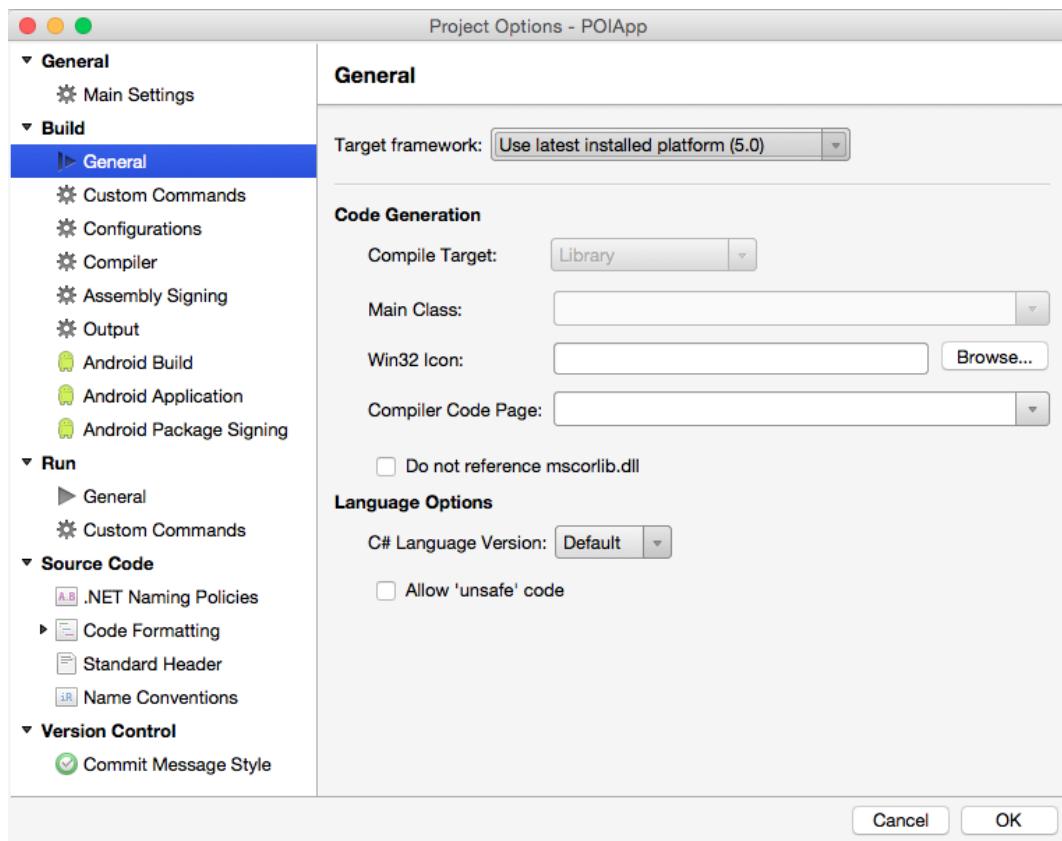
```

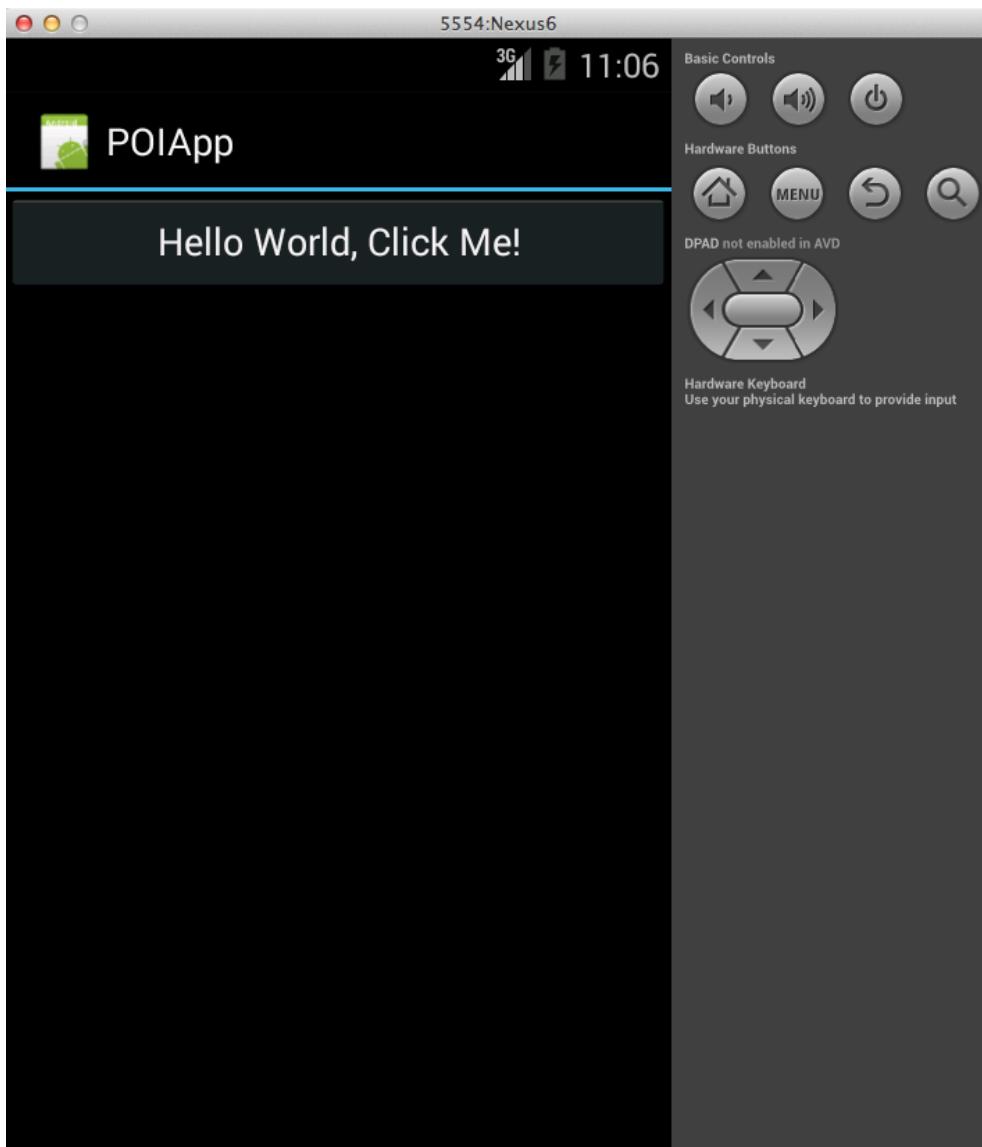
1 using System;
2
3 using Android.App;
4 using Android.Content;
5 using Android.Runtime;
6 using Android.Views;
7 using Android.Widget;
8 using Android.OS;
9
10 namespace POIApp
11 {
12     [Activity (Label = "POIApp", MainLauncher = true, Icon = "@drawable/icon")]
13     public class MainActivity : Activity
14     {
15         int count = 1;
16
17         protected override void OnCreate (Bundle bundle)
18         {
19             base.OnCreate (bundle);
20
21             // Set our view from the "main" layout resource
22             SetContentView (Resource.Layout.Main);
23
24             // Get our button from the layout resource,
25             // and attach an event to it
26             Button button = FindViewById<Button> (Resource.Id.myButton);
27
28             button.Click += delegate {
29                 button.Text = string.Format ("{0} clicks!", count++);
30             };
31         }
32     }
33 }
34
35
36

```

Test Results Android Log Errors Tasks Package Console







```
19  
20 // Set our view from the "main" Layout resource  
21 SetContentView (Resource.Layout.Main);  
22
```

Execution point at line 21.



Watch		Locals	Breakpoints	Threads	Call Stack	Immediate
Name	Value				Name	
▶ this	{poiapp.MainActivity@40f4a990}				POIApp.MainActivity.OnCreate (bundle=(null))	
▶ bundle	(null)				Android.App.Activity.n_OnCreate_Landroid_os_Bundle_ (jnienv=0xf2c0, native_t	
▶ button	{android.widget.Button@40f57dc0}				object.bea9bb33-7e78-4145-913f-c5e64e7ffd3a (arg0=0xf2c0, arg1=0xffffffff84,	

Chapter 4: Adding a List View

Screenshot of the Android Studio Properties panel and Layout Editor showing the configuration of a ListView item.

Properties Panel:

Widget	Style	Layout	Scroll	Behavior
Id Tag Style	@+id/listView1			
View Group				
Clip Children Clip To Padding Layout Animation Entries Divider	<input type="checkbox"/> ... <input type="checkbox"/> <input checked="" type="checkbox"/> ...			

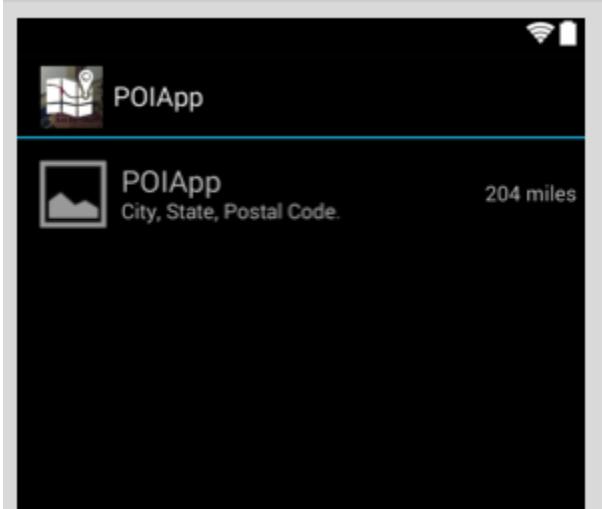
Layout Editor:

```
<RelativeLayout>
    <Photo>
        <LinearLayout>
            <POI Name>
                POI City, State, Postal Code
            </POI Name>
        </LinearLayout>
    </Photo>
    204 miles

```

The layout consists of a Relative Layout containing a Photo view and a Linear Layout. The Linear Layout contains a POI Name view and a POI City, State, Postal Code view. A dimension of 204 miles is shown to the right of the Linear Layout.

Preview:



The preview shows the application's interface with a placeholder icon, the title "POIApp", and a text entry field containing "City, State, Postal Code." To the right of the entry field is the dimension "204 miles".

Xamarin Components

All Components

Order by FEATURED ▾ DOWNLOADS NAME FRESH

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url

CATEGORIES

- All Components
- Cloud Services
- Libraries
- User Interface
- Plugins

UrlImageViewHelper Android by Xamarin Inc
11 ratings
Async Image Lazy Loading and Caching for Android
Free

MultimageView by Sander Egberink
19 ratings
An ImageView capable of loading multiple images from URLs or Bitmaps.
Free

ActionPack by Apracatappa, LLC.
3 ratings
\$199.00

Debug > MonoForAndroid_API_10 (API 10) Xamarin Studio

Solution

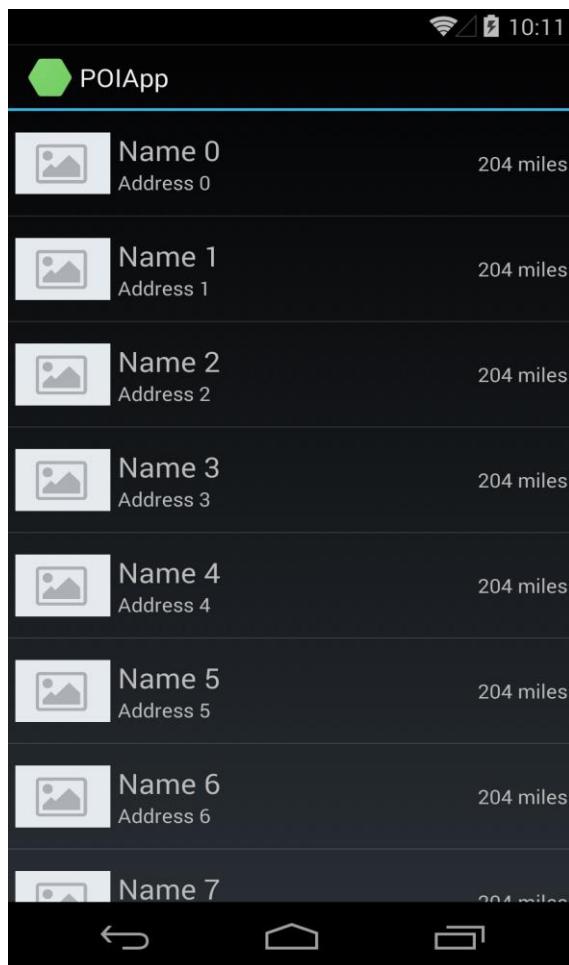
- POIApp
 - POIApp
 - References
 - Components
 - UrlImageViewHelper Android
 - Packages (2 updates)
 - Assets
 - Properties
- AndroidManifest.xml
- AssemblyInfo.cs
- Resources
- packages.config
- POIListViewActivity.cs
- POIListViewAdapter.cs
- PointOfInterest.cs

