

User Interaction: Intro to Android

Assoc. Professor Donald J. Patterson
INF 133 Fall 2011

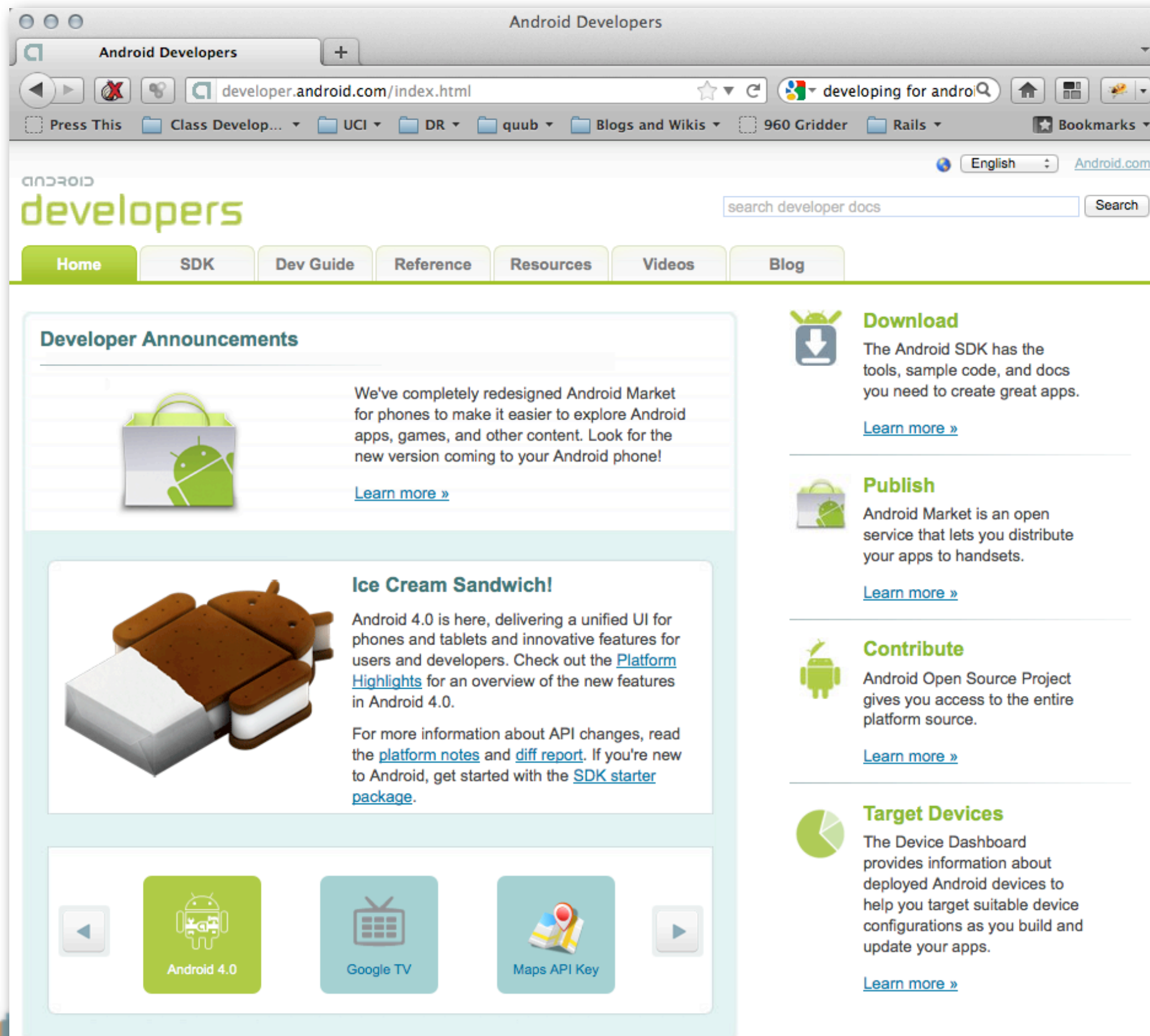


Intro to Android

A stylized illustration of a city skyline at the bottom of the slide. It features various buildings in shades of orange, brown, and blue, interspersed with green palm trees and foliage. The entire scene is set against a light green base representing grass.

