## Tutorial:

# Adding Android SDK's and creating Android Virtual Devices (AVDs) in Science 256

CS71: Software Engineering: Mobile Development

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## Start by opening a terminal and navigating to /opt/eclipse-cs71/android-sdks

[d218:/opt/ecl	ipse-cs71/andro	oid–sdks] aaviv1%	ls	
add-ons	extras	platforms	system-images	tools
docs	platform-too	lso samples Snag	<u>it temphware</u>	
[d218:/opt/ecl	ipse-cs71/andro	oid–sdks] aaviv1%	pwd	
/opt/eclipse_c	s71/android–sd	Spagit 11 Makes		
[d218:/opt/ecl	ipse-cs71/andro	oid–sdks] aaviv1%	./tools/android	

## Execute /tools/android

The Android SDK manager will pop up. From here, you can select new SDKs to install,, and then install them by selecting "install packages"

00	•		Android S	DK Manager			
SDK Path:	/opt/eclipse-cs	71/android-sdks					
Packages							
🛑 👘 Ni	ame			API	Rev.	Status	
	Tools						0
	X Android SDK	Tools			21	🕹 Update available: rev. 21.0	
	🙀 Android SDK	Platform-tools			16	🕹 Update available: rev. 16.0	
	Android 4.2 (AP	기 17)					
	🔛 Documentati	on for Android SI	ж	17	1	🞒 Installed	
	🟺 SDK Platform	1		17	1	installed 🥭	U
	Samples for S	SDK		17	1	🎒 Installed	
	🛉 ARM EABI v7a	a System Image		17	1	🎒 Installed	
	🟺 MIPS System	Image		17	1	🕹 Not installed	
	🙀 Google APIs			17	1	🎒 Installed	
	Sources for A	Android SDK		17	1	🕹 Not installed	
	Android 4.1.2 (/	API 16)					
	Android 4.0.3 (/	API 15)					
😑 🕨 📴	Android 4.0 (AP	기 14)					4
📃 🕨 📴	Android 3.2 (AP	기 13)					1
	A	1.1.2\					
Show:	Updates/New	Minstalled	Obsolete	Select <u>New</u> or <u>U</u>	<u>Jpdates</u>	Install packages	$\bigcirc$
Sort by:	• API level	O Repository	1	Deselect All		Delete packages	0
Done log	ding packages						

#### To add an Android Virtual Device (AVD), navigate the menu to Tools-> Manage AVDs and the AVD Manager will appear

Ś.	Android SDK Manager	Packages	Tools	
			Mana	ige AVDs
	000	_	Mana	ge Add-on Sites
				An durated CDV/ Mary

		Android Vir	tual Devices	Device Definit	ions	
List of existing	Android Virtu	al Devices loca	ted at /Users/a	aviv1/.android/a	vd	
AVD Name	Target Na	ıme	Platform	API Level	CPU/ABI	New
	No AVD	available				
						Edit
						Delete
						Repair
						Details
						Start
						Refrech

### Instead of hitting "new", select "Device Definitions" where you can create AVD that match real devices, such as the Nexus 7

)evi	ce		New Device
	Nexus S by Google Screen: 4.0", 480 × 800, Normal hdpi RAM: 343 MiB		Clone
	Nexus One by Google Screen: 3.7", 480 × 720, Normal hdpi RAM: 512 MiB	U	Create AVD
	Nexus 7 by Google Screen: 7.3", 800 × 1280, Large tvdpi RAM: 1024 MiB		Create AVD
	Galaxy Nexus by Google Screen: 4.7", 720 × 1280, Normal xhdpi RAM: 1024 MiB		
	10.1" WXGA (Tablet) Screen: 10.1", 1280 × 800, X-Large mdpi RAM: 512 MiB		
	7.0" WSVGA (Tablet) Screen: 7.0", 1024 × 600, Large mdpi RAM: 512 MiB	4	Pafrash

# The 5.1" WVGA device most closely matches the Samsung Player provided for your projects

Dev			New Device
	Screen: 10.1", 1280 × 800, X-Large mdpi RAM: 512 MiB		Clone
	7.0" WSVGA (Tablet) Screen: 7.0", 1024 × 600, Large mdpi RAM: 512 MiB	n	Delete
	5.4" FWVGA Screen: 5.4", 480 × 854, Large mdpi RAM: 512 MiB		Create AVD
	5.1" WVGA Screen: 5.1", 480 × 800, Large mdpi RAM: 512 MiB		
	4.7" WXGA Screen: 4.7", 1280 × 720, Normal xhdpi RAM: 512 MiB		
	4.65" 720p Screen: 4.7", 720 × 1280, Normal xhdpi RAM: 1024 MiB	<b>A</b>	Defrech

00	Create new Android Virtual Device (AVD)
AVD Name:	Android-10
Device:	5.1" WVGA (480 × 800: mdpi)
Target:	Android 2.3.3 – API Level 10
CPU/ABI:	ARM (armeabi)
Keyboard:	🗹 Hardware keyboard present
Skin:	🗹 Display a skin with hardware controls
Front Camera:	None 🛓
Back Camera:	None
Memory Options:	RAM: 512 VM Heap: 16
Internal Storage:	200 MiB 🗘
SD Card:	
	O File:
Emulation Options:	Snapshot Use Host GPU
Override the exist	ting AVD with the same name
	Cancel OK

Once you've choose your device definition, click "Create AVD" and the following menu will apear. Give your AVD a reasonal name, like "Android-10" for AVD with API level 10 installed

## You're new AVD will now appear in the AVD list, where you can start it up, or edit it as you see fit

00		And	droid Virtual Dev	vice Manager		
		Android V	irtual Devices	Device Definiti	ions	
List of existing An	droid Virtu	al Devices lo	cated at /Users/a	aviv1/.android/a	vd	
AVD Name	Target Na	ıme	Platform	API Level	CPU/ABI	New
Android-10	Android	2.3.3	2.3.3	10	ARM (armeabi)	
						Edit
						Delete
						Repair
						Details
						Start
						Refresh
A valid Androi	d Virtual D	evice. 😡 A	repairable Androi	d Virtual Device.		
X An Android Vi	tual Devic	e that failed t	o load. Click 'Det	ails' to see the er	ror.	
	cau berie	e that failed t	o loudi chek Det	and to see the er		

If you want to port your AVD to another computer, the AVD's information lives in your home directory under ~/.android/avd



You can copy the .avd and .ini file to another computer and place it in your home directory in the same spot