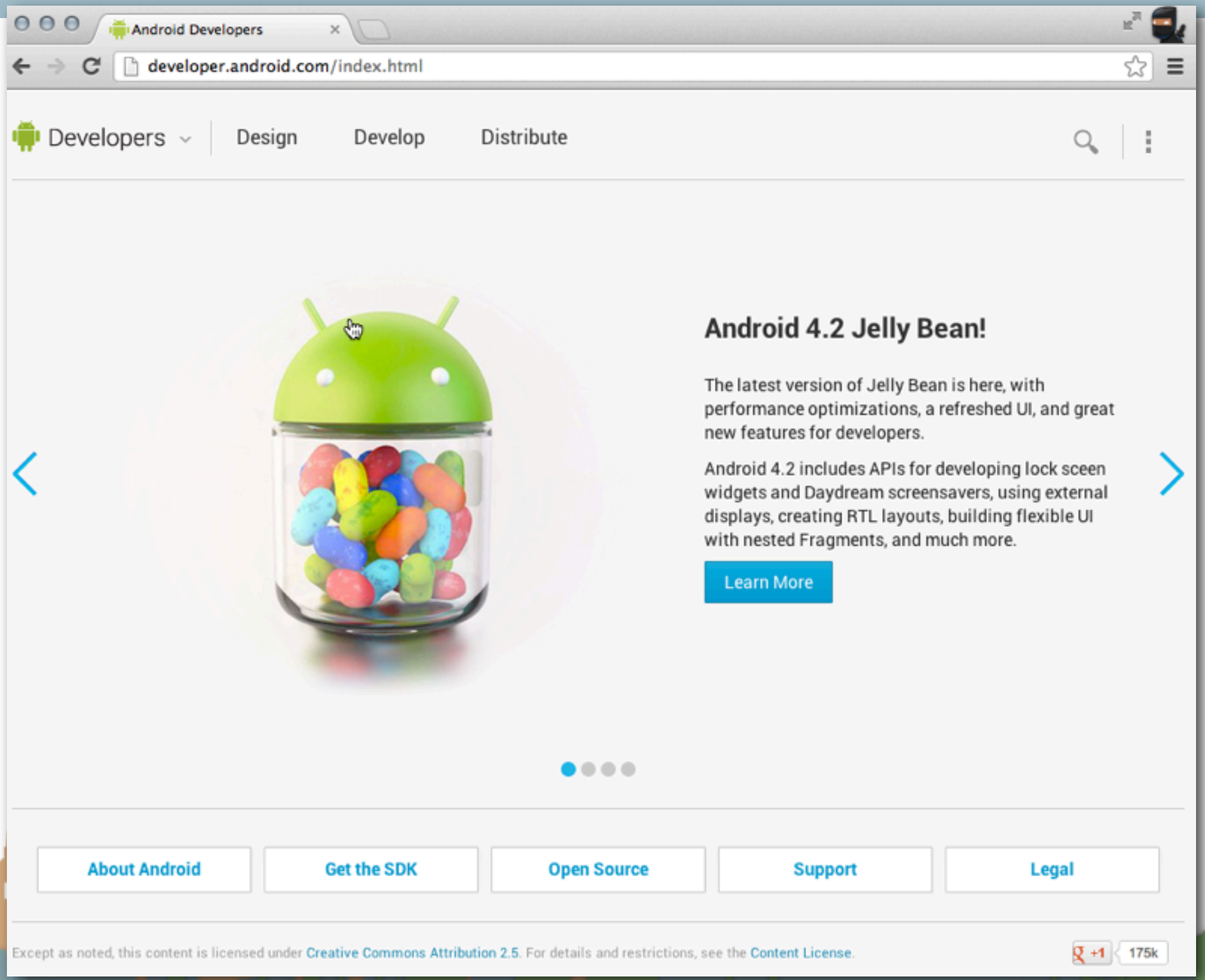
User Interaction: Intro to Android

Assoc. Professor Donald J. Patterson
INF 133 Fall 2012

Intro to Android



http://developer.android.com/guide/index.html

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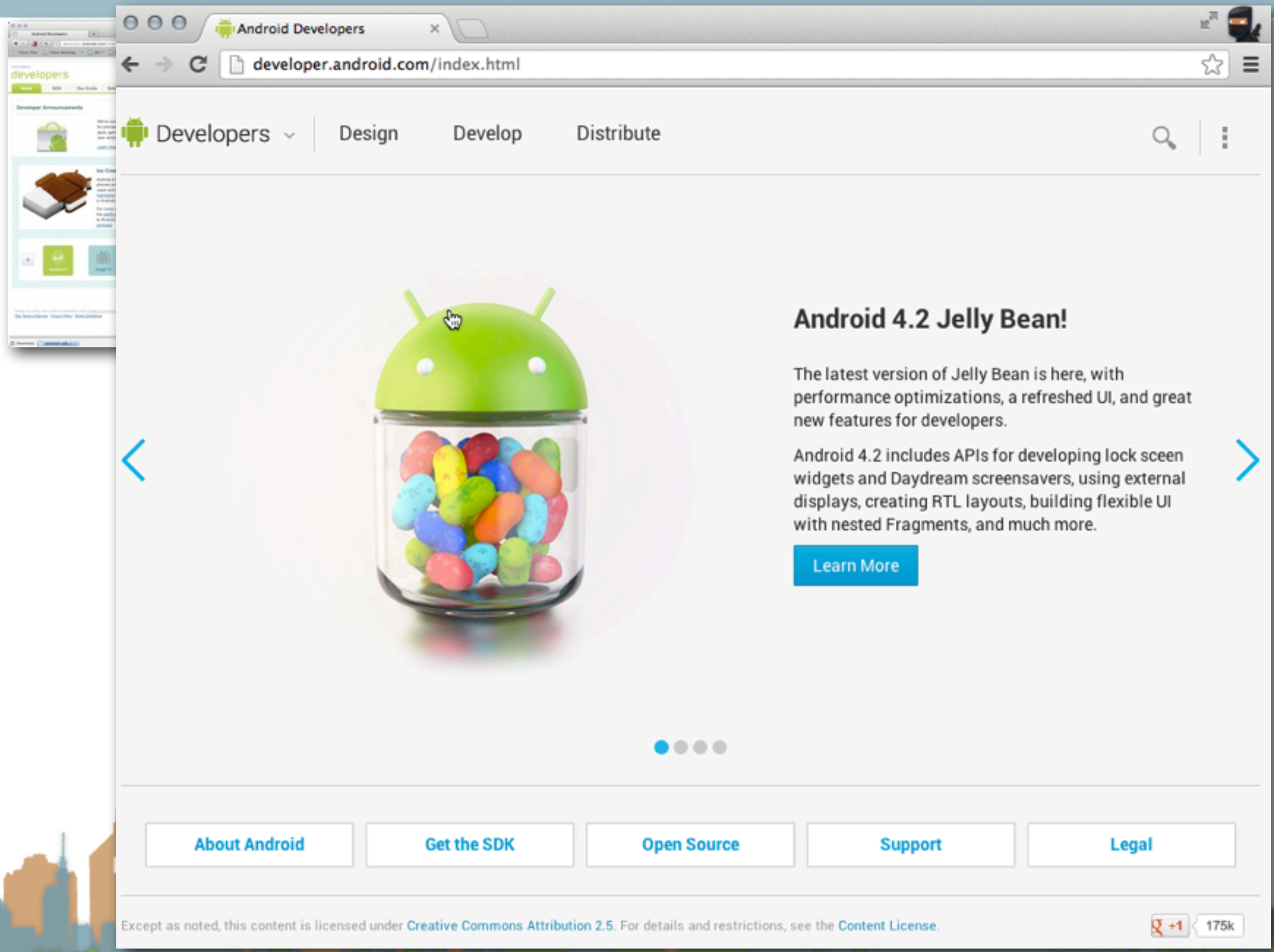

