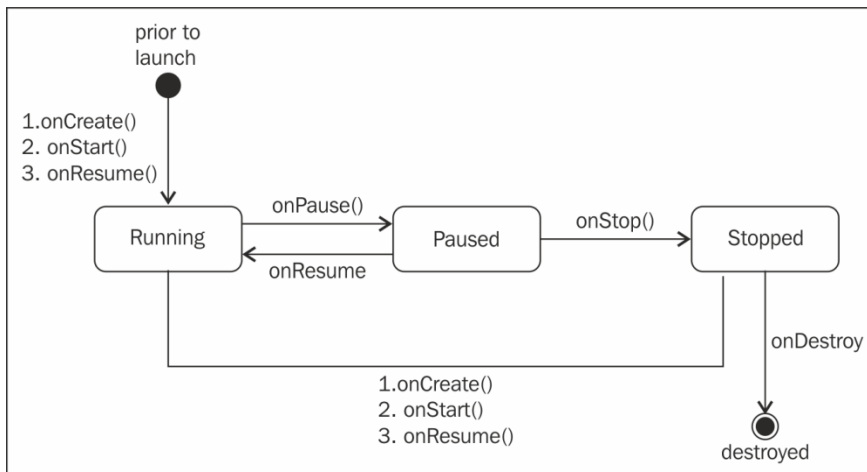
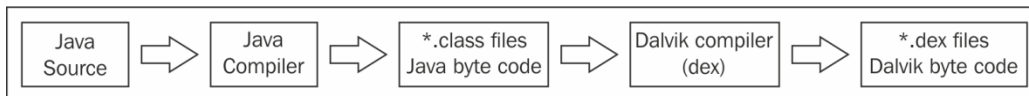
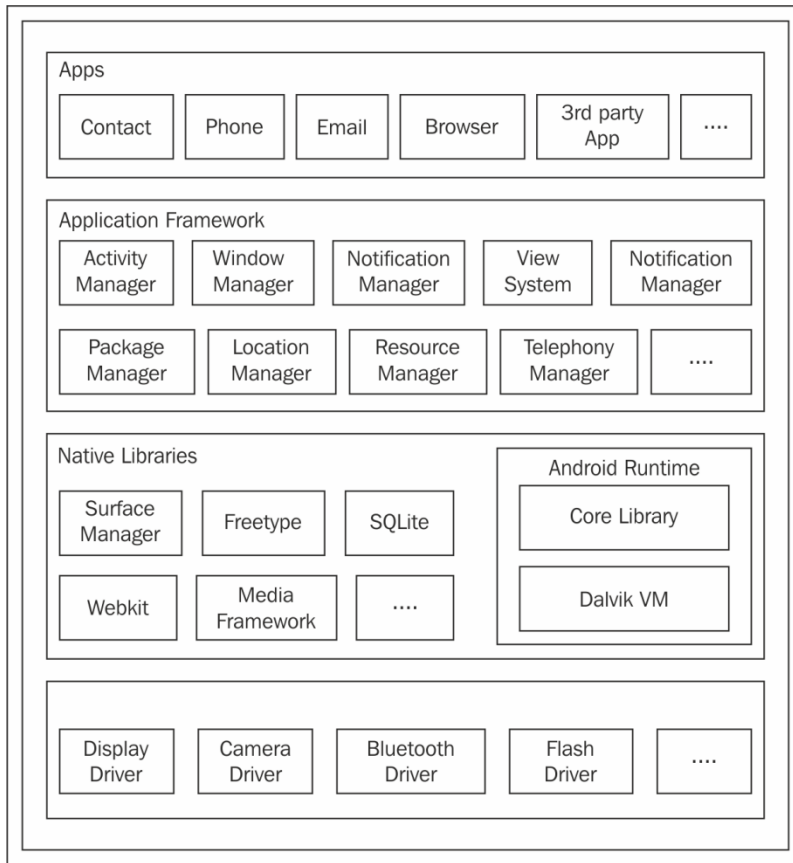
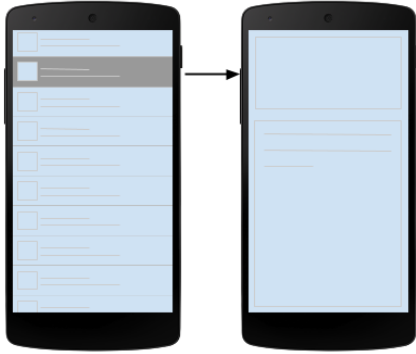


Chapter 1: The Anatomy of an Android App



Selecting item on ActivityA
starts ActivityB



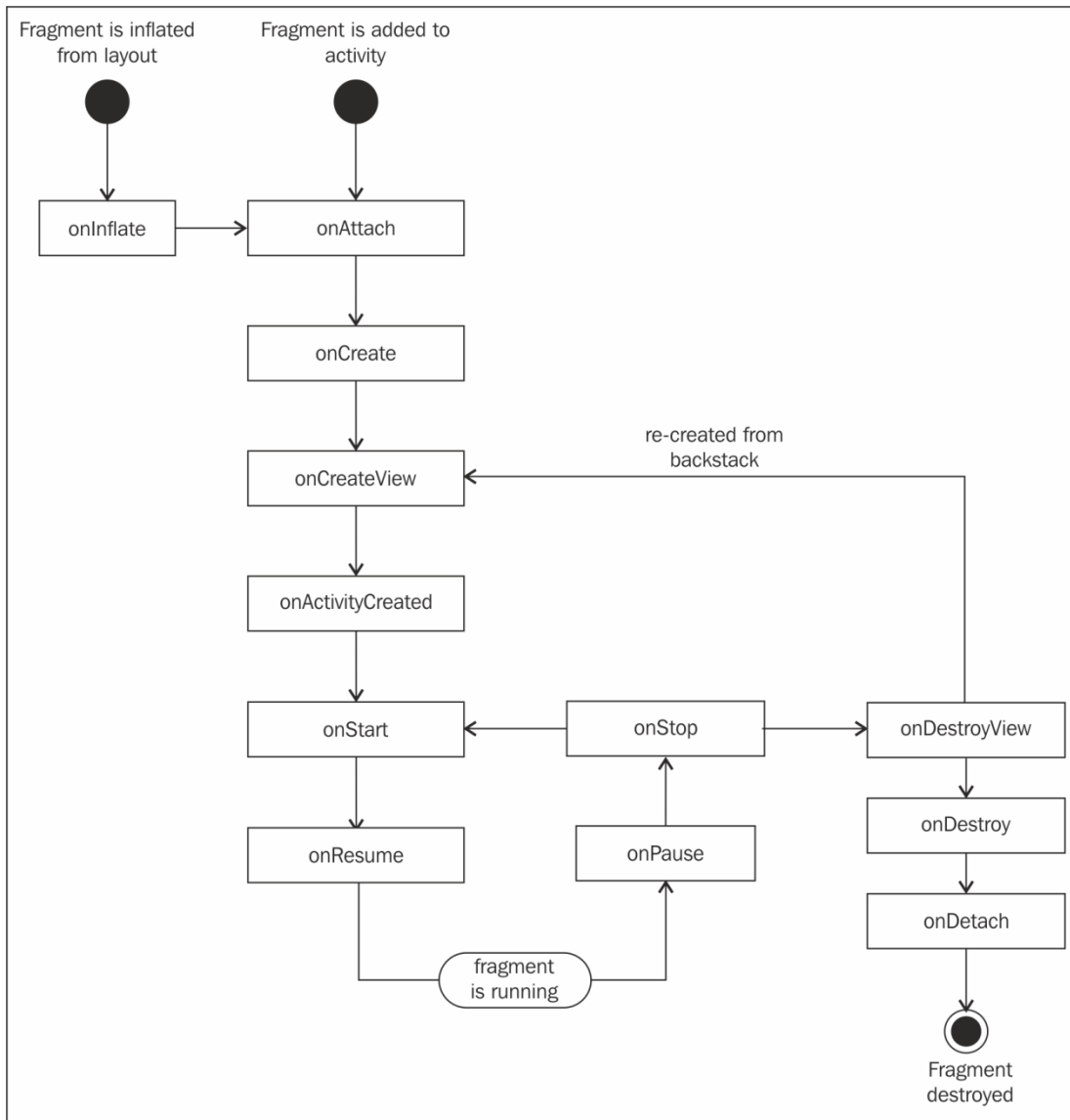
ActivityA contains
FragmentA

ActivityB
contains
FragmentB

Selecting item on FragmentA
updates FragmentB



ActivityA contains
FragmentA and FragmentB



Text View

Button

Edit field
.....|

OFF ON



New Switch ON

CheckBox 2

CheckBox 2

RadioButton 1

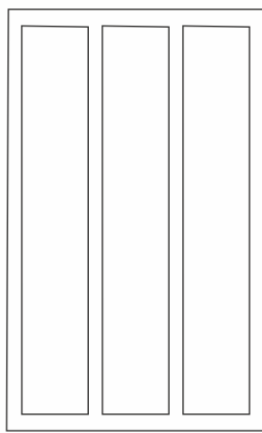
RadioButton 2

jay@gmail.com

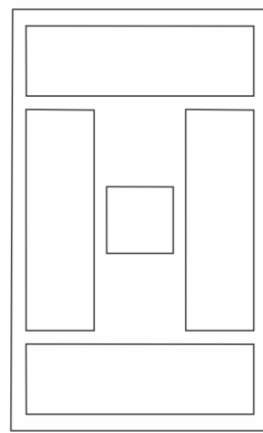
- Home
- Home
- Work
- Other
- Custom



LinearLayout (vertical)



LinearLayout (horizontal)



Relative Layout

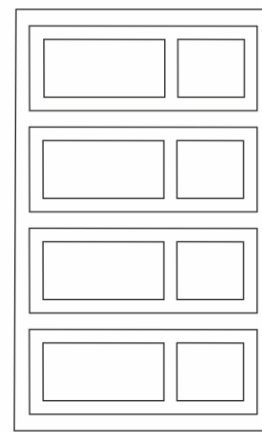
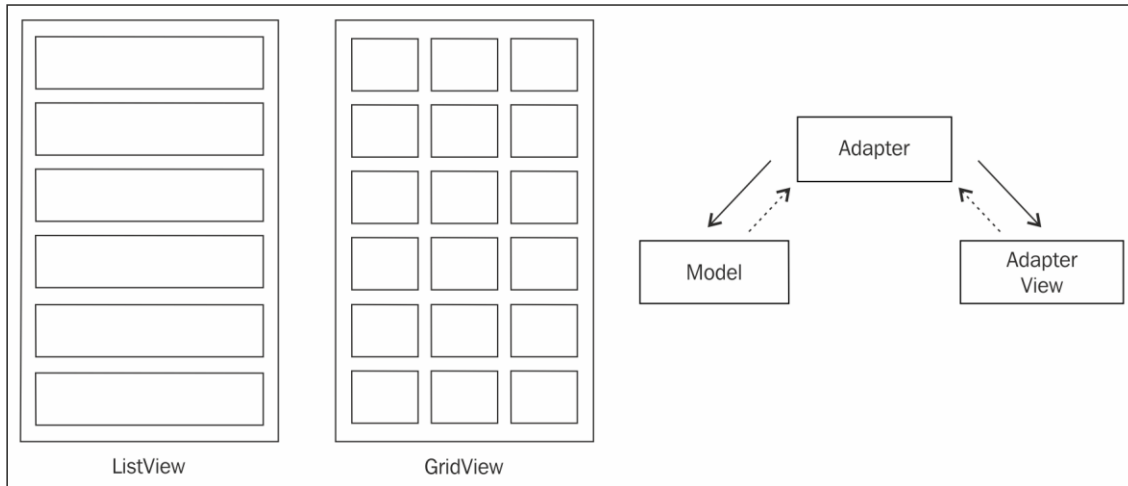
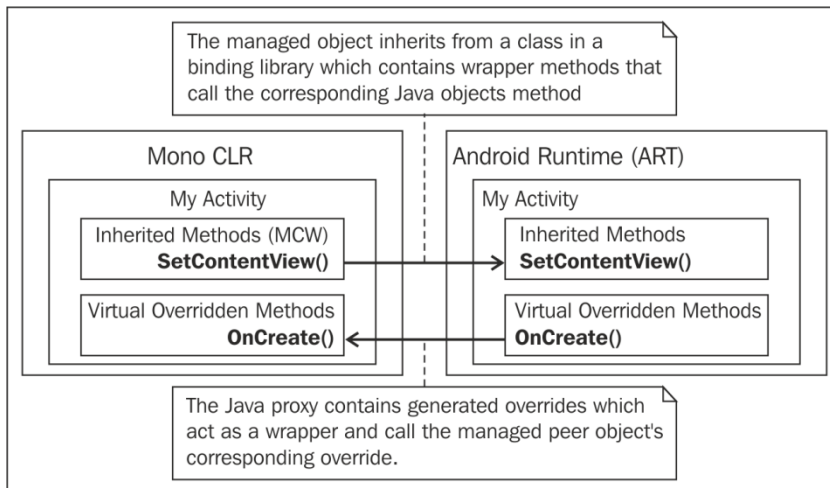
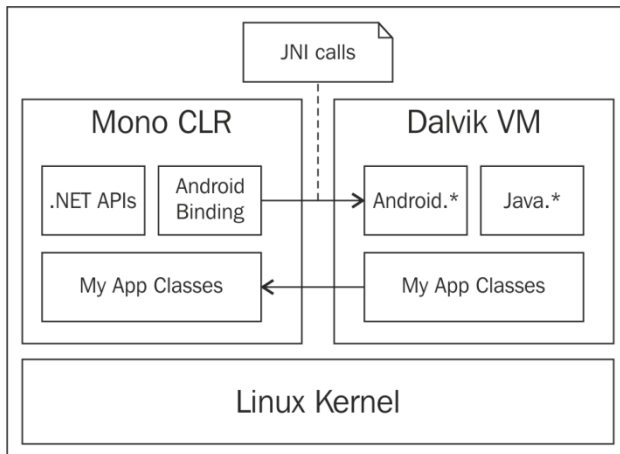
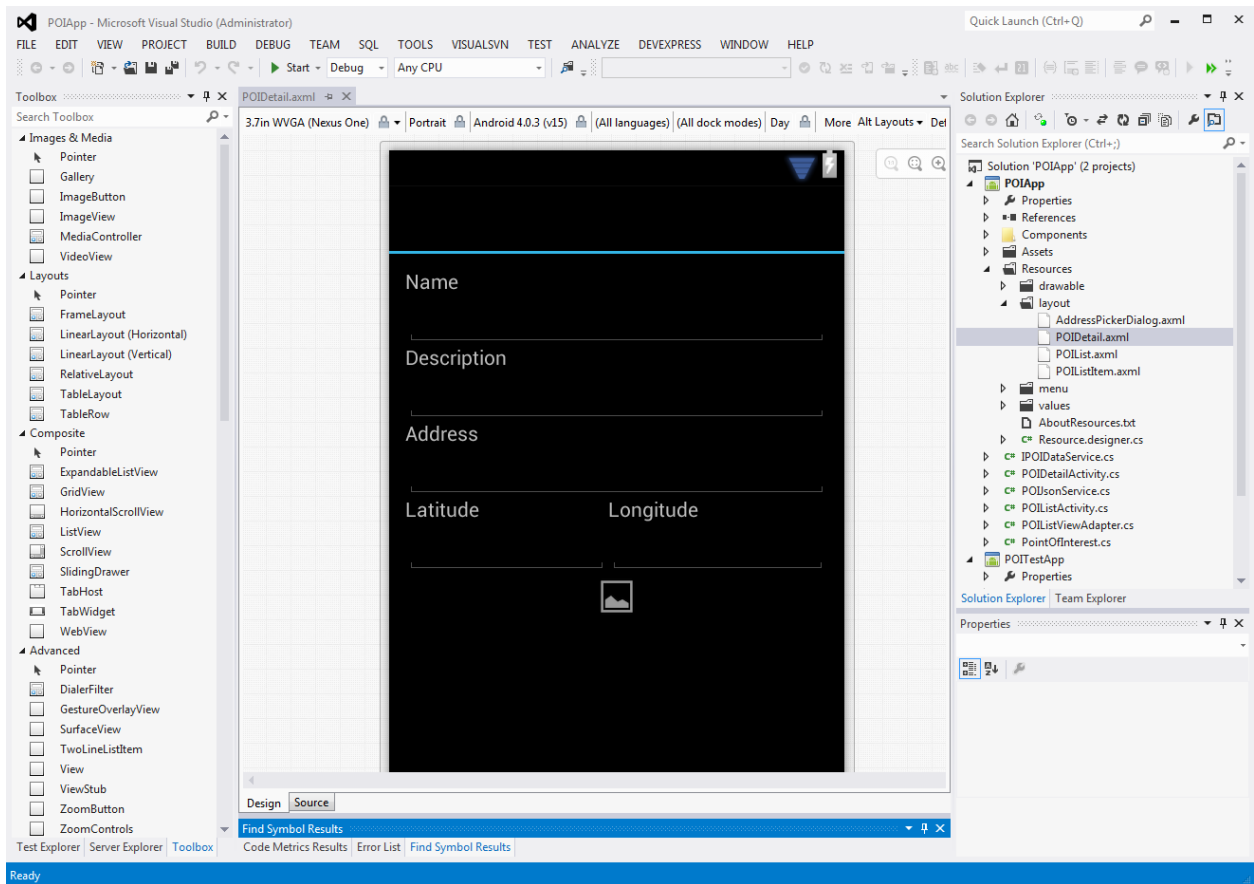
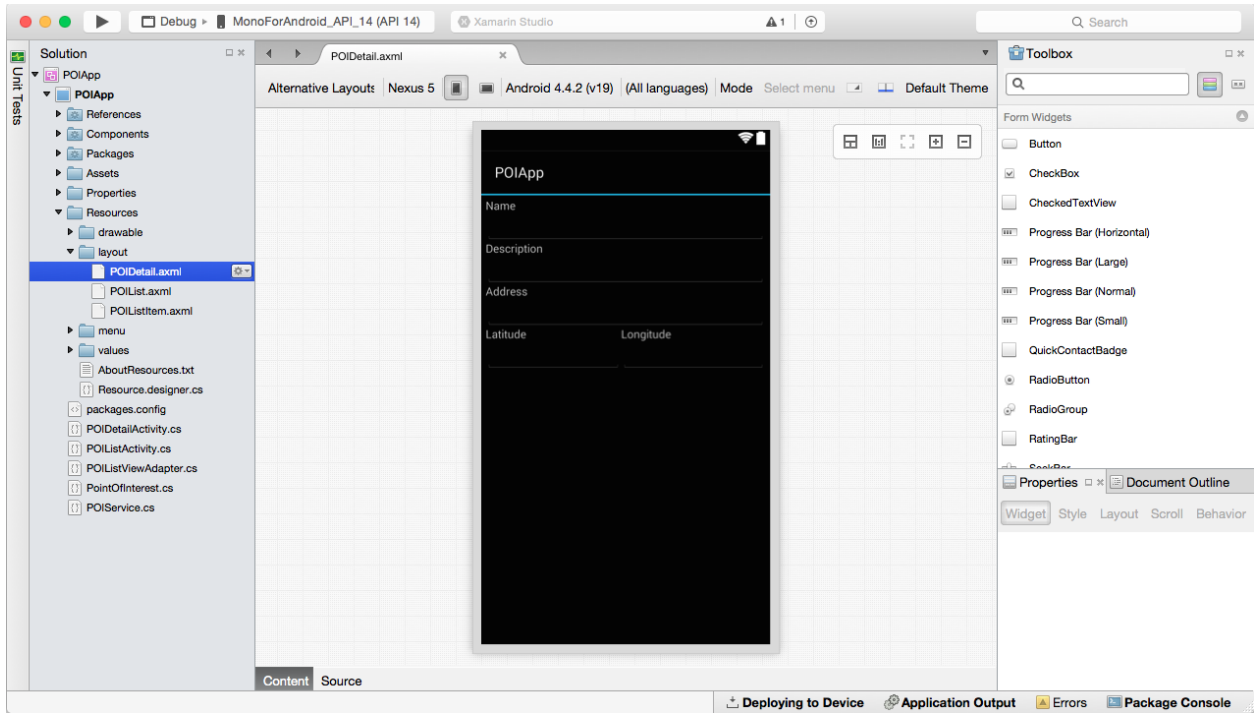