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

Intro to Android



The screenshot shows a web browser window titled "Android Developers" with the URL "developer.android.com/index.html". The browser's address bar and bookmarks are visible. The website itself has a green and white color scheme. At the top, there's a navigation bar with links: Home, SDK, Dev Guide, Reference, Resources, Videos, and Blog. Below this is a search bar labeled "search developer docs". The main content area is divided into two columns. The left column features a "Developer Announcements" section with a shopping bag icon and text about the redesigned Android Market. Below that is a large section for "Ice Cream Sandwich!" (Android 4.0) with an image of the Android robot as an ice cream sandwich and text about the new UI and features. At the bottom of the left column are three buttons: "Android 4.0", "Google TV", and "Maps API Key". The right column contains four sections: "Download" (with a download icon), "Publish" (with a shopping bag icon), "Contribute" (with an Android robot icon), and "Target Devices" (with a pie chart icon). Each section on the right includes a brief description and a "Learn more »" link. The footer of the website contains a Creative Commons license notice.

Android Developers

developer.android.com/index.html

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Developer Announcements



We've completely redesigned Android Market for phones to make it easier to explore Android apps, games, and other content. Look for the new version coming to your Android phone!

[Learn more »](#)

Ice Cream Sandwich!



Android 4.0 is here, delivering a unified UI for phones and tablets and innovative features for users and developers. Check out the [Platform Highlights](#) for an overview of the new features in Android 4.0.

For more information about API changes, read the [platform notes](#) and [diff report](#). If you're new to Android, get started with the [SDK starter package](#).

Android 4.0 Google TV Maps API Key

Download



The Android SDK has the tools, sample code, and docs you need to create great apps.

[Learn more »](#)

Publish



Android Market is an open service that lets you distribute your apps to handsets.

[Learn more »](#)

Contribute



Android Open Source Project gives you access to the entire platform source.

[Learn more »](#)