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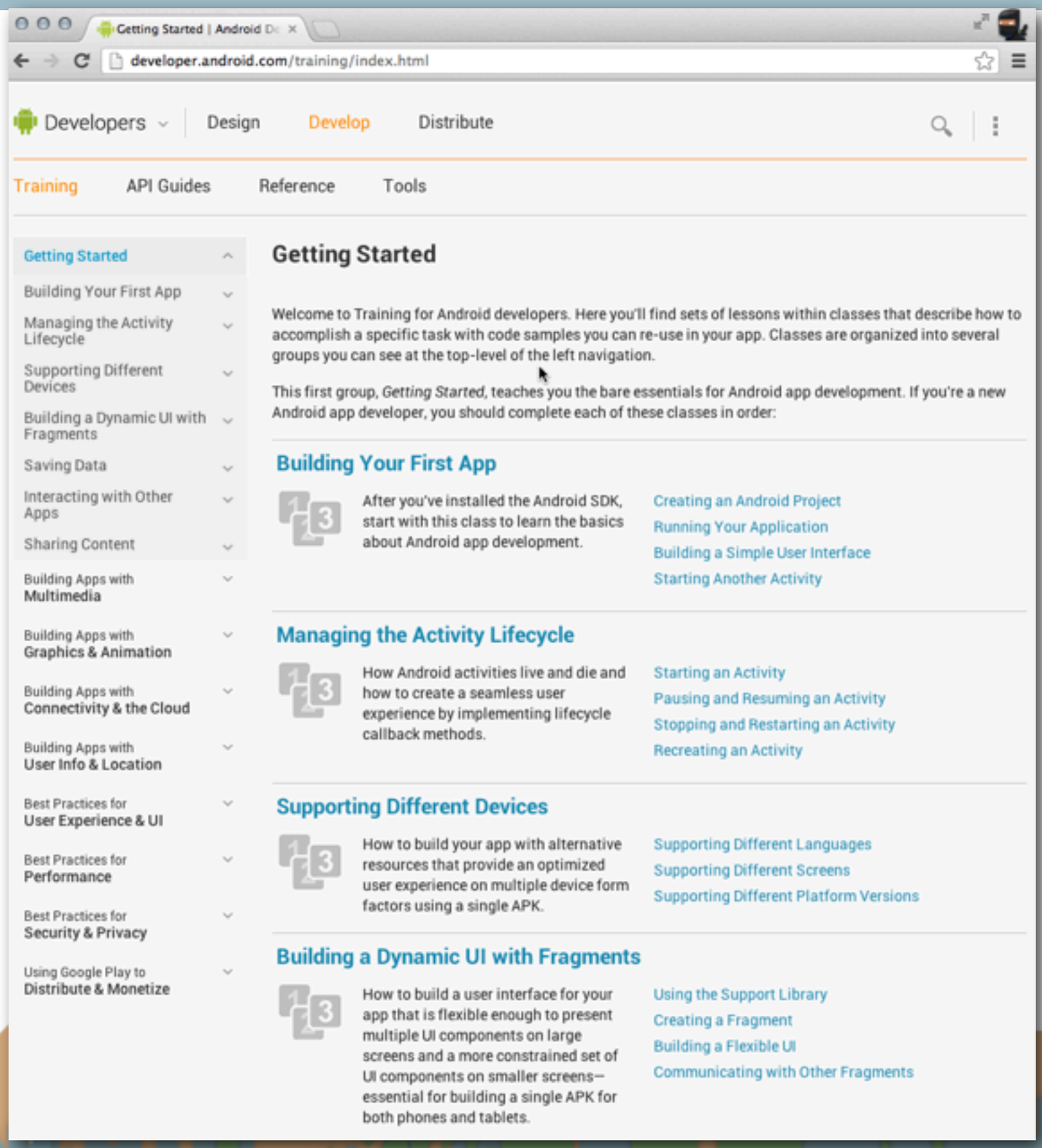
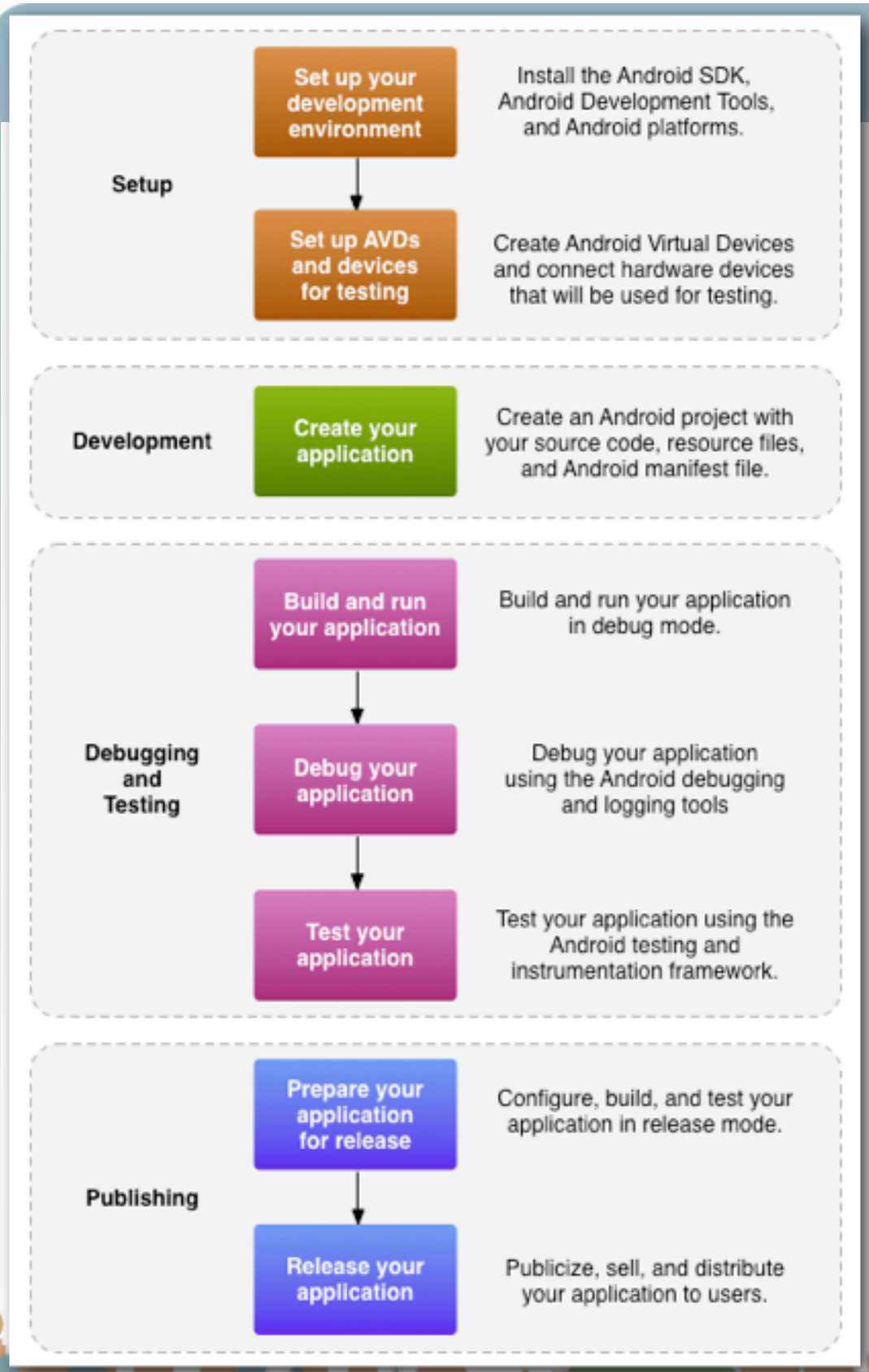


http://developer.android.com/training/index.html



- SDK (Software development kit)
- AVD (Android Virtual Device)
- .apk (Android application package file)
- “platform”: Gingerbread v2.3.6 / v2.3.4 is our target
- ADT (Android Development Tools) Eclipse plug-ins plus command line tools

http://developer.android.com/guide/index.html

Actually Developing for Android 2.3.6

- Requirements
- SDK/AVD
- Eclipse Plug-in
- Hello World

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Intro to Android: Requirements

- OS
  - Windows XP (32), Vista (32/64)or Windows 7(32/64)
  - Mac OS 10.5.8 or later (Leopard, x86 only)
  - Linux (e.g., Ubuntu Lucid Lynx (32))
- IDE
  - Eclipse 3.5 or greater
    - “Eclipse IDE for Java Developers” (for example)
- Java
  - JDK 5 or 6 (1.5 or 1.6 (not just JRE!))