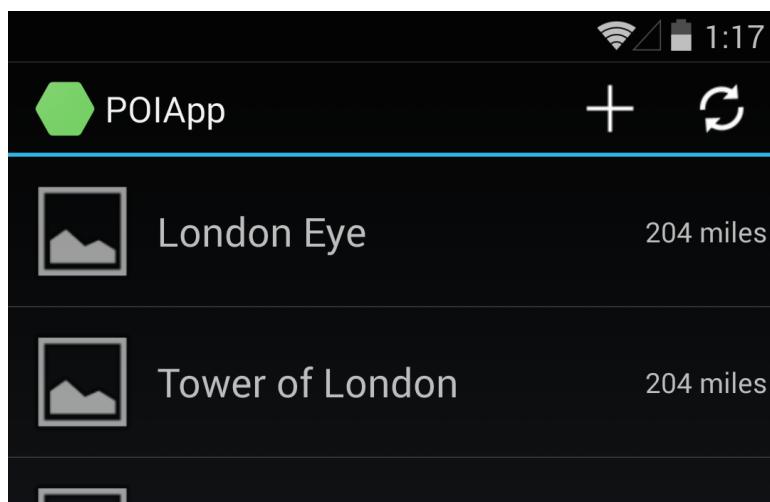
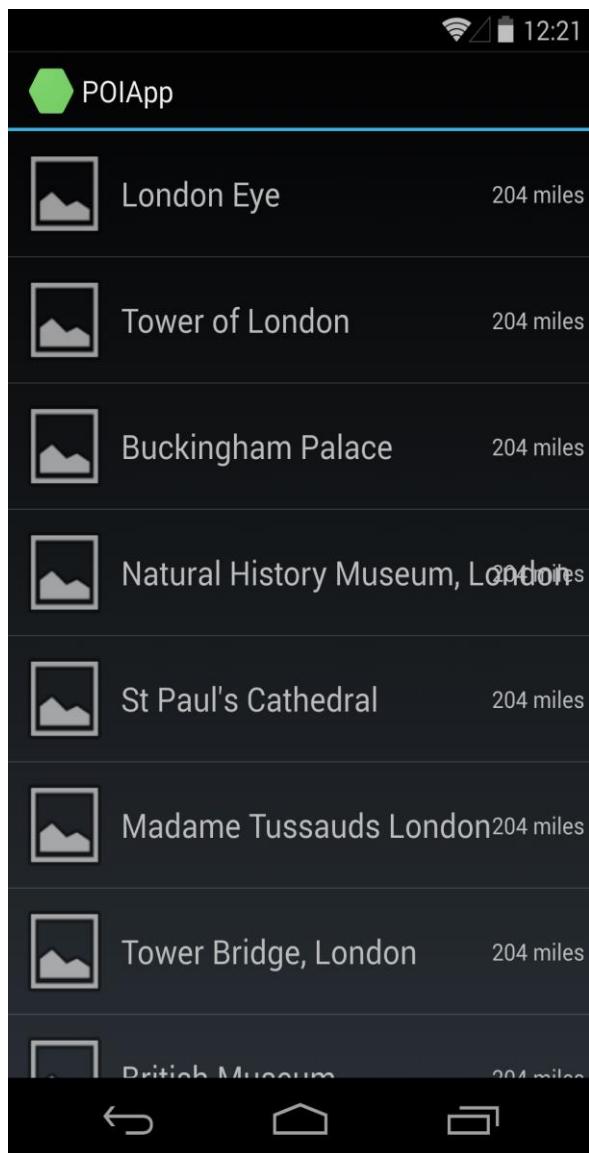
POIListViewAdapter.cs AndroidManifest.xml

Application name: POIApp
 Package name: com.packt.poiapp
 Application icon: @drawable/ic_launcher
 Version number: 1
 Version name: 1.0
 Minimum Android version: Override - Android 2.3 (API level 10)
 Target Android version: Override - Android 4.4 (API level 19)
 Install Location: Automatic
 Required permissions: Internet

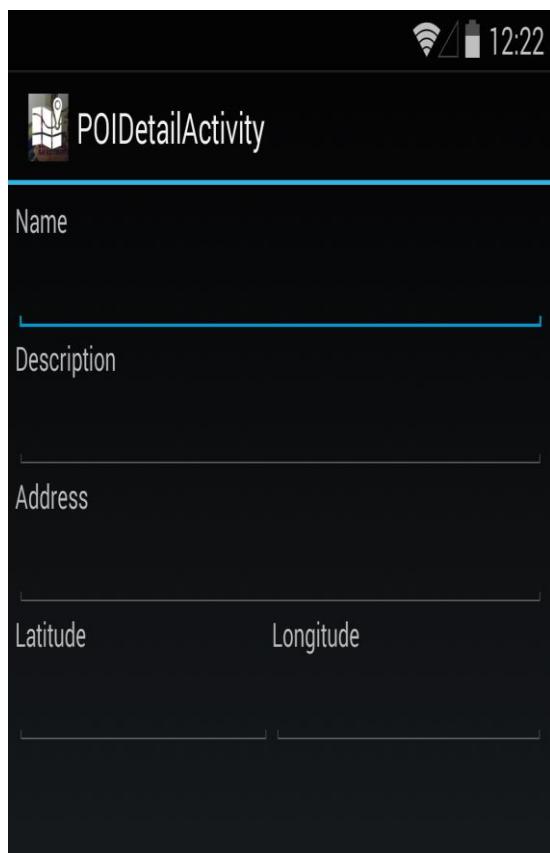
POIListViewAdapter.cs AndroidManifest.xml

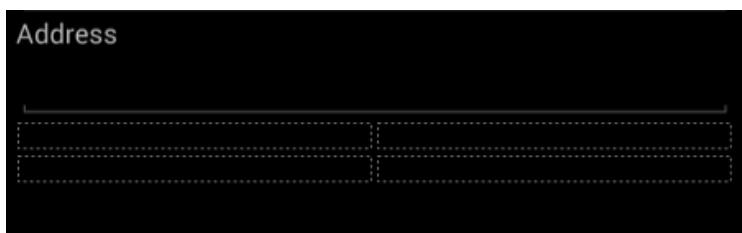
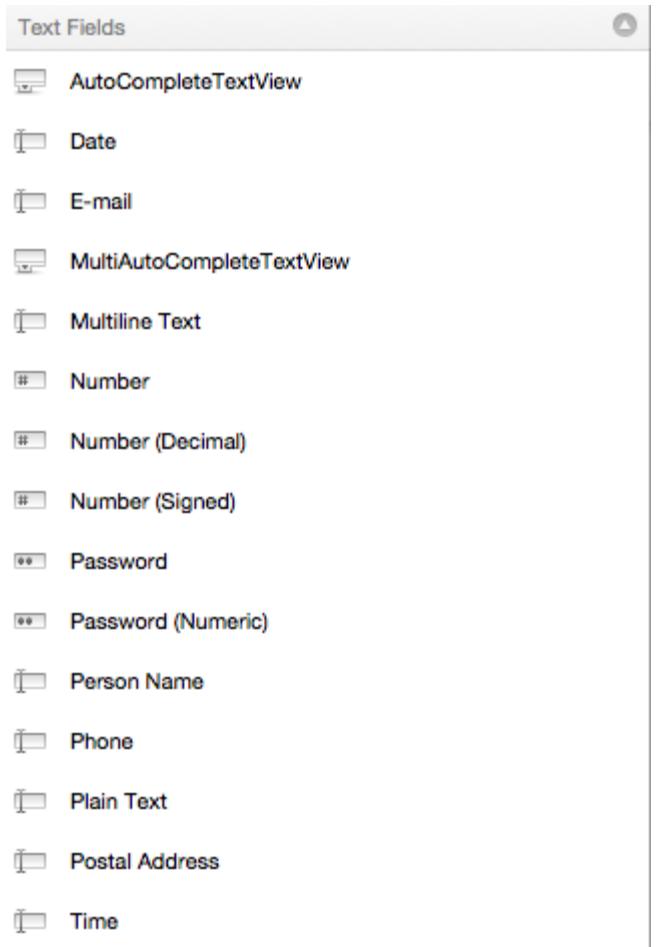
```
manifest
1 <?xml version="1.0" encoding="utf-8"?>
2 <manifest xmlns:android="http://schemas.android.com/apk/res/android" android:versionCode="1"
3   android:versionName="1.0" package="com.packt.poiapp">
4     <uses-sdk android:minSdkVersion="10" android:targetSdkVersion="19" />
5     <application android:label="POIApp" android:icon="@drawable/ic_launcher">
6       </application>
7       <uses-permission android:name="android.permission.INTERNET" />
8 </manifest>
```