Table Layout

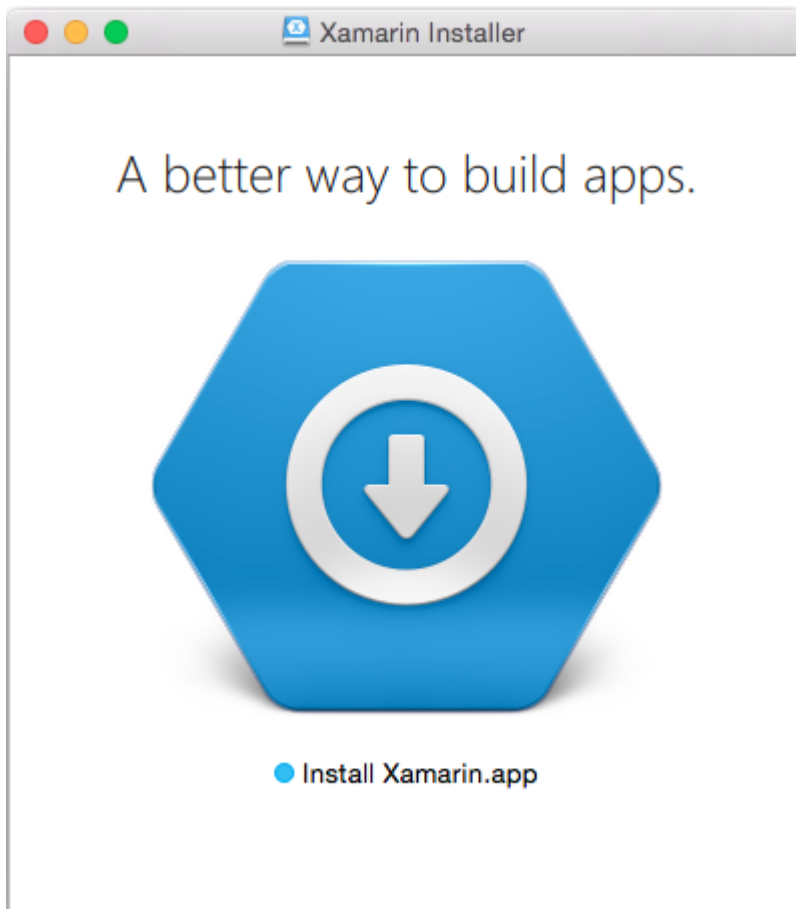


Chapter 2: The Xamarin.Android Architecture





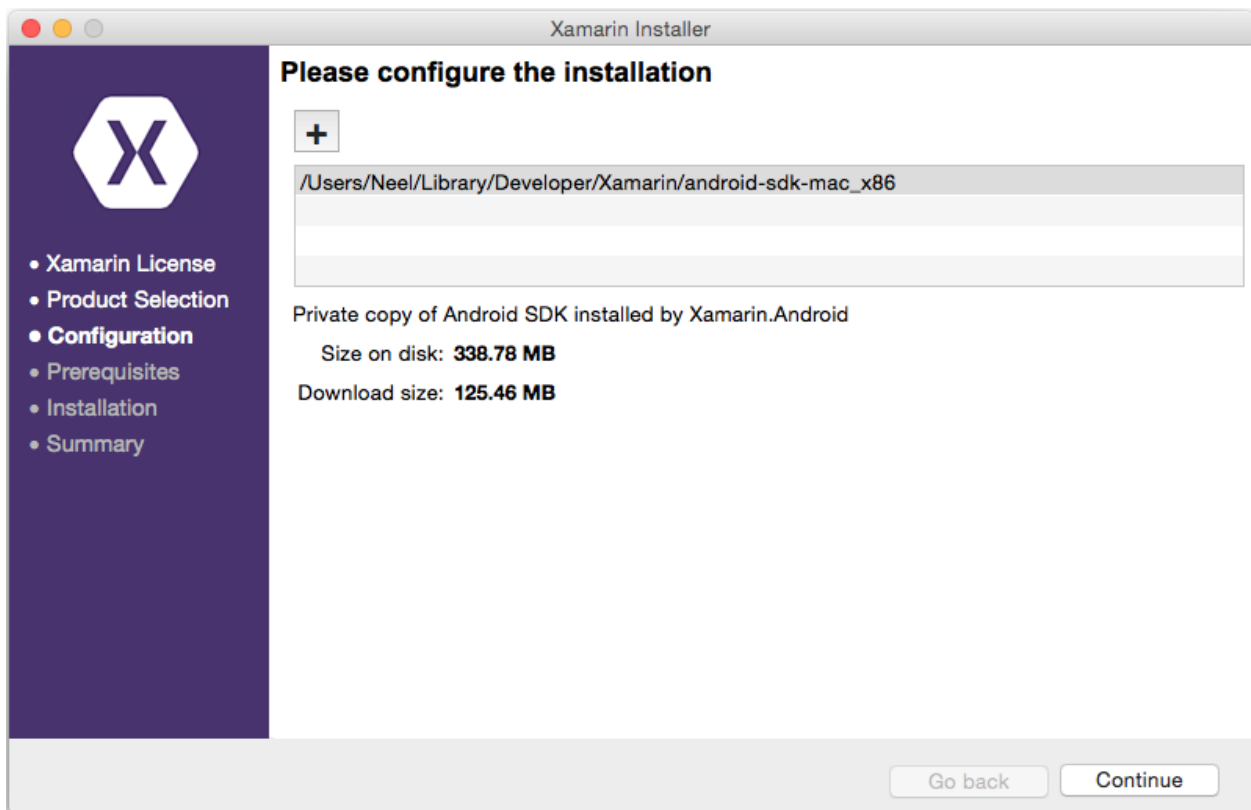
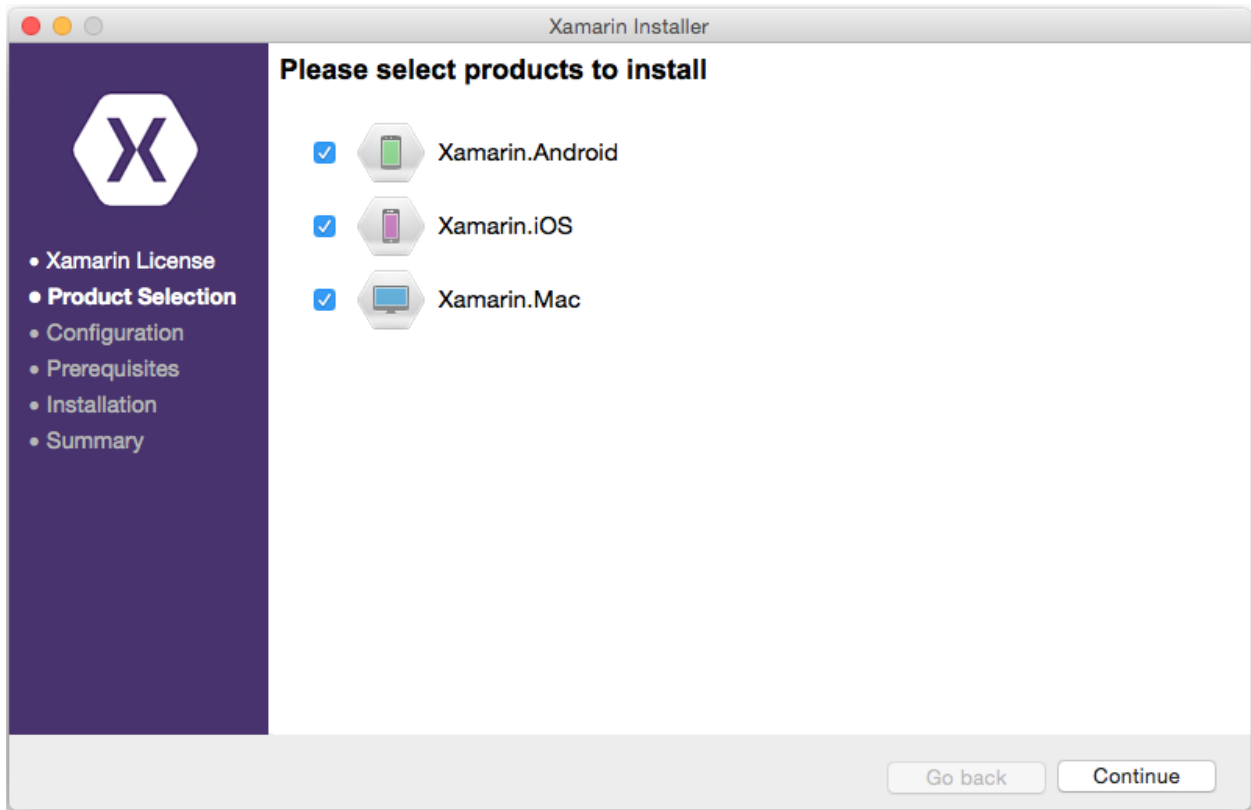
Chapter 3: Creating the Points Of Interest App

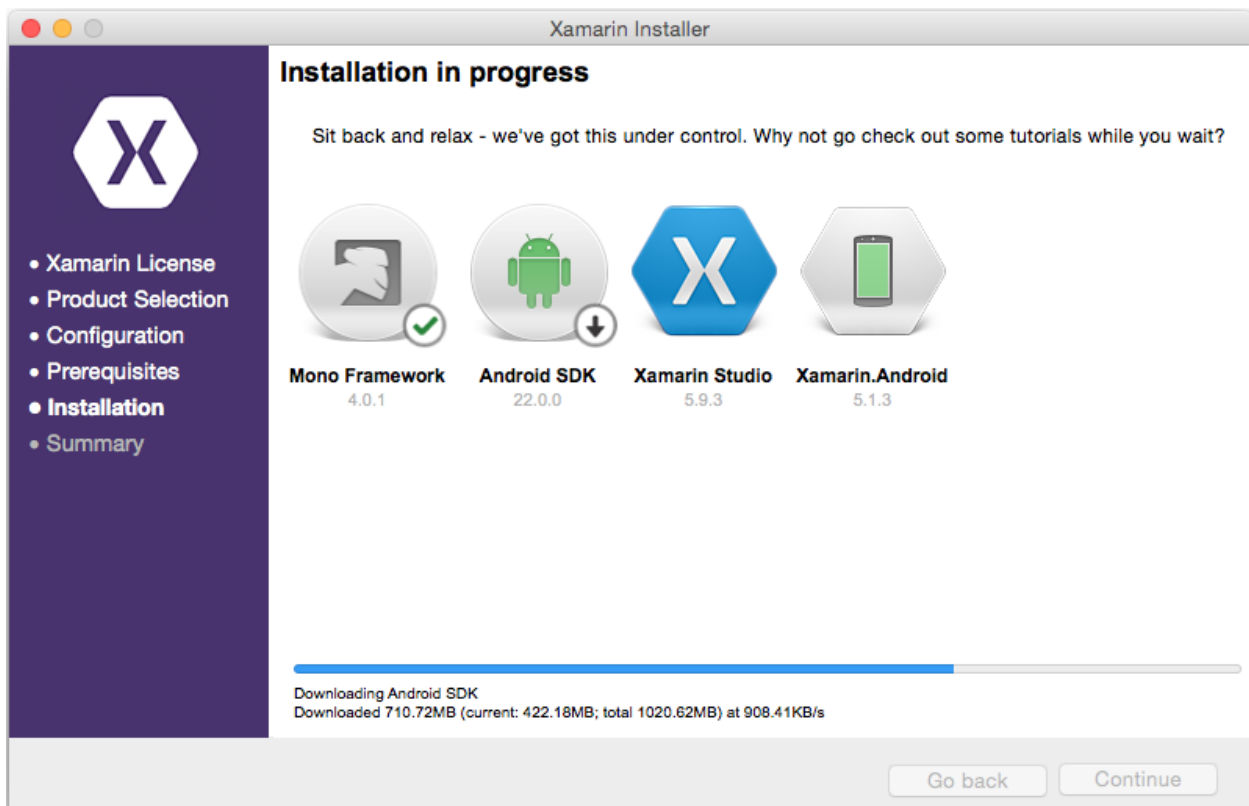
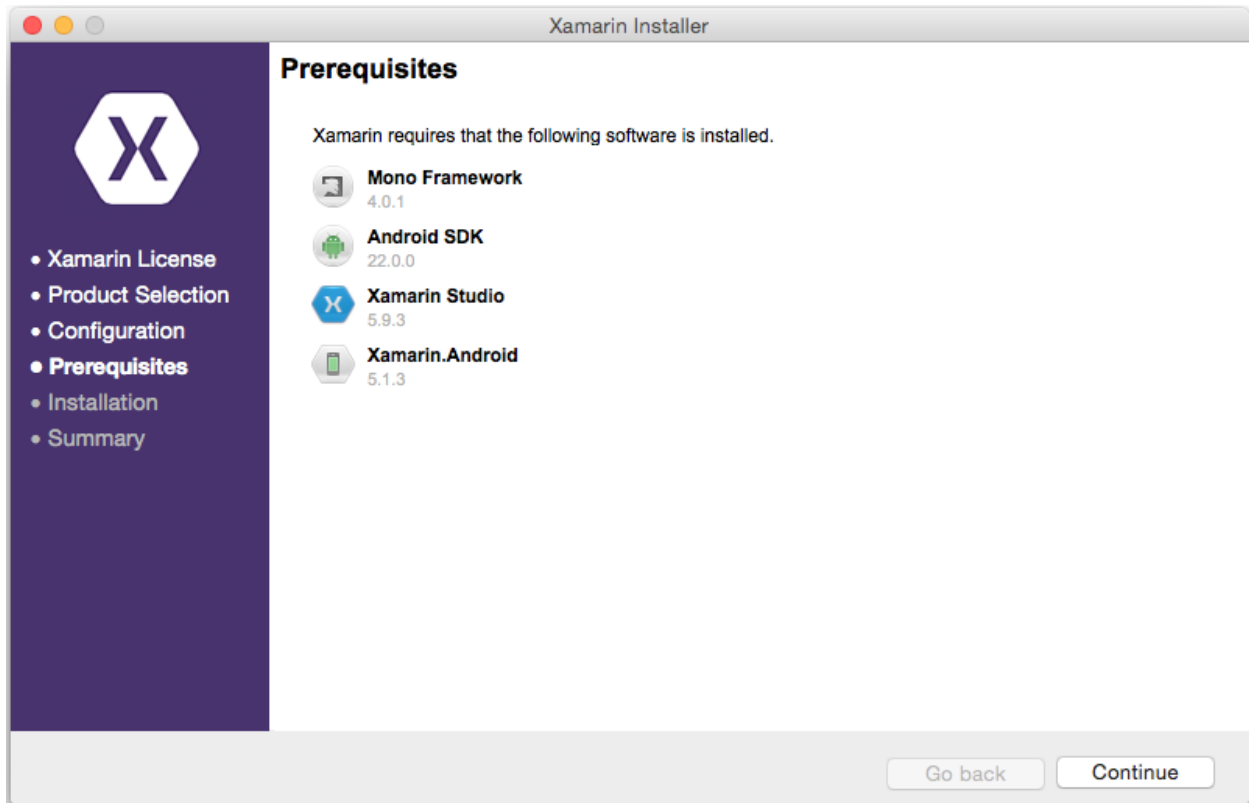


