Hands-on setup guide (Linux)

1. Pre-requisites

- **Git** If required check this link to install it : Download Git

To check open a Terminal and type : `git --version`

Note: We will call `<Archive directory>` the directory where are the provided archives into the `Hands-on`. This directory is coming from the USB pen and should be copied for instance on the Desktop or the Home directory. So when you will read : `cd <Archive directory>` you will understand `cd ~/Desktop` or `cd ~/Bureau` or `cd ~` depending where you've copied the `Hands-on` directory from the USB pen.

2. Create `~/Hands-on` directory

`mkdir ~/Hands-on`

To check open a Terminal and type : `ls ~/Hands-on`

2.1 Install Android Studio

Unzip provided archive into your directory `~/Hands-on` :

```
$ cd <Archive directory>
$ unzip ./Hands-on/Linux/android-studio-ide-145.3537739-linux.zip -d ~/Hands-on/
```

To check open a Terminal and type : `ls ~/Hands-on` and you should see `android-studio` directory.

2.2 Install Android SDKs

Unzip provided archive into your directory `~/Hands-on` :

```
$ cd <Archive directory>
$ cp ./Hands-on/Linux/Android.tar.gz ~/Hands-on
$ cd ~/Hands-on
$ tar zxvf Android.tar.gz
```

To check open a Terminal and type : `ls ~/Hands-on/Android` and you should see `Sdk` and `Plugins` directories.

2.3 Hands-on project

Unzip provided archive into your directory `~/Hands-on` :

```
$ cd <Archive directory>
$ unzip ./Hands-on/Linux/2017-handson-kotlinAndroid.zip -d ~/Hands-on/
```

To check open a Terminal and type :

```
$ cd ~/Hands-on/2017-handson-kotlinAndroid
$ git lg
```

you should read :

```
* 9b50a75 (origin/solution, solution) Exercise 2.5 : Kotlin & Rx
* a911fe9 Exercise 2.4 : Lambda
* a7911d8 Exercise 2.3 : Function extensions
* 8112ad2 Exercise 2.2 : Kotlin extensions
* acbd955 Exercise 2.1 : Prepare MainActivity
* 5e9f1f6 (tag: End-Part1) Exercise 1.4 : Lateinit & Companion Object
* 1d67724 Exercise 1.3 : Collections
* 15a64ab Exercise 1.2 : When
* 76f22bc Exercise 1.1 : Data class kotlin
* 9003149 (HEAD -> master, origin/master, origin/HEAD) Mode offline (#1)
* 24d0724 Initial commit
```

Create your working branch:

```
$ git checkout -b mywork
$ git lg
```

you should read :

```
* 9b50a75 (origin/solution, solution) Exercise 2.5 : Kotlin & Rx
* a911fe9 Exercise 2.4 : Lambda
* a7911d8 Exercise 2.3 : Function extensions
* 8112ad2 Exercise 2.2 : Kotlin extensions
* acbd955 Exercise 2.1 : Prepare MainActivity
* 5e9f1f6 (tag: End-Part1) Exercise 1.4 : Lateinit & Companion Object
* 1d67724 Exercise 1.3 : Collections
* 15a64ab Exercise 1.2 : When
* 76f22bc Exercise 1.1 : Data class kotlin
* 9003149 (HEAD -> mywork, origin/master, origin/HEAD, master) Mode offline (#1)
* 24d0724 Initial commit
```

3. Install Gradle cache

/!\ Warning: Due to Gradle open issue (Gradle's cache stores the native OS absolute path), you have to create exactly the same directory ! /!

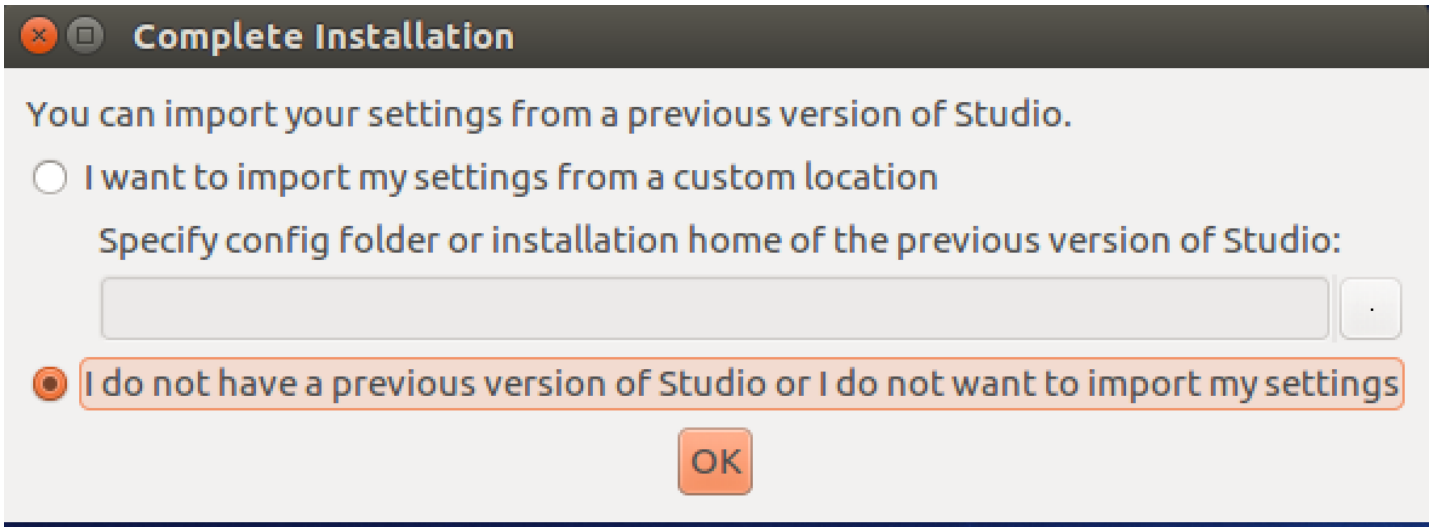
Note to use your current user instead of `laurent:laurent`.

```
$ cd <Archive directory>
$ sudo cp ./Hands-on/Linux/handson-devoxx2017-gradle.tar.gz /opt
$ cd /opt
$ sudo tar zxvf handson-devoxx2017-gradle.tar.gz
$ sudo chown -R laurent:laurent handson-devoxx2017/
```