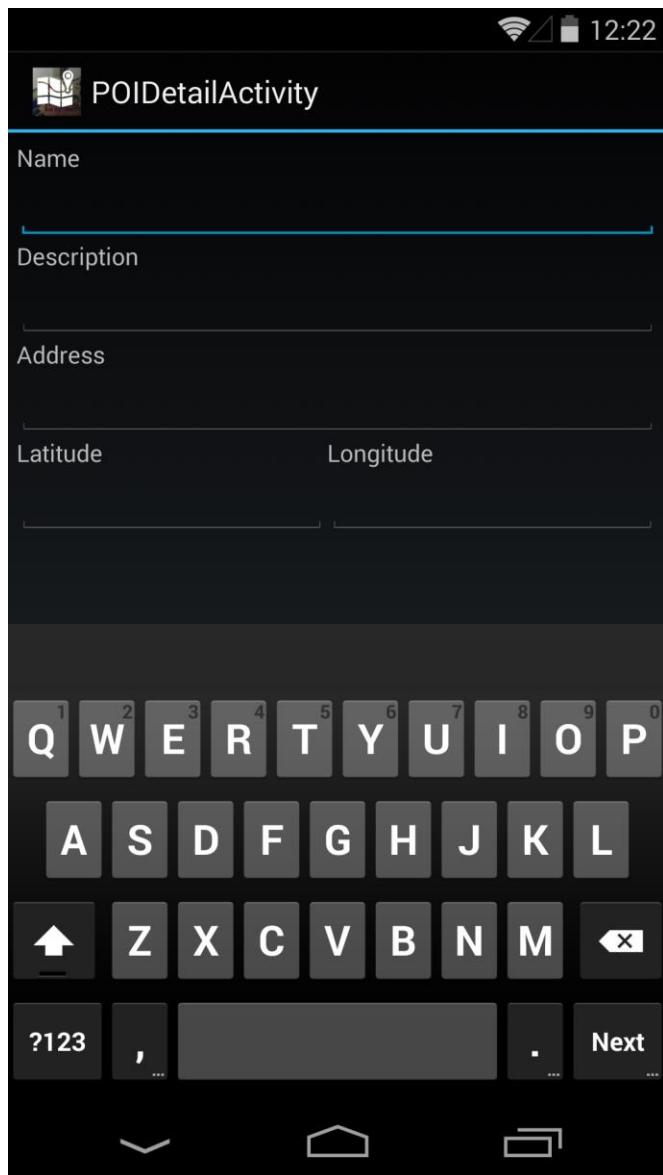


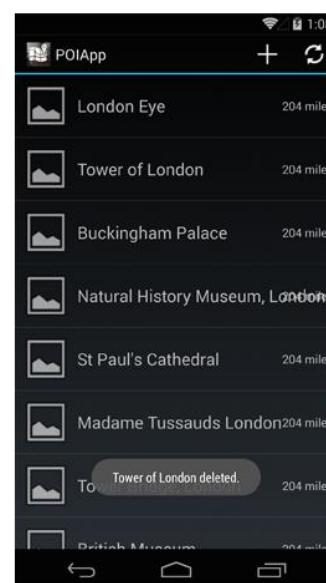
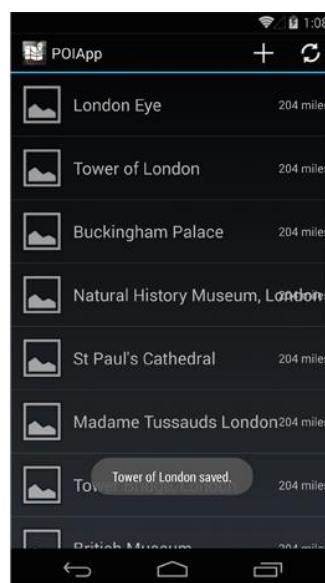
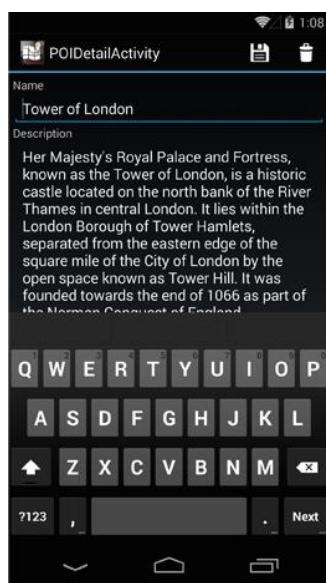
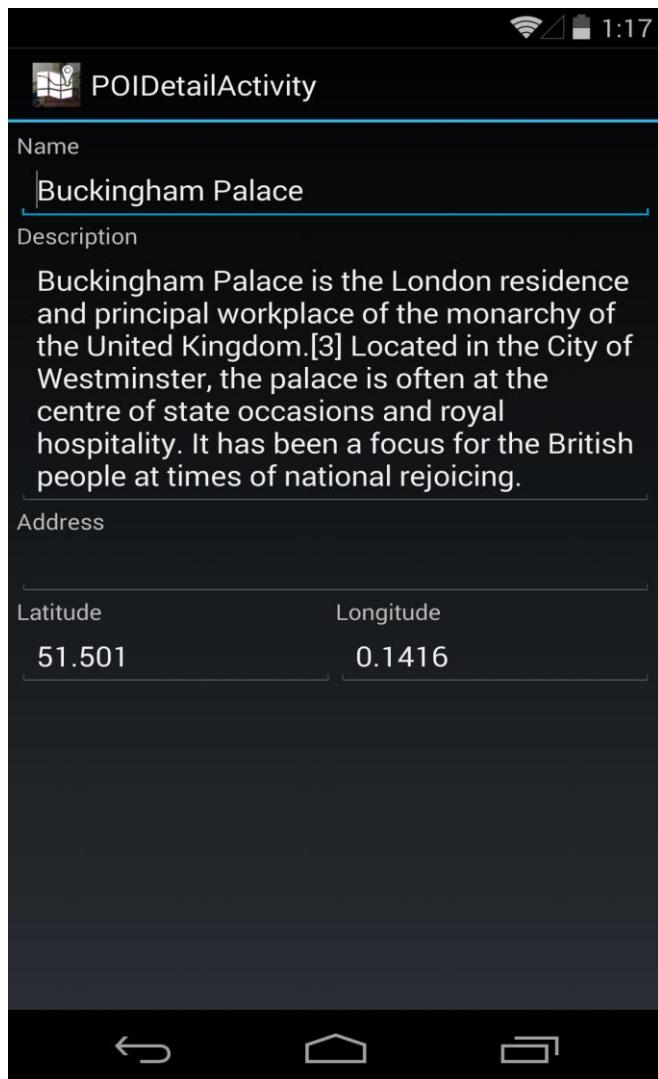


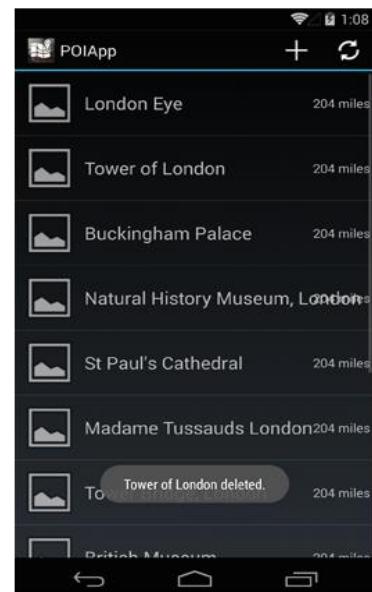
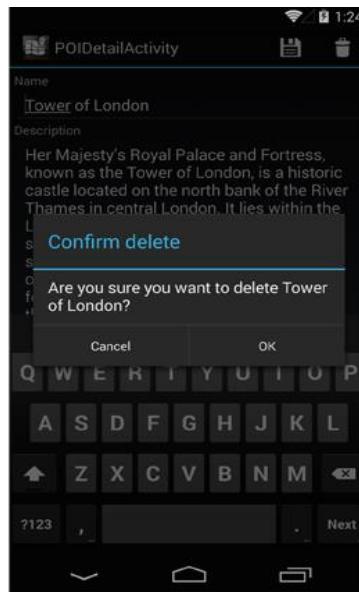
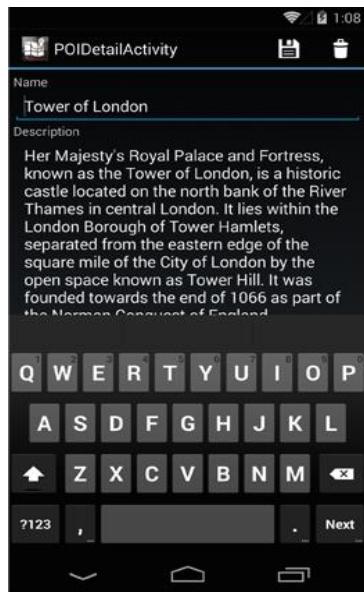
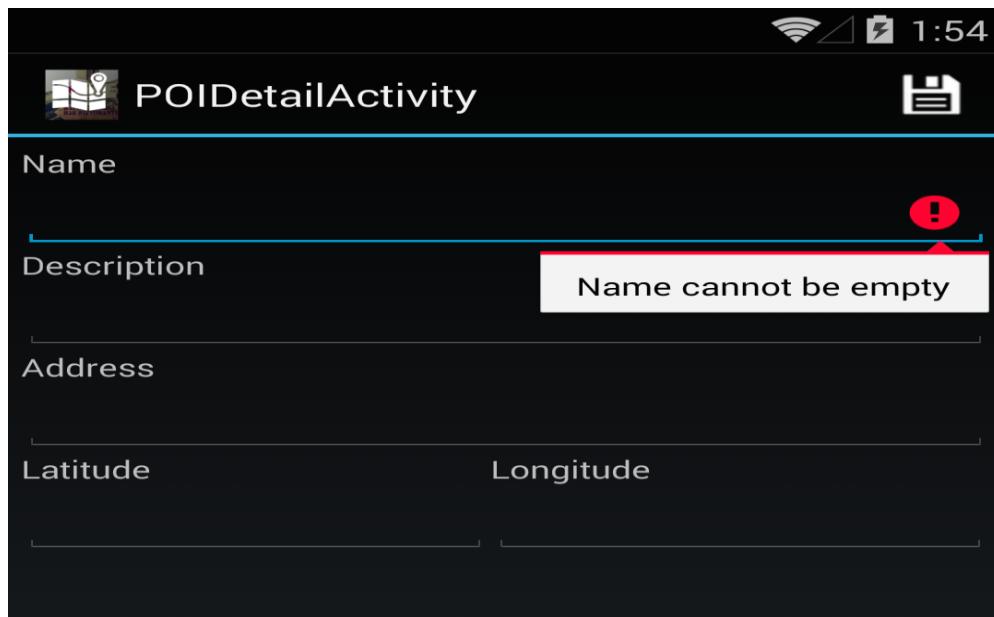
Chapter 5: Adding a Details View



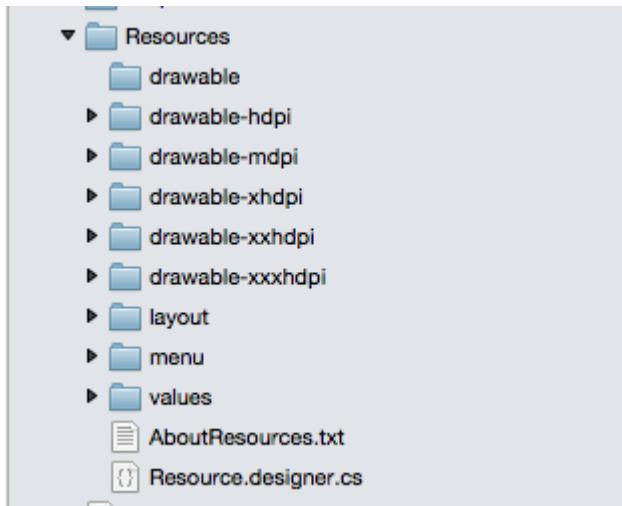
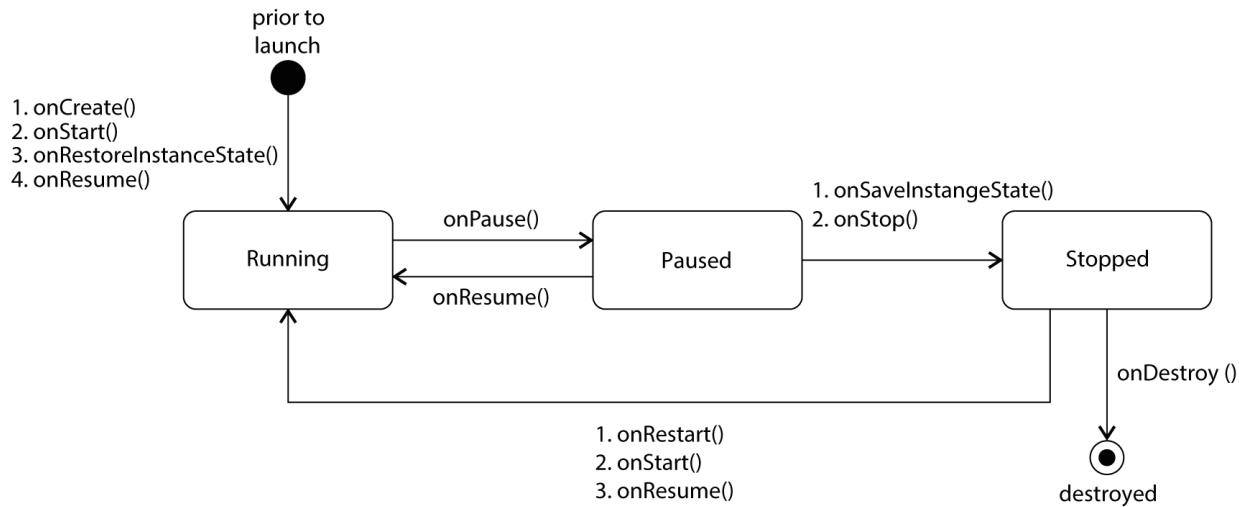