Target Devices

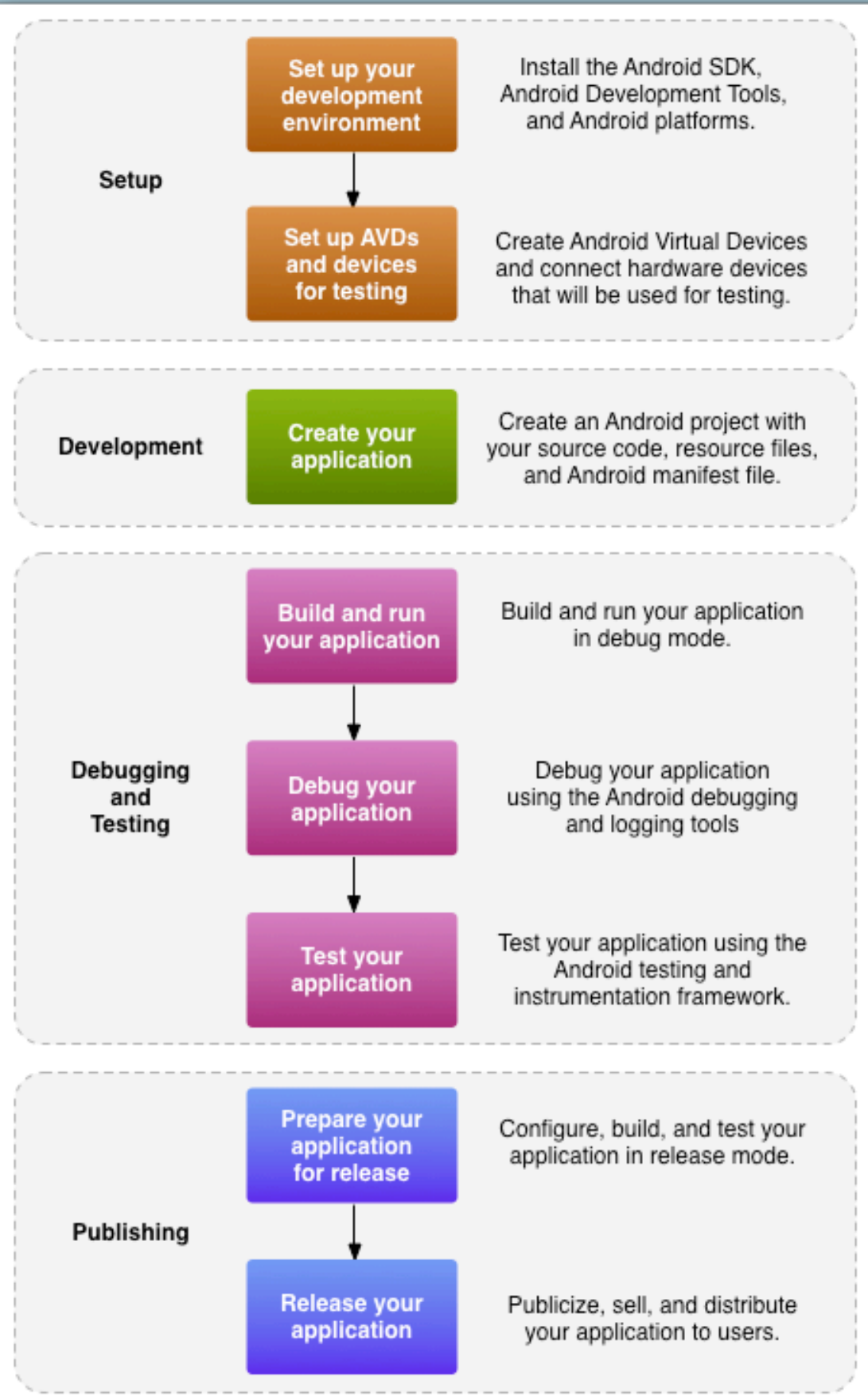


The Device Dashboard provides information about deployed Android devices to help you target suitable device configurations as you build and update your apps.

[Learn more »](#)

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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!))



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Intro to Android: SDK

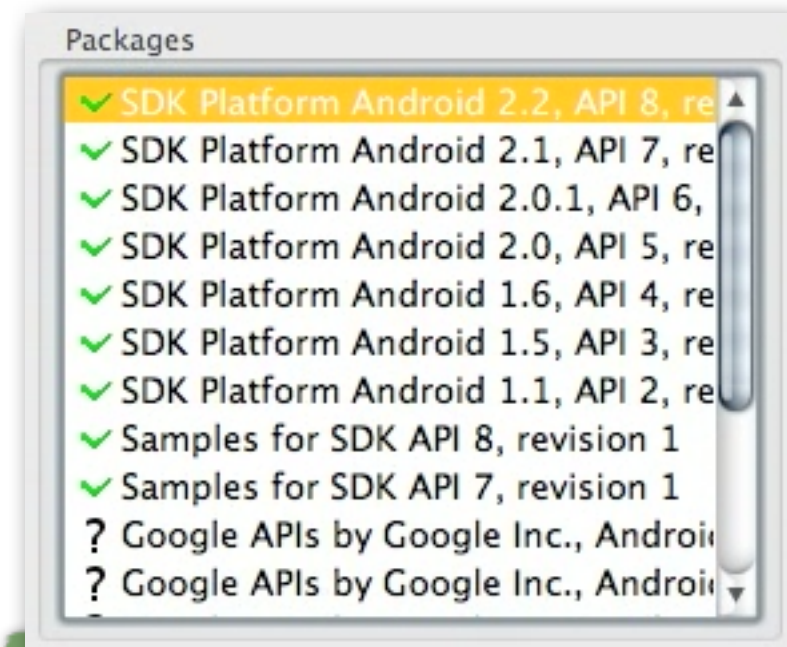
- Download and unpack the appropriate “Android SDK and AVD manager”

Platform	Package	Size	MD5 Checksum
Windows	android-sdk_r15-windows.zip	33895447 bytes	cc2aadf7120d12b574981461736a96e9
	installer_r15-windows.exe (Recommended)	33902520 bytes	ee8481cb86a6646a4d963d5142902c5c
Mac OS X (intel)	android-sdk_r15-macosx.zip	30469921 bytes	03d2cdd3565771e8c7a438f1c40cc8a5
Linux (i386)	android-sdk_r15-linux.tgz	26124434 bytes	f529681fd1eda11c6e1e1d44b42c1432

- This is a program that downloads and manages the installation of libraries for you
- Load the correct “Platform SDK”
- Create an Android Virtual Device