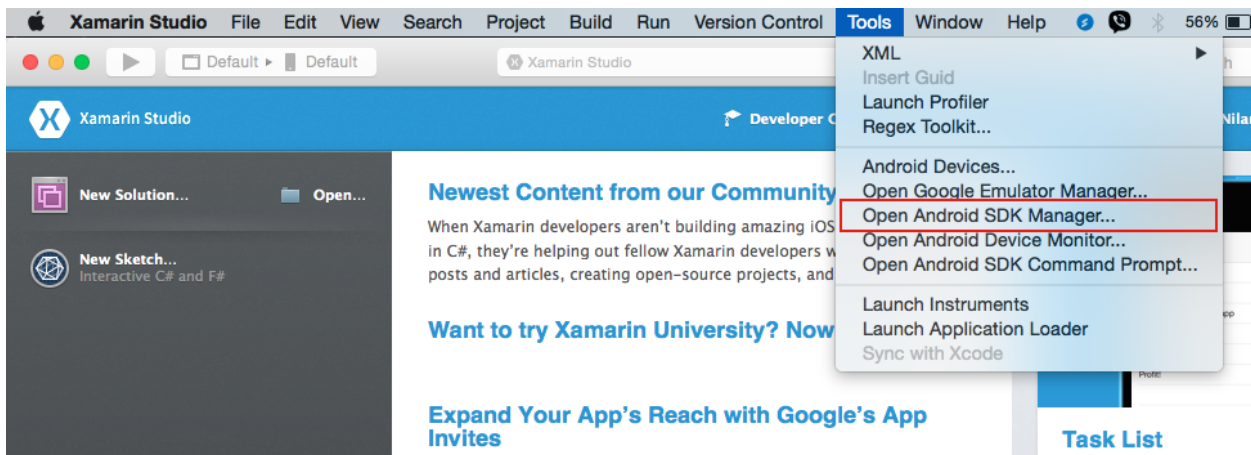
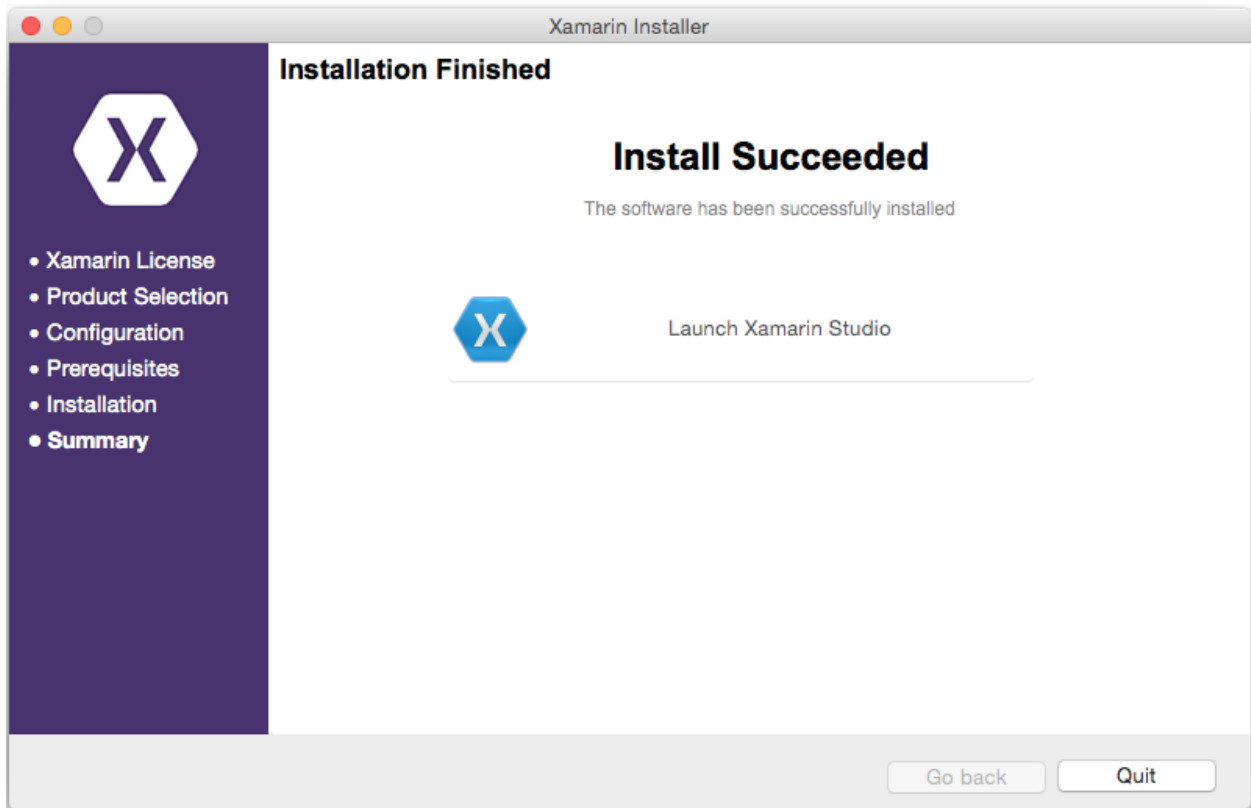
A better way to build apps.

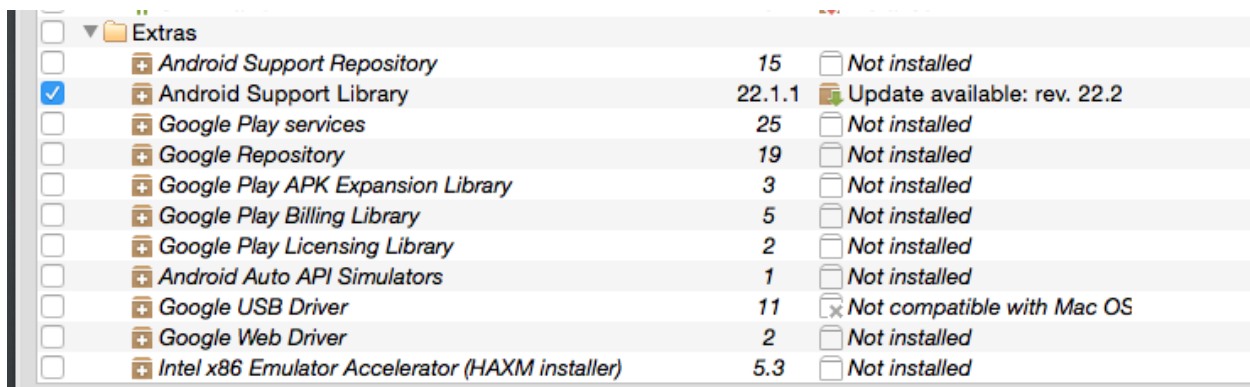
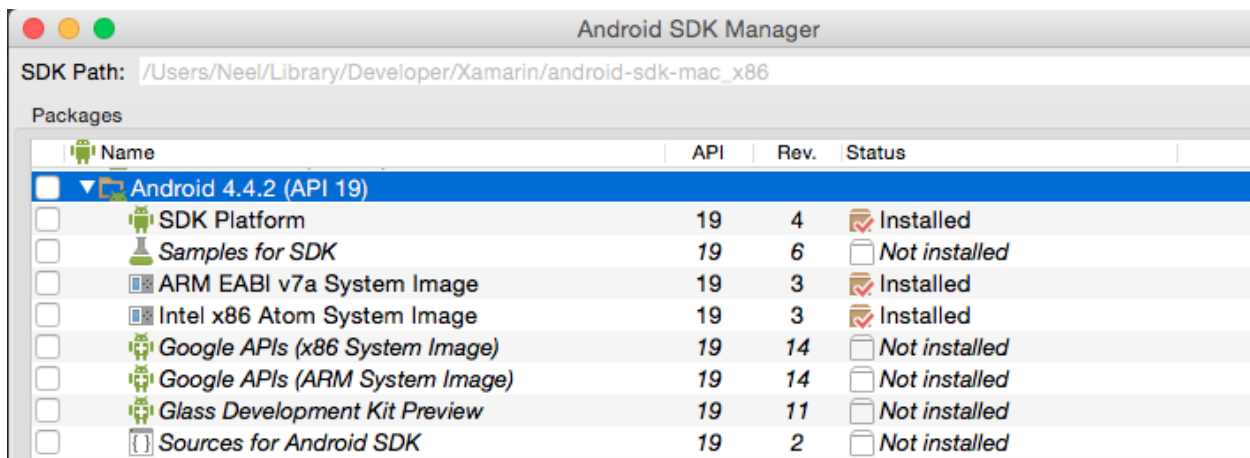
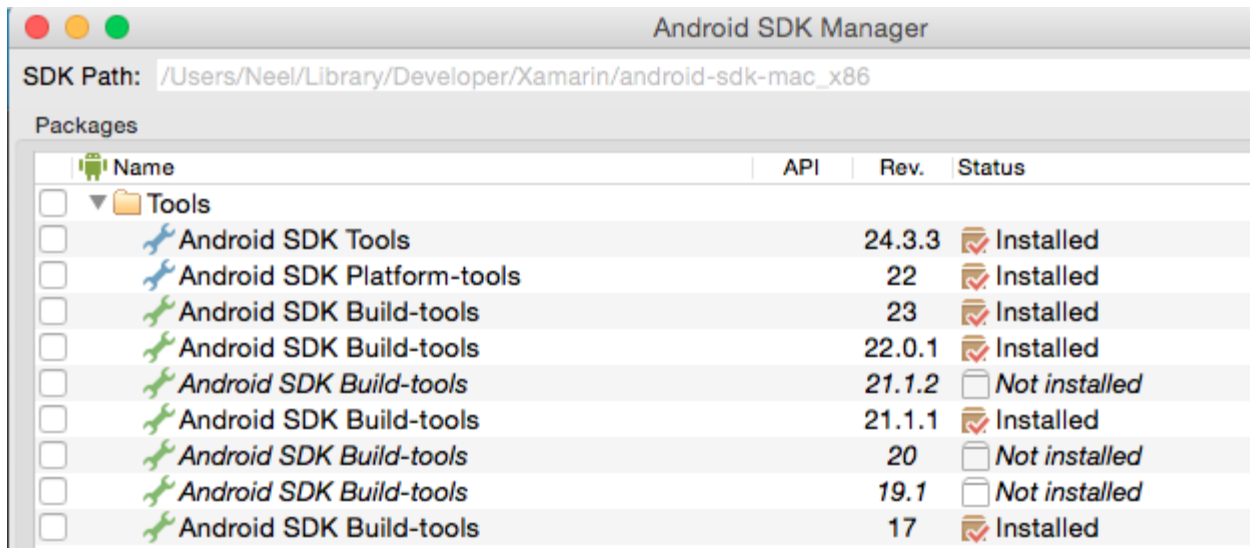


● Install Xamarin.app














Android Virtual Device (AVD) Manager

Android Virtual Devices | Device Definitions

List of existing Android Virtual Devices located at /Users/Neel/.android/avd

AVD Name	Target Name	Platform	API Level	CPU/ABI
 MonoForAr Android 2.3.3		2.3.3	10	ARM (armeabi)
 MonoForAr Android 3.1		3.1	12	ARM (armeabi)
 MonoForAr Android 4.0		4.0	14	ARM (armeabi-v7a)

Create...
Start...
Edit...
Repair...
Delete...
Details...
Refresh

 A repairable Android Virtual Device.  An Android Virtual Device that failed to load. Click 'Details' t

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: Browse...

Emulation Options: Snapshot Use Host GPU

Override the existing AVD with the same name

Cancel OK

Clone Device

Name:

Screen Size (in):

Resolution (px): x

Sensors: Accelerometer Gyroscope
 GPS Proximity Sensor

Cameras: Front Rear

Input: Keyboard
 No Nav DPad Trackball

RAM:

Size:

Screen Ratio:

Density:

Buttons:

Device States:


Portrait: Enabled Navigation

Landscape: Enabled Navigation

Portrait with keyboard: Enabled Navigation

Landscape with keyboard: Enabled Navigation

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.

Xamarin Android Player - [Nexus 5 (KitKat)]