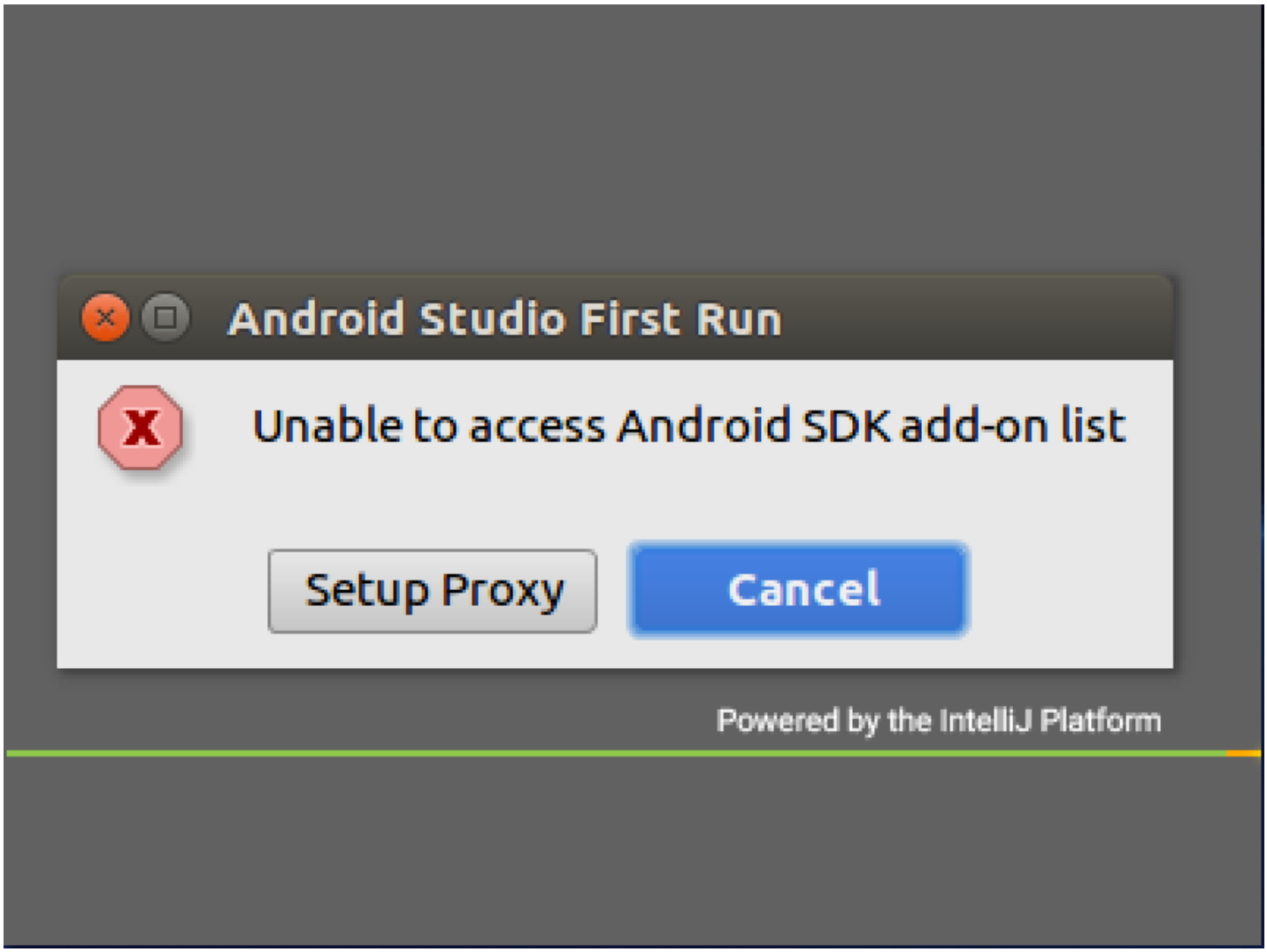
To check open a Terminal and type : `ls -l /opt/handson-devoxx2017` and you should see `gradle` directory belonging to `laurent:laurent`.

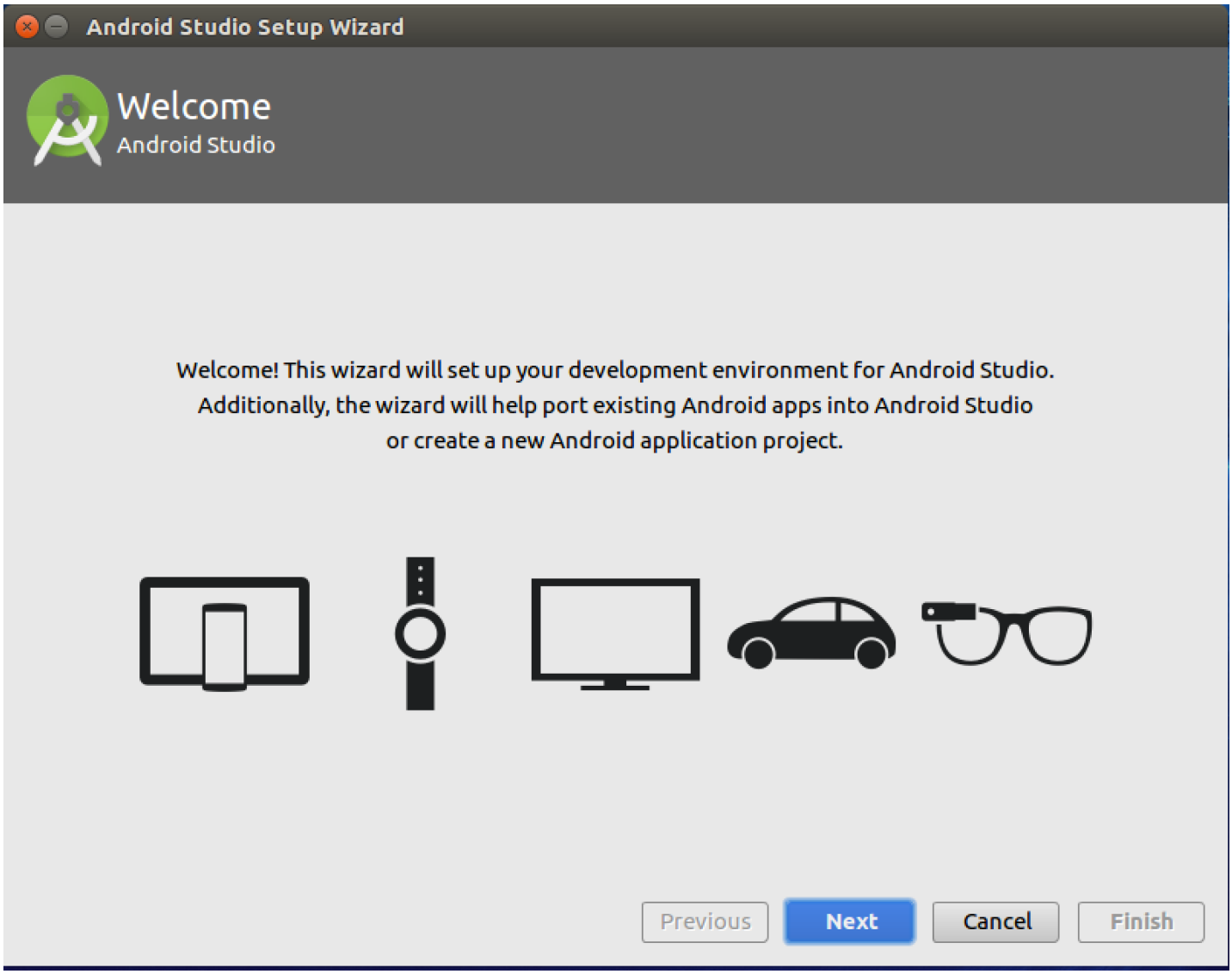
4. Complete Android Studio offline setup