http://developer.android.com/guide/index.html

- SDK (ECLIPSE EXTERNAL)
- AVD (HARDWARE)
- ADT (ECLIPSE INTERNAL)
  - SET UP POINTER TO SDK
  - "HELLO WORLD"

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Intro to Android: SDK

- Option 1: Download and unpack the appropriate "Android SDK /ADT bundle"

ADT Bundle

Platform	Package	Size	MD5 Checksum
Windows 32-bit	adt-bundle-windows-x86.zip	417851015 bytes	42d9a6c15113d405a97eed05e6d42e2b
Windows 64-bit	adt-bundle-windows-x86_64.zip	417851515 bytes	73bdd1168fce0e36a27255a4335c865d
Mac OS X 64-bit	adt-bundle-mac-x86_64.zip	382957959 bytes	a320f8bbaee8572a36e68c434564bdd0
Linux 32-bit	adt-bundle-linux-x86.zip	411065882 bytes	39687b06fedfea7487ff0824a4d32ee8
Linux 64-bit	adt-bundle-linux-x86_64.zip	411217430 bytes	b0590fe9c1533da9b20ea65525b77677

- This is the SDK and a version of eclipse all set up and ready to go

http://developer.android.com/sdk/index.html

Intro to Android: SDK

- Option 2: Download and unpack the appropriate "Android SDK"

SDK Tools Only

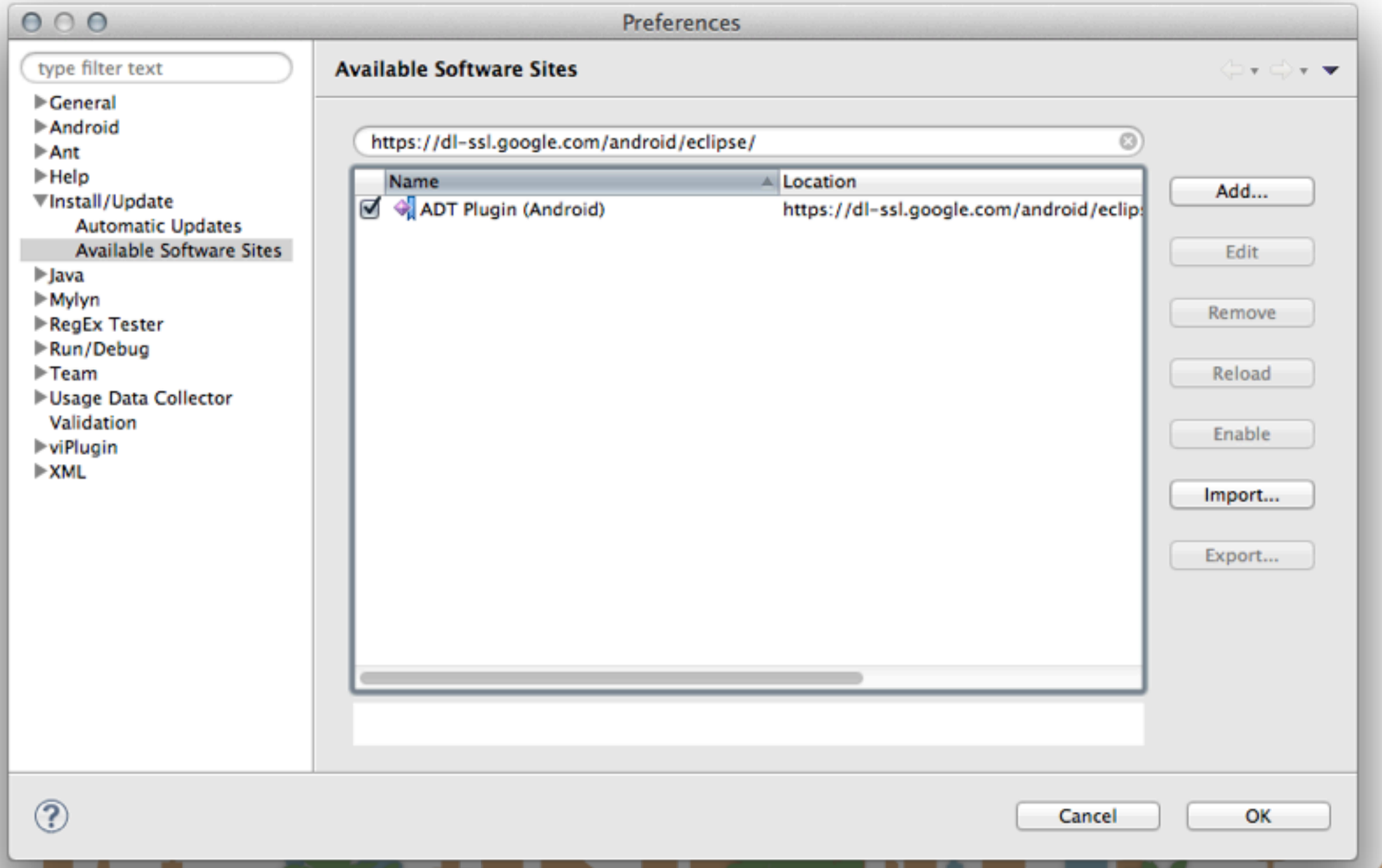
Platform	Package	Size	MD5 Checksum
Windows	android-sdk_r21-windows.zip	99093893 bytes	7311452823470365f7975a545f8a2be4
	installer_r21-windows.exe (Recommended)	77523031 bytes	29ca8cb8f0bc8db627fa2adc2139a3cc
Mac OS X	android-sdk_r21-macosx.zip	65792626 bytes	67e46adca90dd18d7291443f6c15d6af
Linux	android-sdk_r21-linux.tgz	91378351 bytes	7f8d73b629f808cdcfc9f9900bbd7580

- This is just the SDK if you want to add Android to an existing Eclipse IDE installation