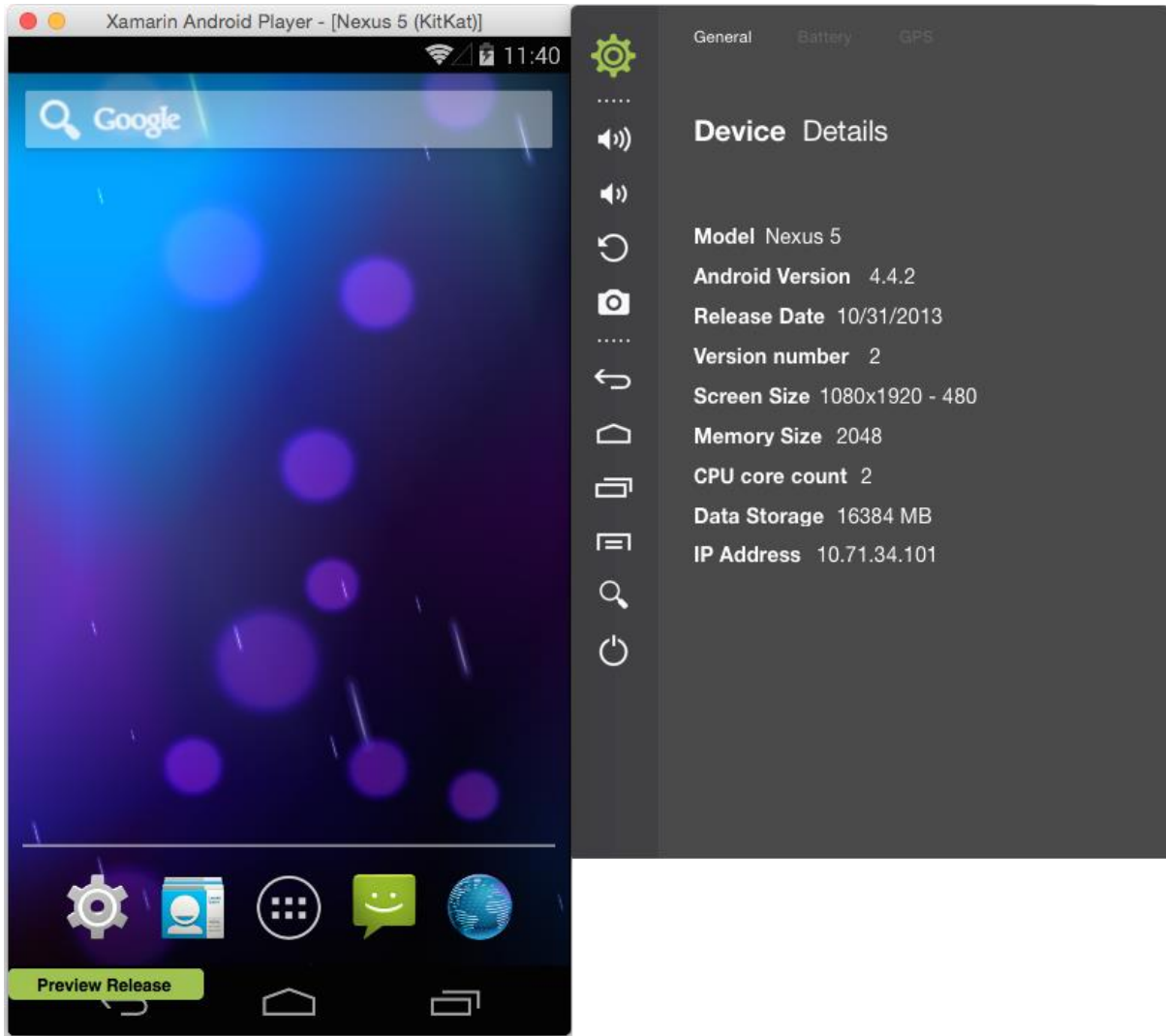
11:40

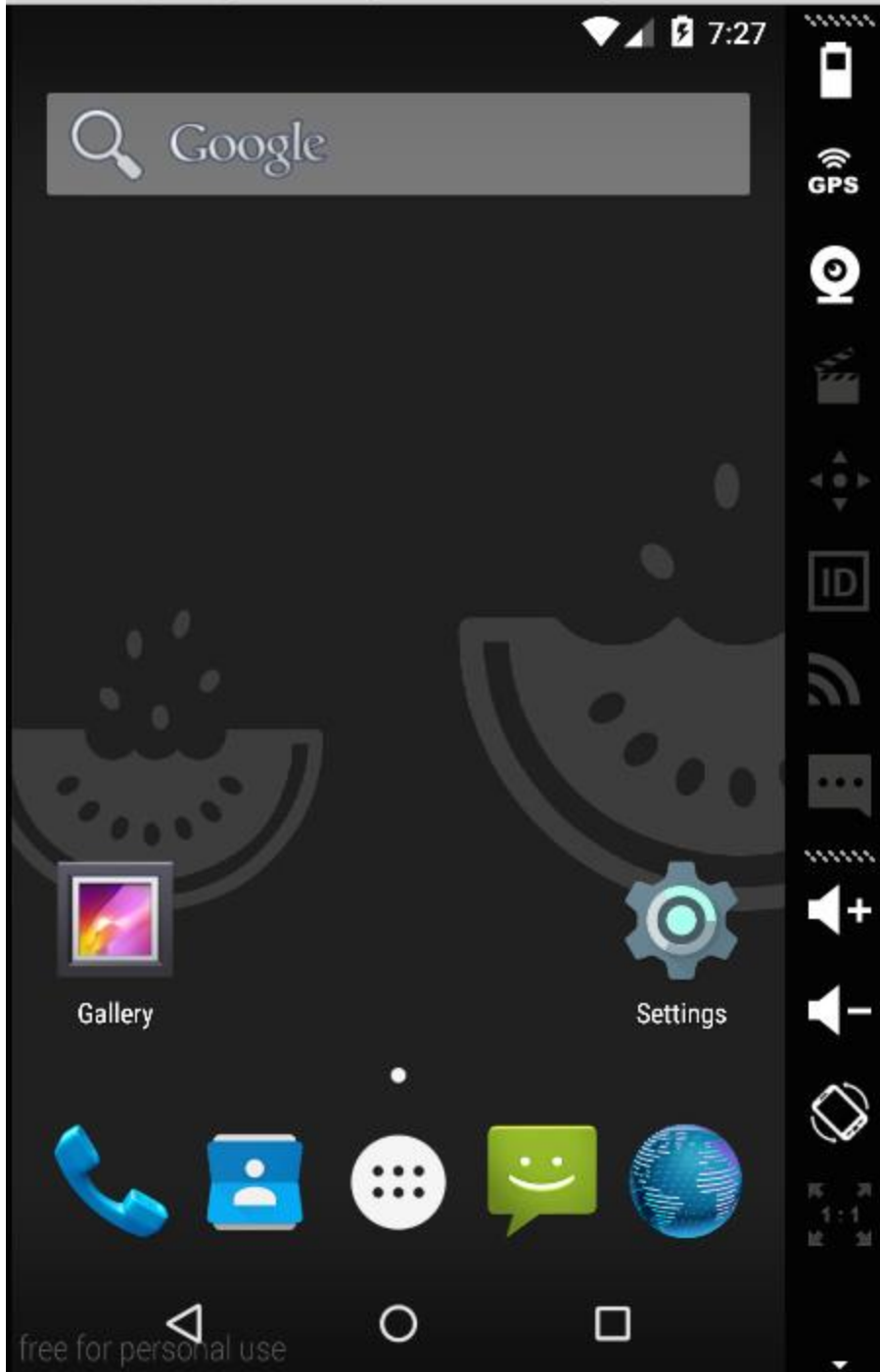
Google

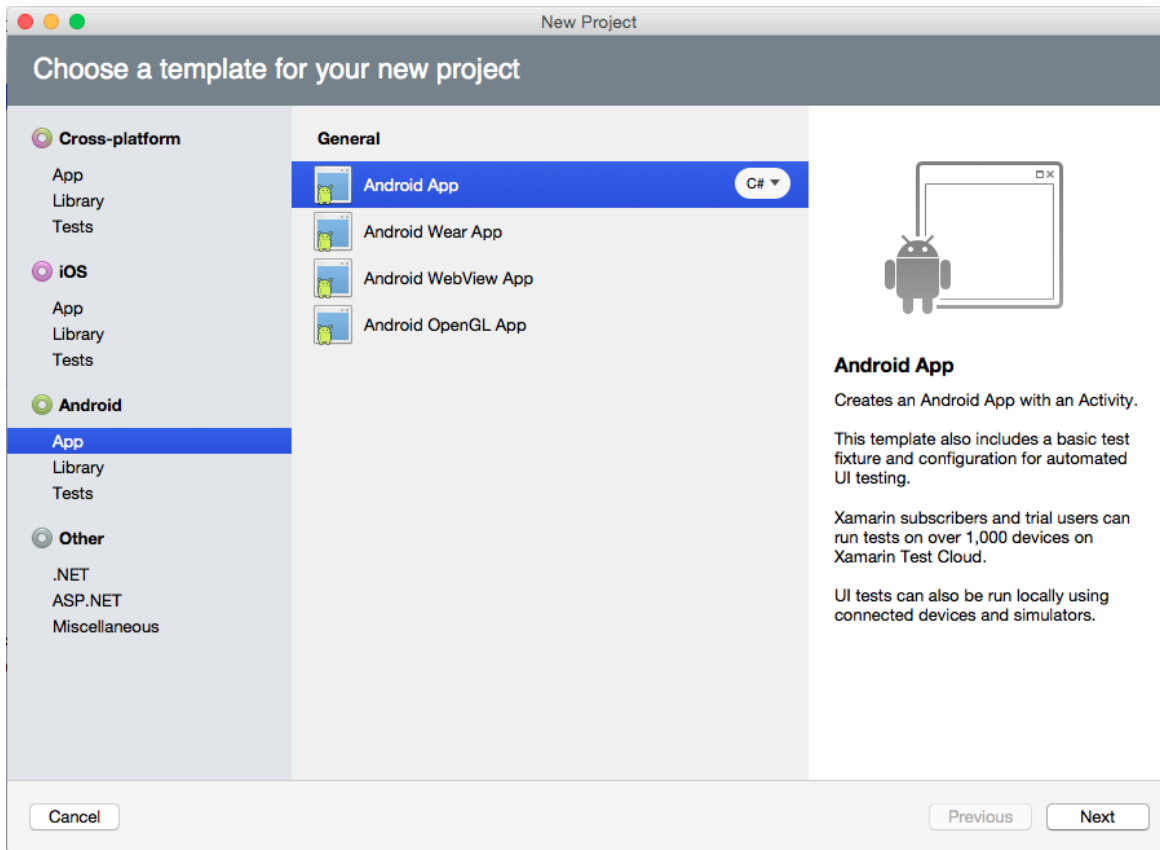
Device Details

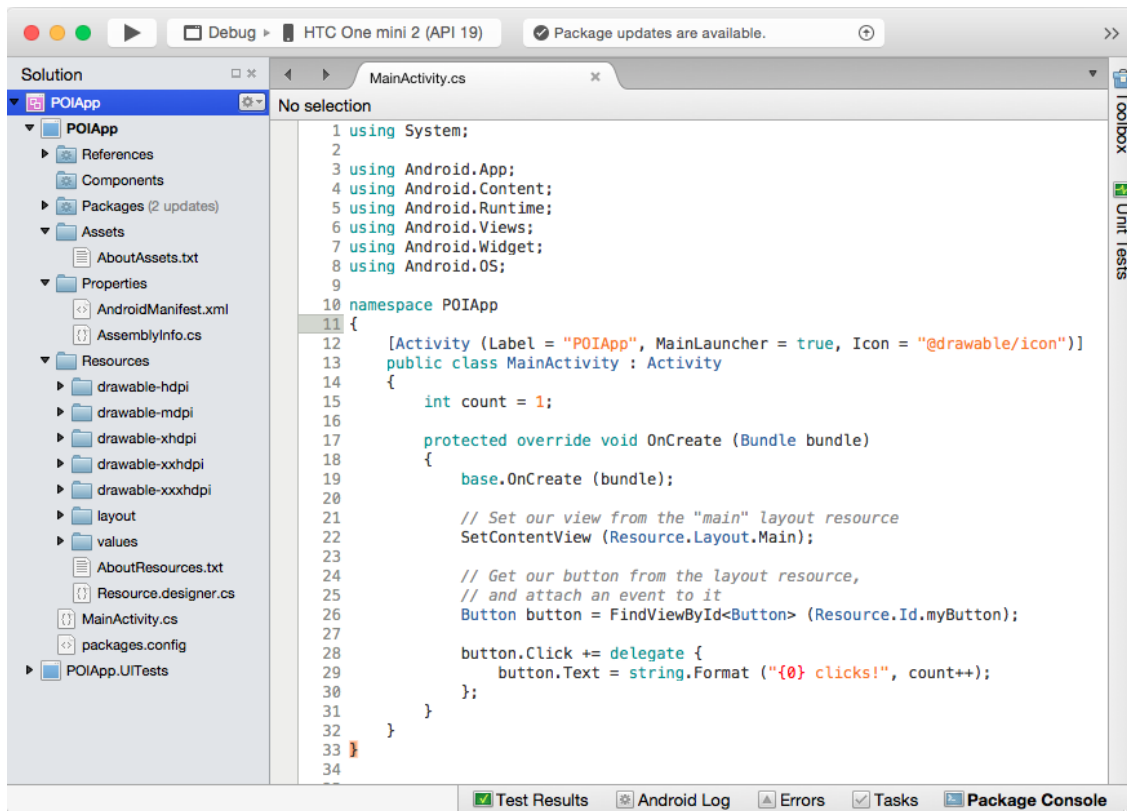
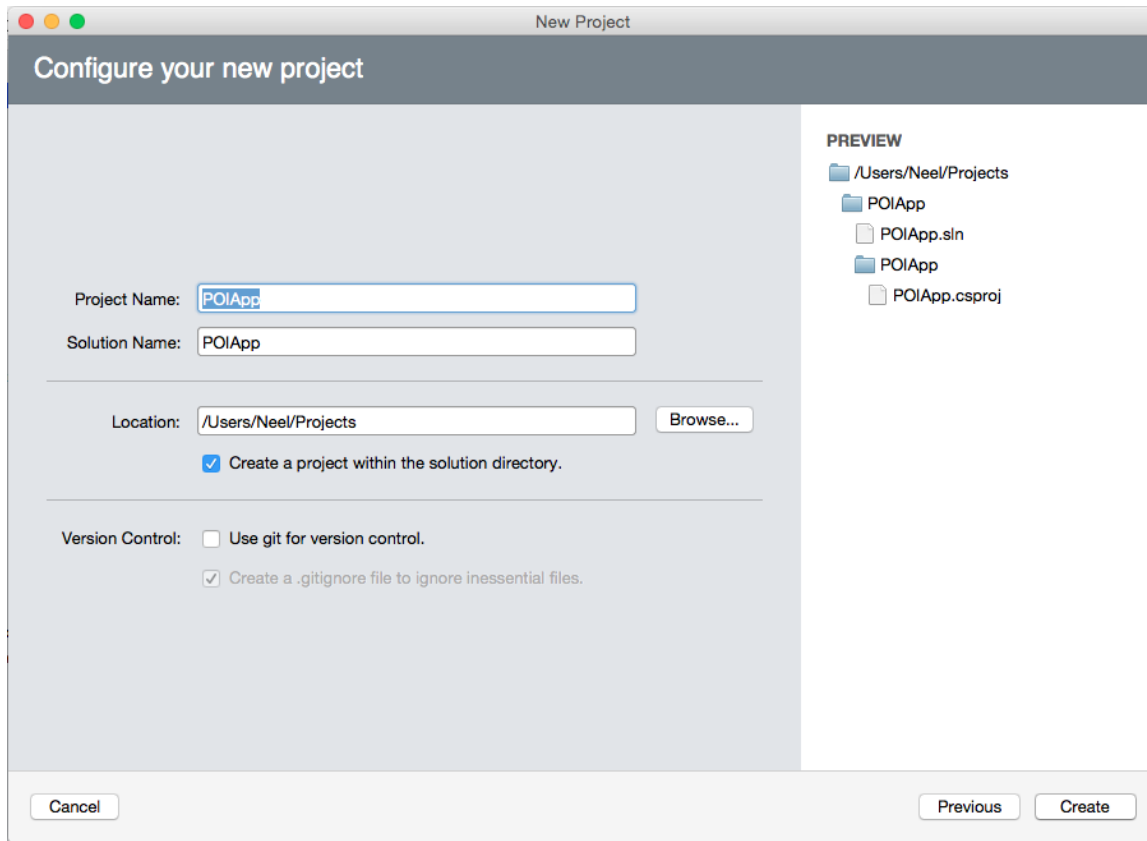
- Model Nexus 5
- Android Version 4.4.2
- Release Date 10/31/2013
- Version number 2
- Screen Size 1080x1920 - 480
- Memory Size 2048
- CPU core count 2
- Data Storage 16384 MB
- IP Address 10.71.34.101

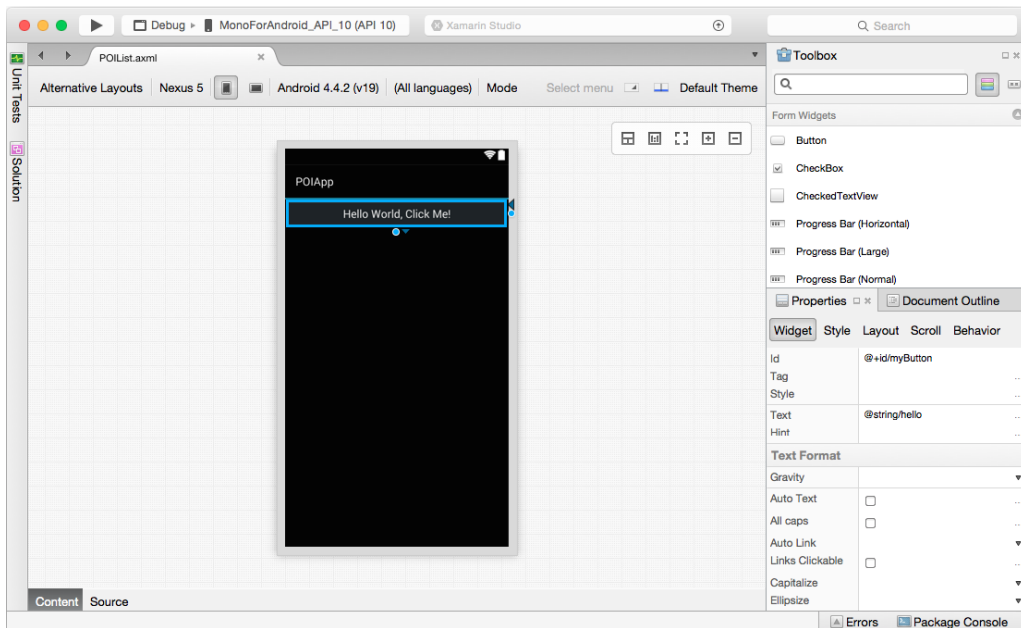
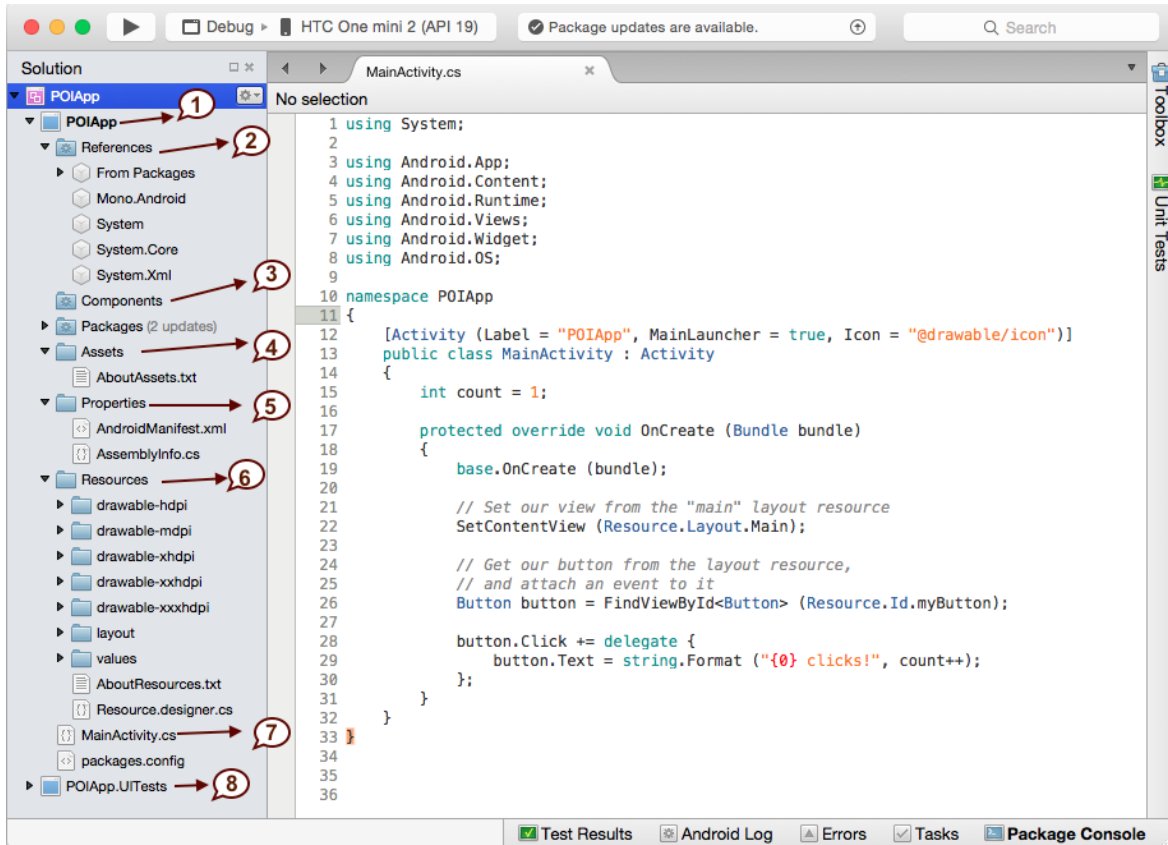
Preview Release

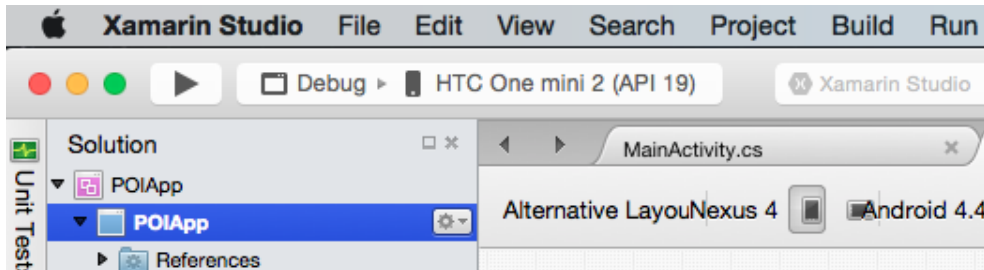
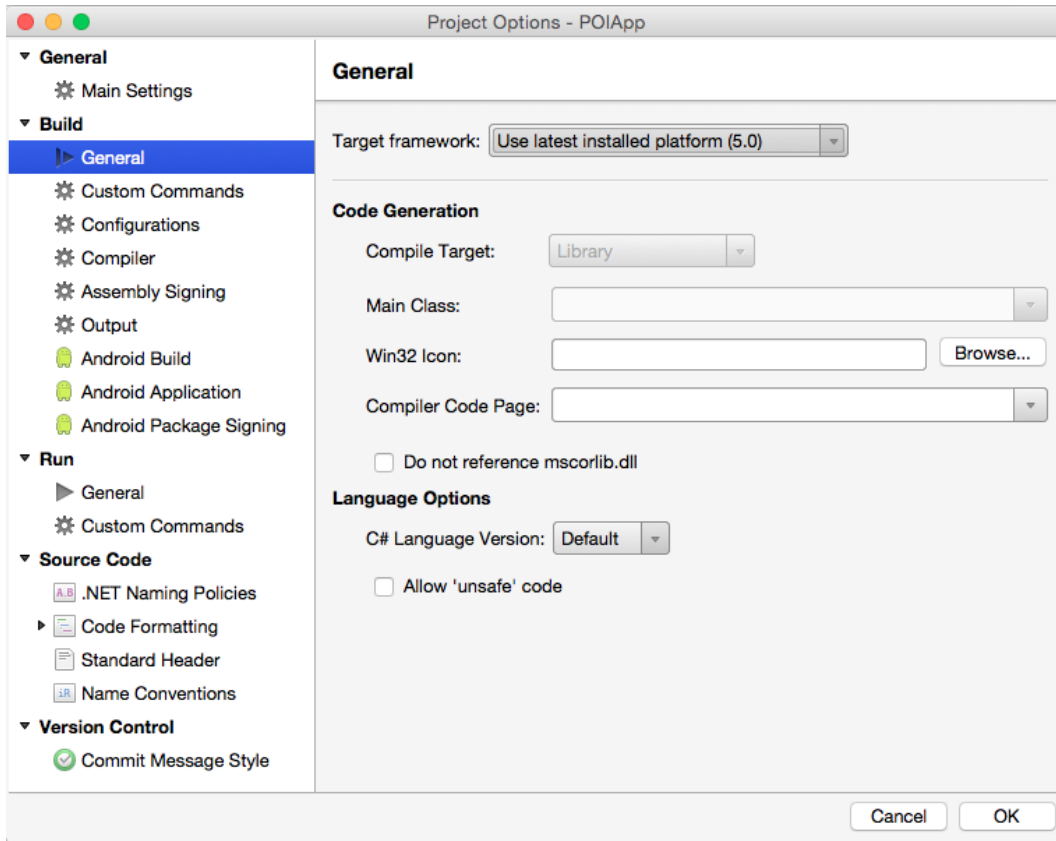