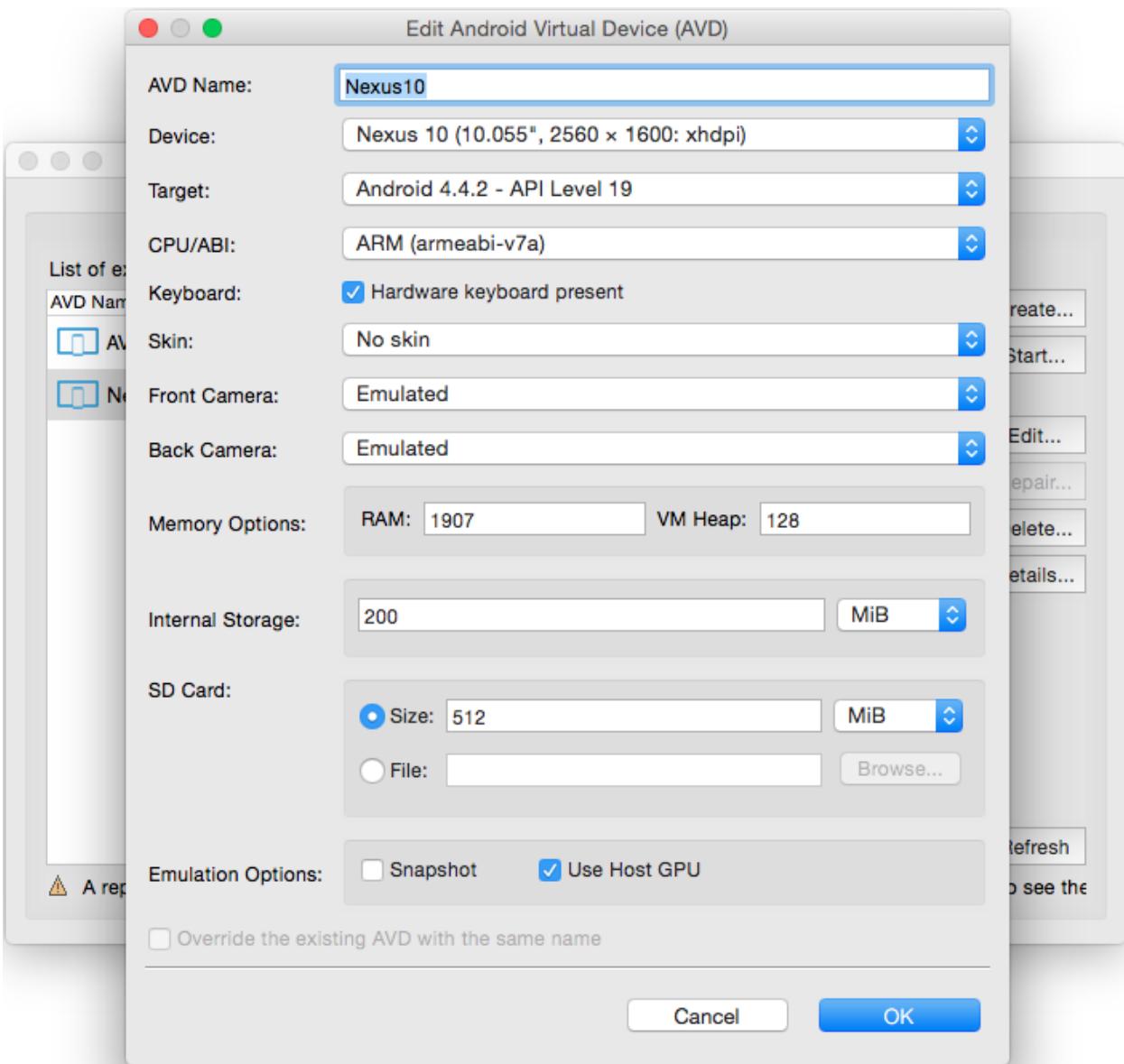


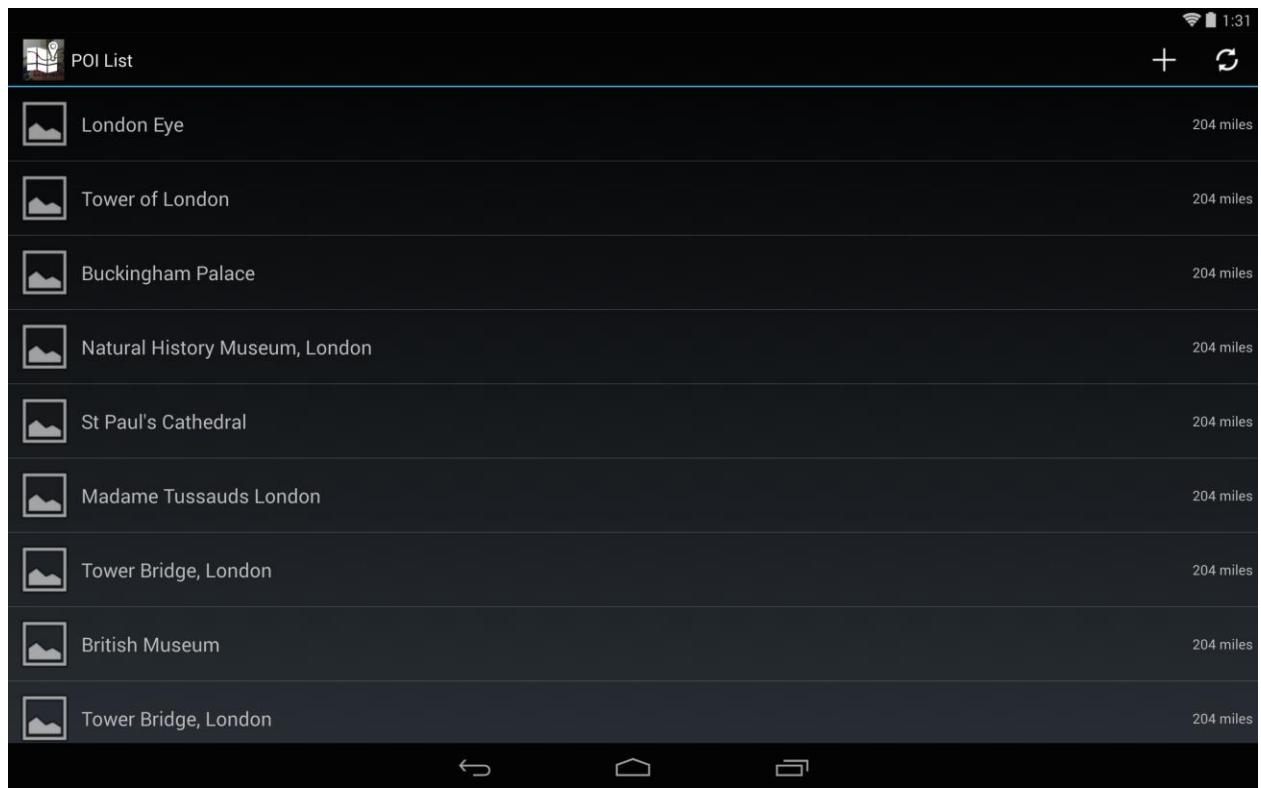


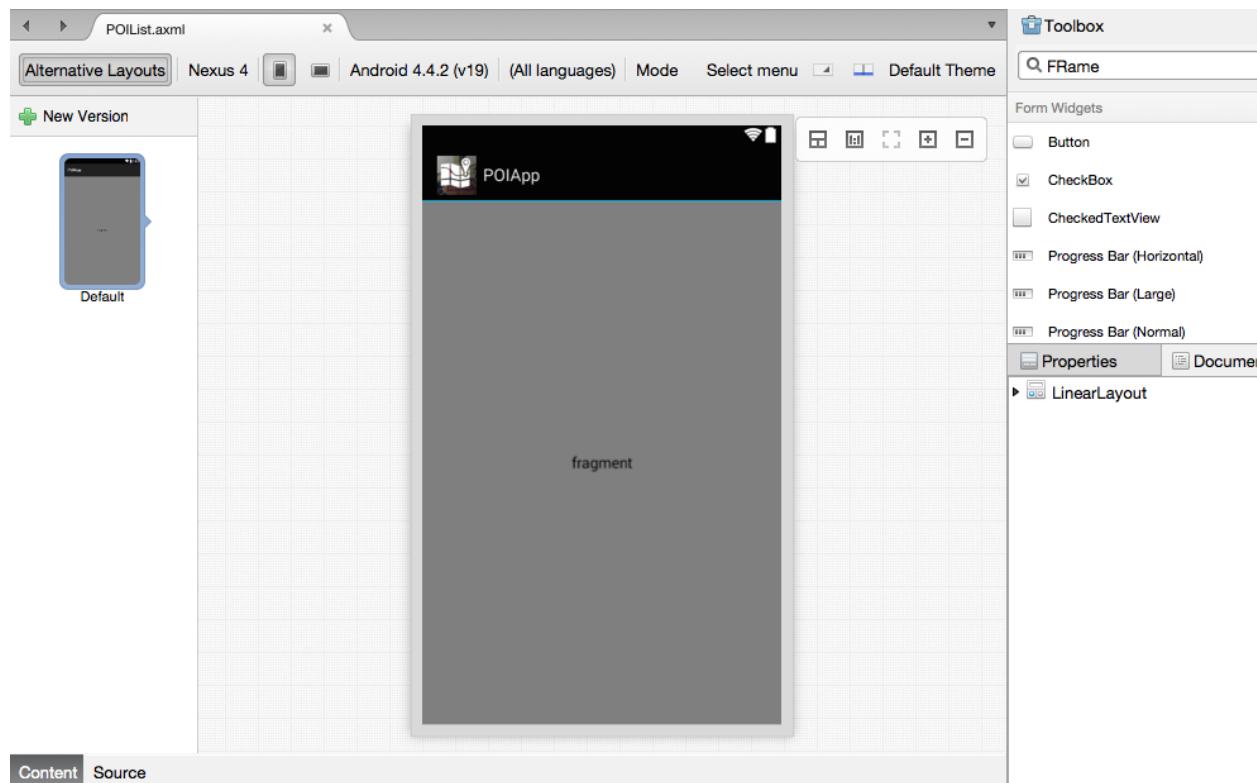
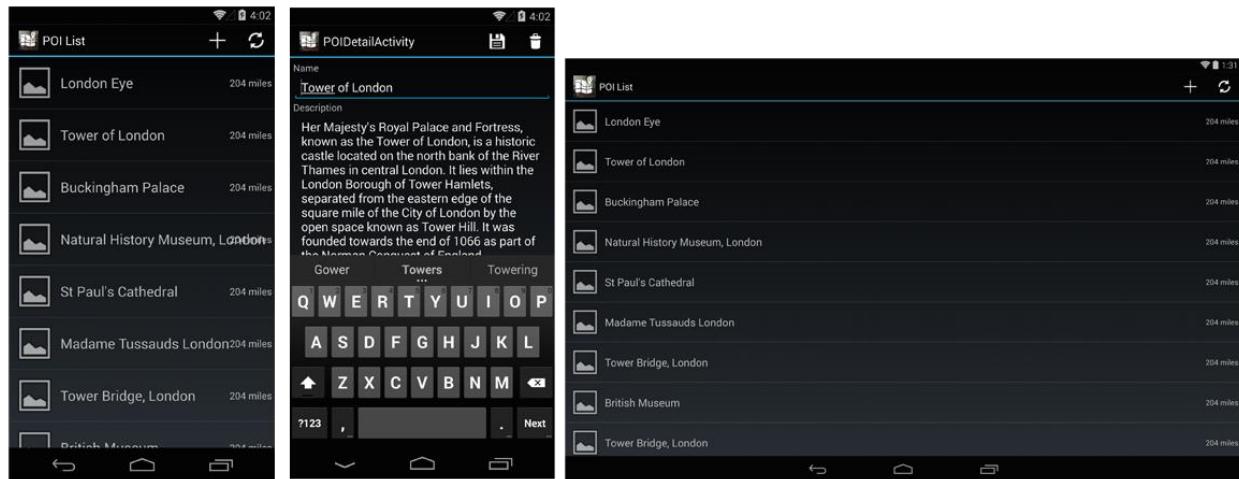
Chapter 6: Making Your App Orientation-aware