http://developer.android.com/sdk/index.html

Intro to Android: SDK

- Option 2: Install the Eclipse Android ADT tools



http://developer.android.com/sdk/installing/installing-adt.html

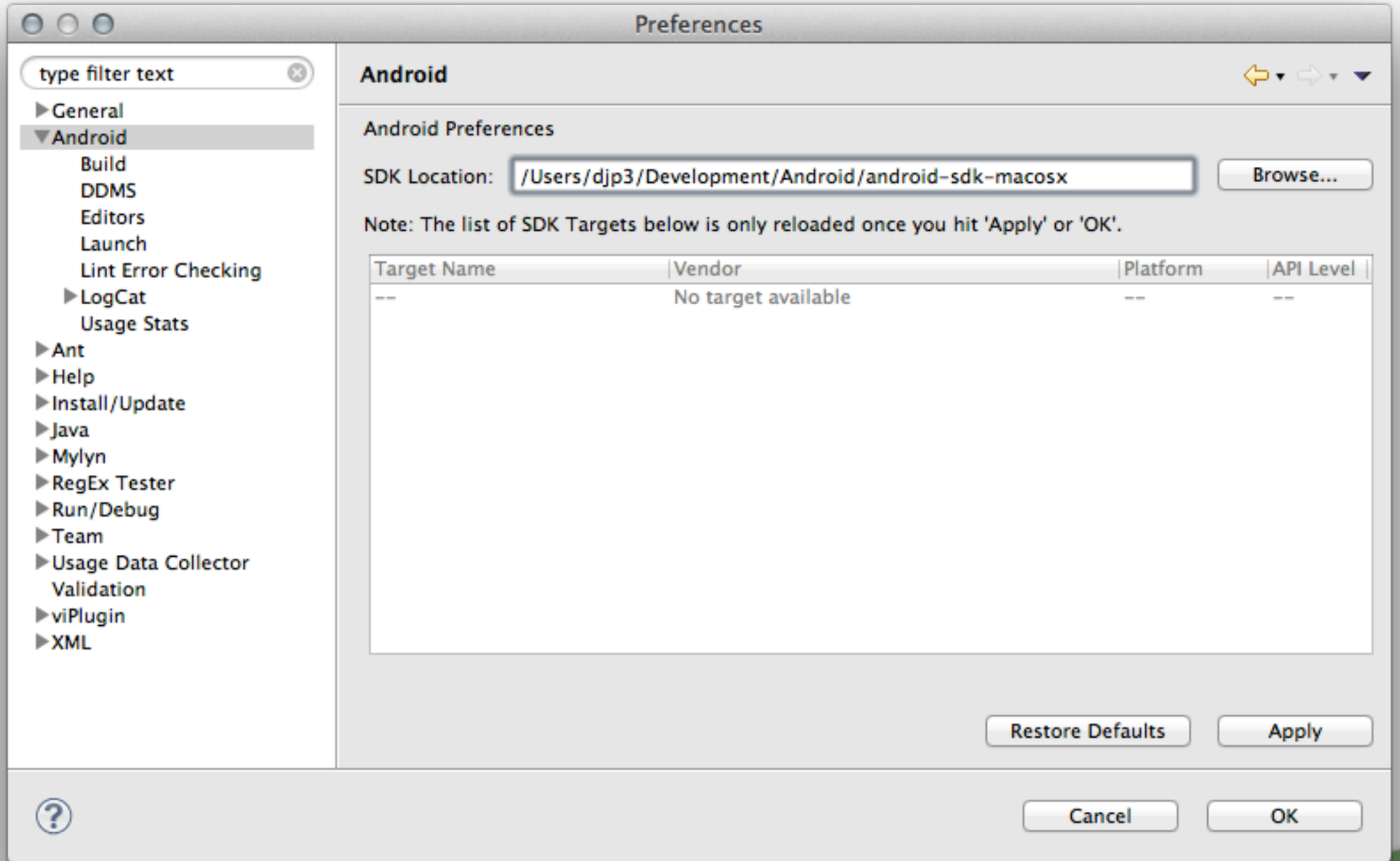
Intro to Android: Eclipse Plug-in

- The Eclipse Plug-in is called the "ADT"
  - Android Development Tools
  - Support for menu options in Eclipse which support
    - Automatically building Android projects
    - User-Interface building for Android
    - Debugging support for Android
    - Packaging files for the Android Market (.apk files)
- The ADT is installed from within Eclipse

http://developer.android.com/sdk/eclipse-adt.html

Intro to Android: SDK

- Option 2: Restart Eclipse and load the SDK location



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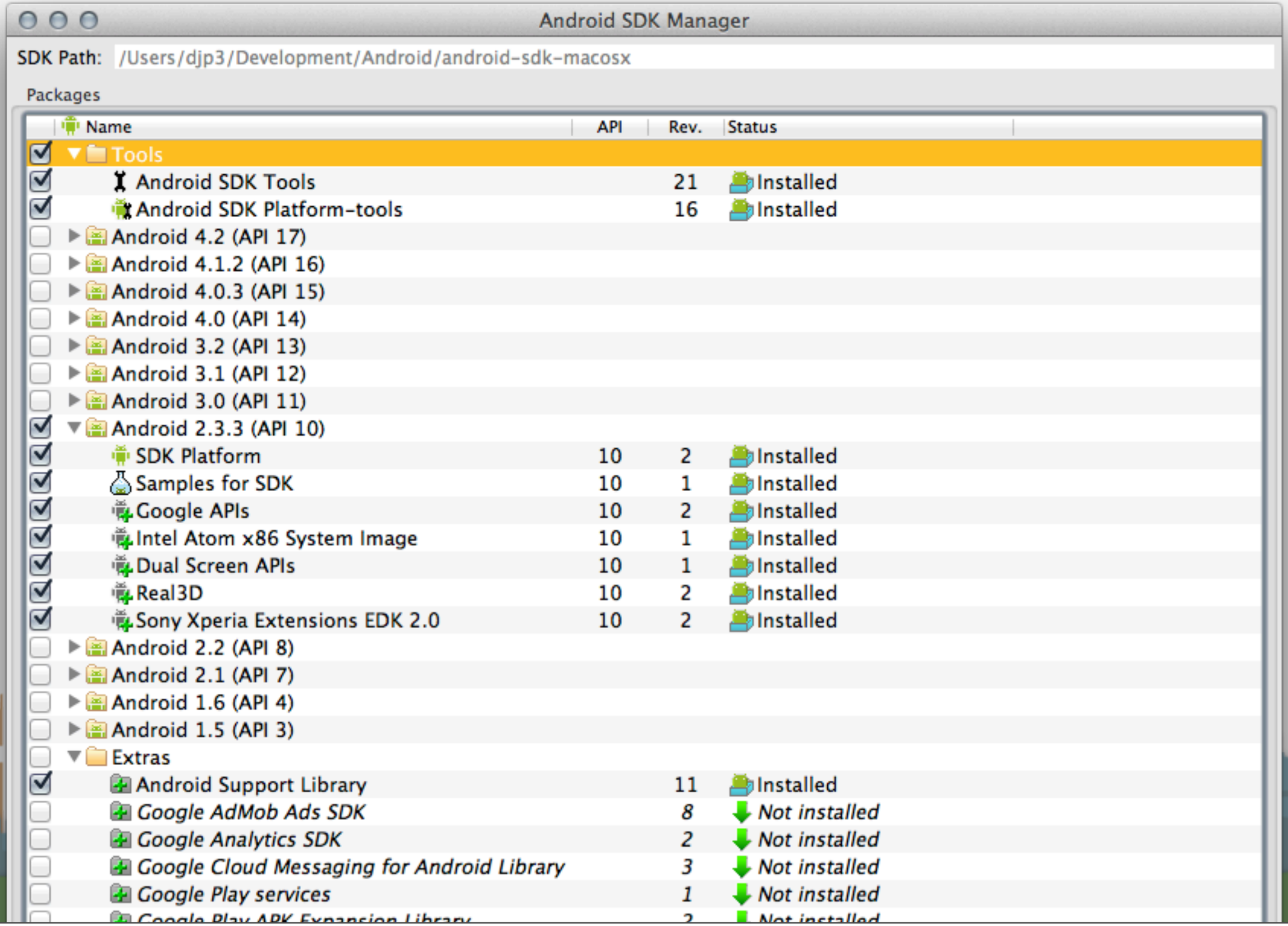
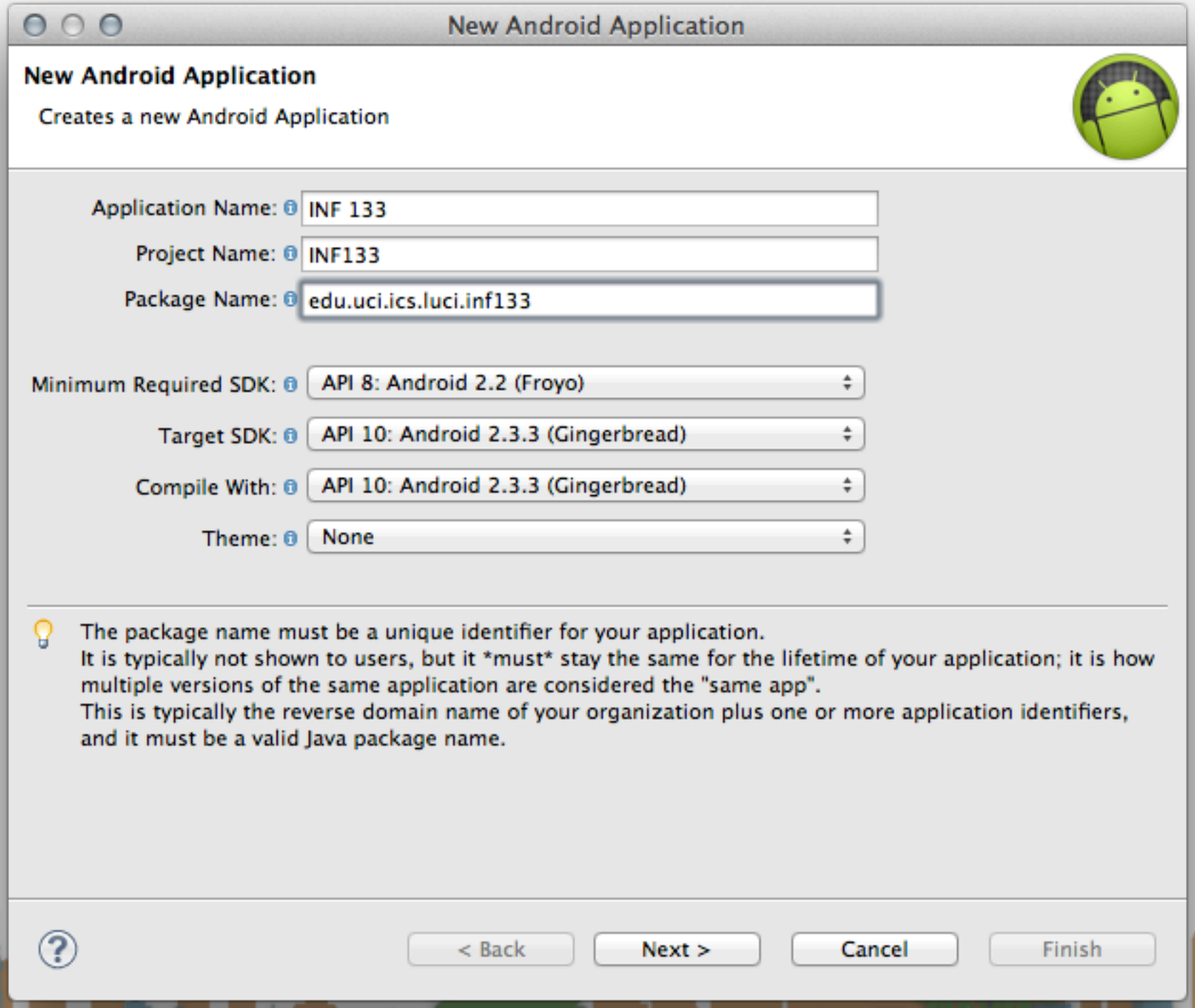
Intro to Android: SDK

