Android from the Command Line

1. Remote log in to one of the machines; e.g., cislinux.cis.ksu.edu or cavalier.cis.ksu.edu = n128x04.cis.ksu.edu.
2. Download the ADT, or extract the adt bundle in the /pub/CIS520 directory or from Google.

   ```
   $ unzip adt-bundle-linux-x86_64-20131030.zip
   $ cd adt-bundle-linux-x86_64-20131030
   $ ls
   eclipse  sdk
   $ cd sdk
   $ ls
   add-ons docs platforms system-images tools
   build-tools extras platform-tools temp
   $ cd tools
   $ ls
   .. android .. emulator ..
   ```
3. List virtual devices available

   ```
   $ ./android list avd
   ```

```
Available Android Virtual Devices:
    Name: GalaxyTab44
    Path: /home/n/neilsen/.android/avd/GalaxyTab44.avd
  Target: Android 4.4 (API level 19)
     ABI: armeabi-v7a
    Skin: WVGA800
---------
    Name: GalaxyJB
    Path: /home/n/neilsen/.android/avd/GalaxyJB.avd
  Target: Android 4.1.2 (API level 16)
     ABI: armeabi-v7a
    Skin: WVGA800
```

4. List available targets

   ```
   $ ./android list target
   ```

```
Available Android targets:
----------
id: 1 or "android-12"
    Name: Android 3.1
    Type: Platform
    API level: 12
    Revision: 3
    Skins: WXGA (default)
    ABIs : armeabi
----------
..
----------
id: 5 or "android-16"
    Name: Android 4.1.2
    Type: Platform
    API level: 16
    Revision: 4
    Skins: WSVGA, WQVGA432, HVGA, WVGA854, WXGA800, WXGA800-7in, WXGA720,
QVGA, WVGA800 (default), WQVGA400
    ABIs : armeabi-v7a, mips, x86
----------
```

```
    5. Create a new virtual device
       $ ./android create avd -n NewGalaxyJB -t 5 --abi armeabi-v7a

---------
    Name: NewGalaxyJB
    Path: /home/n/neilsen/.android/avd/NewGalaxyJB.avd
  Target: Android 4.1.2 (API level 16)
     ABI: armeabi-v7a
    Skin: WVGA800
---------

    6. See which devices are available using adb
       $ ../platform-tools/adb devices

* daemon not running. starting it now on port 5037 *
* daemon started successfully *
List of devices attached

    7. Start a new device using emulator
       $
       ./emulator -no-window -avd NewGalaxyJB &

[1] 6737
emulator: WARNING: Could not initialize OpenglES emulation, using software
renderer.


       $ cd ../platform-tools
       $ ./adb dev
ices

List of devices attached
emulator-5554      offline
 .. wait..
       $ ./adb dev
ices

List of devices attached
emulator-5554      device

    8. Fire up the shell
       $ ./adb -s emulator-5554 shell

root@android:/ # ps
```

USER	PID	PPID	VSIZE	RSS	WCHAN	PC	NAME
root	1	0	292	208	c0099f1c	0000e410 S	/init
root	2	0	0	0	c004df64	00000000 S	kthreadd
root	3	2	0	0	c003fa28	00000000 S	ksoftirqd/0
root	4	2	0	0	c004abc0	00000000 S	events/0

```
root      5    2    0    0    c004abc0 00000000 S khelper
..
```