List of existing Android Virtual Devices located at /Users/djp3/.android/avd

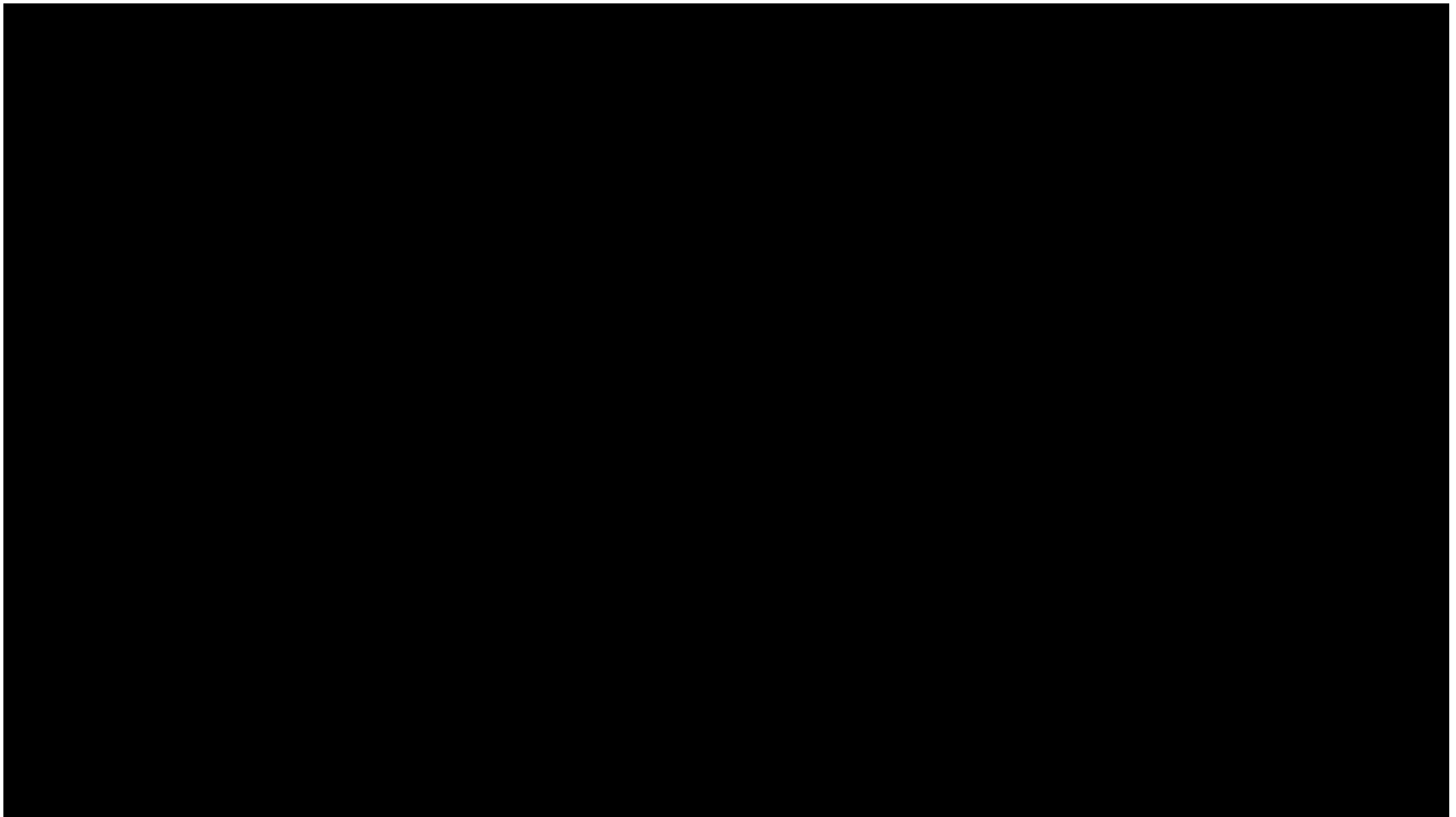
AVD Name	Target Name	Platform	API Level
✓ Fall_2010_INF_1	Android 2.2	2.2	8



<http://developer.android.com/sdk/adding-components.html>

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

Intro to Android: SDK



Intro to Android: AVD

```
djp3 — djp3@dhcp-v019-018.mobile.uci.edu: /Users/djp3/Downloads — bash — 95x29
[512]djp3@dhcp-v019-018: ~/Downloads
$
```



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A stylized illustration of a city skyline with various buildings in shades of orange, blue, and green, set against a white background. The buildings are simplified geometric shapes, and there are some green trees interspersed among them.