- Option 2: Pick which platform you are developing for



Intro to Android:

- Set up a project



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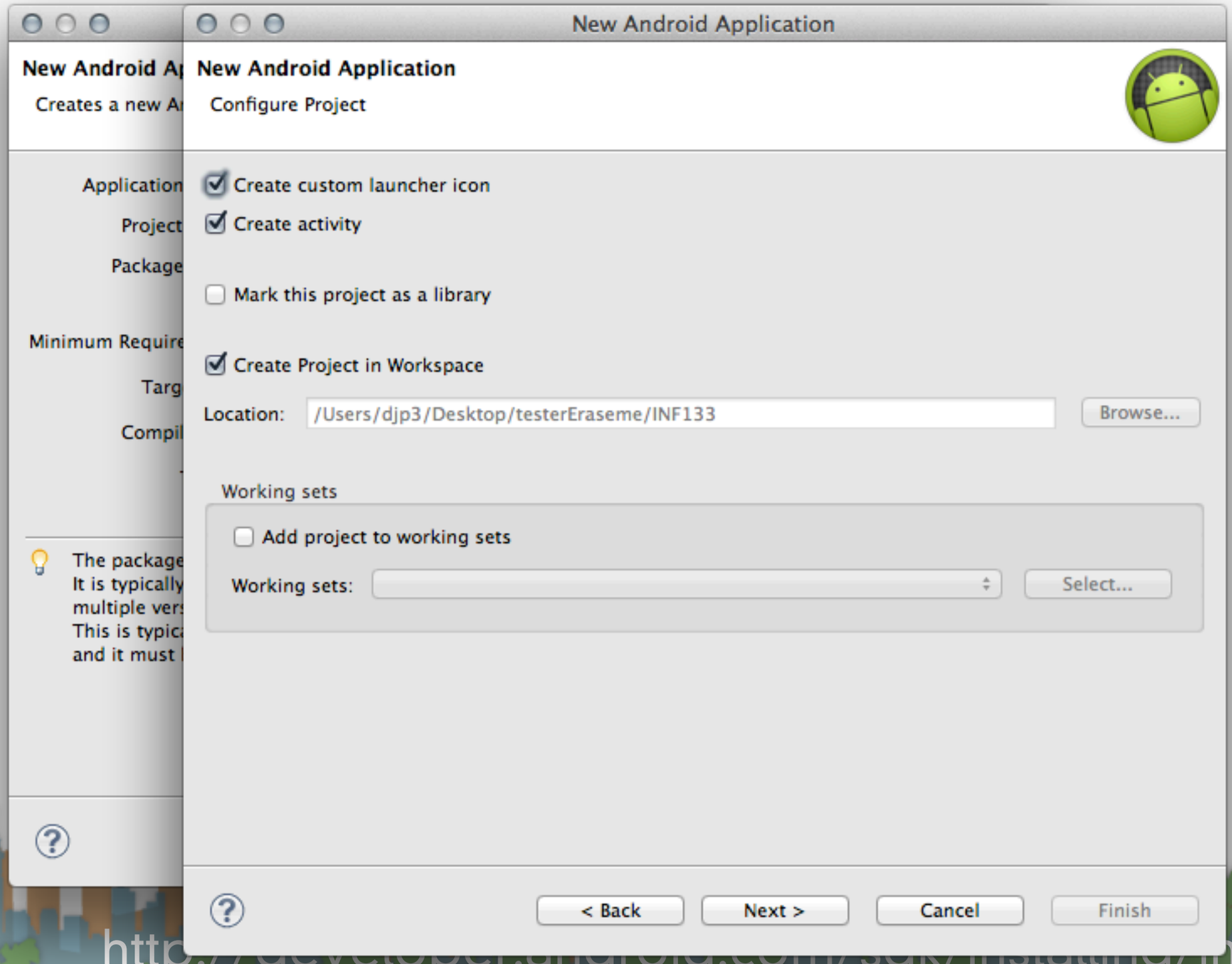

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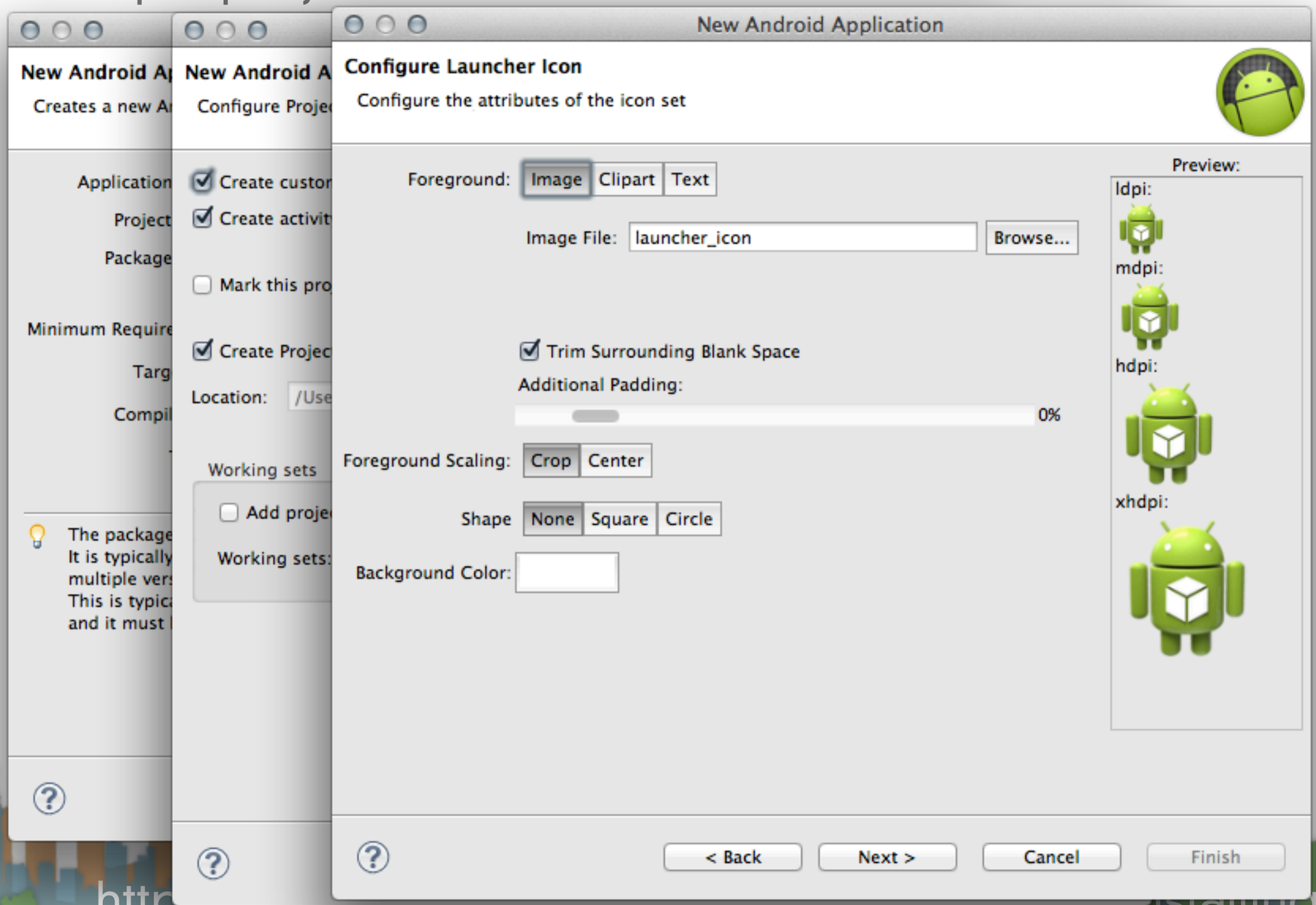