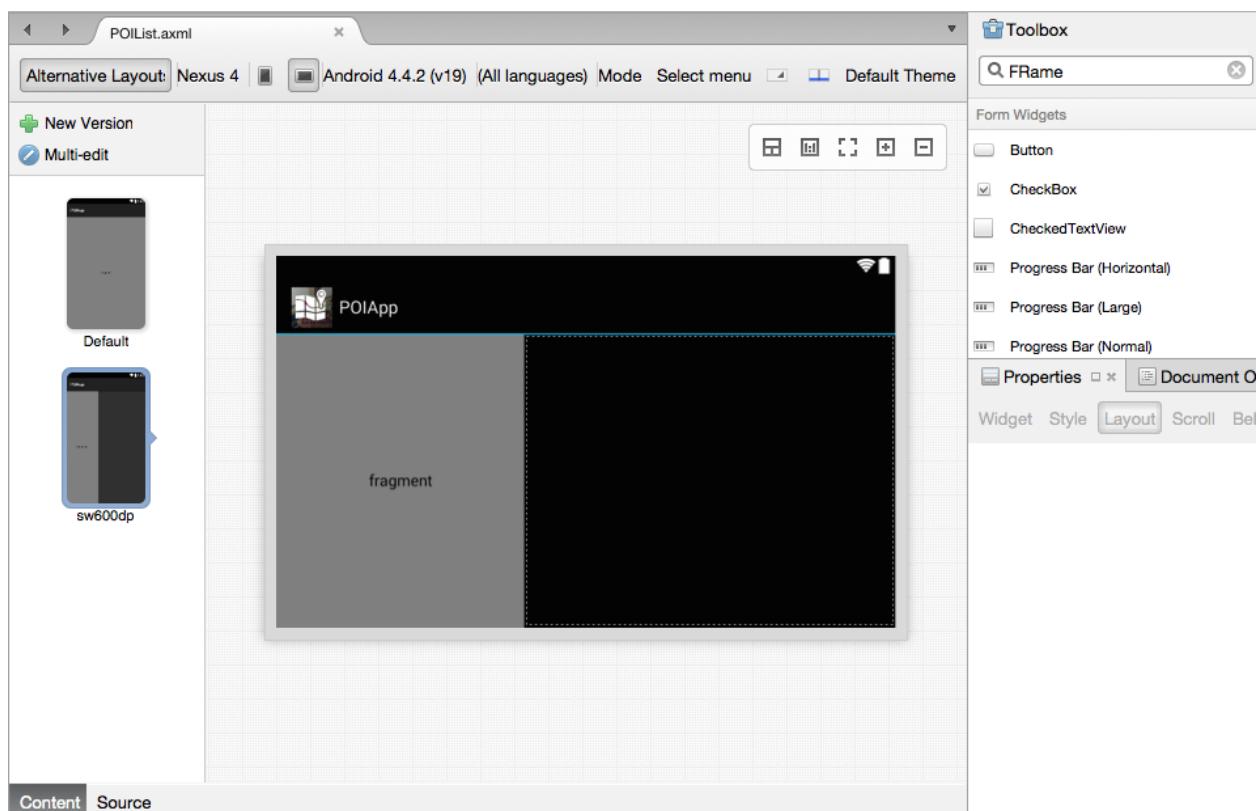
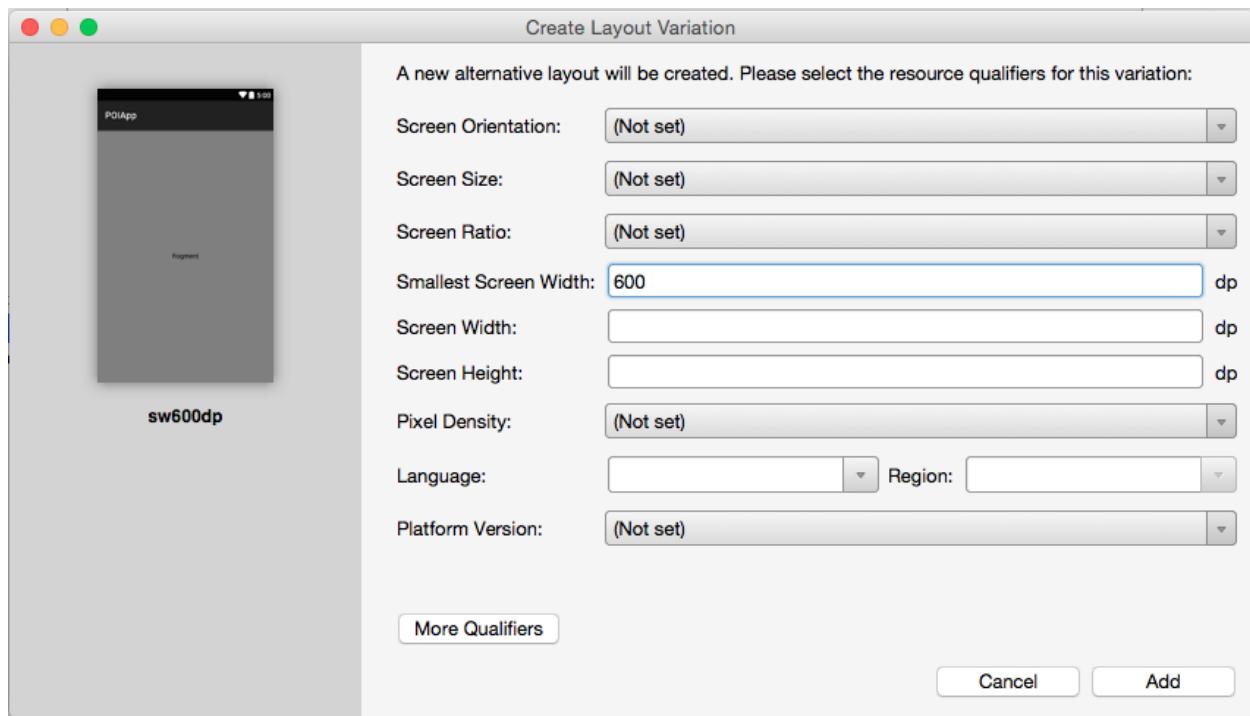


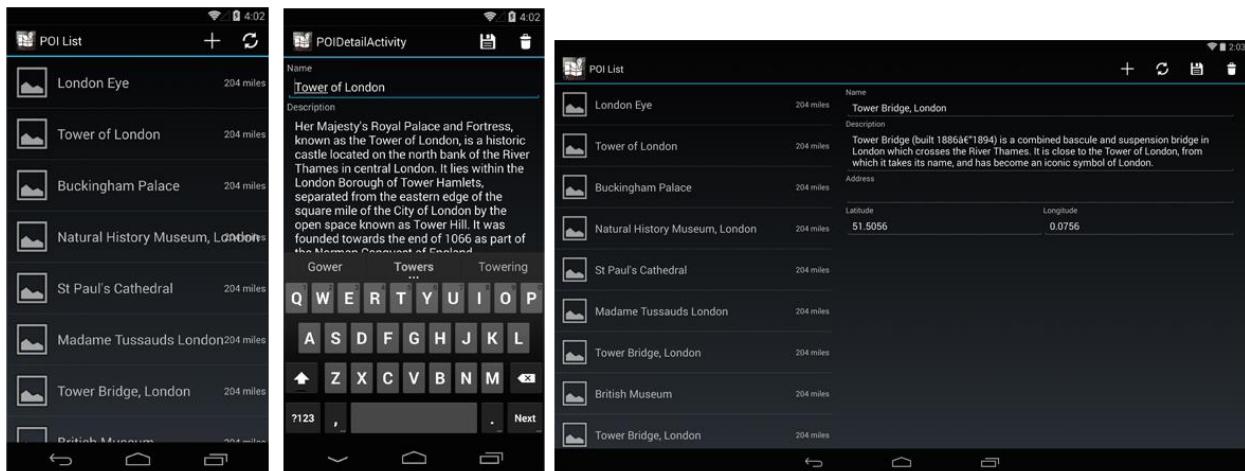
Chapter 7: Designing for Multiple Screen Sizes











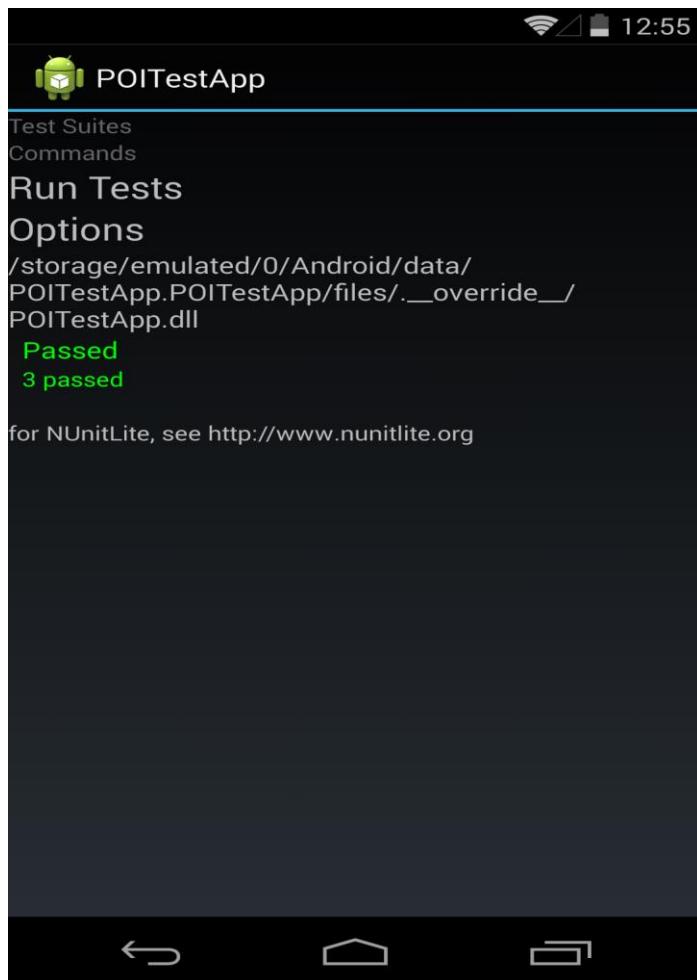
Add Packages

Official NuGet Gallery

	Name	Downloads	Author	Published	License	View License	Project Page	Dependencies
<input type="checkbox"/>	Xamarin Support Library v4 C# bindings for android support library v4.	491,603	Xamarin	Xamarin	Apache	View License	Visit Page	None
<input type="checkbox"/>	Xamarin Support Library v7 AppCompat C# bindings for android support library v7 app compat.	194,906	Xamarin	Xamarin	Apache	View License	Visit Page	None
<input type="checkbox"/>	Selenium WebDriver Support Classes Support classes for the .NET bindings of the Selenium WebDriver API	405	Selenium	Selenium	Apache	View License	Visit Page	None
<input type="checkbox"/>	Xamarin Support Library v4 C# bindings for android support library v4.	88	Xamarin	Xamarin	Apache	View License	Visit Page	None
<input type="checkbox"/>	Storm.Mvvm.Android.Support Mvvm implementation of Storm.Mvvm for Xamarin.Android, same package as Storm.Mvvm.Android except it use Support Library V4 for retrocompatibility	877	Storm	Storm	Apache	View License	Visit Page	None
<input type="checkbox"/>	Self-Service troubleshooting and diagnostics Self-Service troubleshooting and diagnostics for Azure Websites Support Site.	88	Microsoft	Microsoft	Apache	View License	Visit Page	None
<input type="checkbox"/>	Xamarin Support Library Design	877	Xamarin	Xamarin	Apache	View License	Visit Page	None

Show pre-release packages

Chapter 8: Creating Data Storage Mechanisms



Chapter 9: Making POIApp Location Aware

AndroidManifest.xml

Application name: POIApp

Package name: com.packt.poiapp

Application icon: @drawable/ic_launcher

Version number: 1

Version name: 1.0

Minimum Android version: Override - Android 2.3 (API level 10)

Target Android version: Override - Android 4.4 (API level 19)

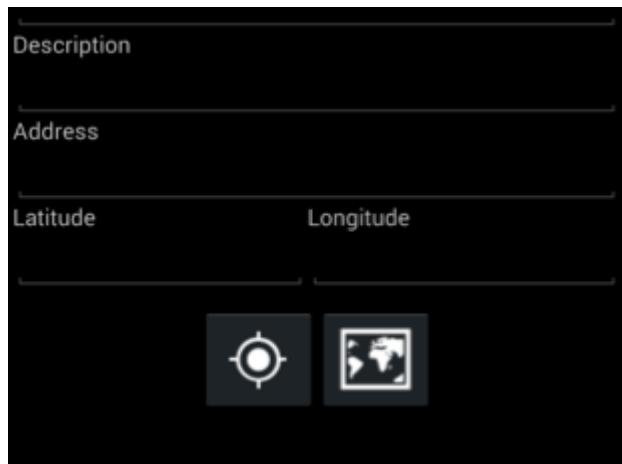
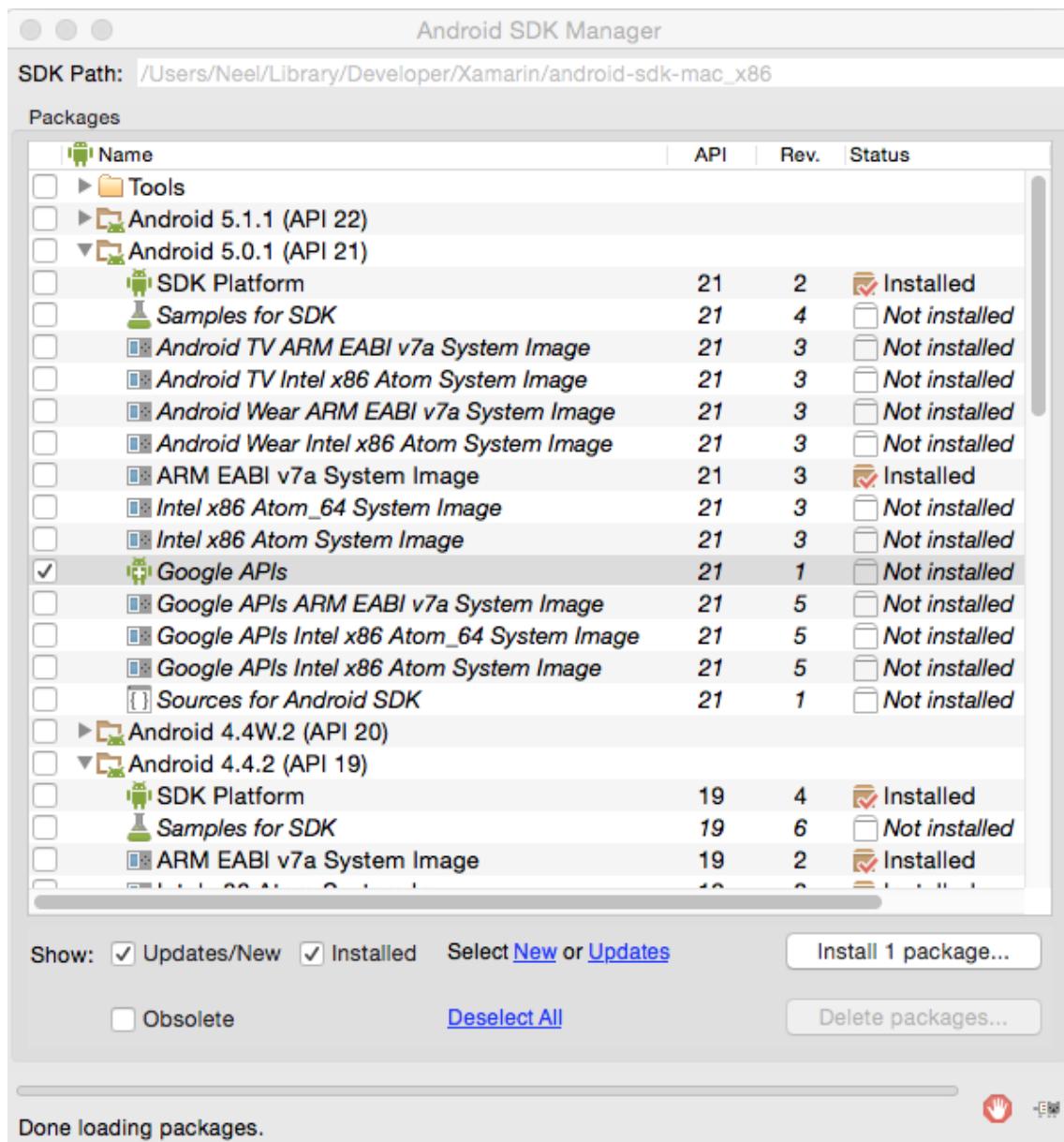
Install Location: Automatic