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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

A stylized illustration of a city skyline with various buildings in shades of orange, blue, and green, and palm trees in the foreground.

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

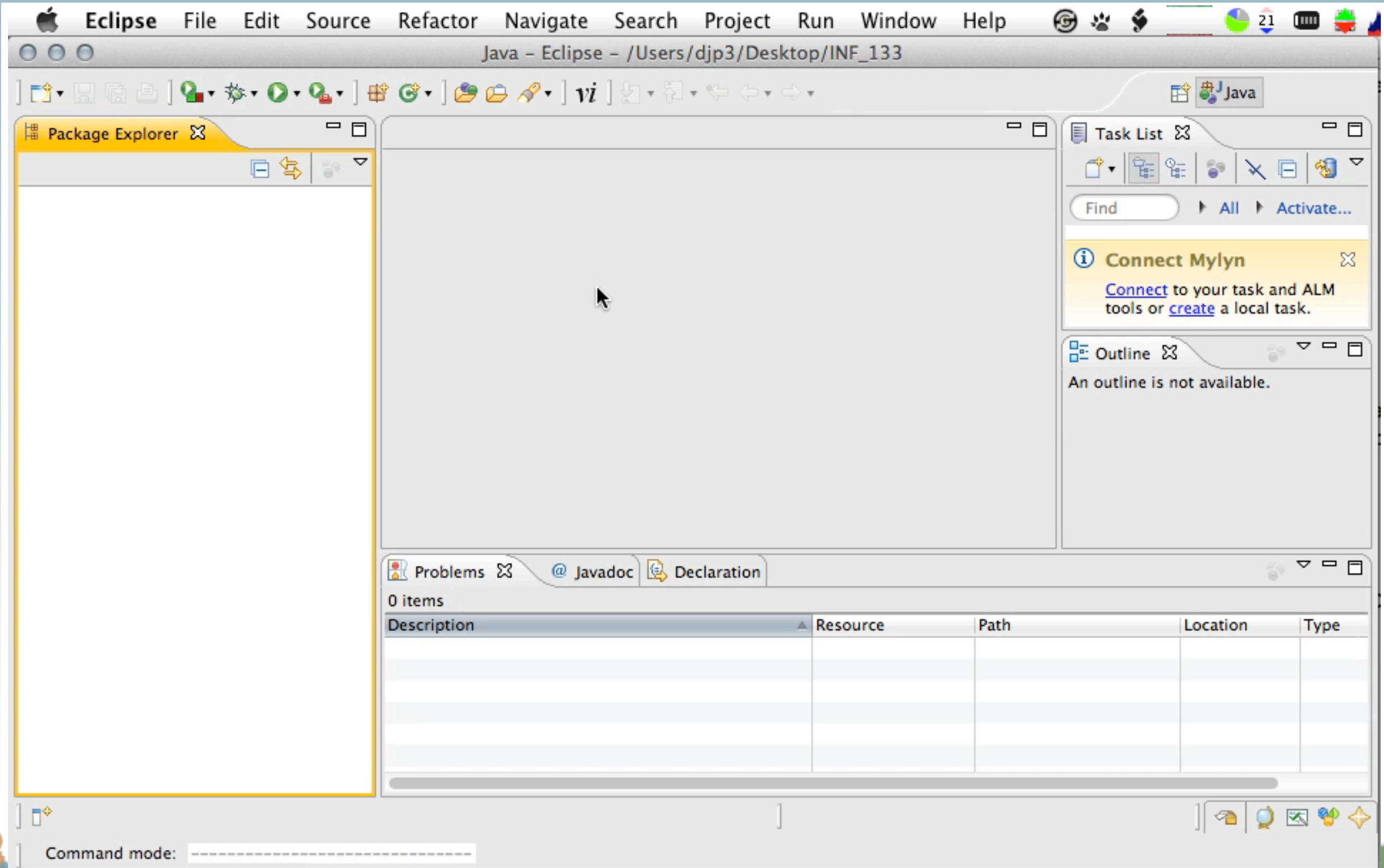
Intro to Android: Eclipse Plug-in

- Install the plug-in
- Restart Eclipse
- Configure the plug-in

A stylized, colorful illustration of a city skyline with various buildings, palm trees, and greenery, positioned along the bottom edge of the slide.