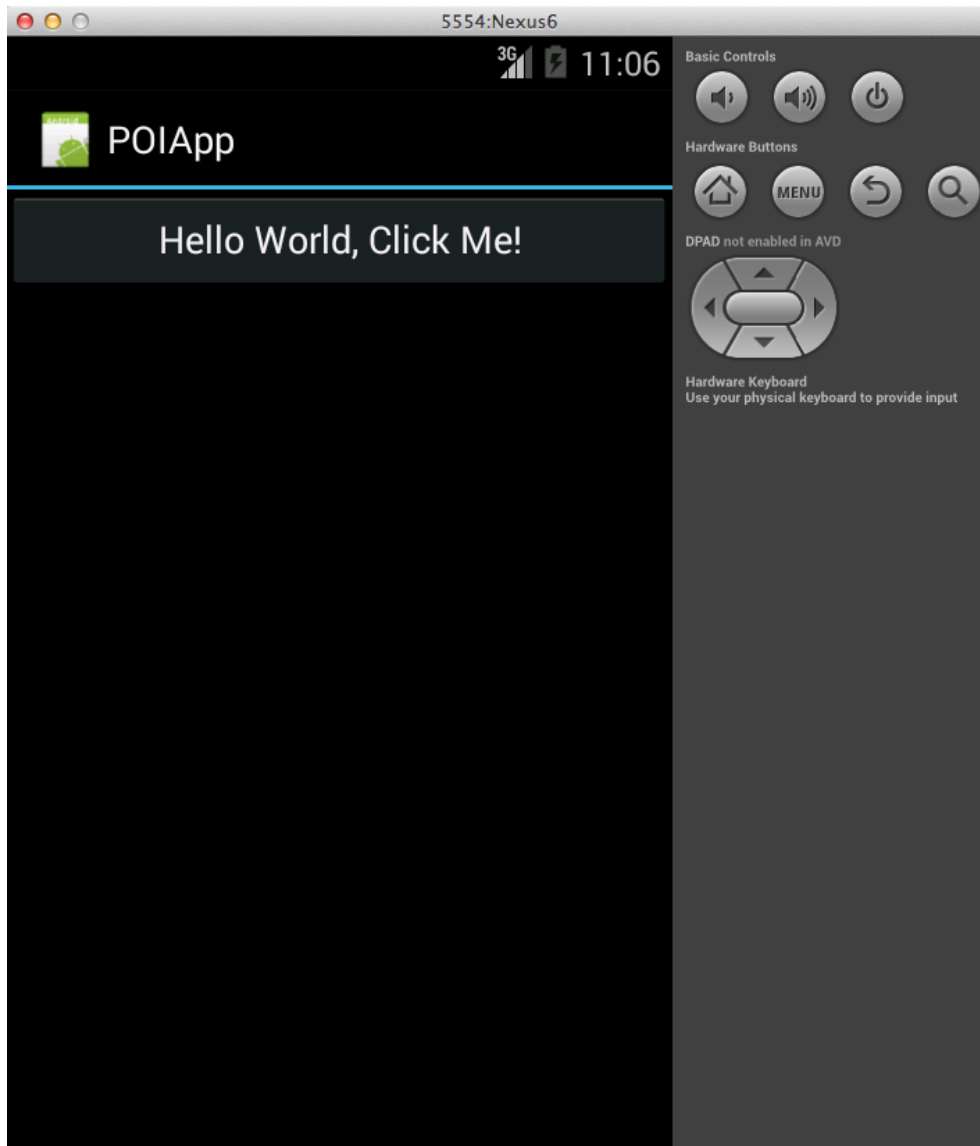












```

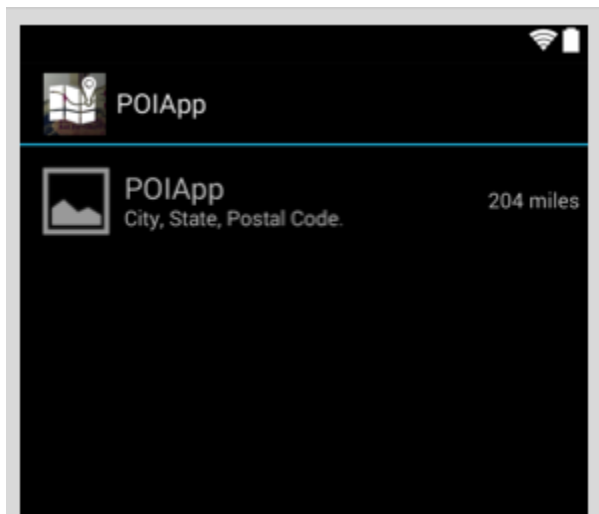
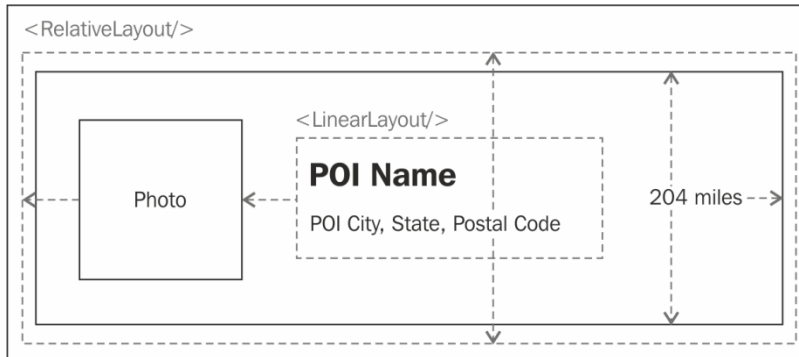
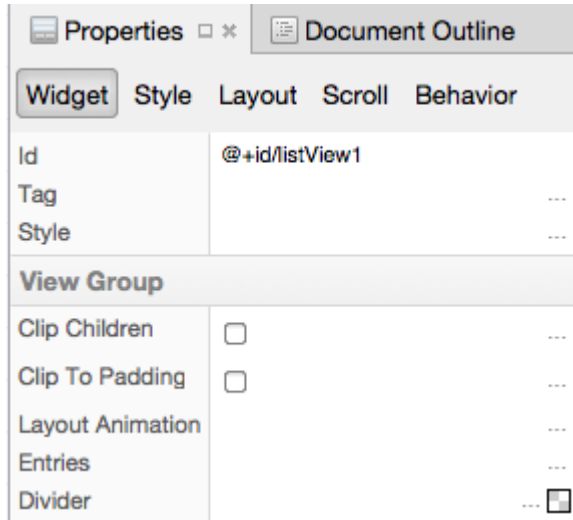
19
20 // Set our view from the "main" layout resource
21 setContentView (Resource.Layout.Main);
22

```



Watch			Locals		Breakpoints		Threads		Call Stack		Immediate	
Name	Value	Type							Name			
▶ this	{poiapp.MainActivity@40f4a990}	POIApp.MainActivity							▶ POIApp.MainActivity.onCreate (bundle=(null))			
▶ bundle	(null)	object							Android.App.Activity.n_OnCreate_Landroid_os_Bundle_(jnienv=0xf2c0, native_...			
▶ button	{android.widget.Button@40f57dc0}	Android.Widget.Button							object.bea9bb33-7e78-4145-913f-c5e64e7fd3a (arg0=0xf2c0, arg1=0xffffffff84...			

Chapter 4: Adding a List View



Xamarin Components

All Components Suggest a Component Submit a Component

Order by **FEATURED** DOWNLOADS NAME FRESH

url

Prev 1 2 Next

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

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

ActionPack by Apprecatappa, LLC. \$199.00
 ★★★★★ 3 ratings

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
 - POIListActivity.cs
 - POIListViewAdapter.cs
 - PointOfInterest.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









- InstallShortcut
- InternalSystemWindow
- Internet
- KillBackgroundProcesses
- LocationHardware
- ManageAccounts
- ManageAppTokens
- ManageDocuments

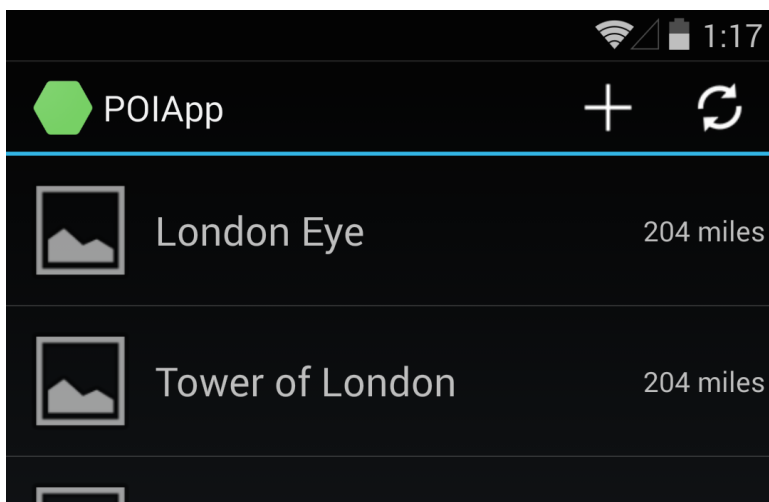
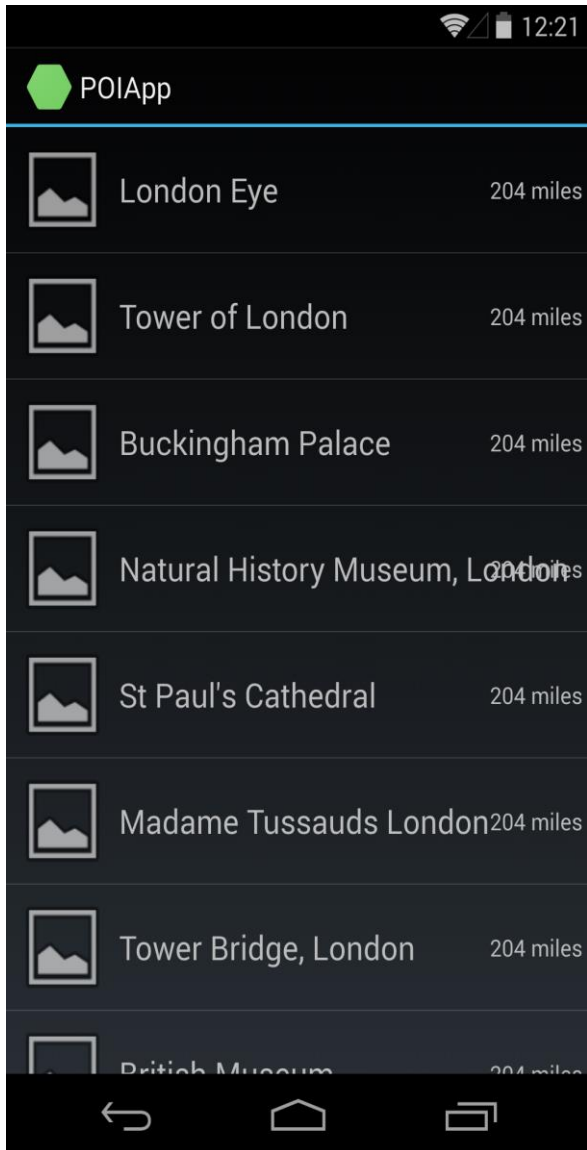
```

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>

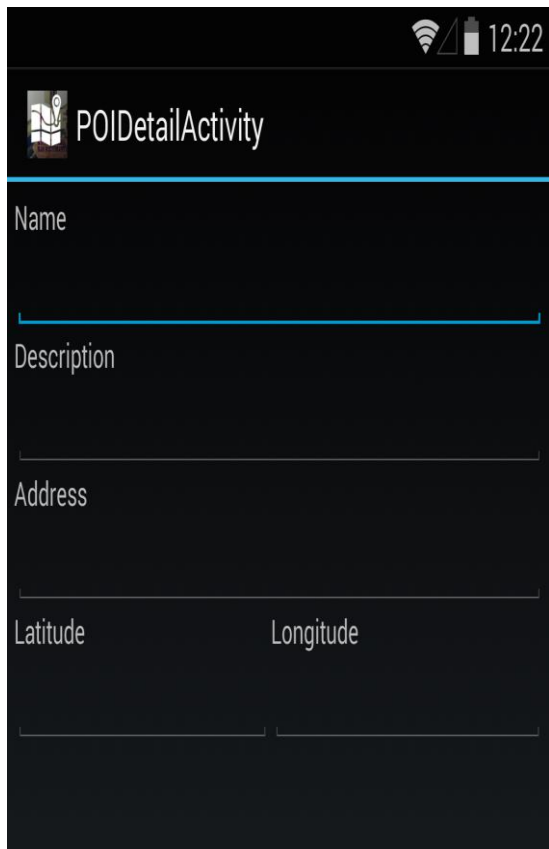
```

POIApp

-  Name 0
Address 0 204 miles
-  Name 1
Address 1 204 miles
-  Name 2
Address 2 204 miles
-  Name 3
Address 3 204 miles
-  Name 4
Address 4 204 miles
-  Name 5
Address 5 204 miles
-  Name 6
Address 6 204 miles
-  Name 7
Address 7 204 miles



Chapter 5: Adding a Details View



The screenshot shows an Android application interface for an activity named "POIDetailActivity". The interface is dark-themed and features several input fields for user data. At the top, the status bar shows the time as 12:22 along with icons for Wi-Fi and battery. The activity title "POIDetailActivity" is displayed in the top navigation bar, accompanied by a location pin icon. Below the title bar, there are five input fields: "Name", "Description", "Address", "Latitude", and "Longitude". Each field is represented by a white text label and a corresponding white horizontal line indicating the input area.

POIDetailActivity
















Name

Description

Address

Latitude Longitude

Text Fields

-  AutoCompleteTextView
-  Date
-  E-mail
-  MultiAutoCompleteTextView
-  Multiline Text
-  Number
-  Number (Decimal)
-  Number (Signed)
-  Password
-  Password (Numeric)
-  Person Name
-  Phone
-  Plain Text
-  Postal Address
-  Time

Address



A form layout for an address on a black background. It features a single-line text input field at the top. Below it is a two-column grid of text input fields, each with a dashed border. The grid is composed of two rows and two columns.



POIDetailActivity

Name

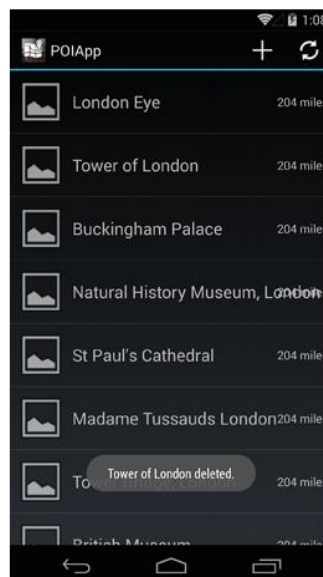
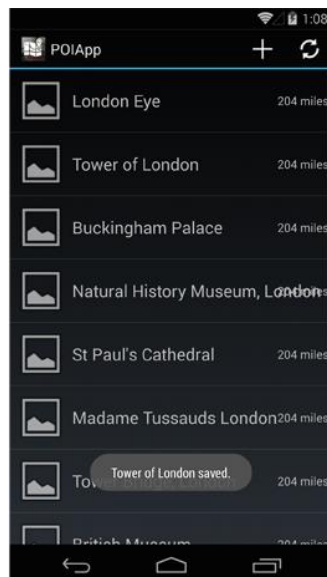
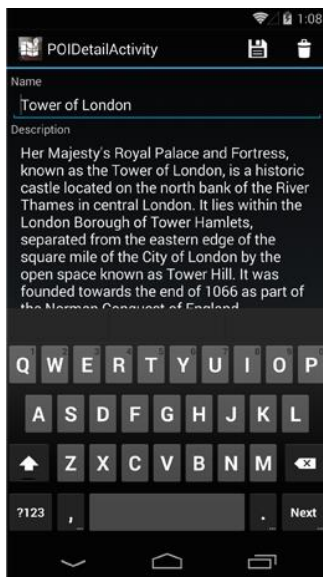
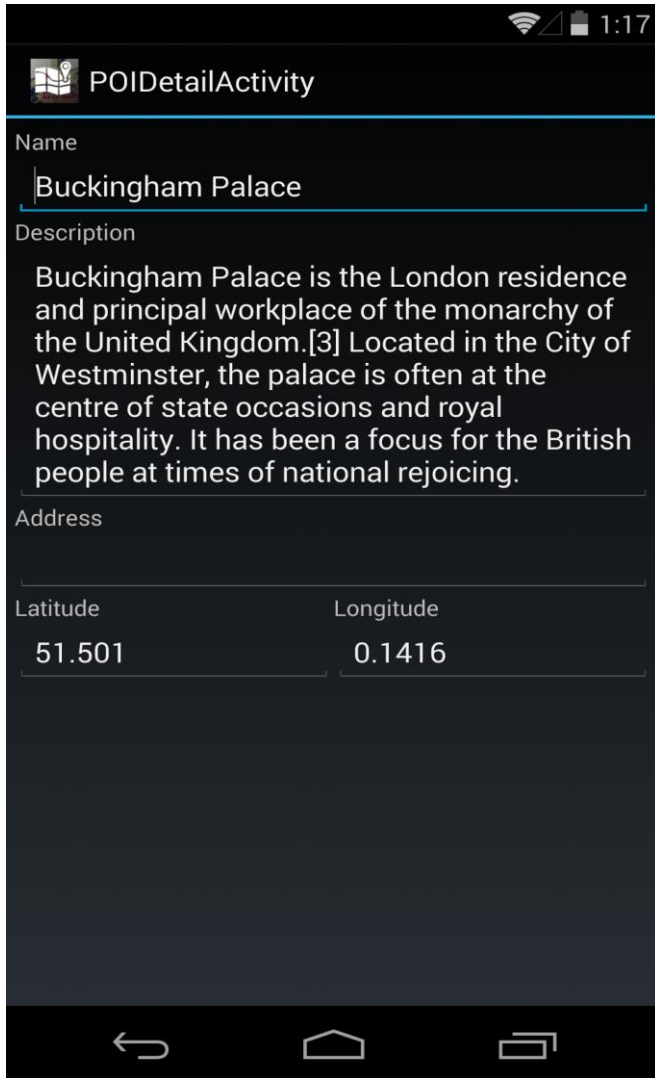
Description