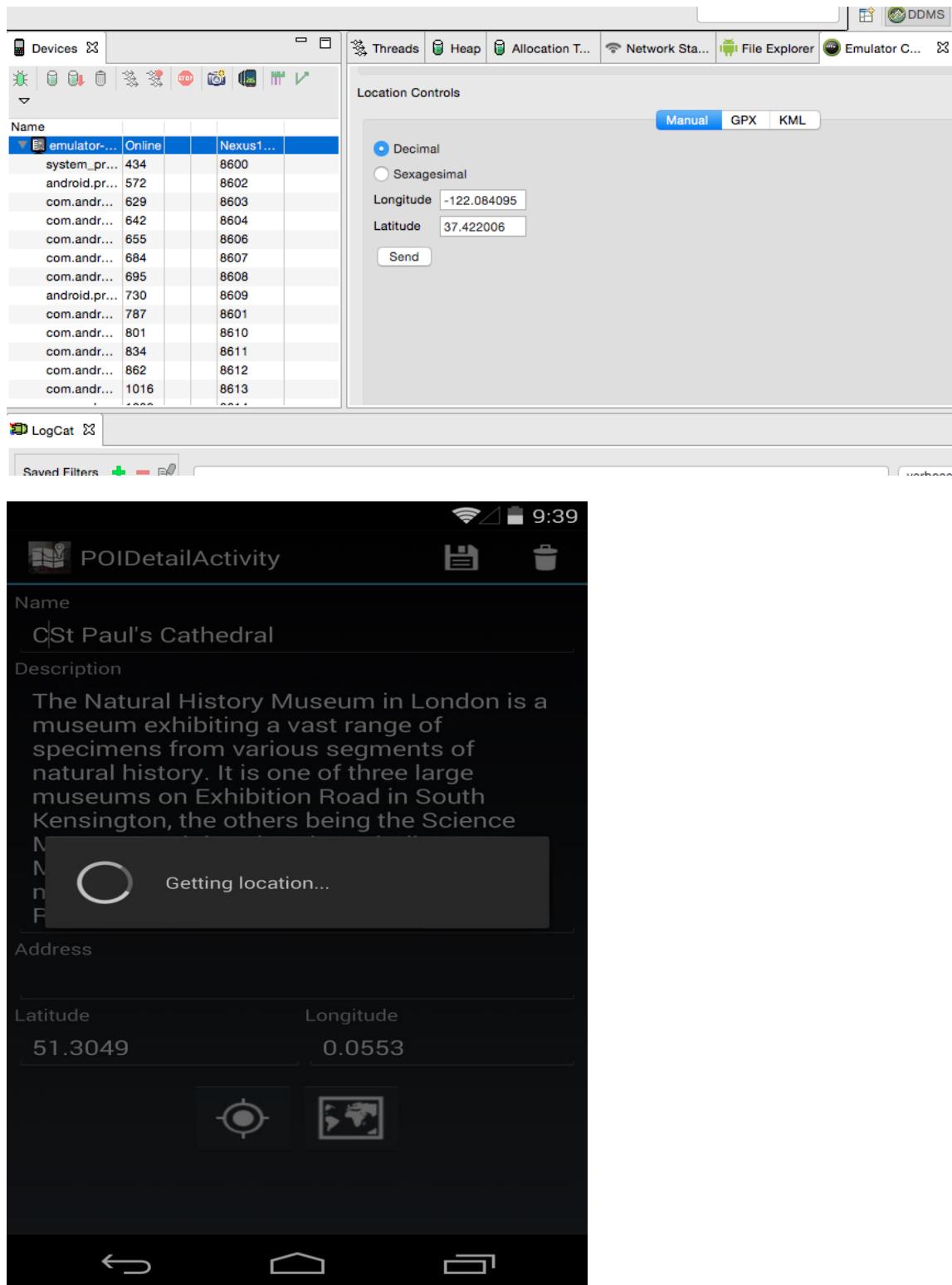
Required permissions:

- AccessCheckinProperties
- AccessCoarseLocation**
- AccessFineLocation
- AccessLocationExtraCommands
- AccessMockLocation
- AccessNetworkState
- AccessSurfaceFlinger
- AccessWifiState

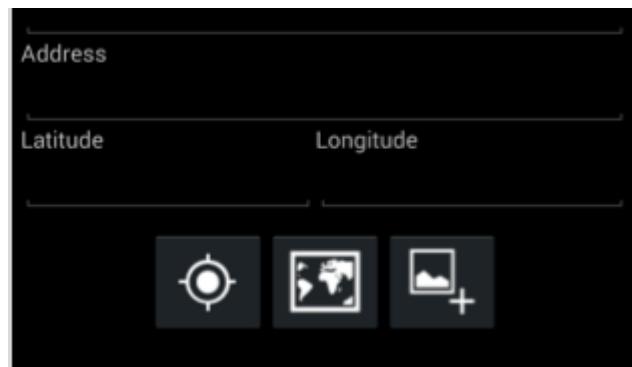
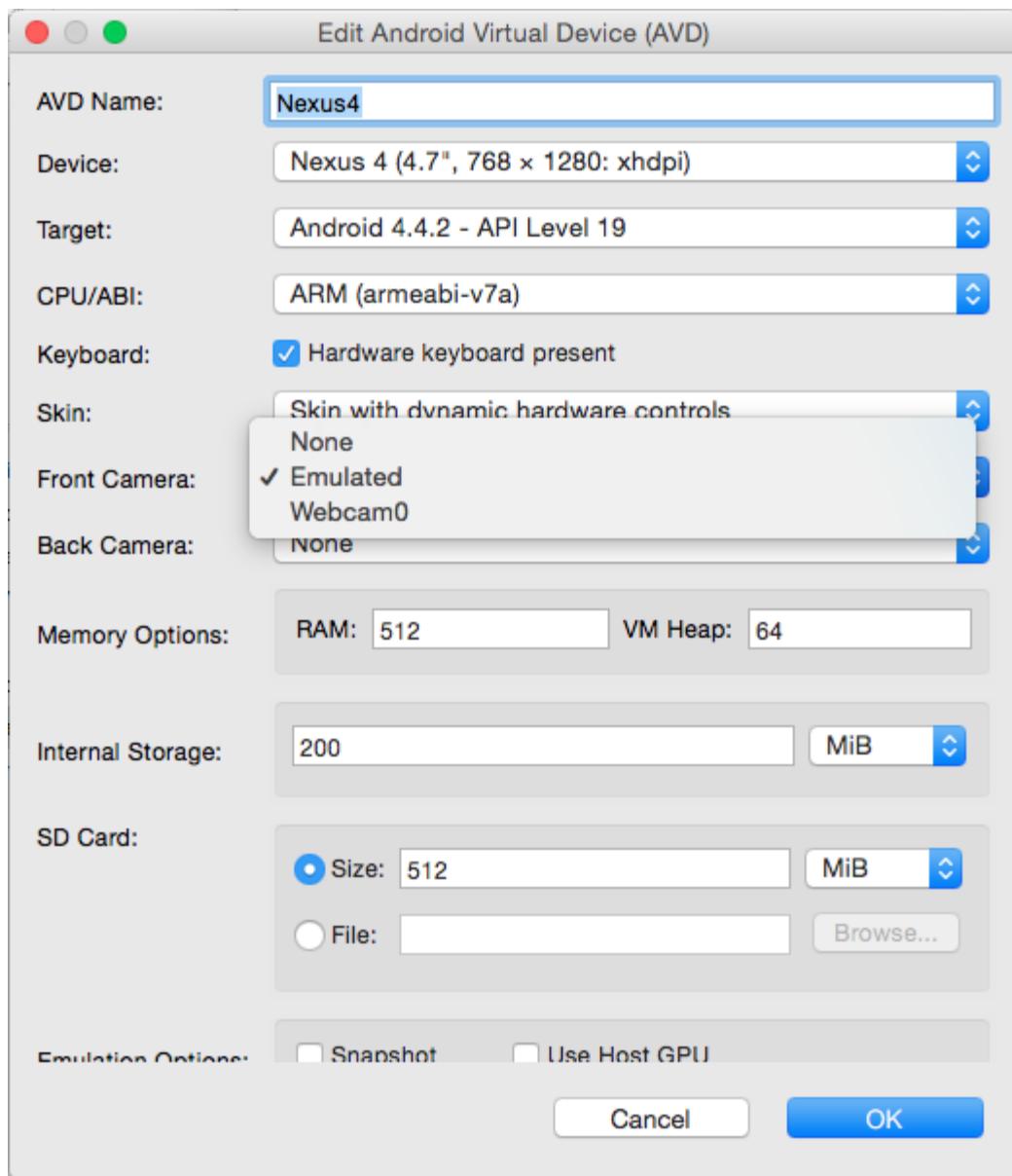
AndroidManifest.xml

```
manifest
1 <?xml version="1.0" encoding="utf-8"?>
2 <manifest xmlns:android="http://schemas.android.com/apk/res/android" android:versionCode="1"
3   android:versionName="1.0" package="com.packt.poiapp">
4     <uses-sdk android:minSdkVersion="10" android:targetSdkVersion="19" />
5     <application android:label="POIApp" android:icon="@drawable/ic_launcher">
6       </application>
7       <uses-permission android:name="android.permission.INTERNET" />
8       <uses-permission android:name="android.permission.ACCESS_NETWORK_STATE" />
9       <uses-permission android:name="android.permission.ACCESS_COARSE_LOCATION" />
10      <uses-permission android:name="android.permission.ACCESS_FINE_LOCATION" />
11    </manifest>
```