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

Intro to Android: Eclipse Plug-in



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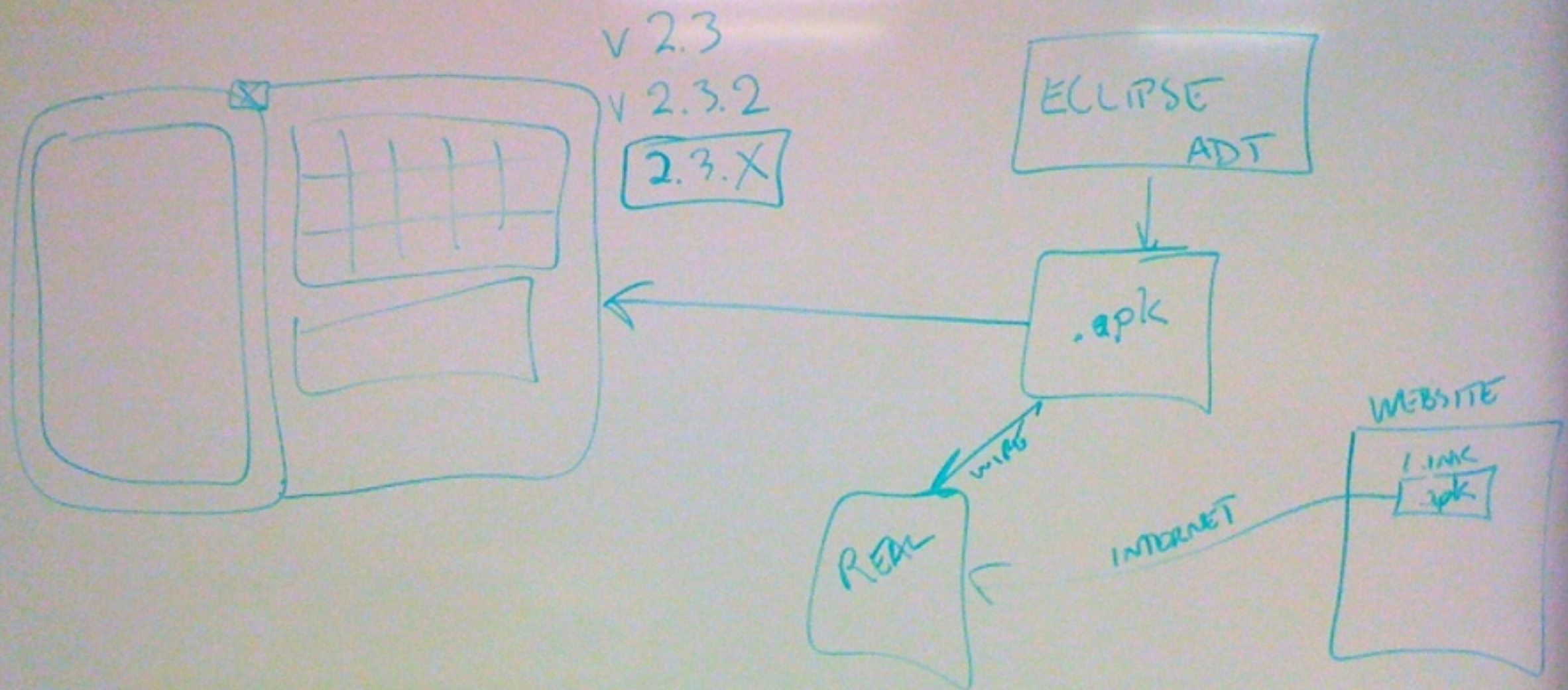
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Hello World