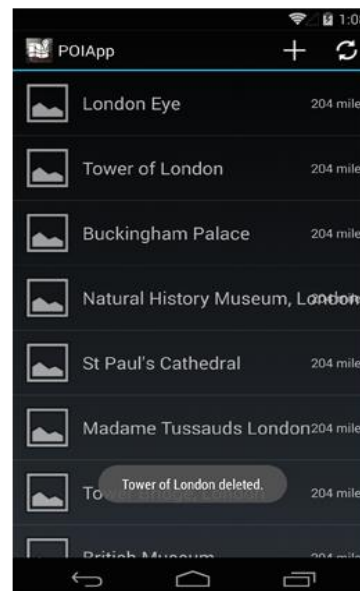
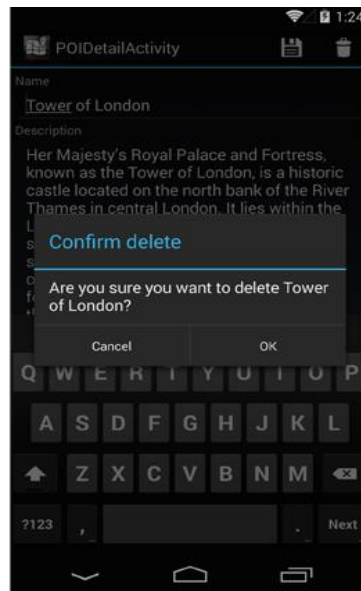
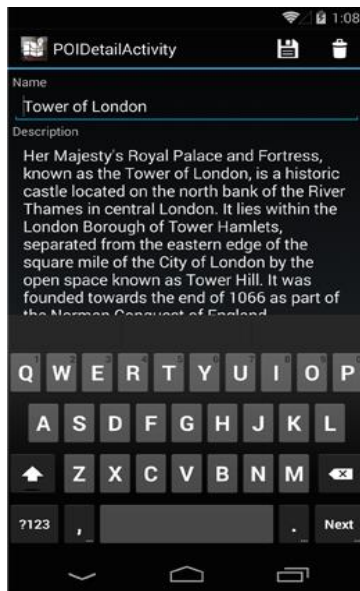
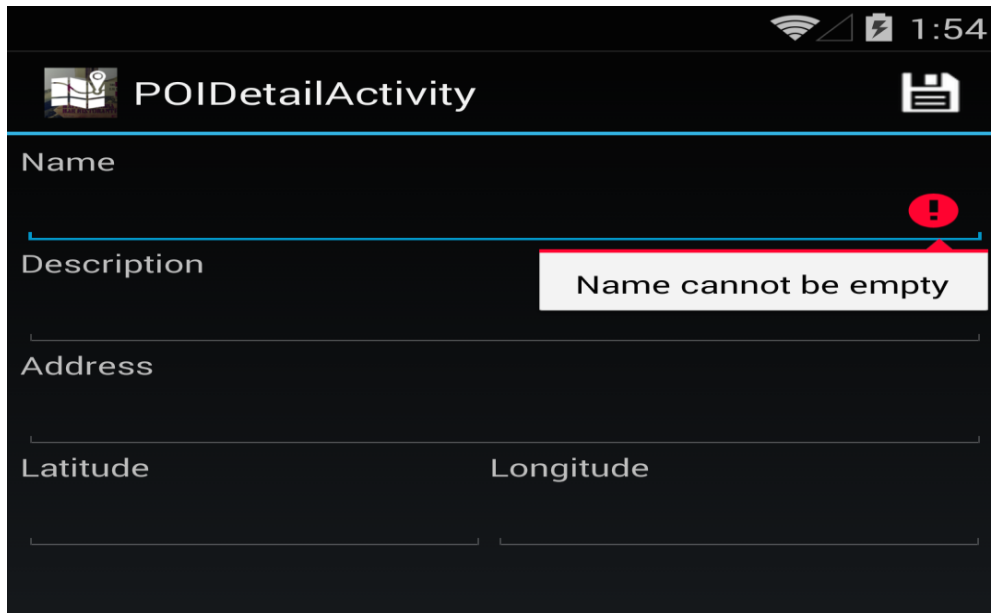
Address

Latitude

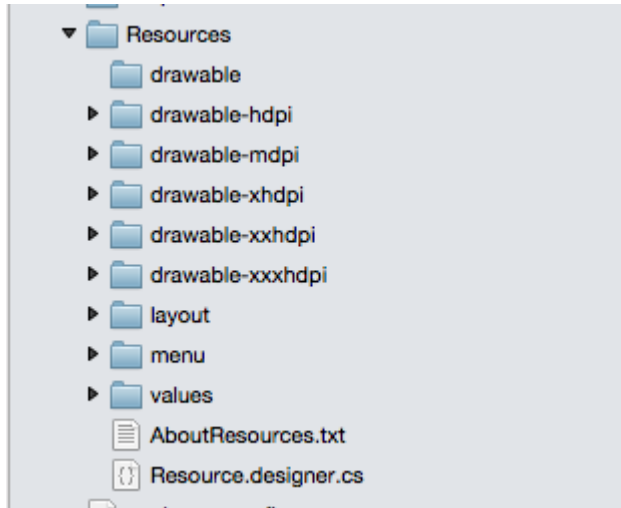
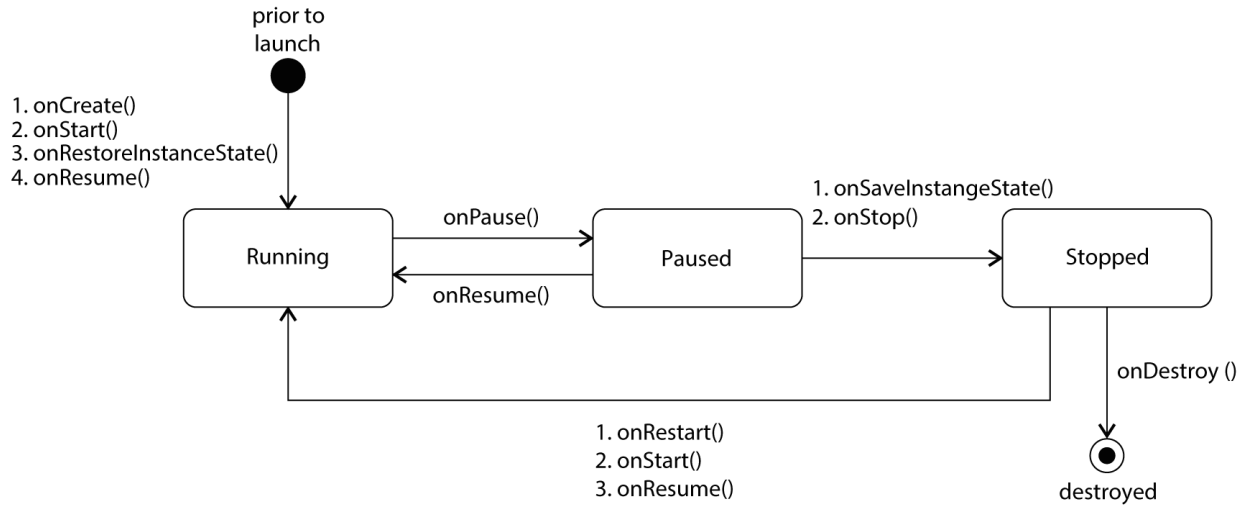
Longitude



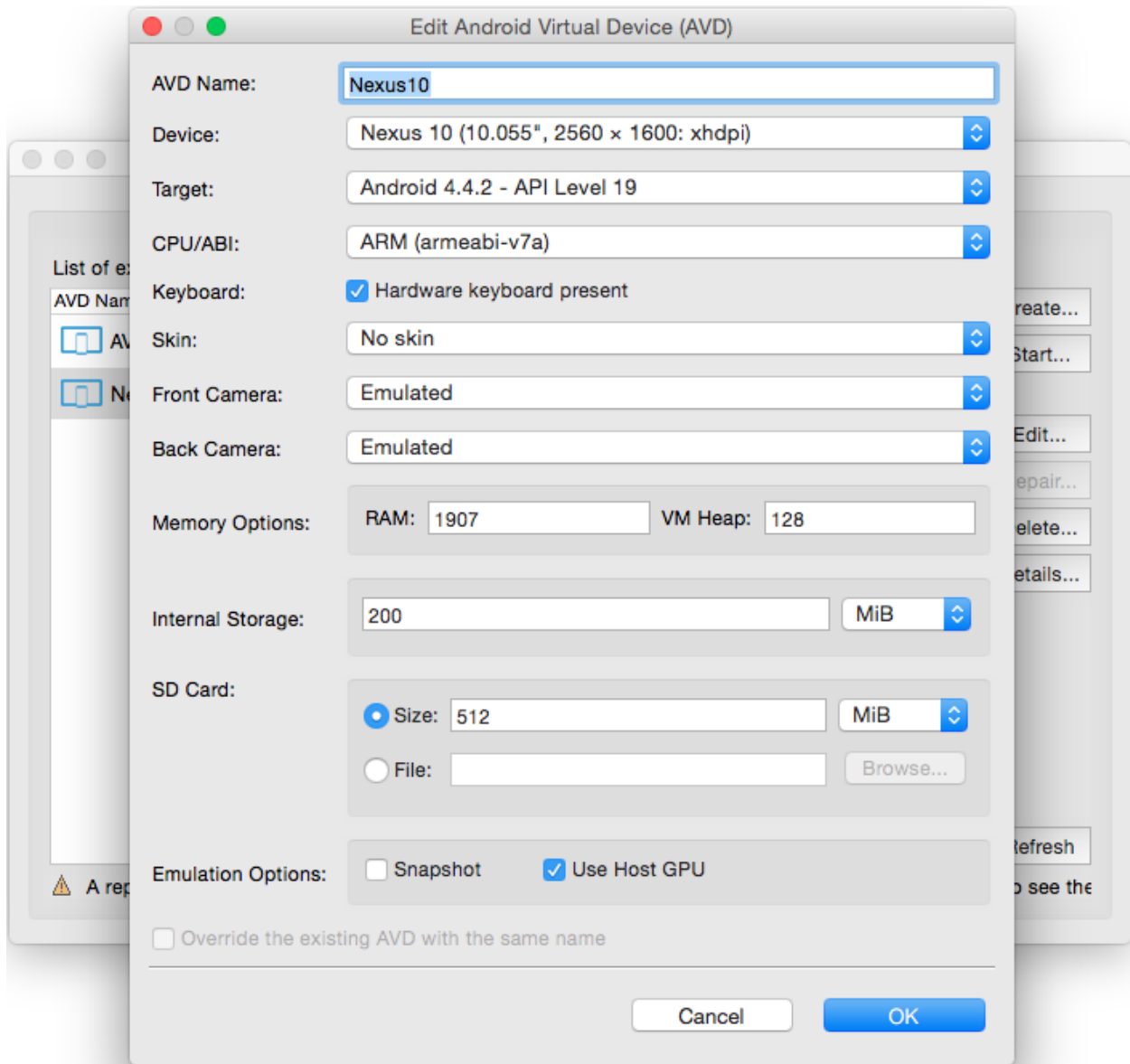


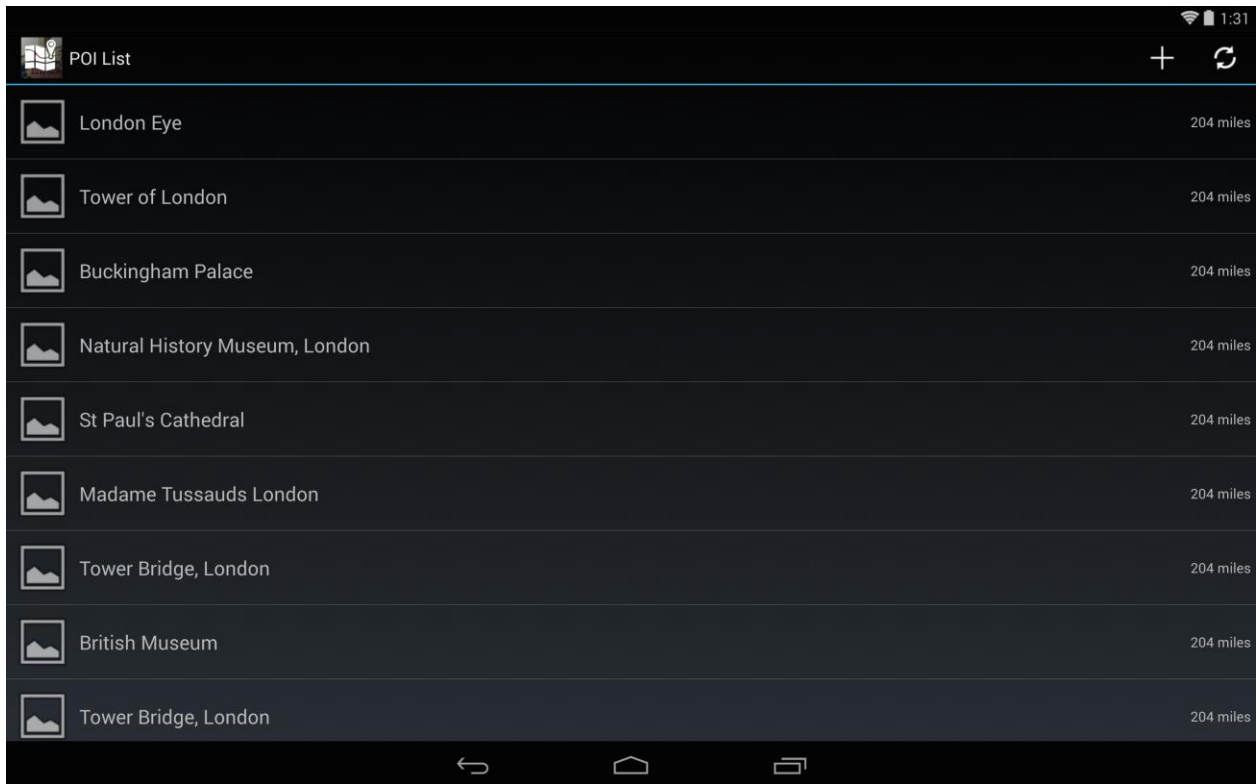


Chapter 6: Making Your App Orientation-aware

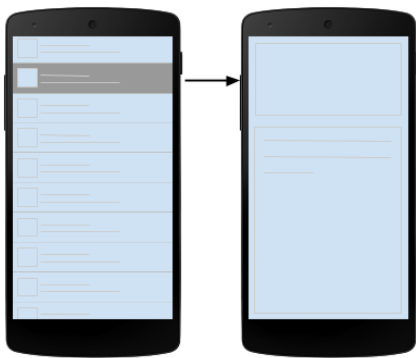


Chapter 7: Designing for Multiple Screen Sizes





Selecting item on ActivityA starts ActivityB



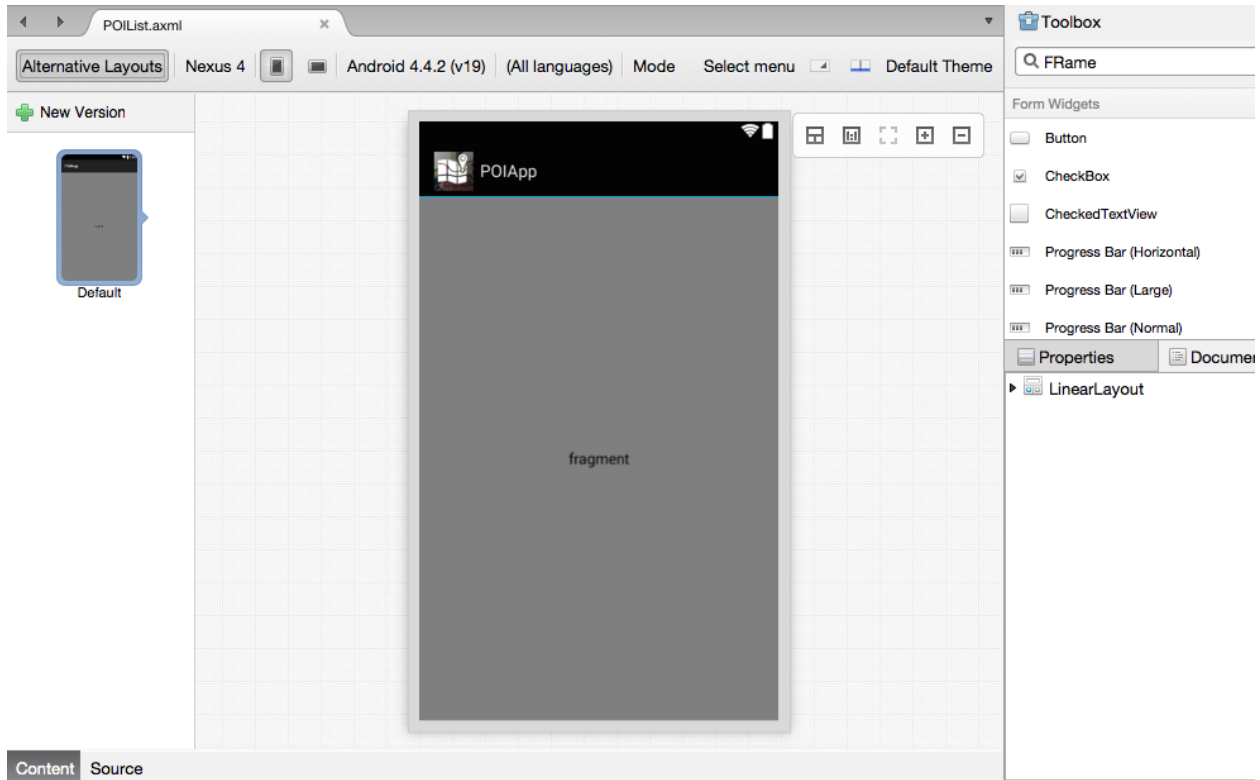
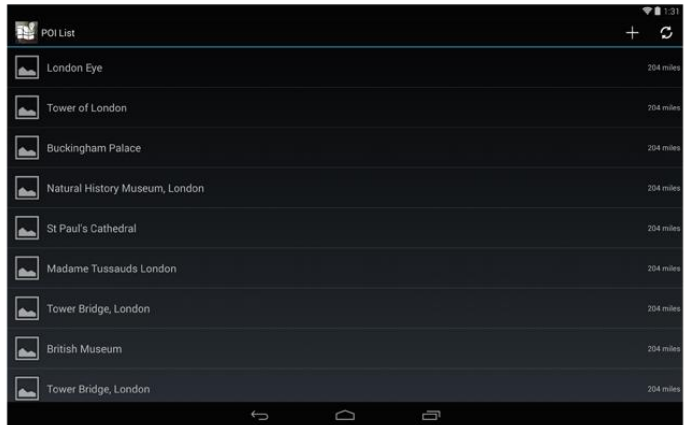
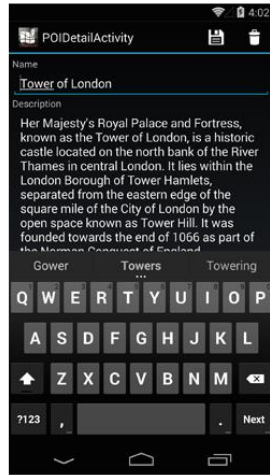
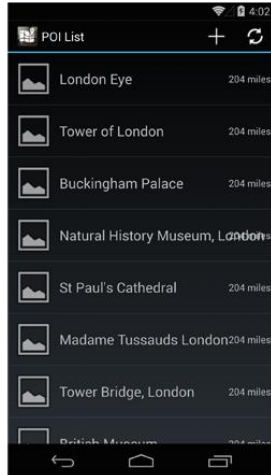
ActivityA contains
FragmentA