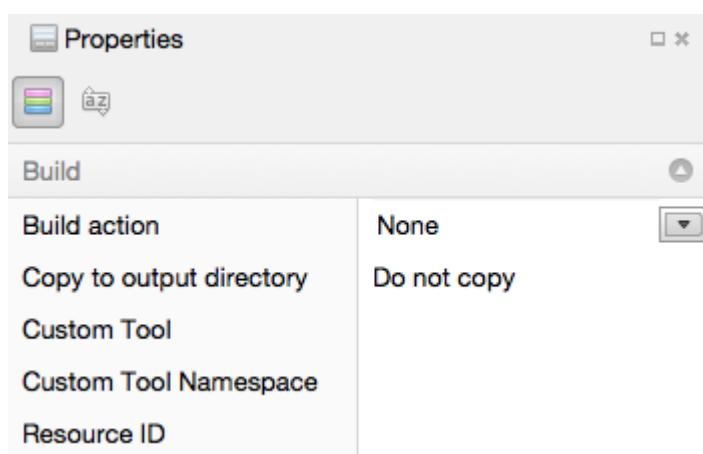
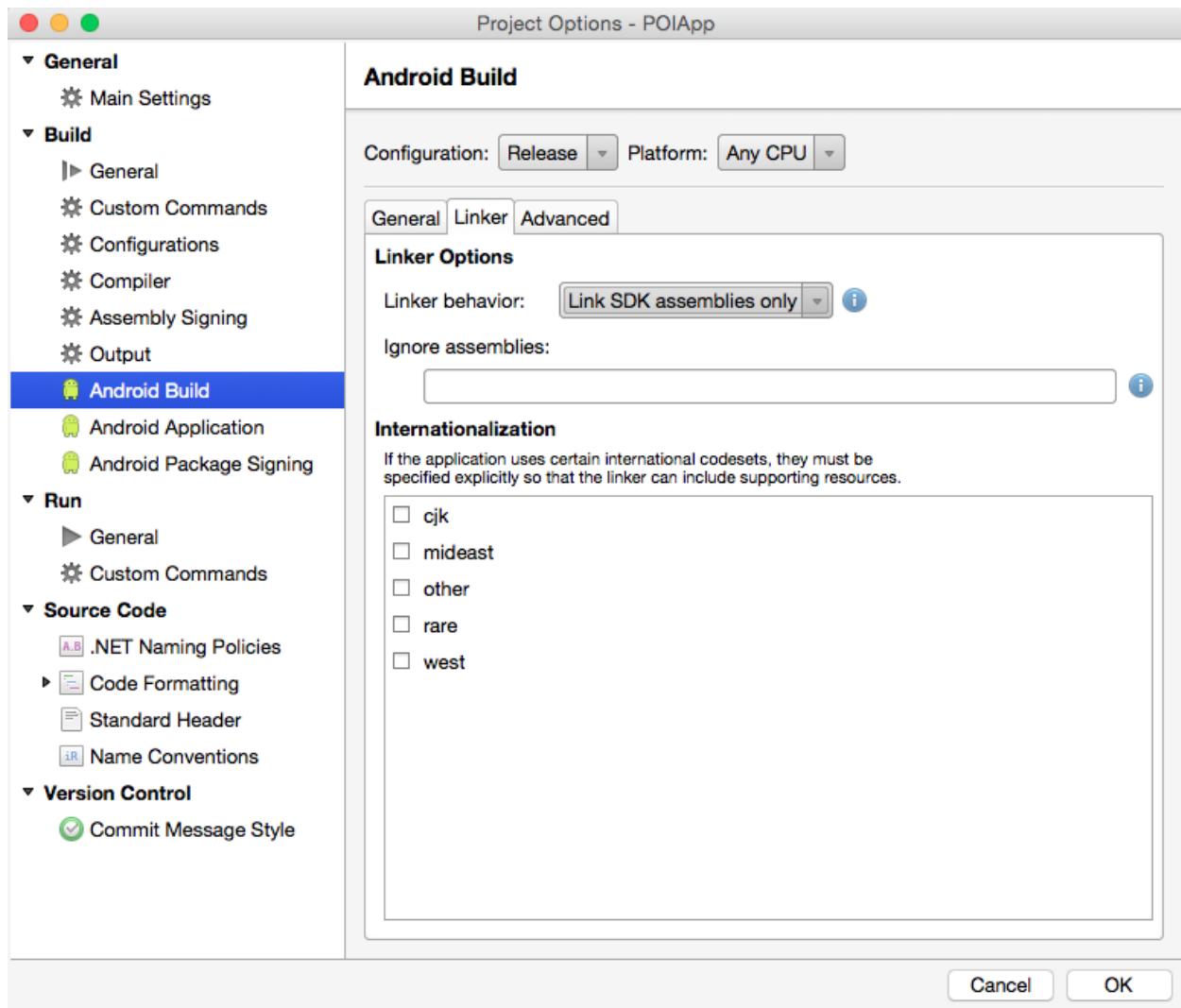


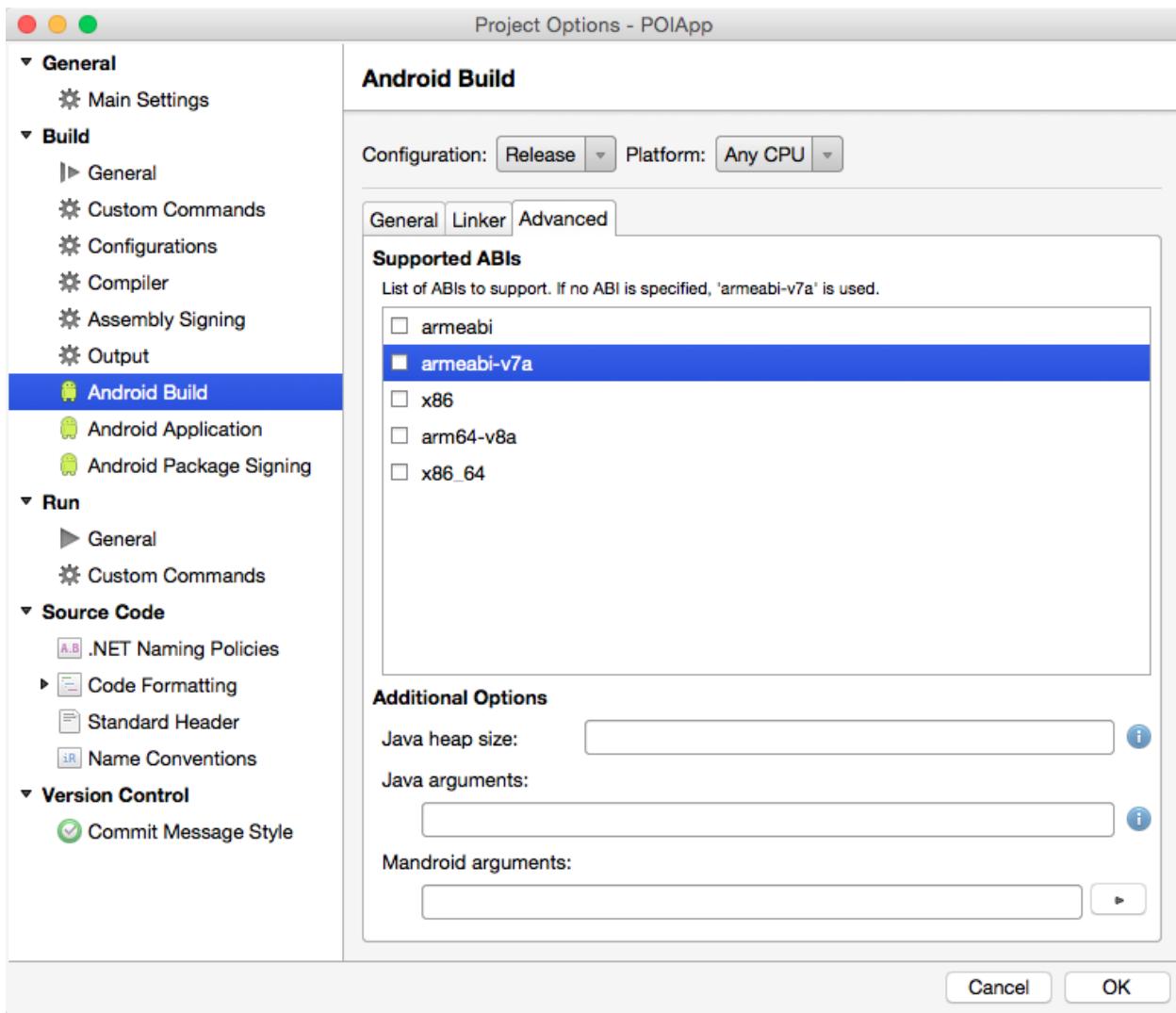


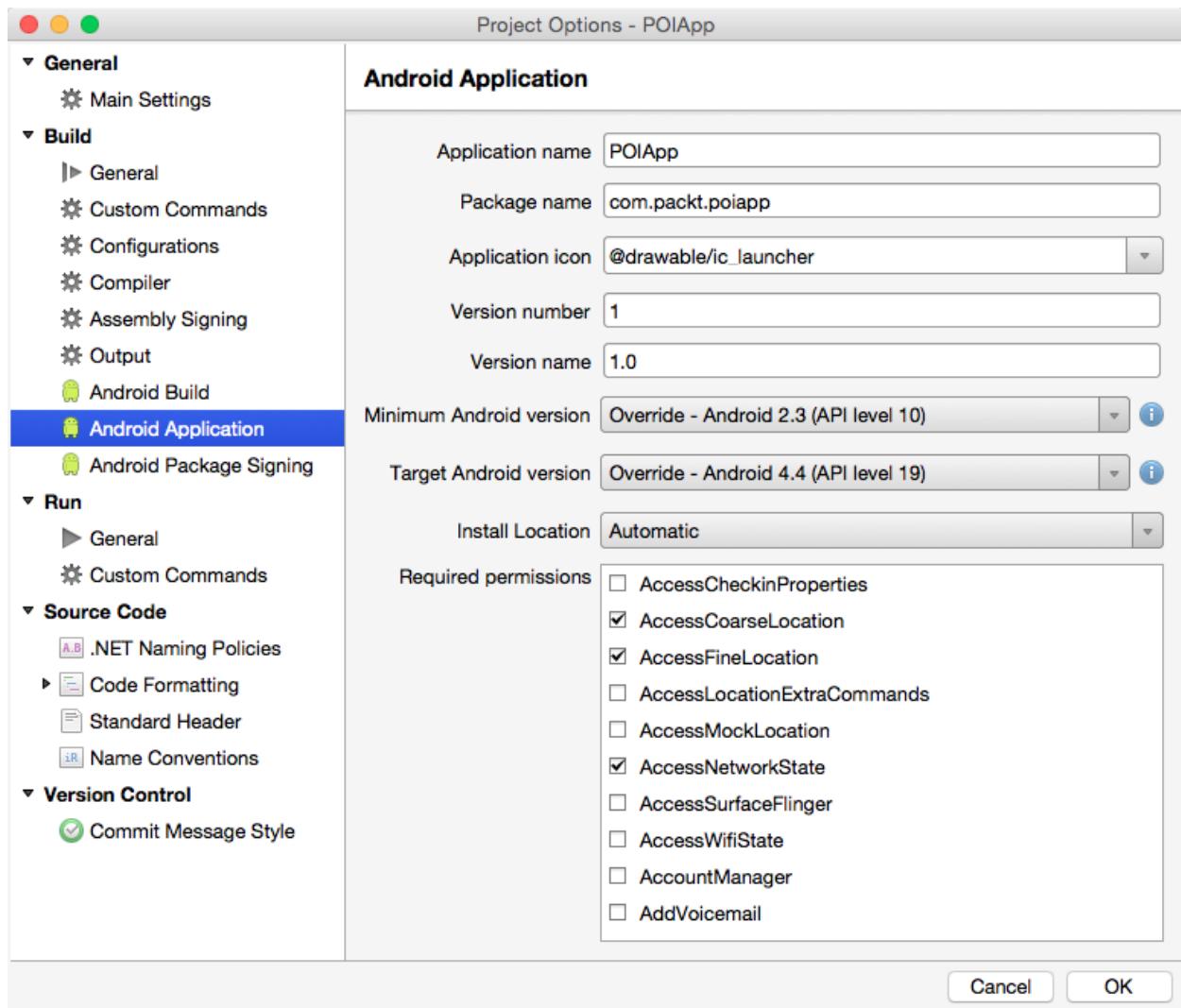
Chapter 10: Adding the Camera App Integration



Chapter 11: Publishing an App to the App Store









My apps



App permissions

App 1 of 3

Facebook needs access to additional permissions (marked as NEW):

Your messages

NEW: Read your text messages (SMS or MMS)

Your personal information

NEW: Add or modify calendar events and send emails to guests without host's knowledge, read calendar events plus confidential information, read your own contact card

Network communication

NEW: Connect and disconnect from Wi-Fi

Full network access

Default

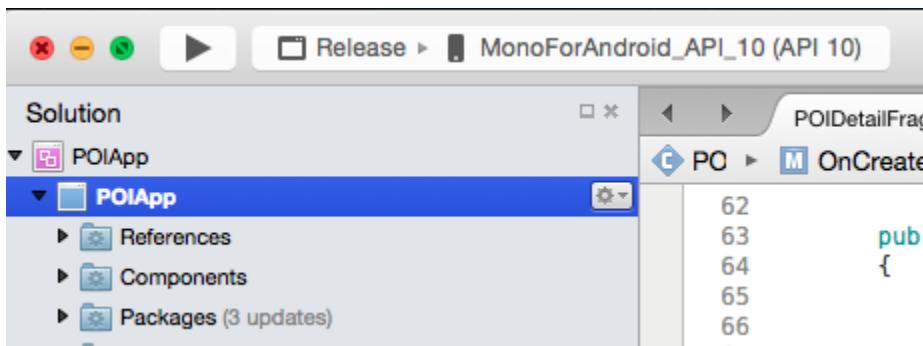
Com.sec.android.provider.badge.permission.
READ