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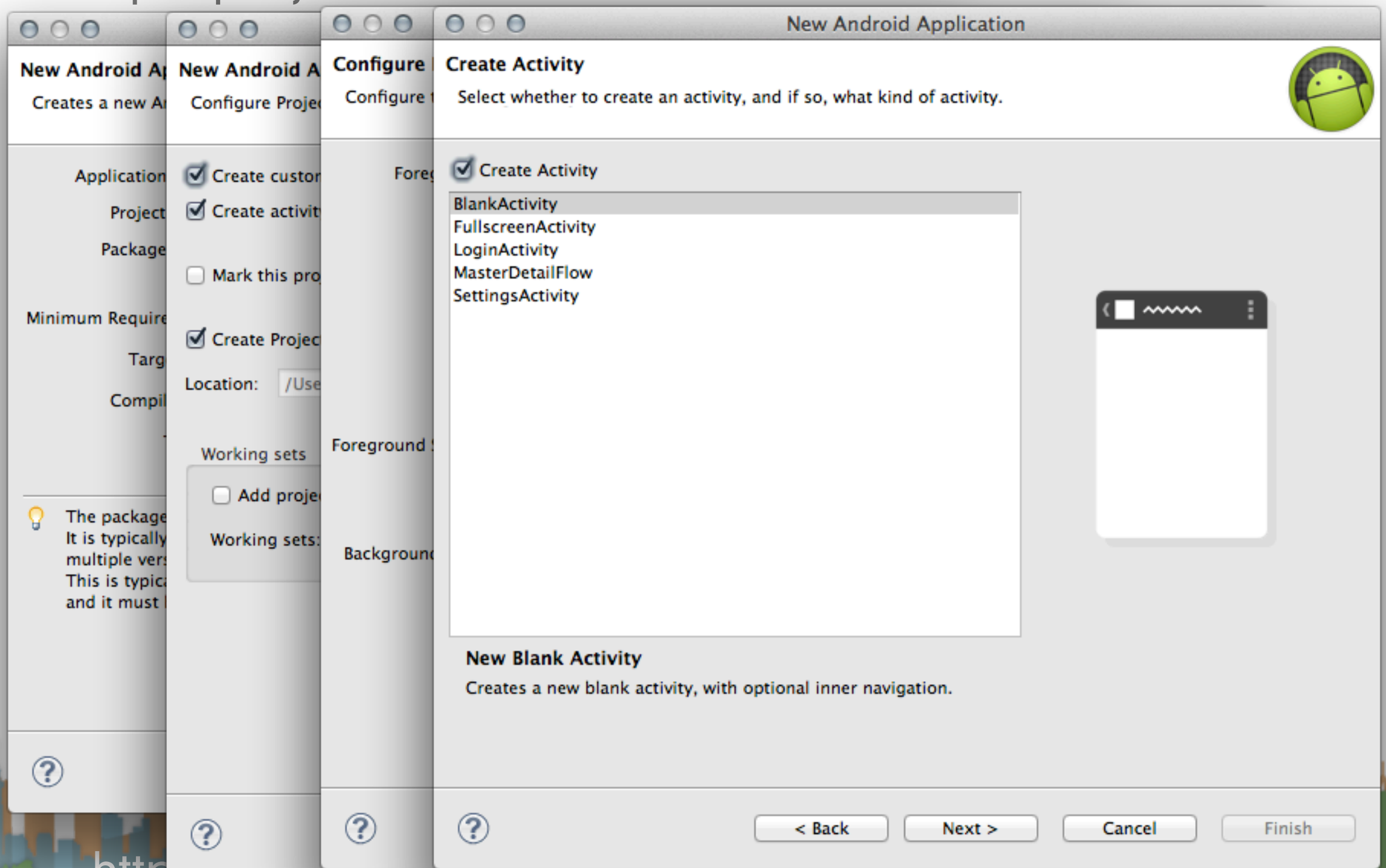

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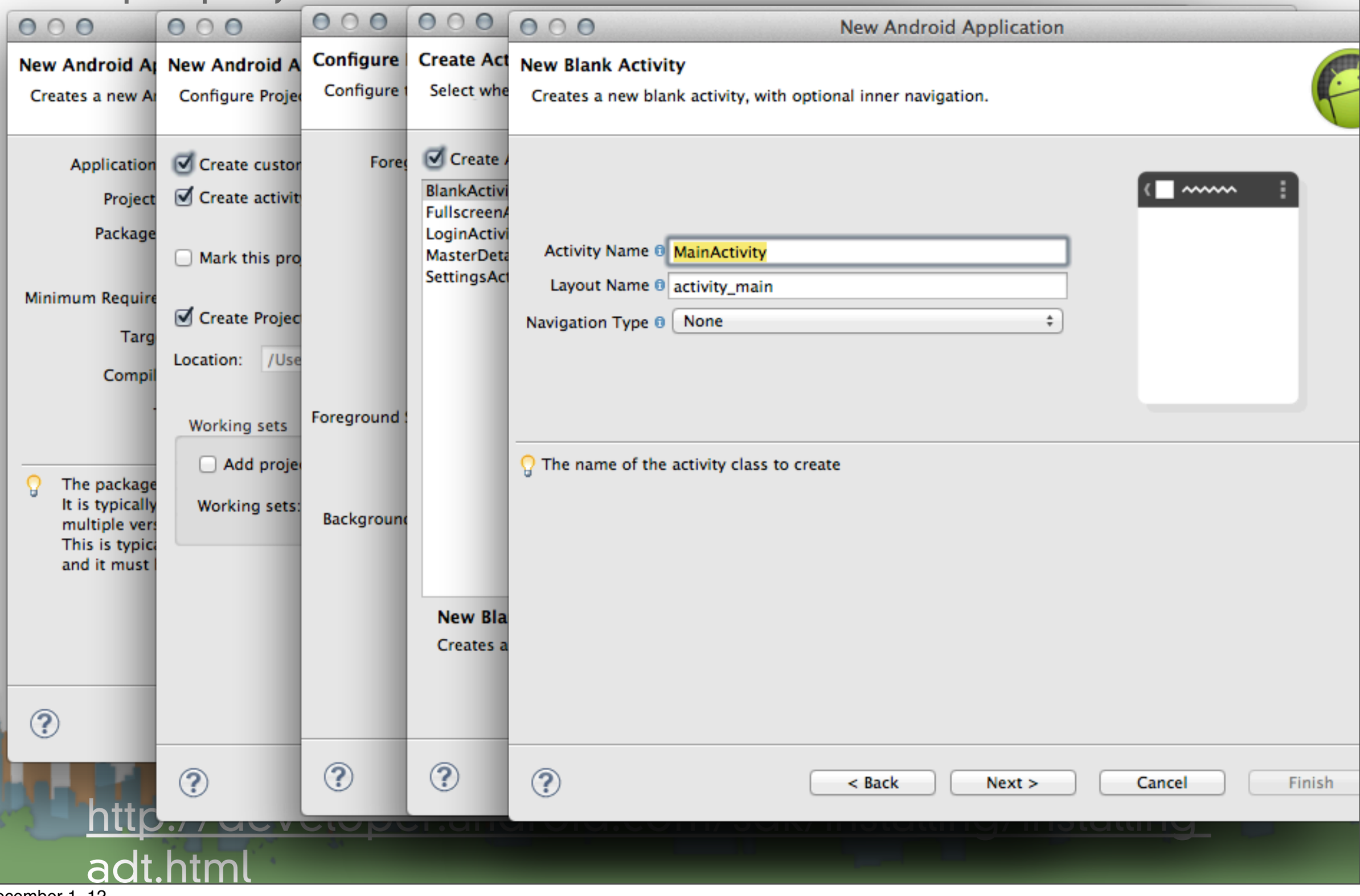