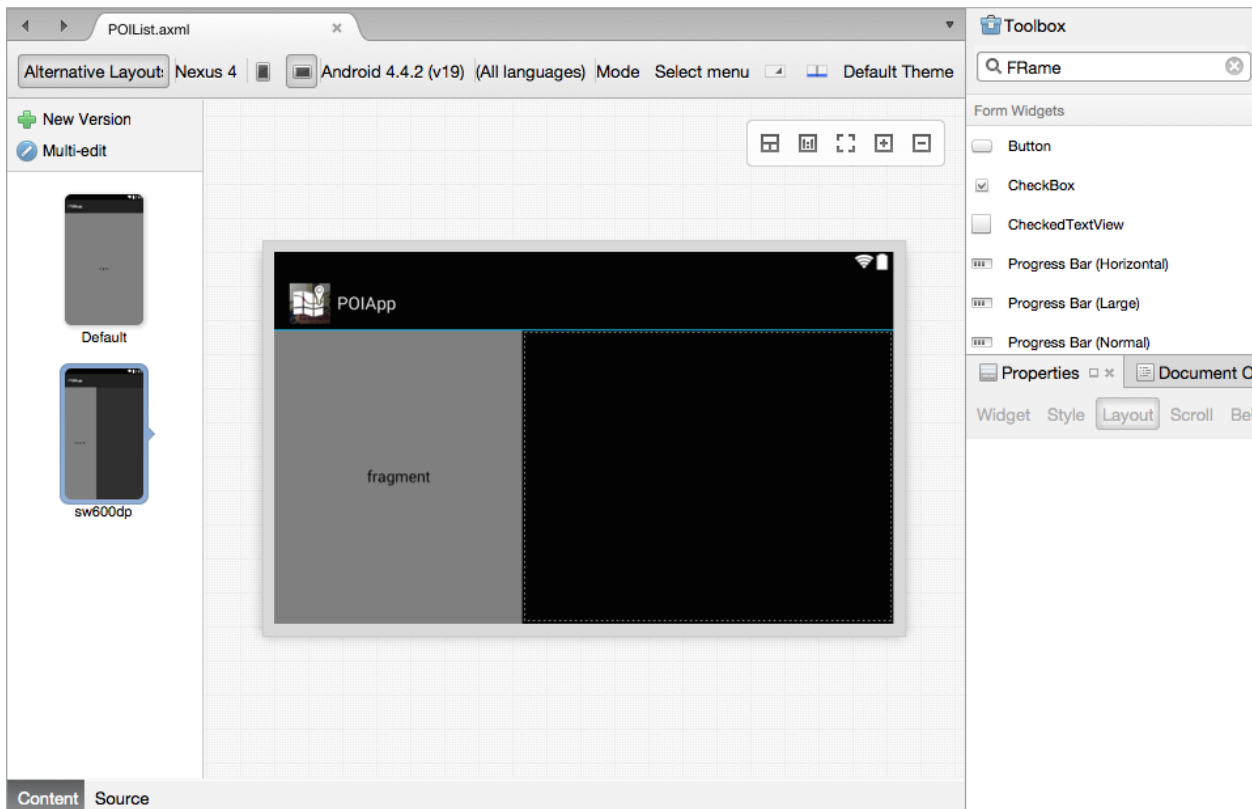
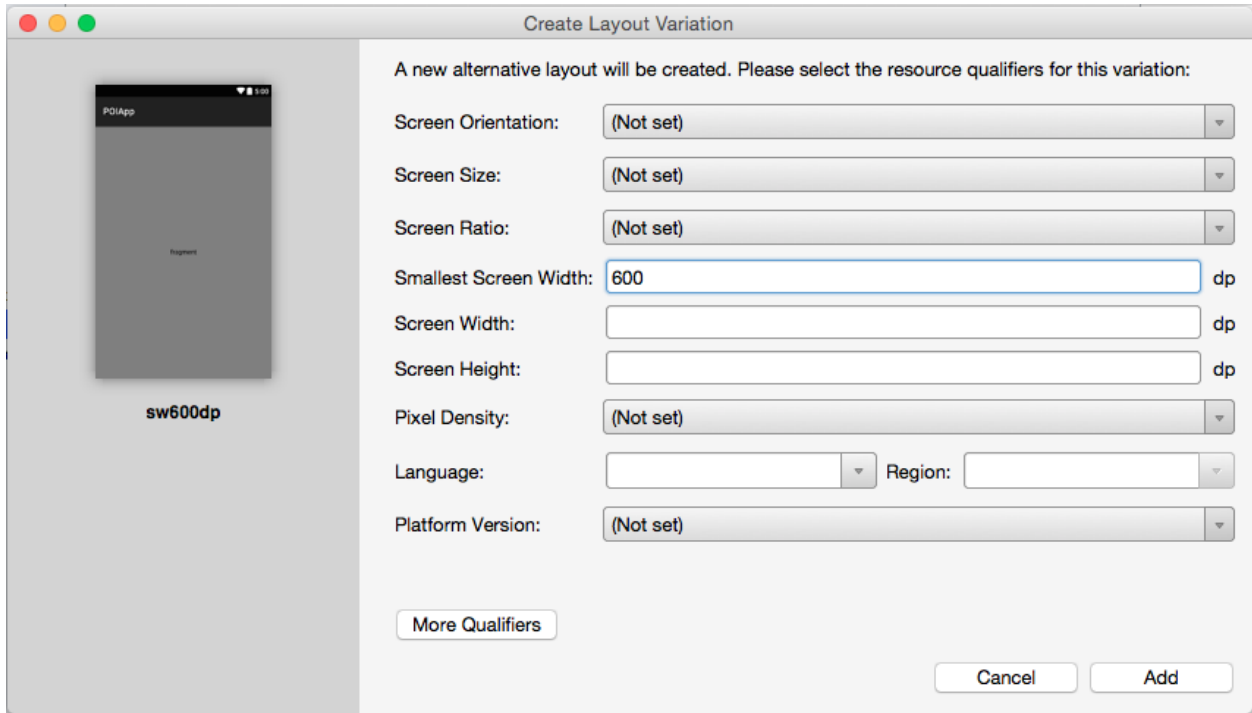
ActivityB
contains
FragmentB

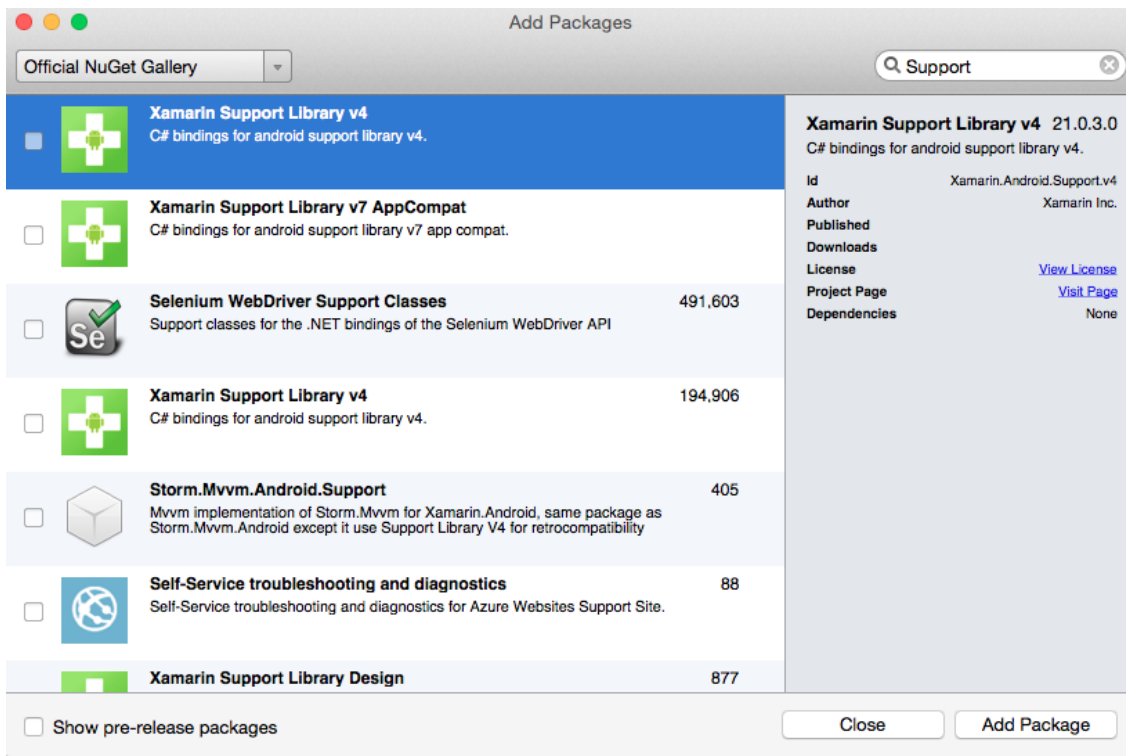
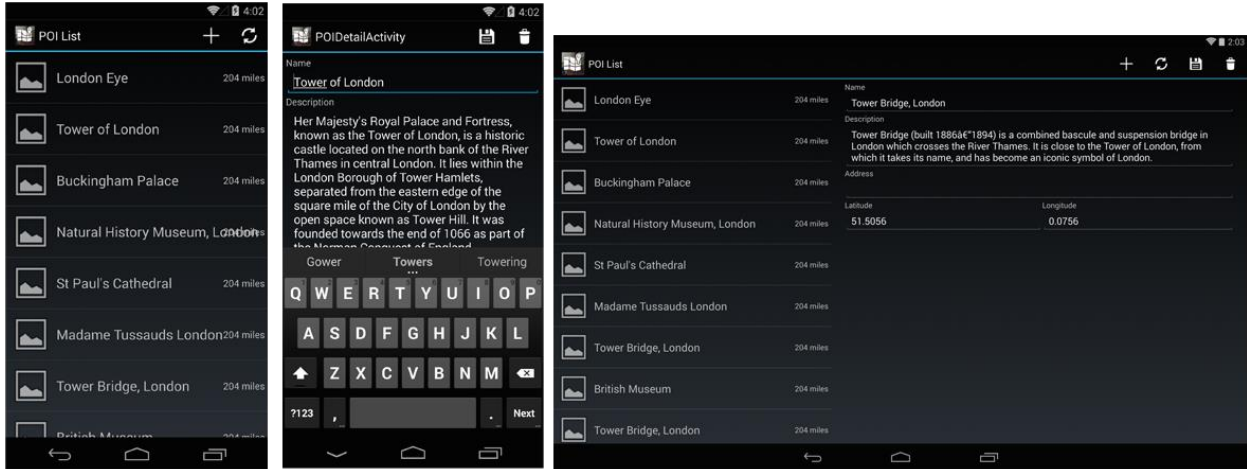
Selecting item on FragmentA updates FragmentB



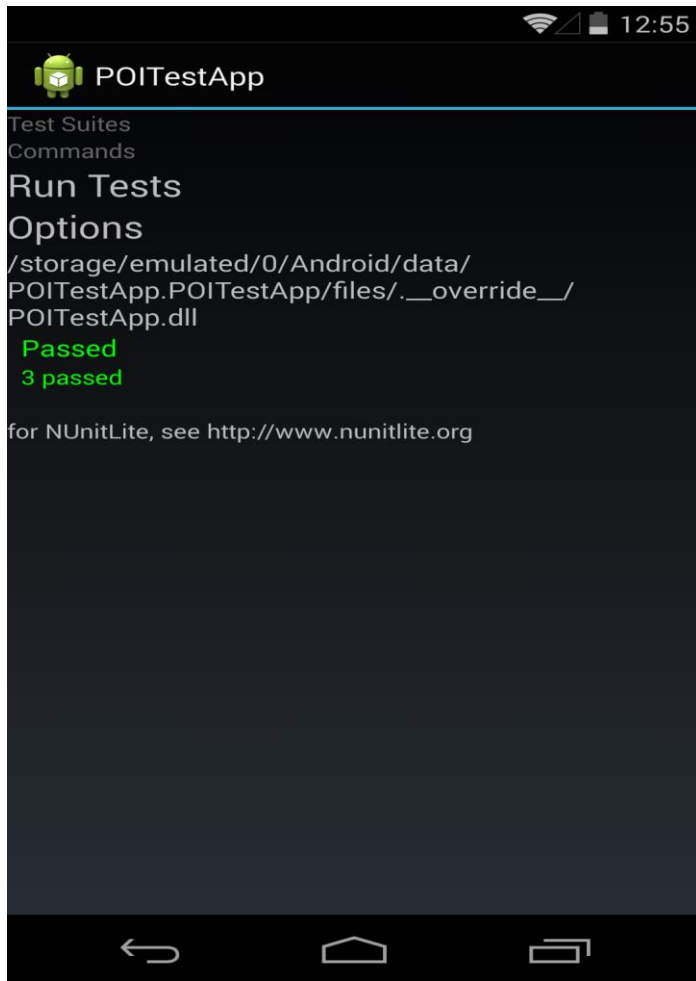
ActivityA contains
FragmentA and FragmentB