SKIP

ACCEPT

```
neel:desktop Neel$ keytool -genkey -v -keystore release.keystore -alias android -validity 10000
Enter keystore password:
Re-enter new password:
What is your first and last name?
[Unknown]: Nilanchala Panigrahy
What is the name of your organizational unit?
[Unknown]: Packt
What is the name of your organization?
[Unknown]: Packt
What is the name of your City or Locality?
[Unknown]: London
What is the name of your State or Province?
[Unknown]:
What is the two-letter country code for this unit?
[Unknown]: UK
Is CN=Nilanchala Panigrahy, OU=Packt, O=Packt, L=London, ST=Unknown, C=UK correct?
[no]: yes

Generating 1,024 bit DSA key pair and self-signed certificate (SHA1withDSA) with a validity of 10,000 days
for: CN=Nilanchala Panigrahy, OU=Packt, O=Packt, L=London, ST=Unknown, C=UK
Enter key password for <android>
(RETURN if same as keystore password):
Re-enter new password:
[Storing release.keystore]
neel:desktop Neel$
```



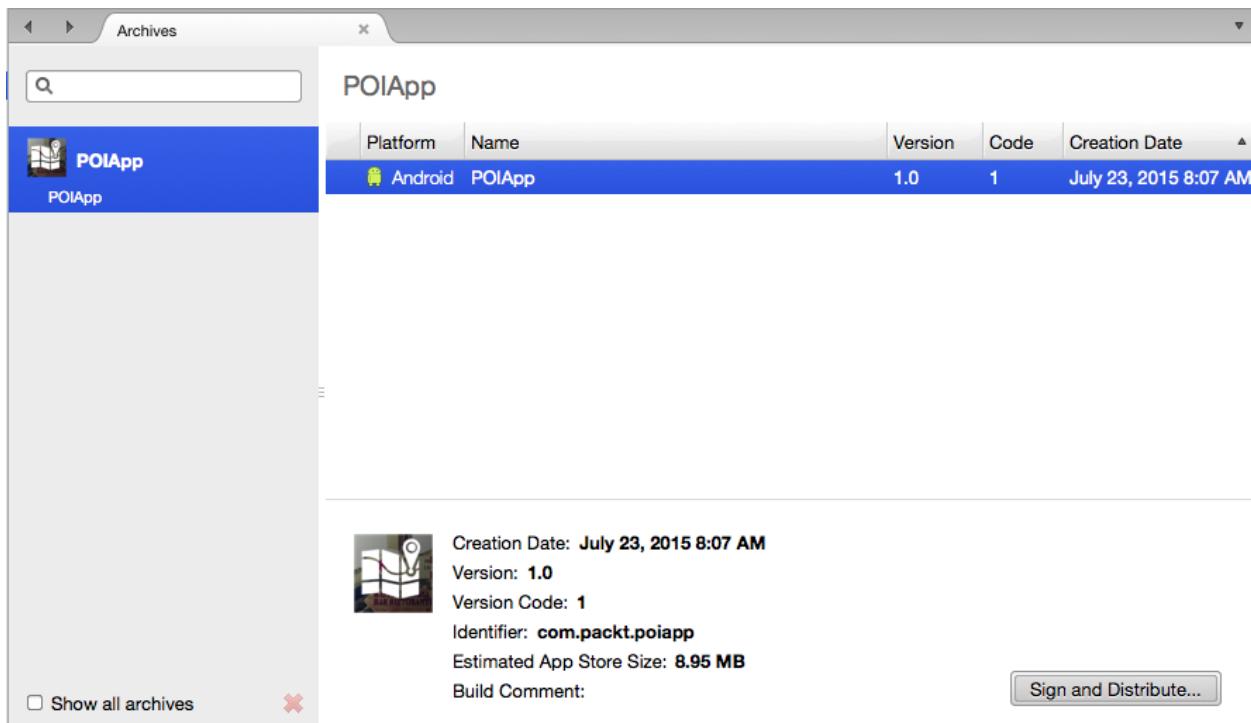
Archives

POIApp

Platform	Name	Version	Code	Creation Date
Android	POIApp	1.0	1	July 23, 2015 8:07 AM

Creation Date: July 23, 2015 8:07 AM
Version: 1.0
Version Code: 1
Identifier: com.packt.poiapp
Estimated App Store Size: 8.95 MB
Build Comment:

Show all archives Sign and Distribute...



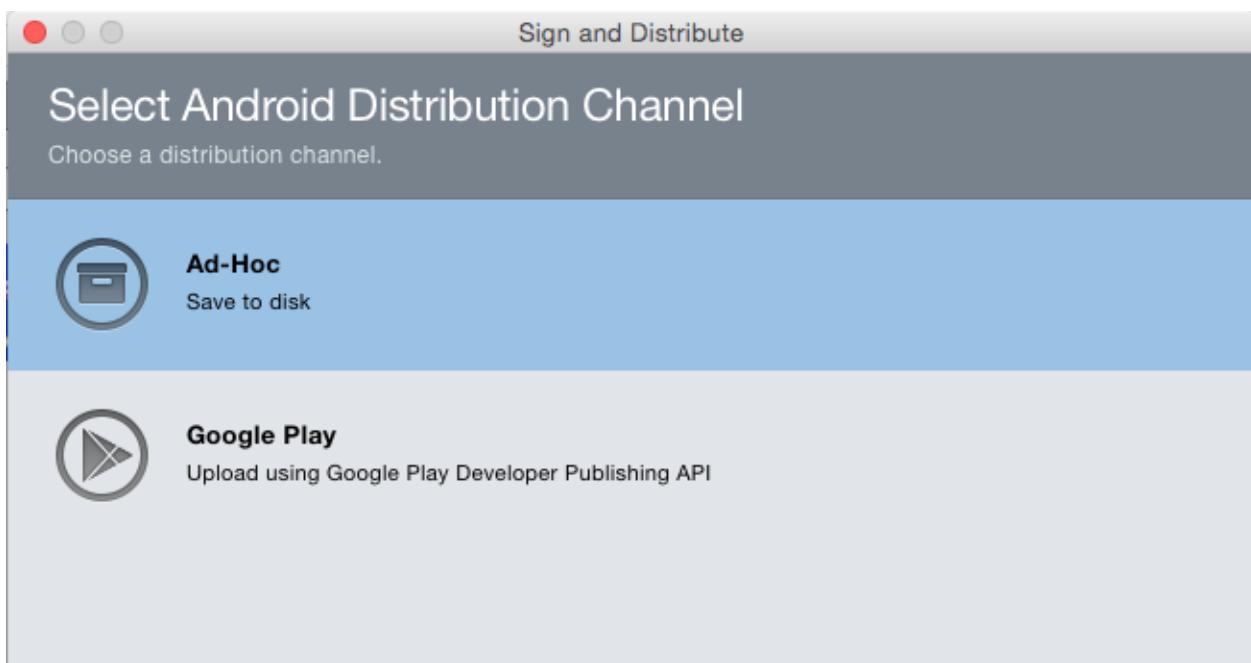
Sign and Distribute

Select Android Distribution Channel

Choose a distribution channel.

Ad-Hoc
Save to disk

Google Play
Upload using Google Play Developer Publishing API



>Create New Certificate

Create a new signing certificate for Android applications

Alias	android	
Password	••••••	Confirm ••••••
Validity (years)	1000	<input type="button" value="▼"/>

Enter at least one of the following

First and Last Name	Nilanchala Panigrahy	
Organisational Unit	Packt	
Organisation	Packt	
City or Locality	London	
State or Province	United Kingdom	
Country	UK	(2 character country code)

Publish as Ad Hoc

Save to a folder



POIApp

Creation Date: **July 23, 2015 11:48 PM**

Version: **1.0**

Identifier: **com.packt.poiapp**

Estimated Store Size: **8.95 MB**

**All required information has been collected.
Your app is ready to be published.**

[Cancel](#)

[Back](#)

[Publish](#)



Sign and Distribute

Publication Succeeded

Your app was published.

Your app is ready to go

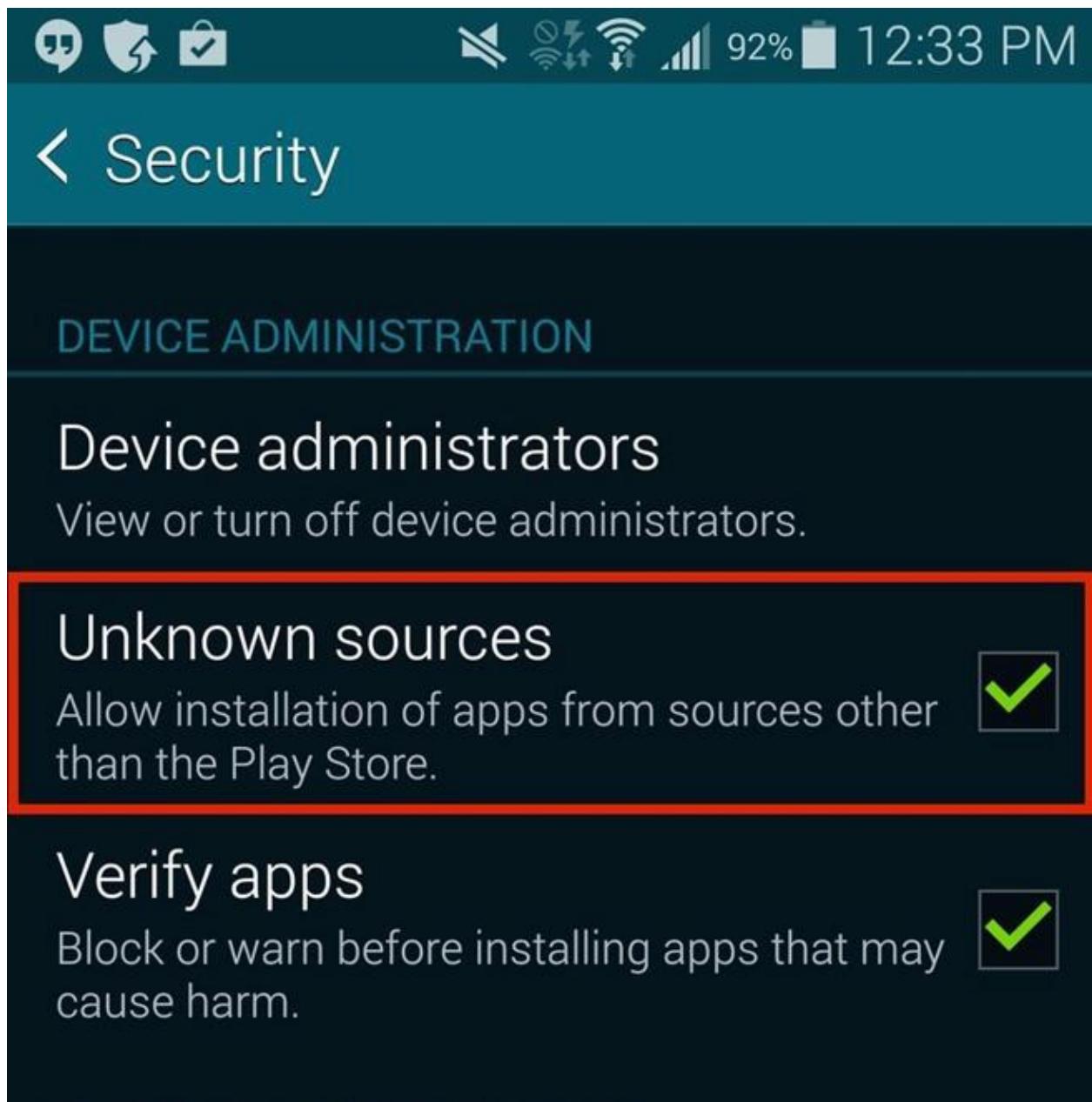
Your app has been published and saved to disk.

[Reveal in Finder](#)

[Cancel](#)

[Back](#)

[Close](#)





The screenshot shows the Android Market interface. At the top left is the Google Play logo. Next to it is a search bar with a magnifying glass icon. On the far right are links for "JAVATECHIG ▾" and a user profile icon. Below the header, there are four category icons: "All Applications" (selected), "Games", "Books & Reference", and "Settings". The main title "ALL APPLICATIONS" is centered above a table. To the right of the table is a green button labeled "+ Add new application". Below the table is a "Filter" dropdown menu. The table has columns for "APP NAME", "PRICE", "CURRENT / TOTAL INSTALLS", "AVG. RATING / TOTAL #", "CRASHES & ANRS", "LAST UPDATE", and "STATUS". Each column has a small question mark icon at the bottom right.

APP NAME	PRICE	CURRENT / TOTAL INSTALLS ?	AVG. RATING / TOTAL #	CRASHES & ANRS ?	LAST UPDATE	STATUS

ADD NEW APPLICATION

Default language *

English (United States) – en-US ▾

Title *

0 of 30 characters

What would you like to start with?

Upload APK

Prepare Store Listing

Cancel