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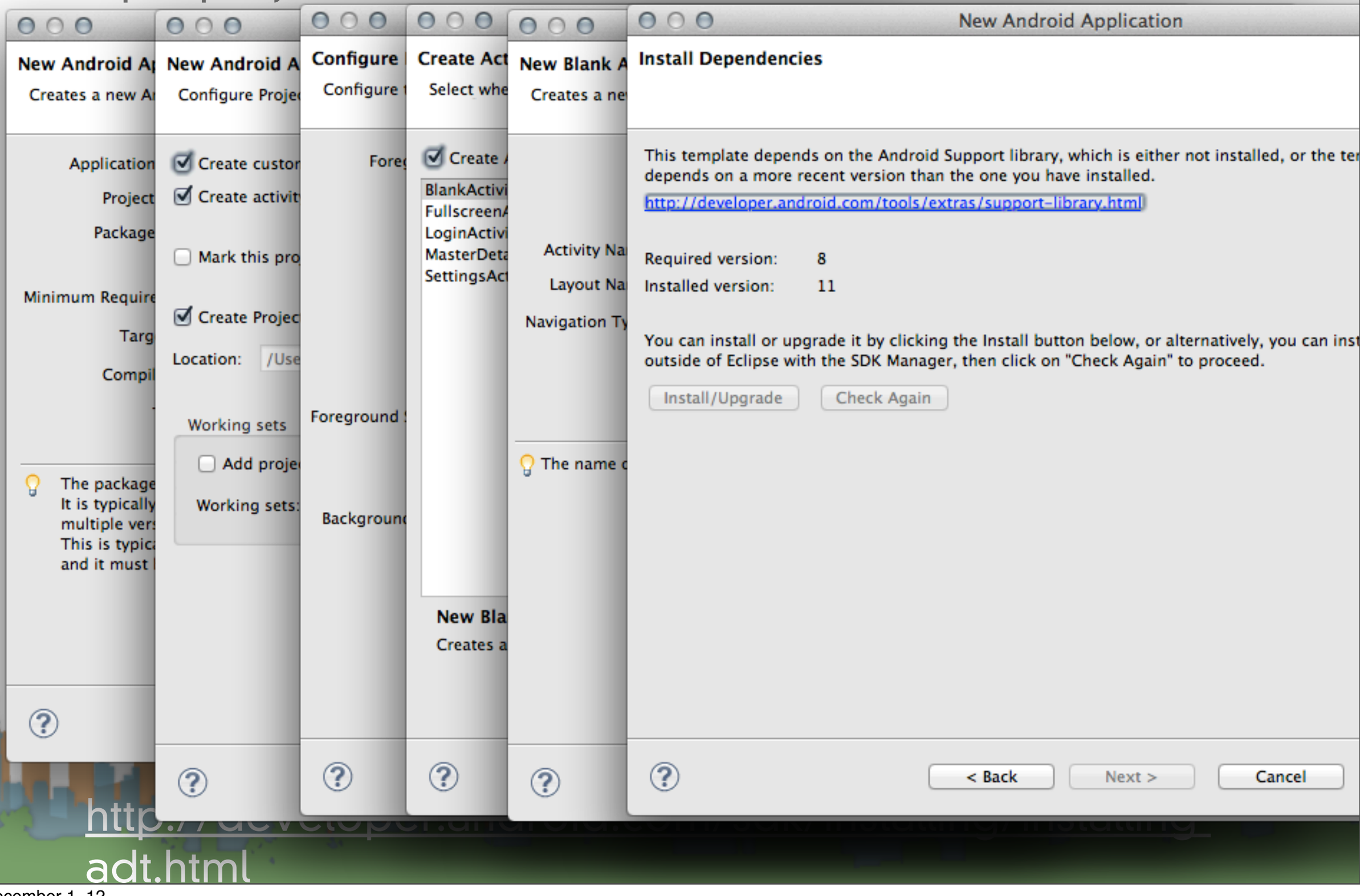

http://developer.android.com/guide/developing/tools/adt.html

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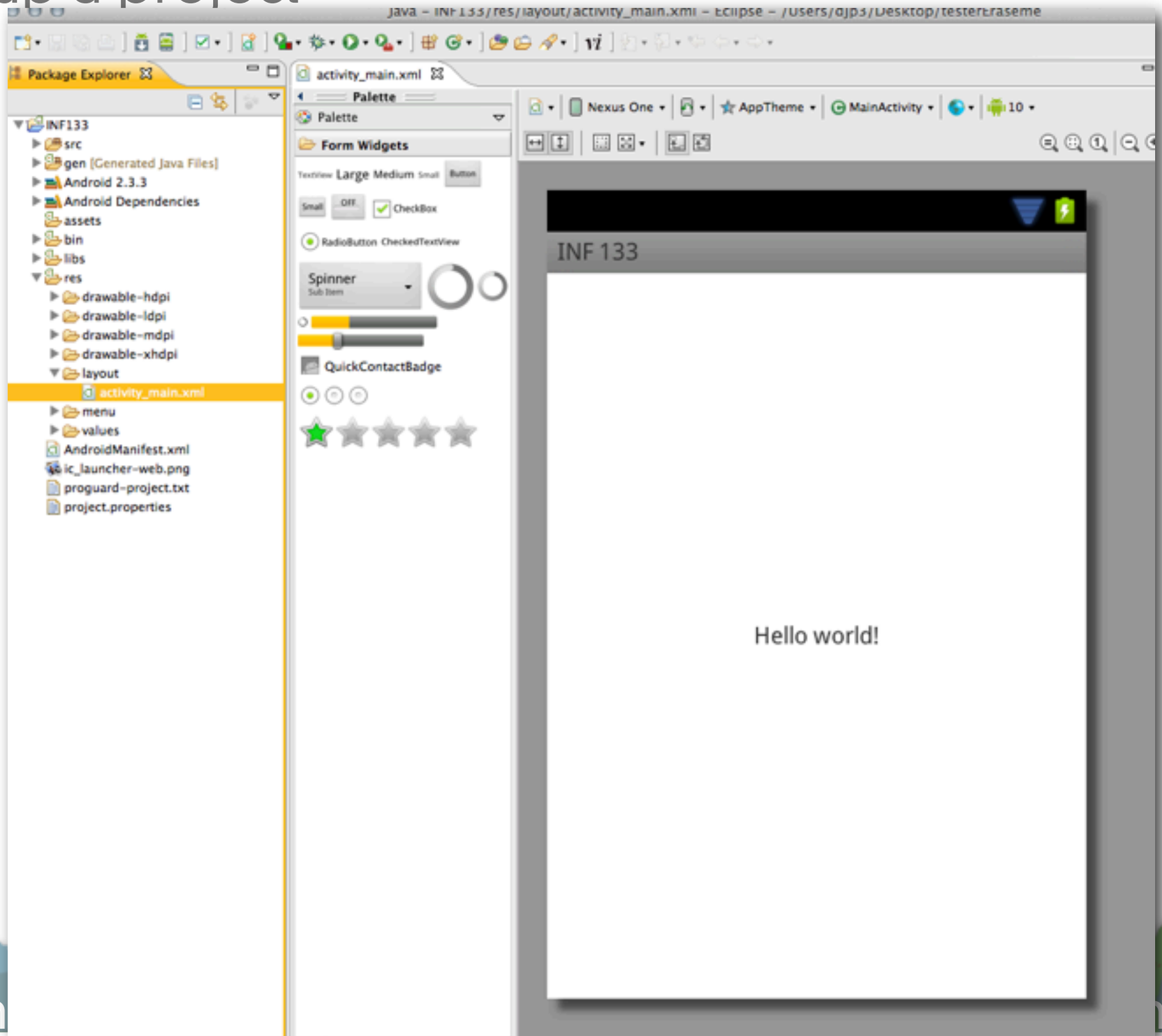