open a Terminal and type : `~/Hands-on/android-studio/bin/studio.sh &`

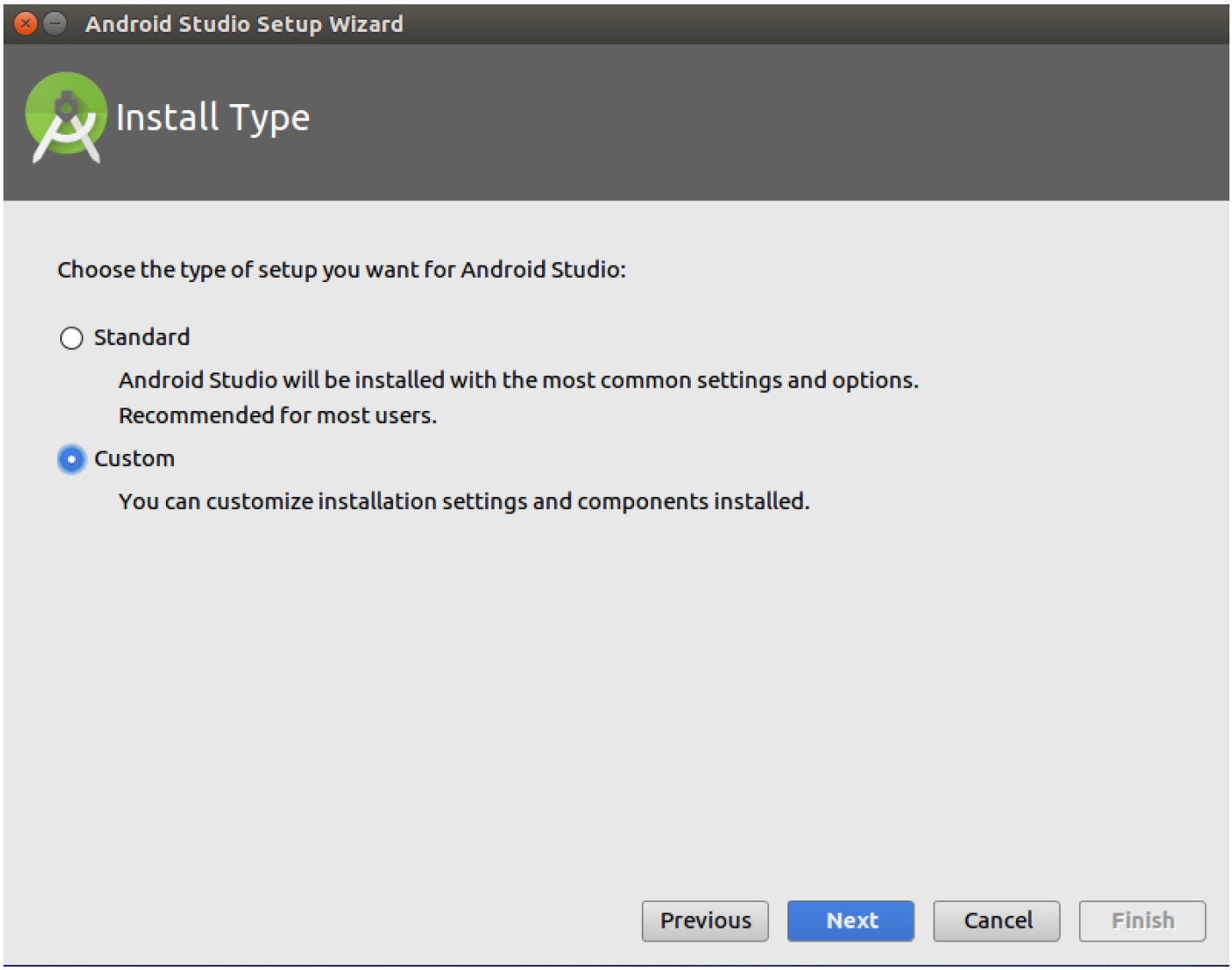


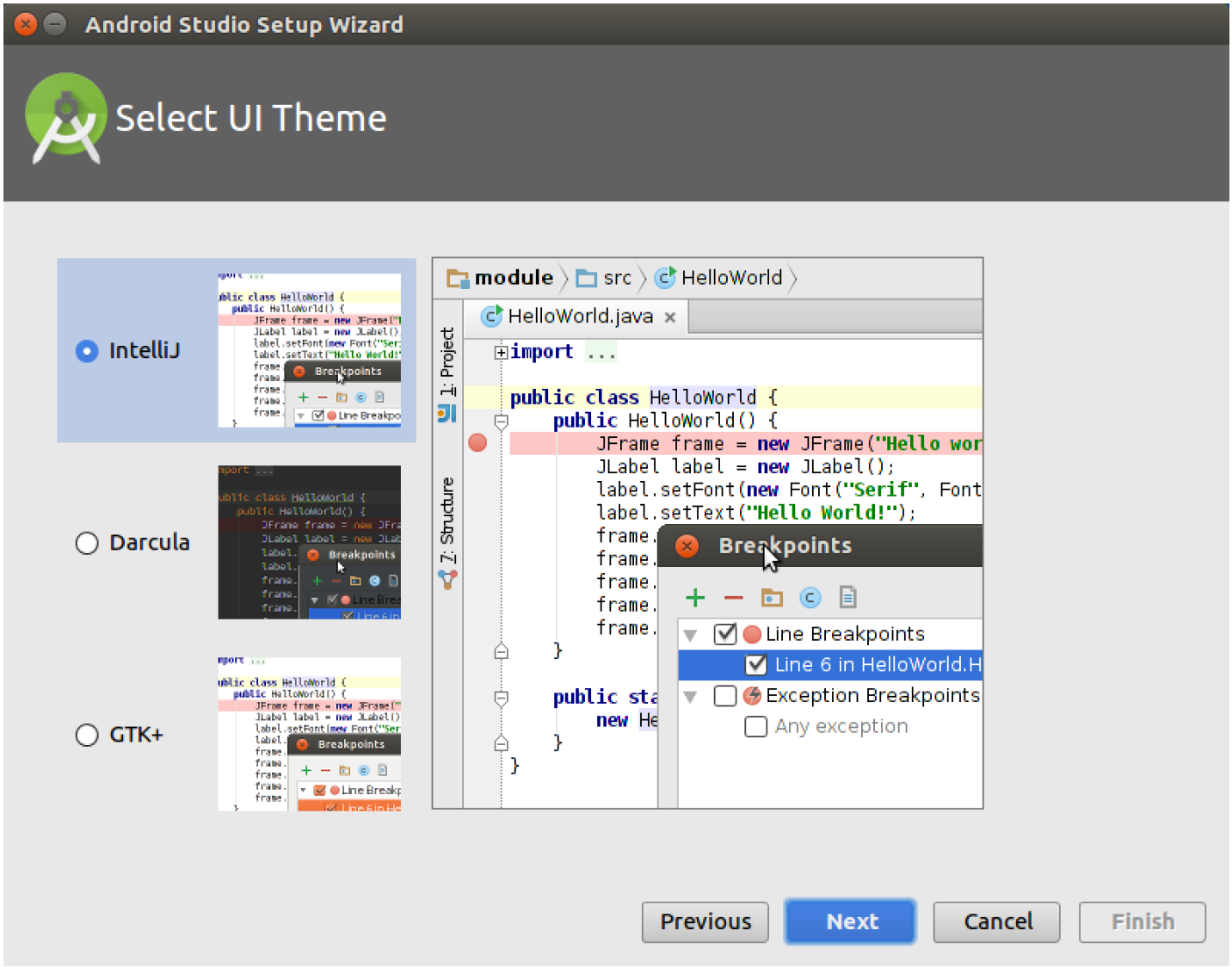
Just ignore the message and click on `Cancel`


Android Studio First Run
Unable to access Android SDK add-on list
Setup Proxy
Cancel
Powered by the IntelliJ Platform