Chapter 8: Creating Data Storage Mechanisms



Chapter 9: Making POIApp Location Aware

AndroidManifest.xml

Application name

Package name

Application icon

Version number

Version name

Minimum Android version

Target Android version

Install Location

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>
```

Android SDK Manager



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

Packages

 Name	API	Rev.	Status
<input type="checkbox"/> ▶ Tools			
<input type="checkbox"/> ▶ Android 5.1.1 (API 22)			
<input type="checkbox"/> ▼ Android 5.0.1 (API 21)			
<input type="checkbox"/>  SDK Platform	21	2	<input checked="" type="checkbox"/> Installed
<input type="checkbox"/>  Samples for SDK	21	4	<input type="checkbox"/> Not installed
<input type="checkbox"/>  Android TV ARM EABI v7a System Image	21	3	<input type="checkbox"/> Not installed
<input type="checkbox"/>  Android TV Intel x86 Atom System Image	21	3	<input type="checkbox"/> Not installed
<input type="checkbox"/>  Android Wear ARM EABI v7a System Image	21	3	<input type="checkbox"/> Not installed
<input type="checkbox"/>  Android Wear Intel x86 Atom System Image	21	3	<input type="checkbox"/> Not installed
<input type="checkbox"/>  ARM EABI v7a System Image	21	3	<input checked="" type="checkbox"/> Installed
<input type="checkbox"/>  Intel x86 Atom_64 System Image	21	3	<input type="checkbox"/> Not installed
<input type="checkbox"/>  Intel x86 Atom System Image	21	3	<input type="checkbox"/> Not installed
<input checked="" type="checkbox"/>  Google APIs	21	1	<input type="checkbox"/> Not installed
<input type="checkbox"/>  Google APIs ARM EABI v7a System Image	21	5	<input type="checkbox"/> Not installed
<input type="checkbox"/>  Google APIs Intel x86 Atom_64 System Image	21	5	<input type="checkbox"/> Not installed
<input type="checkbox"/>  Google APIs Intel x86 Atom System Image	21	5	<input type="checkbox"/> Not installed
<input type="checkbox"/>  Sources for Android SDK	21	1	<input type="checkbox"/> Not installed
<input type="checkbox"/> ▶ Android 4.4W.2 (API 20)			
<input type="checkbox"/> ▼ Android 4.4.2 (API 19)			
<input type="checkbox"/>  SDK Platform	19	4	<input checked="" type="checkbox"/> Installed
<input type="checkbox"/>  Samples for SDK	19	6	<input type="checkbox"/> Not installed
<input type="checkbox"/>  ARM EABI v7a System Image	19	2	<input checked="" type="checkbox"/> Installed

Show: Updates/New Installed [Select New or Updates](#)



Obsolete [Deselect All](#)

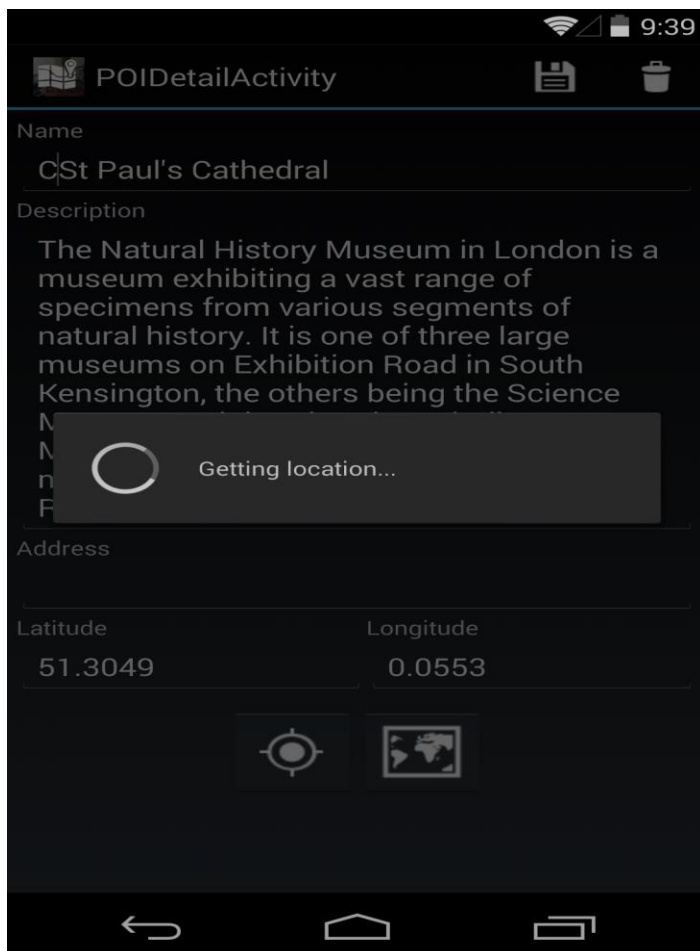
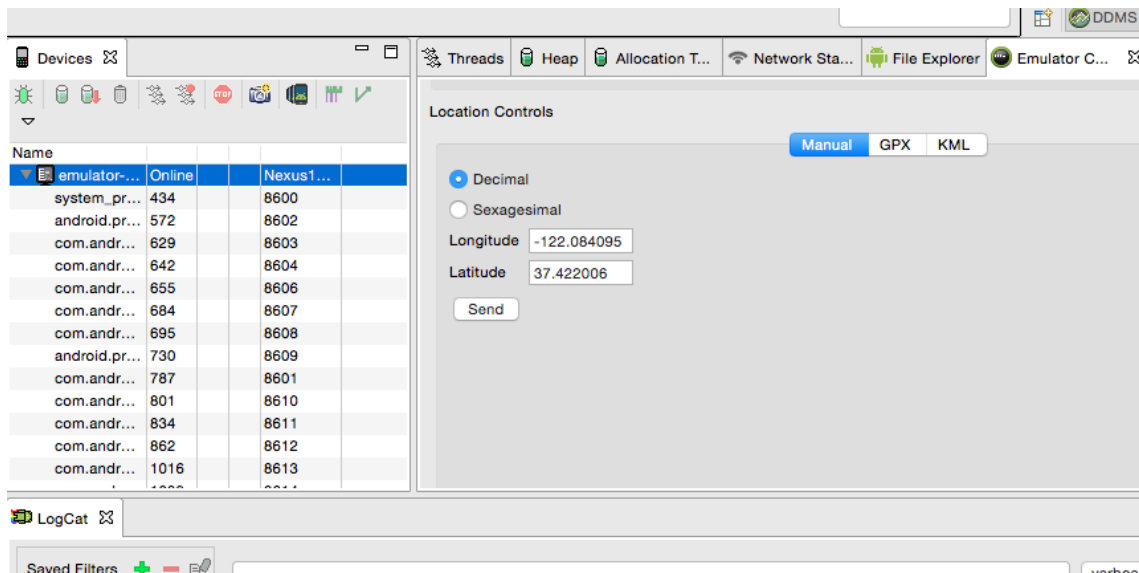
Done loading packages.  

Description

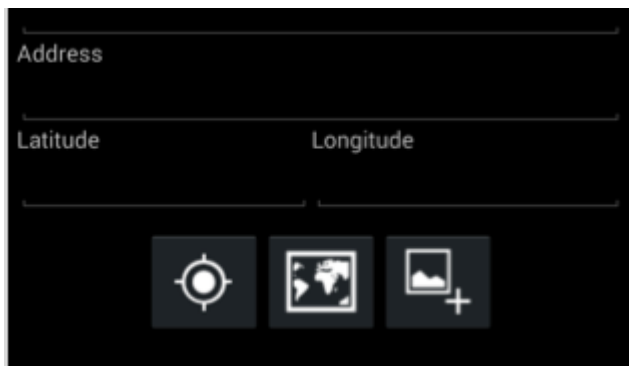
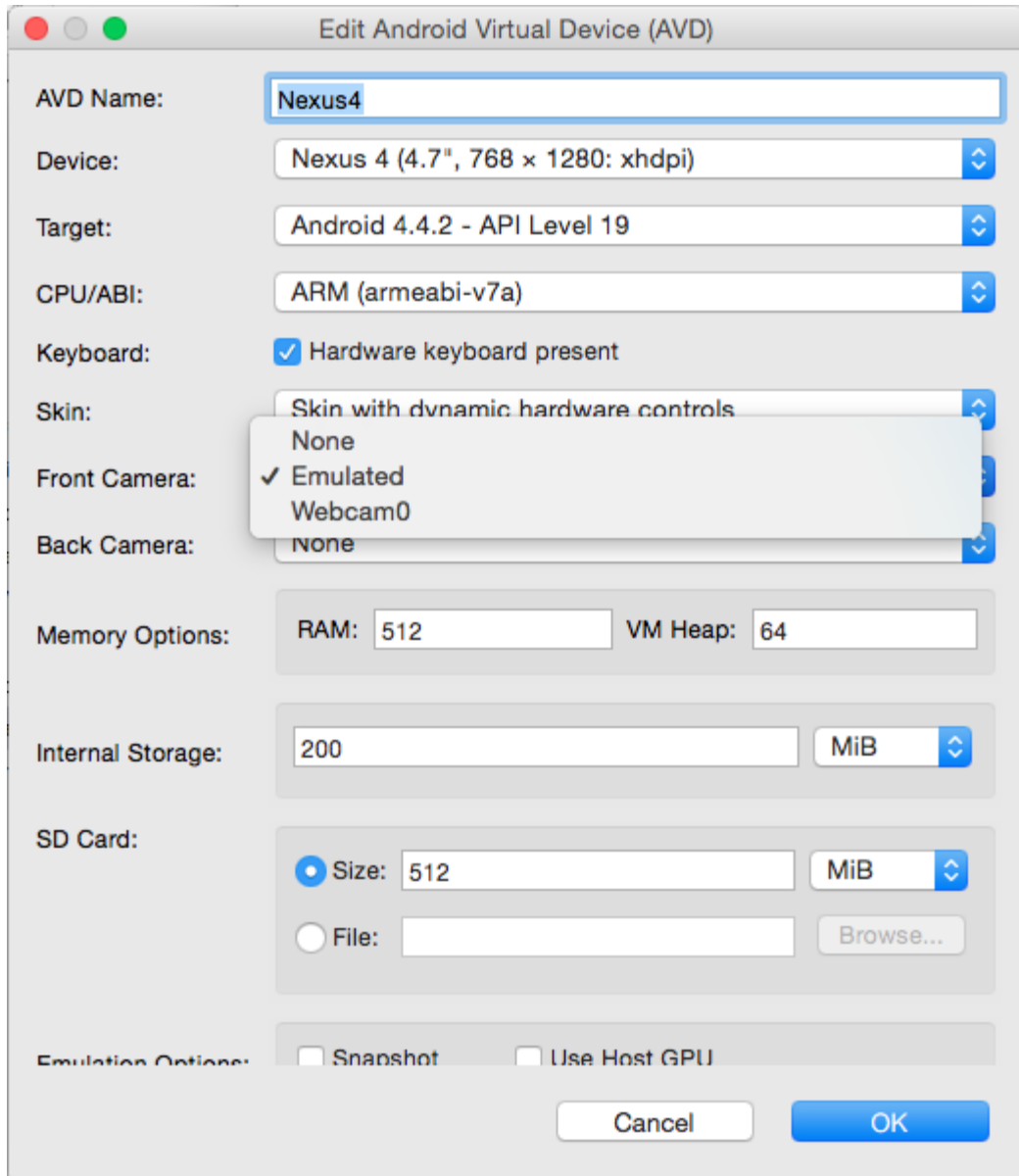
Address

Latitude Longitude

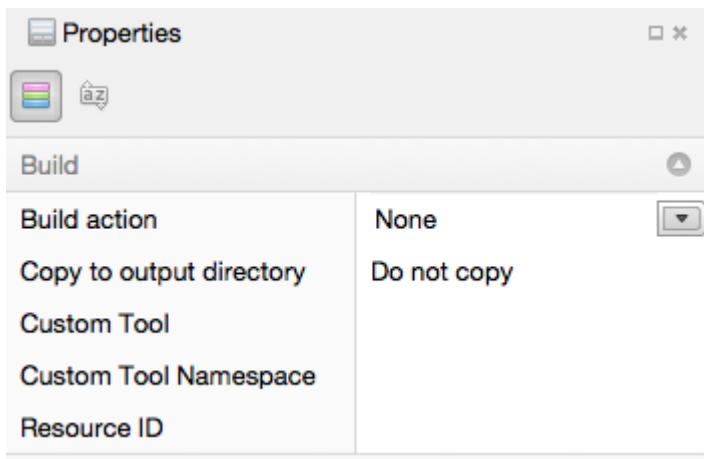
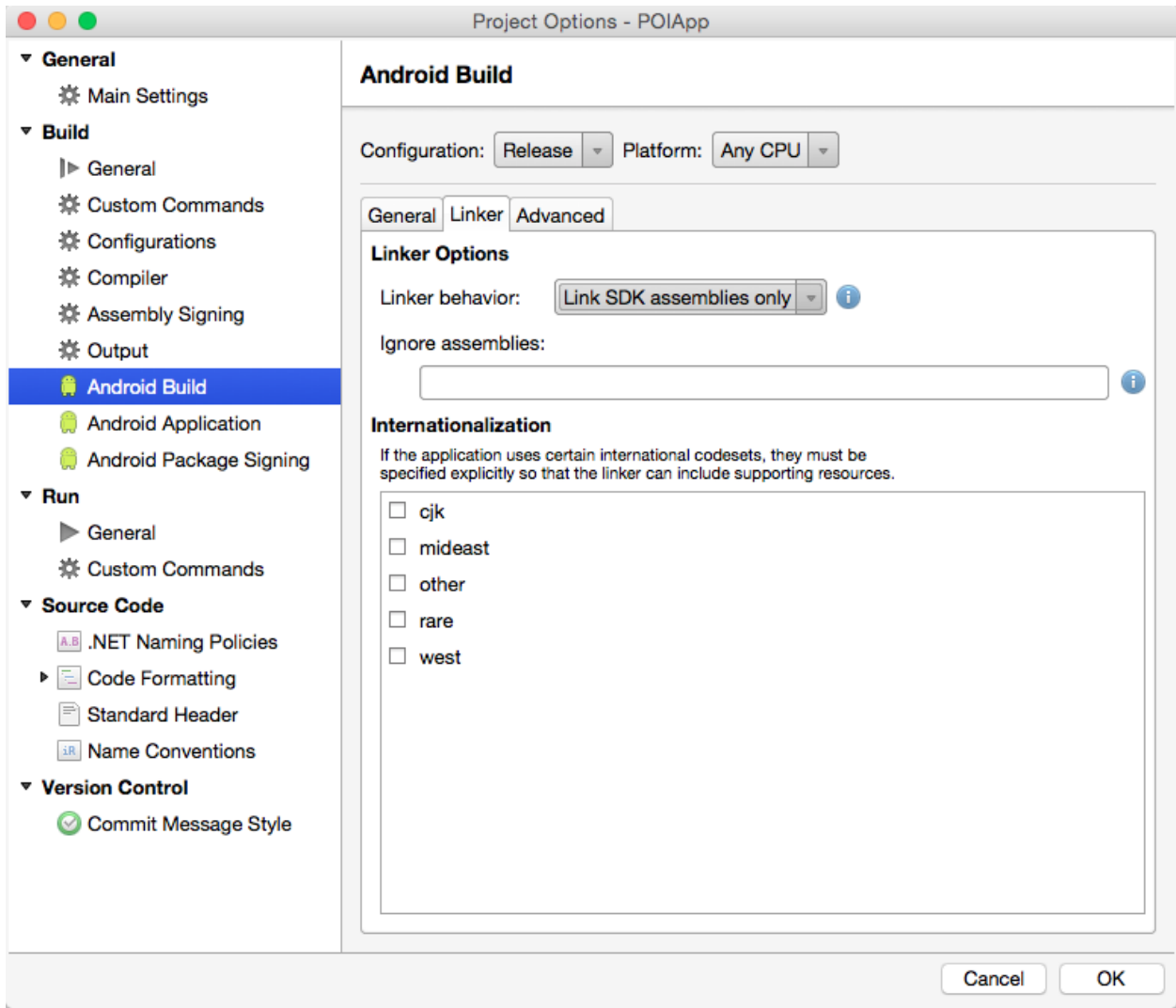
 

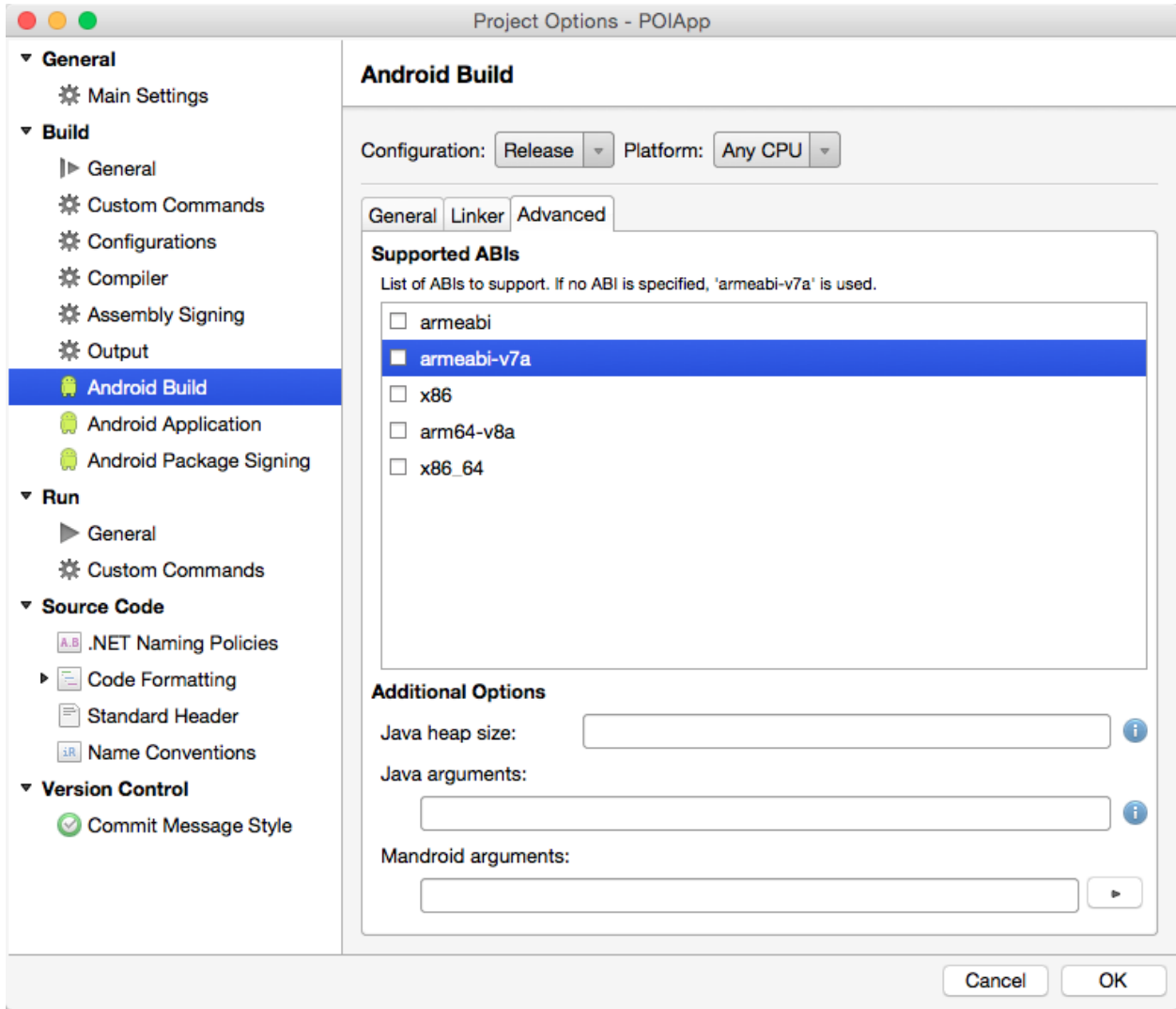


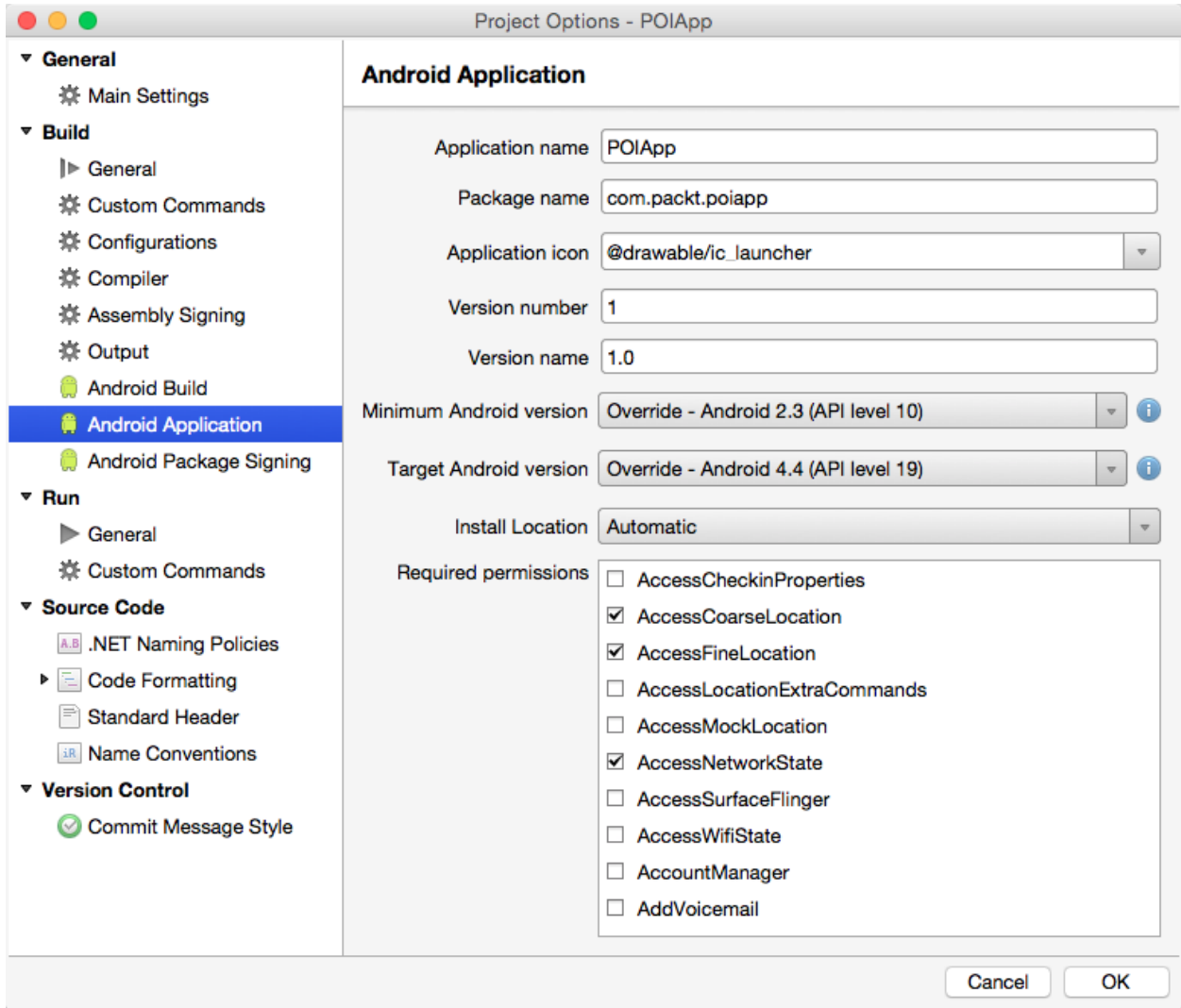
Chapter 10: Adding the Camera App Integration



Chapter 11: Publishing an App to the App Store









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

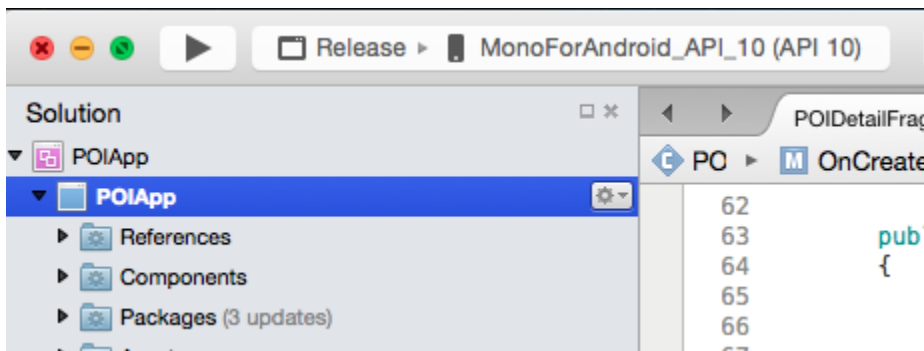
Com.sec.android.provider.badge.permission.
READ

SKIP

ACCEPT

```
Desktop -- bash -- 116x27
bash
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

Password Confirm

Validity (years)

Enter at least one of the following

First and Last Name

Organisational Unit

Organisation

City or Locality

State or Province

Country (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

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



92% 12:33 PM

< Security

DEVICE ADMINISTRATION

Device administrators

View or turn off device administrators.

Unknown sources

Allow installation of apps from sources other than the Play Store.



Verify apps

Block or warn before installing apps that may cause harm.



Search: JAVATECHIG

ALL APPLICATIONS [+ Add new application](#)

Filter

Page 1 of 1

APP NAME	PRICE	CURRENT / TOTAL TOTAL	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