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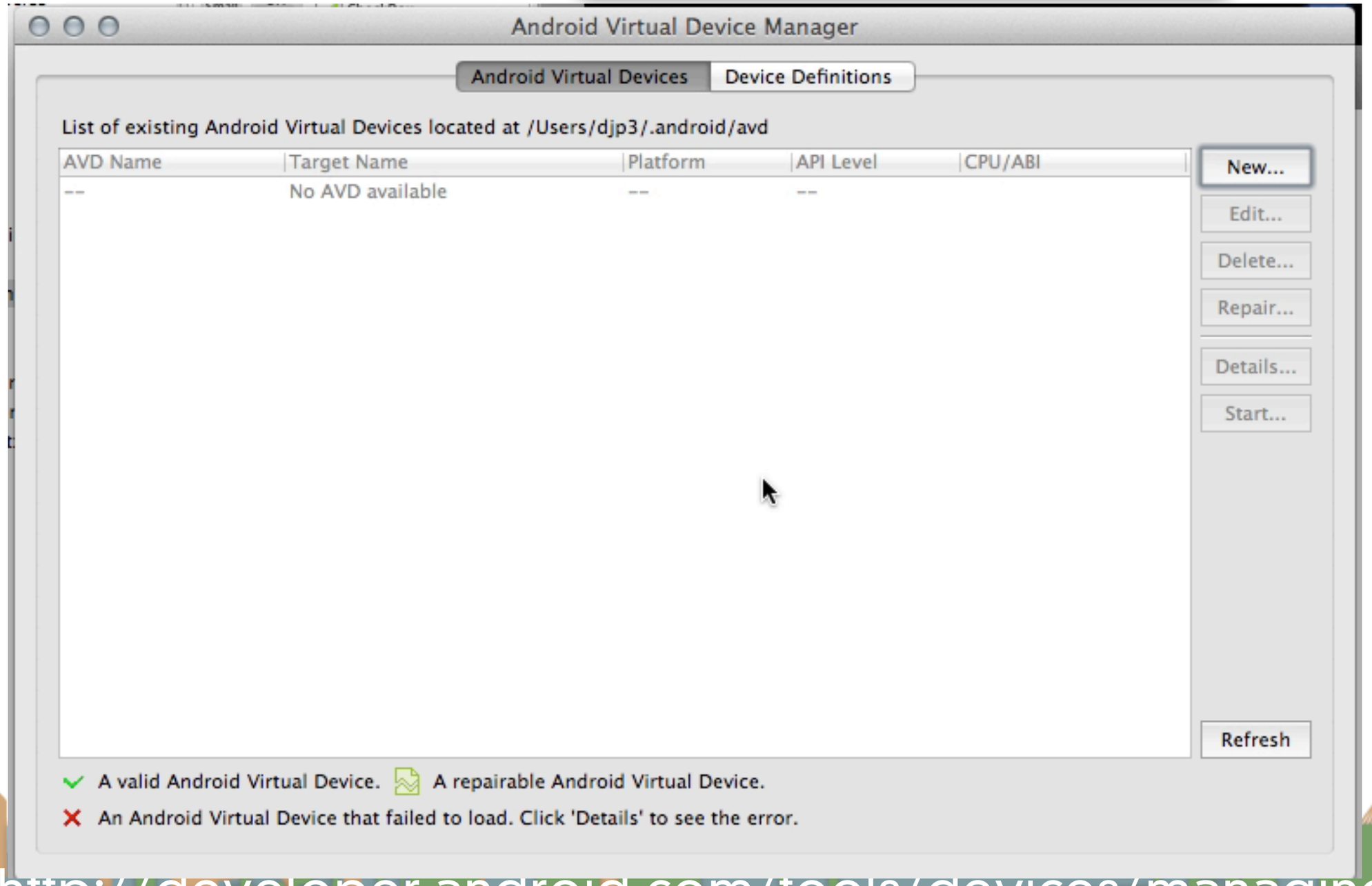
Intro to Android: AVD

- Set up a virtual device



http://developer.android.com/tools/devices/managing-avds.html

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Hello World

- Create a project
- Build a basic U/I
- Run the Application
- Improve the U/I
- Debug the Application

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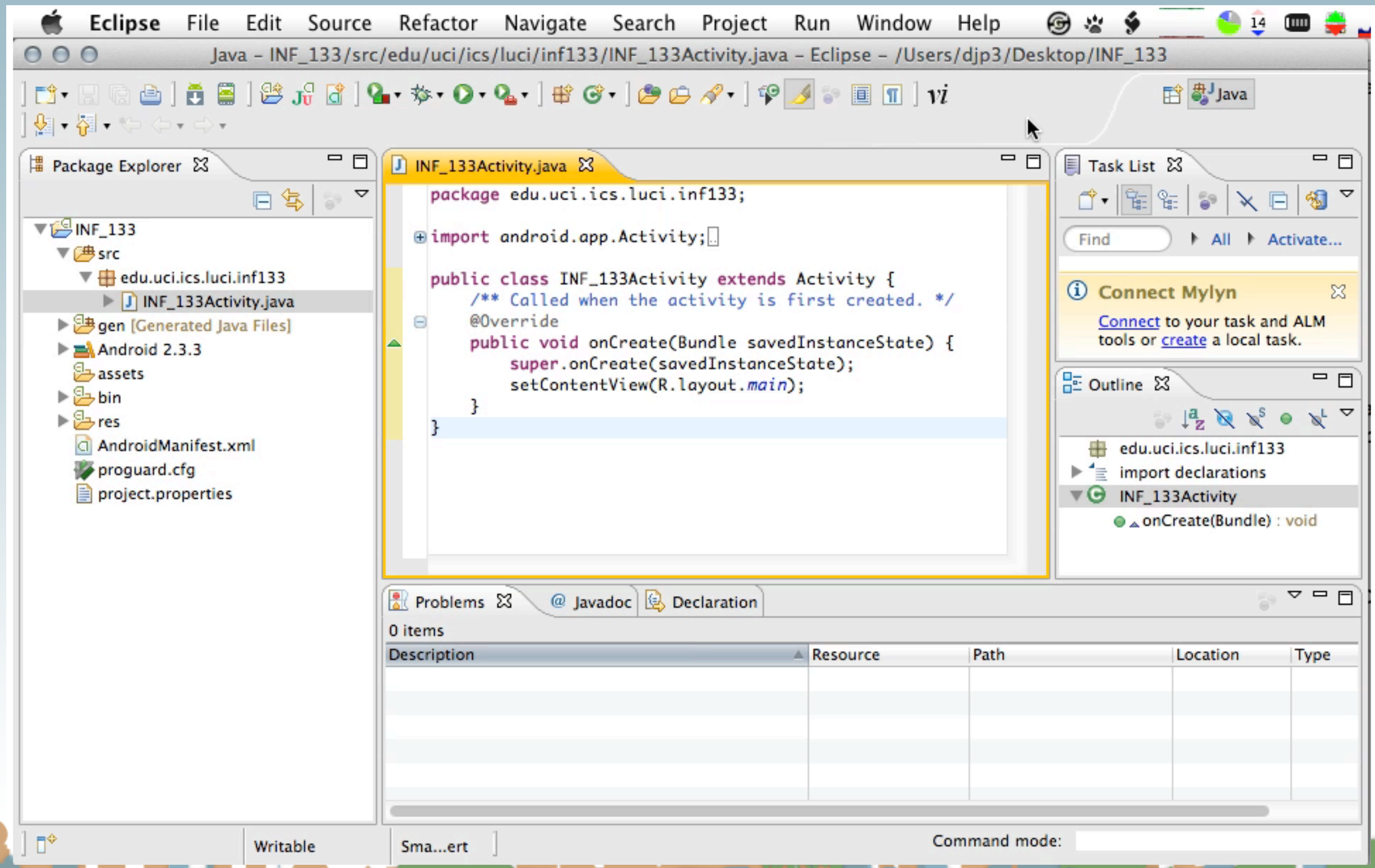

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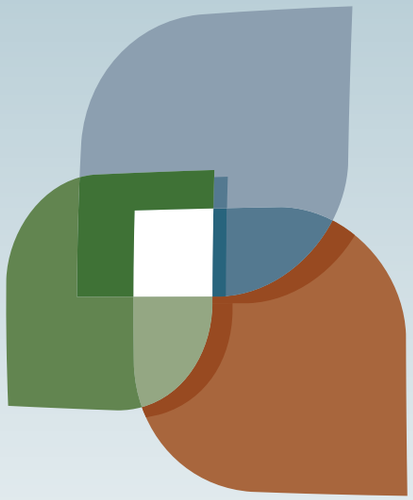

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