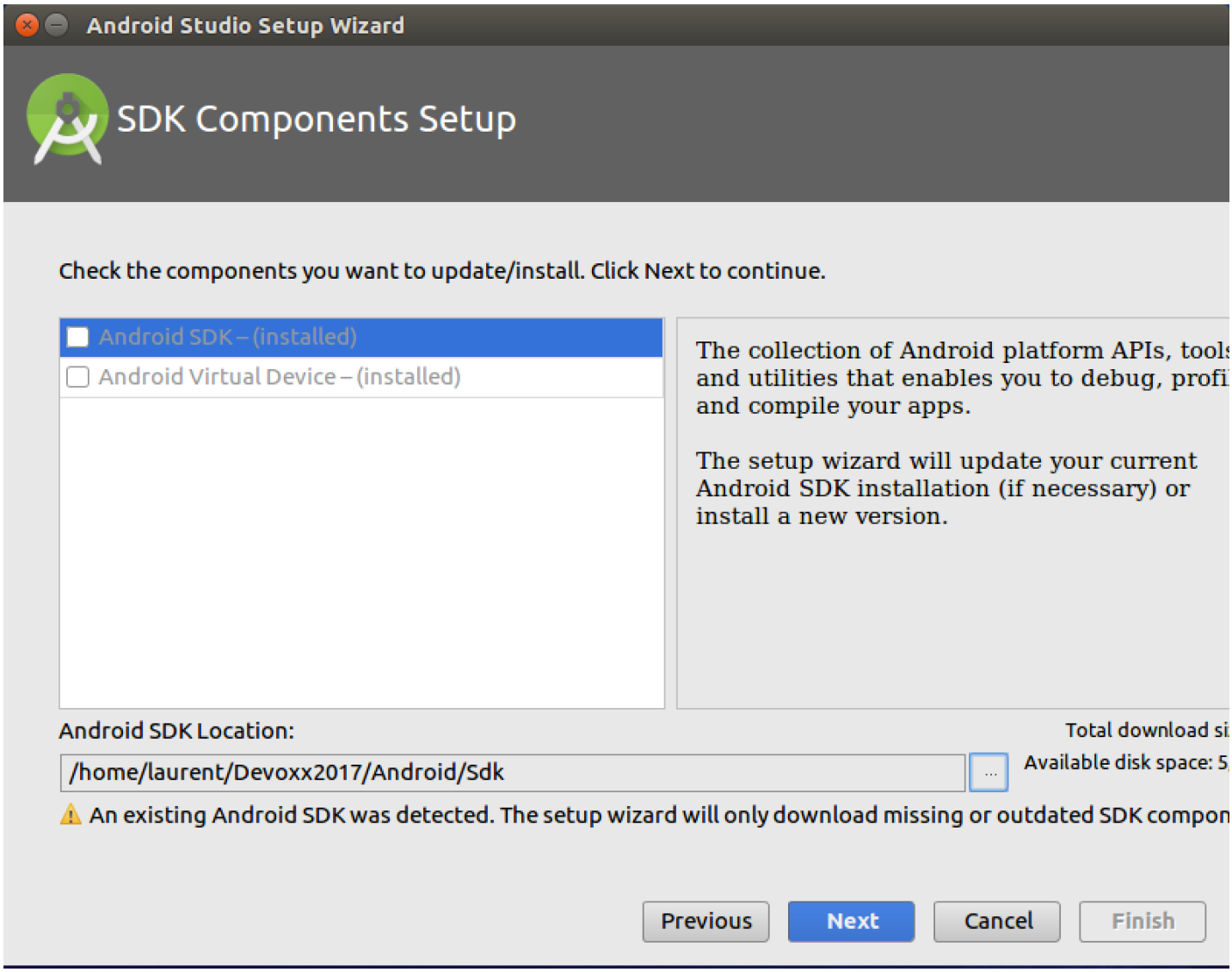


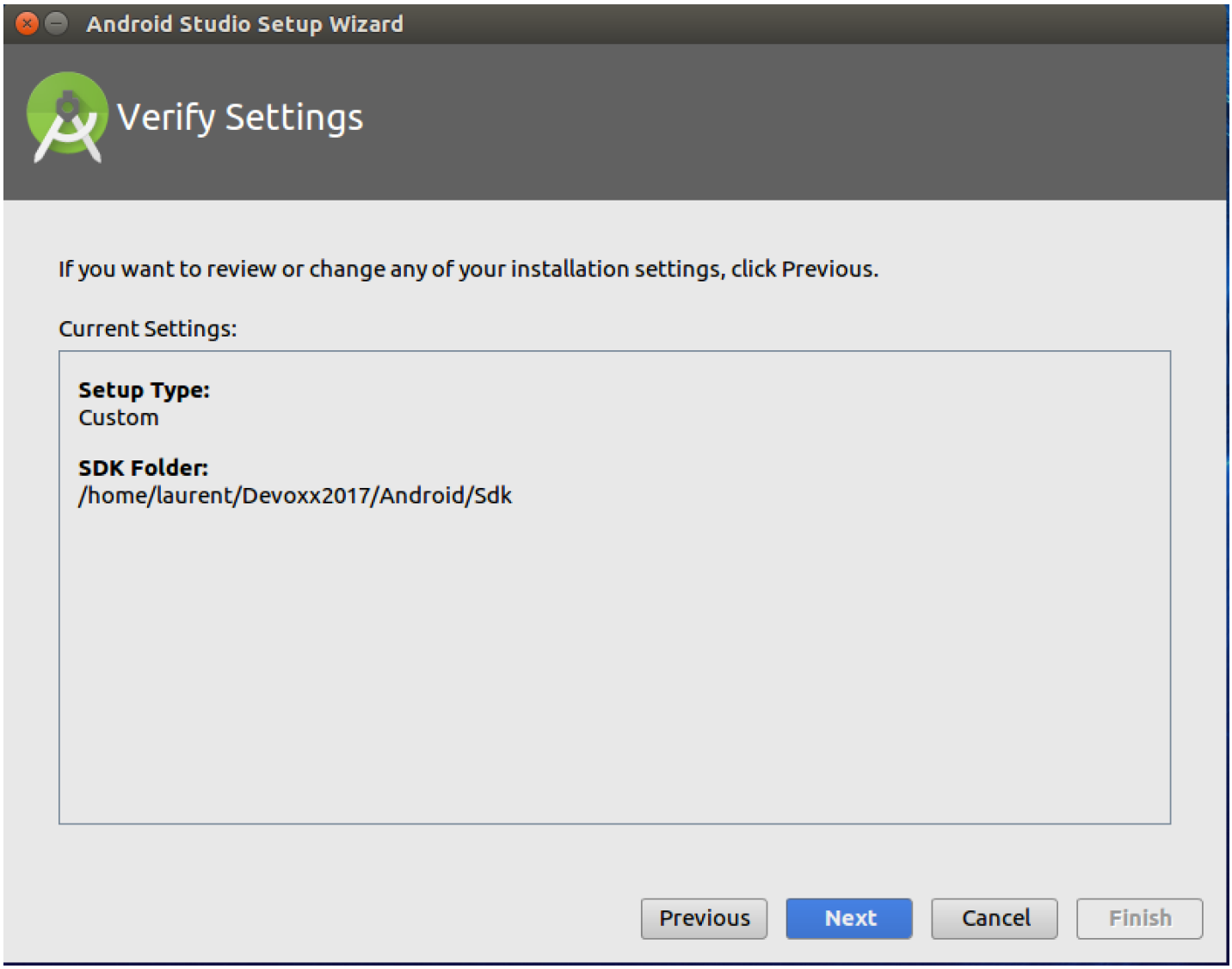
Select `Custom` installation

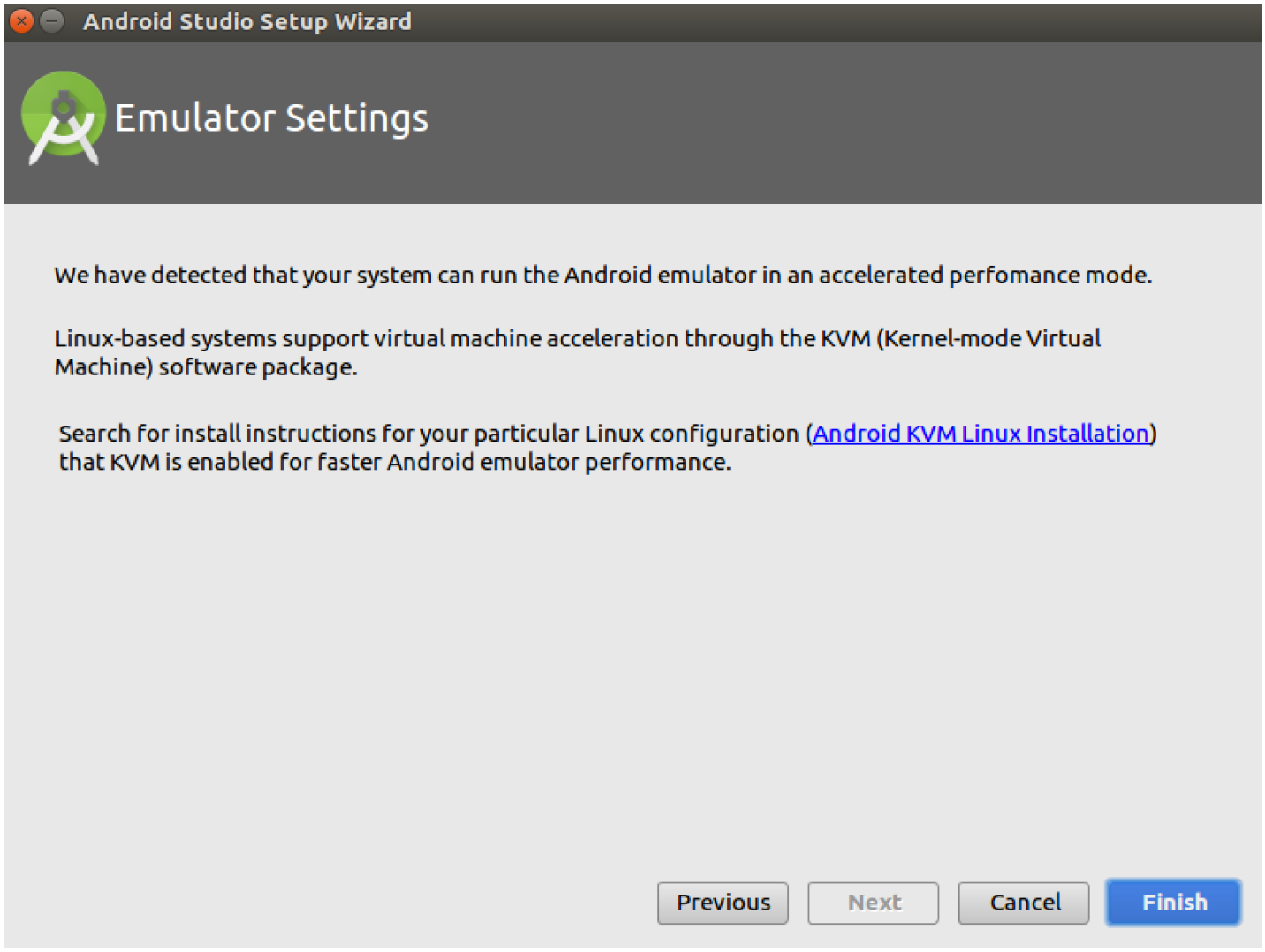

Android Studio Setup Wizard
Install Type
Choose the type of setup you want for Android Studio:
Standard
Android Studio will be installed with the most common settings and options.
Recommended for most users.
Custom
You can customize installation settings and components installed.
Previous
Next
Cancel
Finish