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

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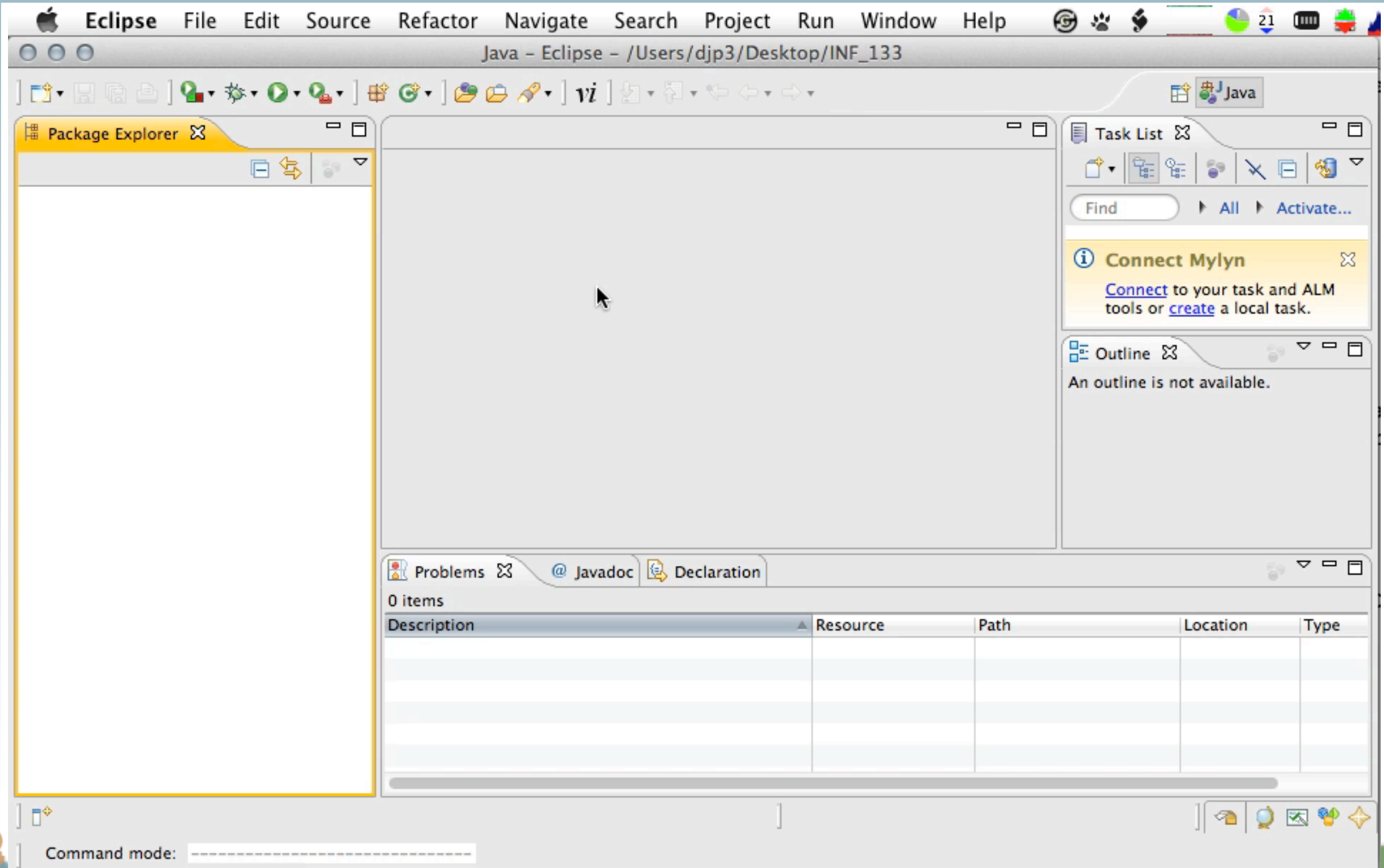
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