

Android Tutorial

CS 539

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Install necessary software

- Download and install the Android SDK and its dependencies
<http://developer.android.com/sdk/installing.html>
- Install eclipse from <http://www.eclipse.org/>
- Install the ADT plugin for eclipse
<http://developer.android.com/sdk/eclipse-adt.html#installing>
- Windows users should install drivers for their phones
<http://developer.android.com/sdk/win-usb.html>
- Linux users should add a *udev* rule
<http://developer.android.com/guide/developing/device.html#setting-up>

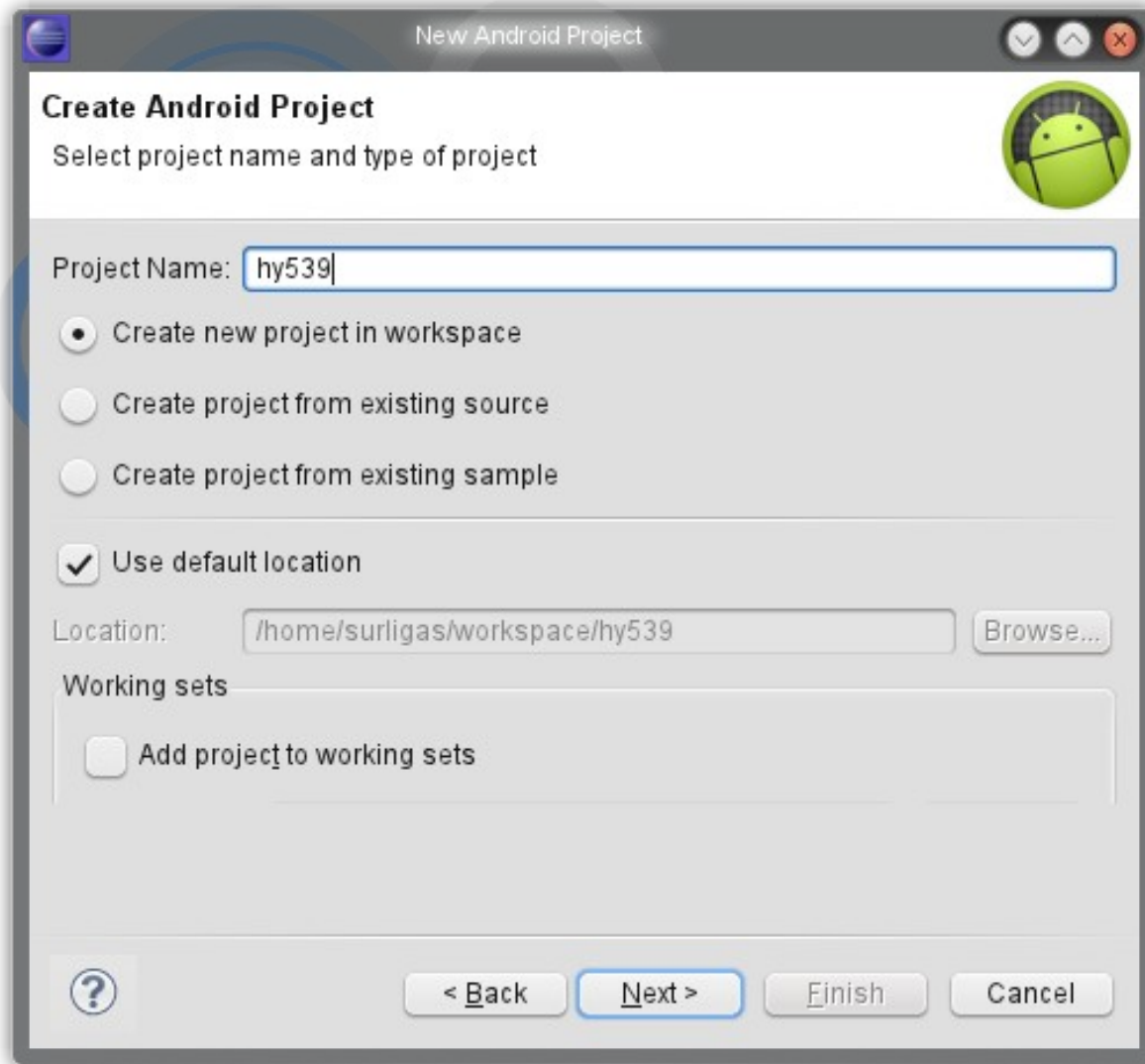
Create a Virtual Device

- In your early steps, you can test your applications with the Android Emulator
- You have to create a Virtual Device
<http://developer.android.com/guide/developing/devices/managing-avds.html#createavd>