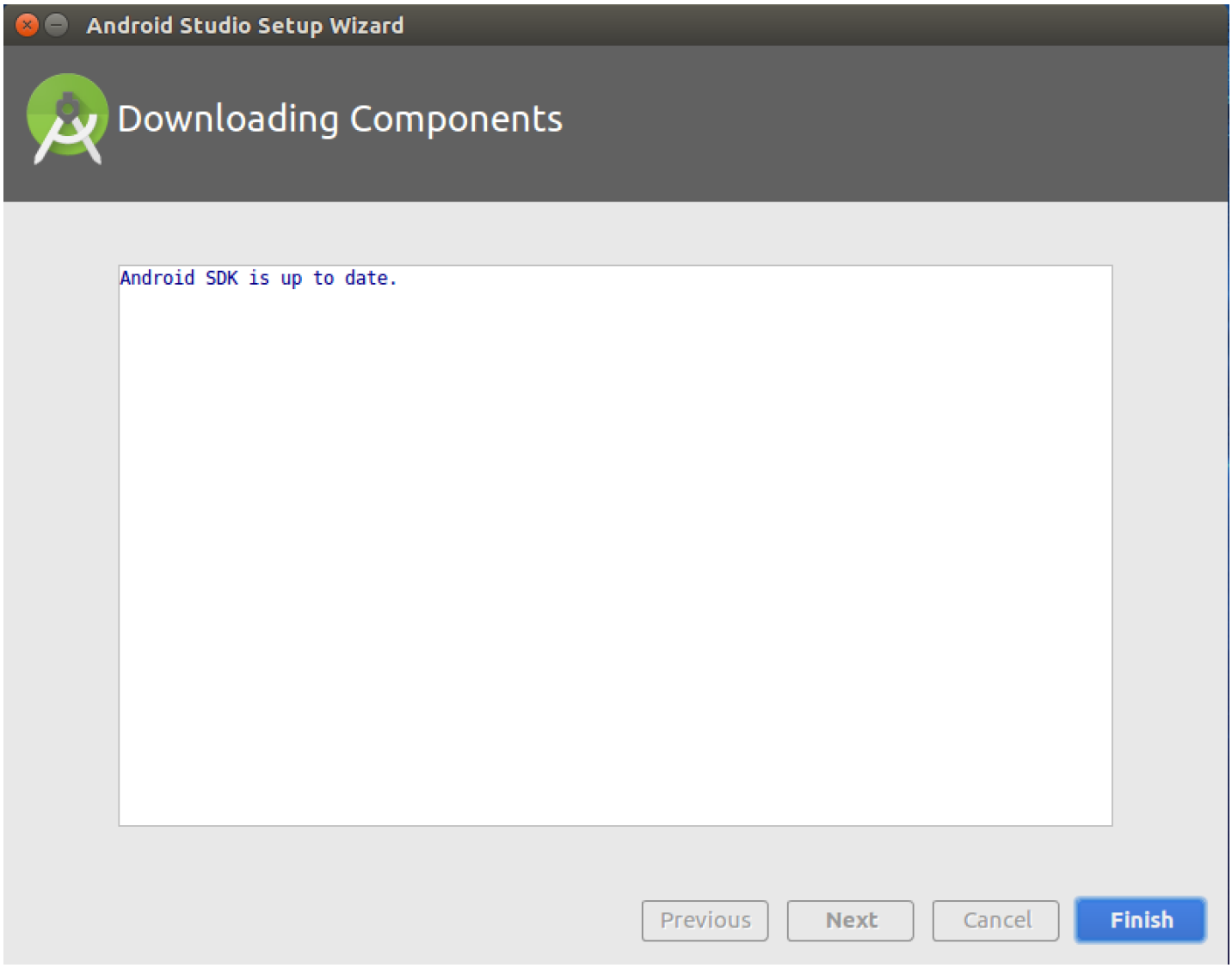


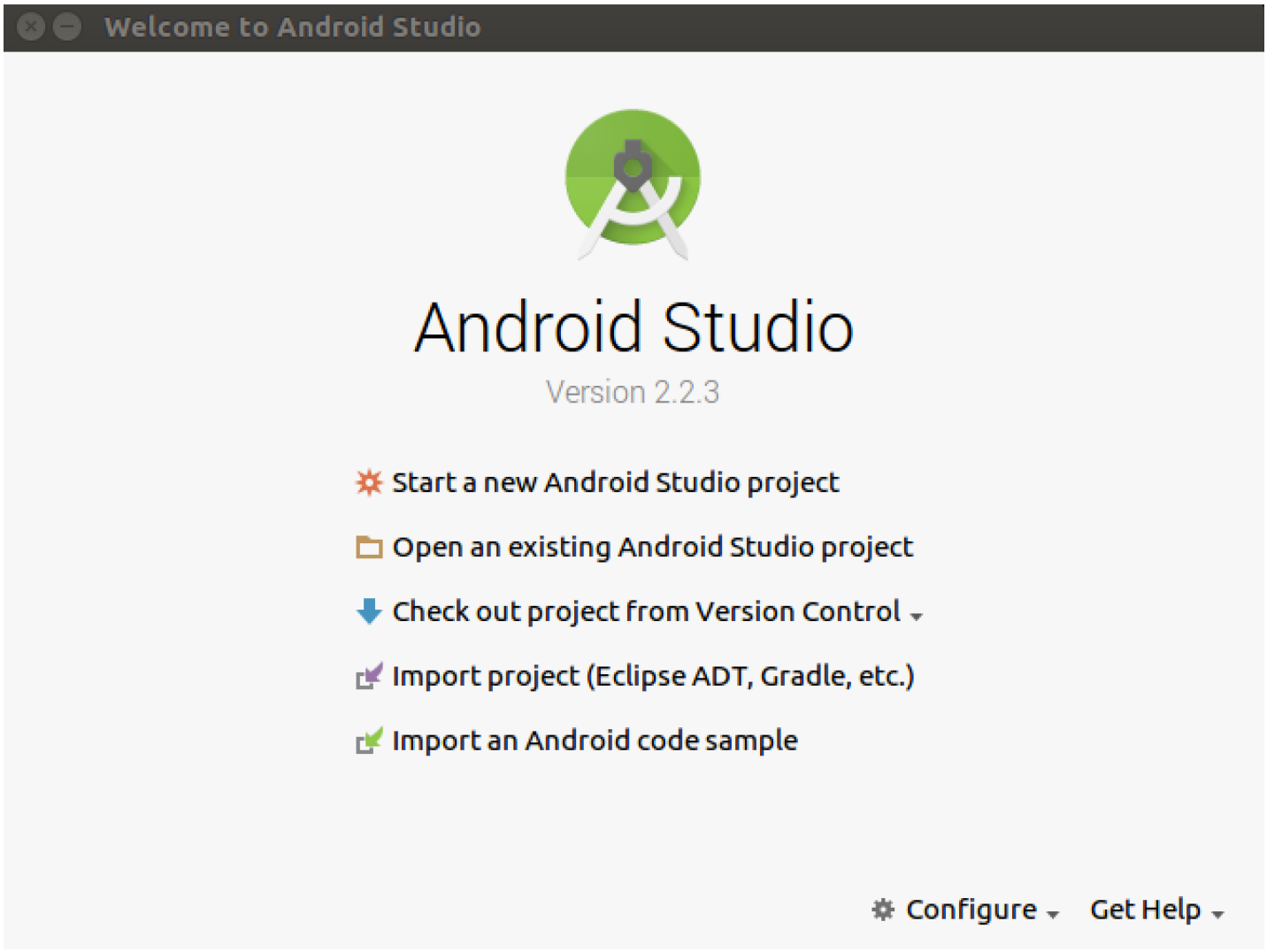
Update Android SDK location and set the path defined in chap. 2 above. Should be the absolute path of : `~/Hands-on/Android/Sdk`


Android Studio Setup Wizard
SDK Components Setup
Check the components you want to update/install. Click Next to continue.
Android SDK – (installed)
Android Virtual Device – (installed)
The collection of Android platform APIs, tools
and utilities that enables you to debug, profi
and compile your apps.
The setup wizard will update your current
Android SDK installation (if necessary) or
install a new version.
Android SDK Location:
Total download si
/home/laurent/Devoxx2017/Android/Sdk
...
Available disk space: 5
An existing Android SDK was detected. The setup wizard will only download missing or outdated SDK compon
Previous
Next
Cancel
Finish