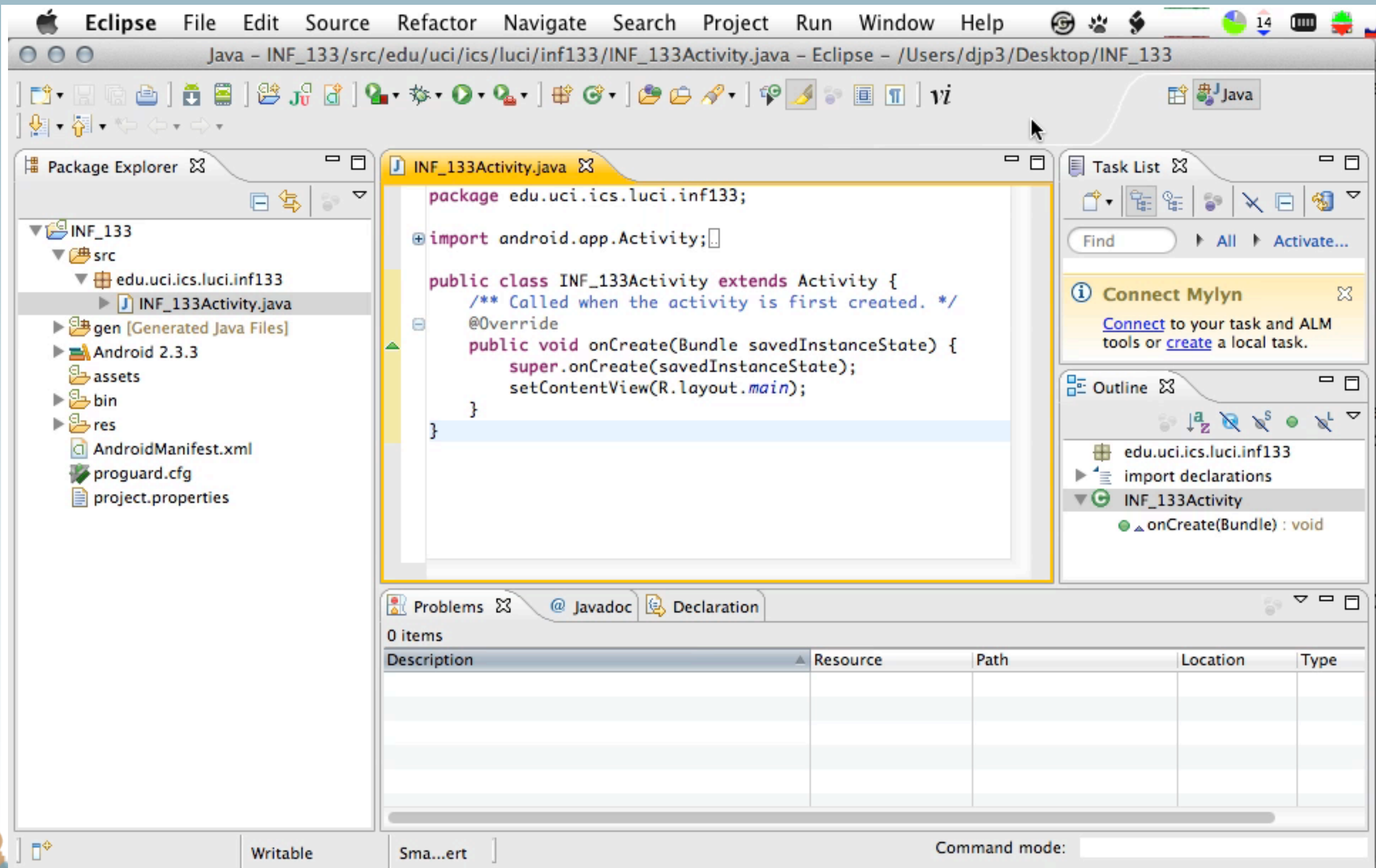
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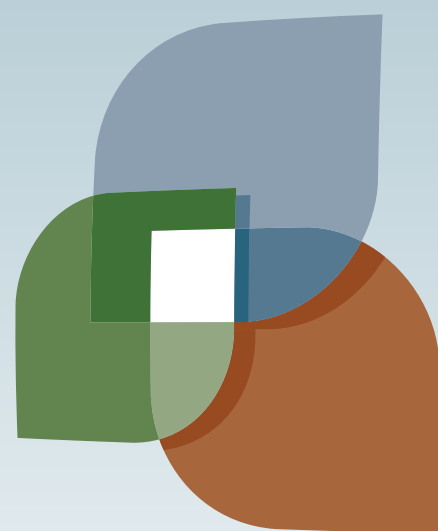


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L U C I