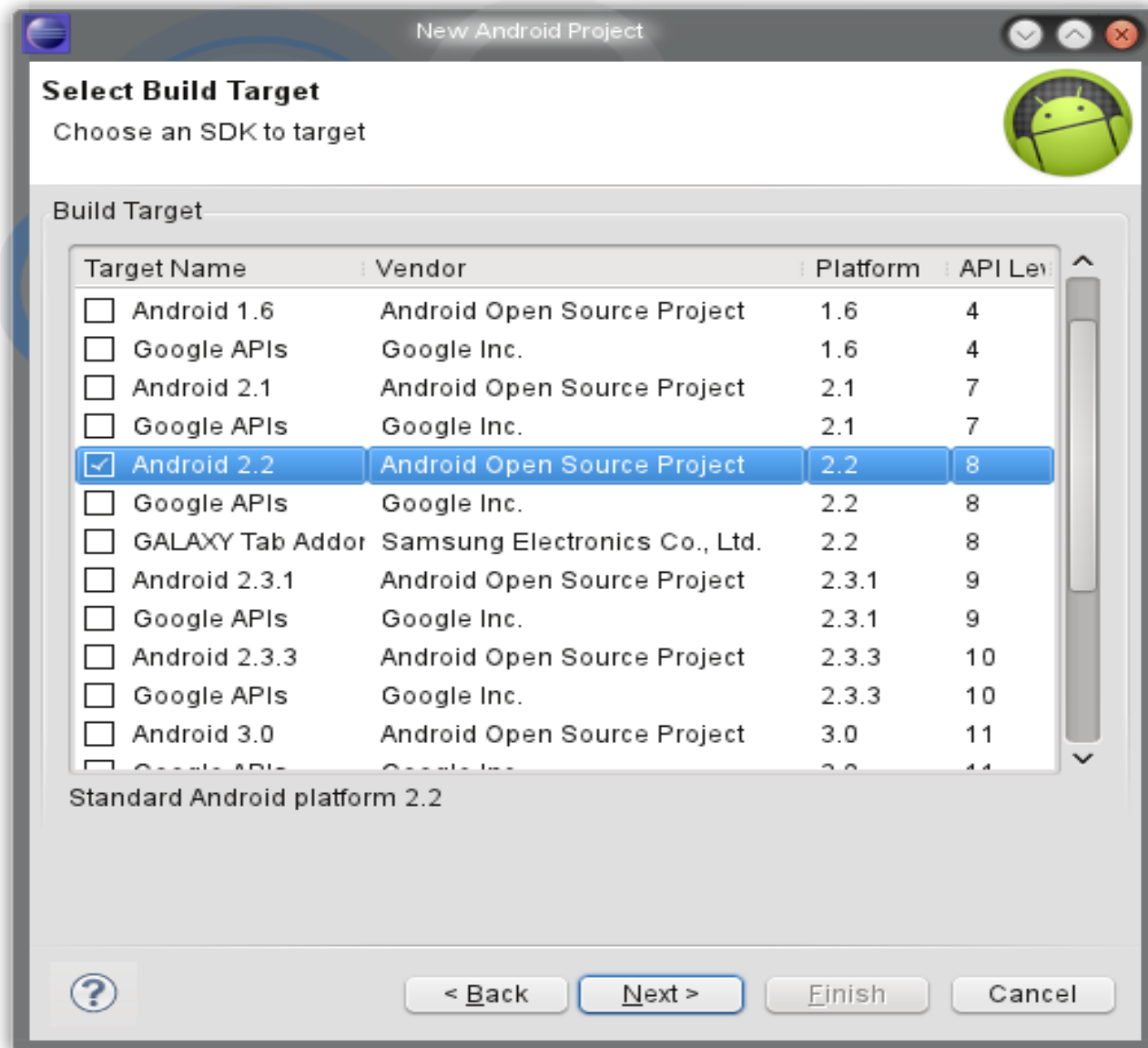
Create your first Android Project

- Open eclipse
- Select Open->New->Project... and at the next window, select Android Project
- A window will appear in which you have to specify your project name

Create your first Android Project



Create your first Android Project




Create your first Android Project

- In this menu you have to specify the minimum supported SDK
 - SDK versions are backwards compatible
 - A device running Android 2.3.3 can run applications created for Android 2.2
 - Which to choose depends on:
 - What you are going to develop
 - What users use
- <http://developer.android.com/resources/dashboard/platform-versions.html>

Create your first Android Project


New Android Project

Application Info
Configure the new Android Project 

Application Name:

Package Name:

Create Activity:


Minimum SDK: 

Create a Test Project

Test Project Name:

Test Application:

Test Package:



Create your first Android Project

- At this menu you specify your package name and the name of the first Activity that will run
- Package name have mostly the form:
com.organization_name
- Specify the name of your first activity, or accept the default
- You are done!

What Activity is

- Before you enter the Android Dev world some more theory is needed
- Activities are the mechanism for the interaction with the user
- They provide the UI, handle user events and perform actions
- Every Android developer before starting writing, should study carefully this:
<http://developer.android.com/guide/topics/fundamentals/activities.html>

Creating a UI

- UI elements are declared in XML format
- Don't panic, you don't have to learn XML
- You can use the integrated UI builder that ADT provides
- You can create different UI for different screen sizes or even if for different device orientation
- Live demo at the class

Creating a UI

- Each activity has a different XML layout file
- The layout is loaded on the onCreate() method of each activity, using the setContentView(R.layout.layout_id) method
- UI elements can also be added programmatically at run time