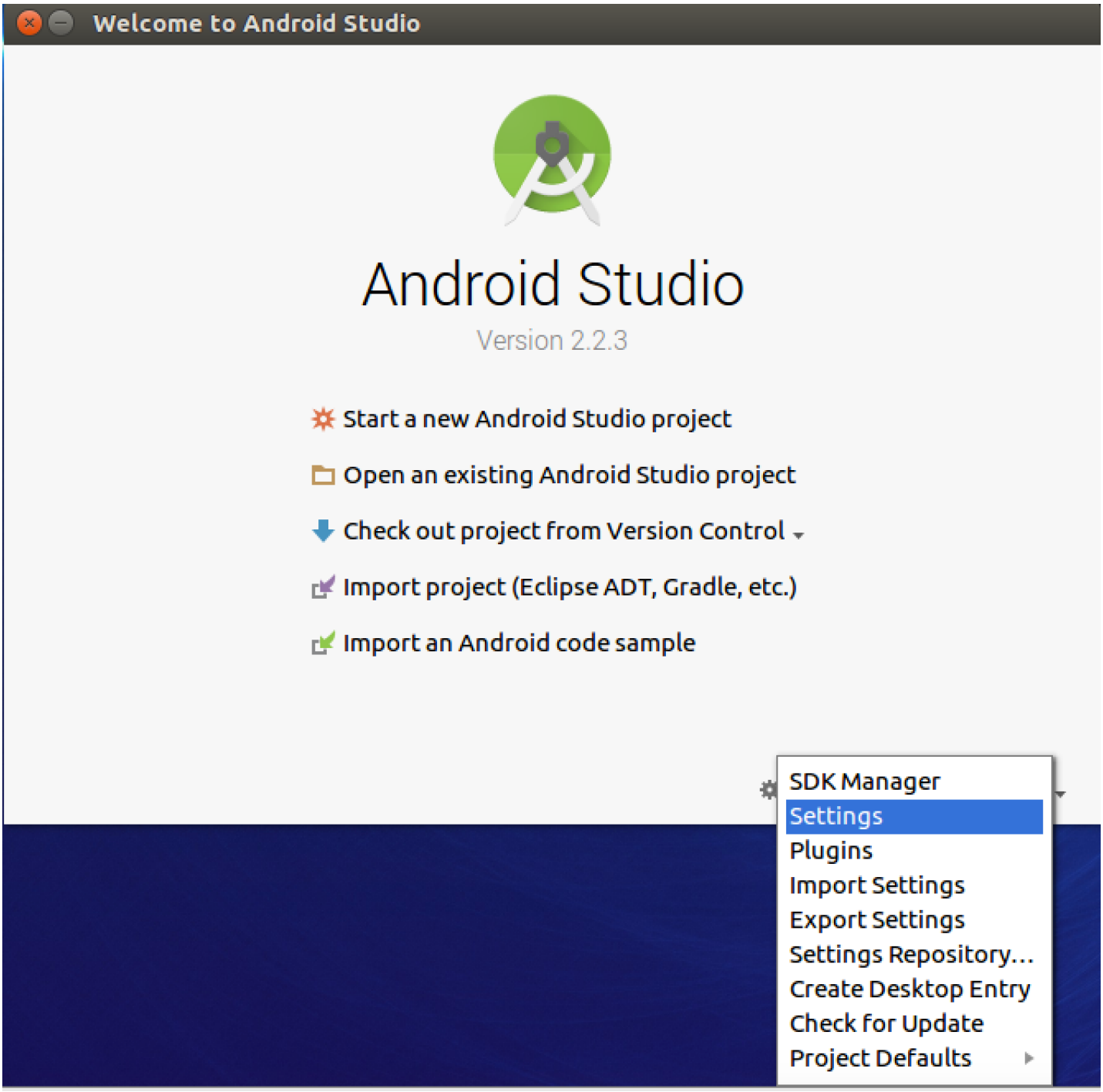

Android Studio Setup Wizard
Verify Settings
If you want to review or change any of your installation settings, click Previous.
Current Settings:
Setup Type:
Custom
SDK Folder:
/home/laurent/Devoxx2017/Android/Sdk
Previous
Next
Cancel
Finish


Android Studio Setup Wizard
Emulator Settings
We have detected that your system can run the Android emulator in an accelerated perfomance mode.
Linux-based systems support virtual machine acceleration through the KVM (Kernel-mode Virtual Machine) software package.
Search for install instructions for your particular Linux configuration (Android KVM Linux Installation) that KVM is enabled for faster Android emulator performance.
Previous
Next
Cancel
Finish

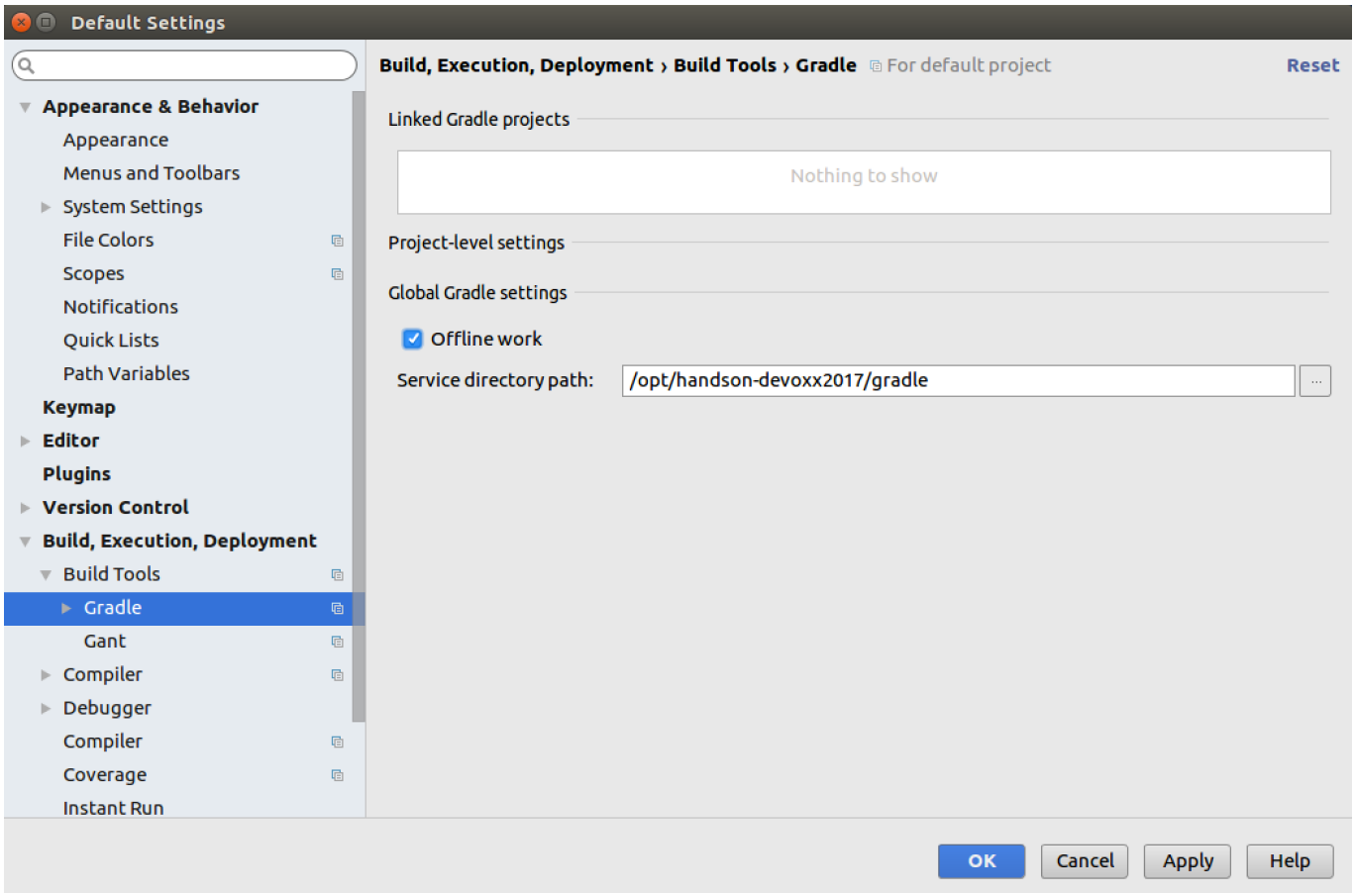

Android Studio Setup Wizard
Downloading Components
Android SDK is up to date.
Previous
Next
Cancel
Finish



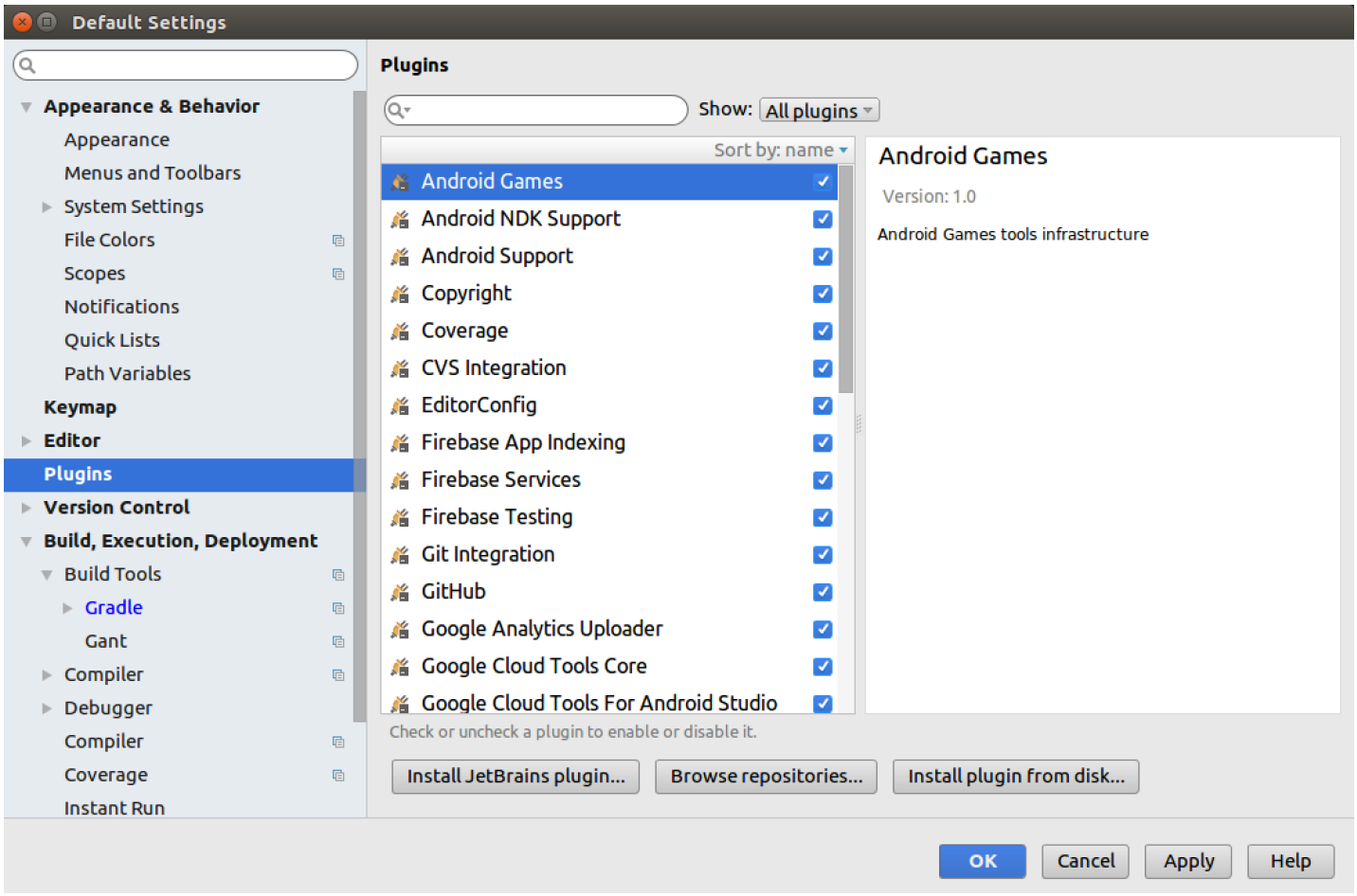
Open `configure` menu and select `Settings`



- Select `Build, Execution, Deployment | Gradle`
- Check `Offline work`
- Set service directory path to : `/opt/handson-devoxx2017/gradle`
- Then Click on `Apply` button

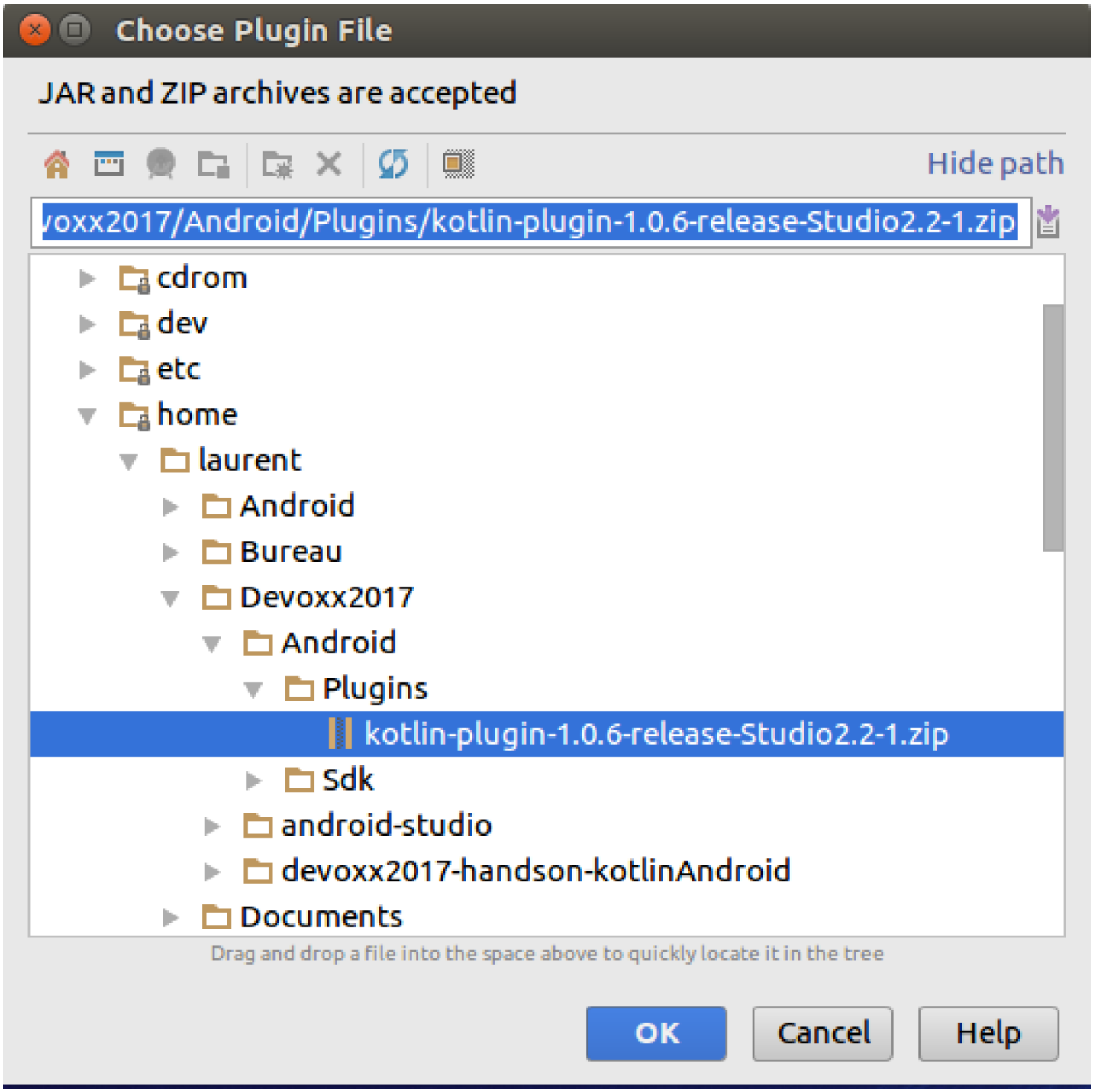


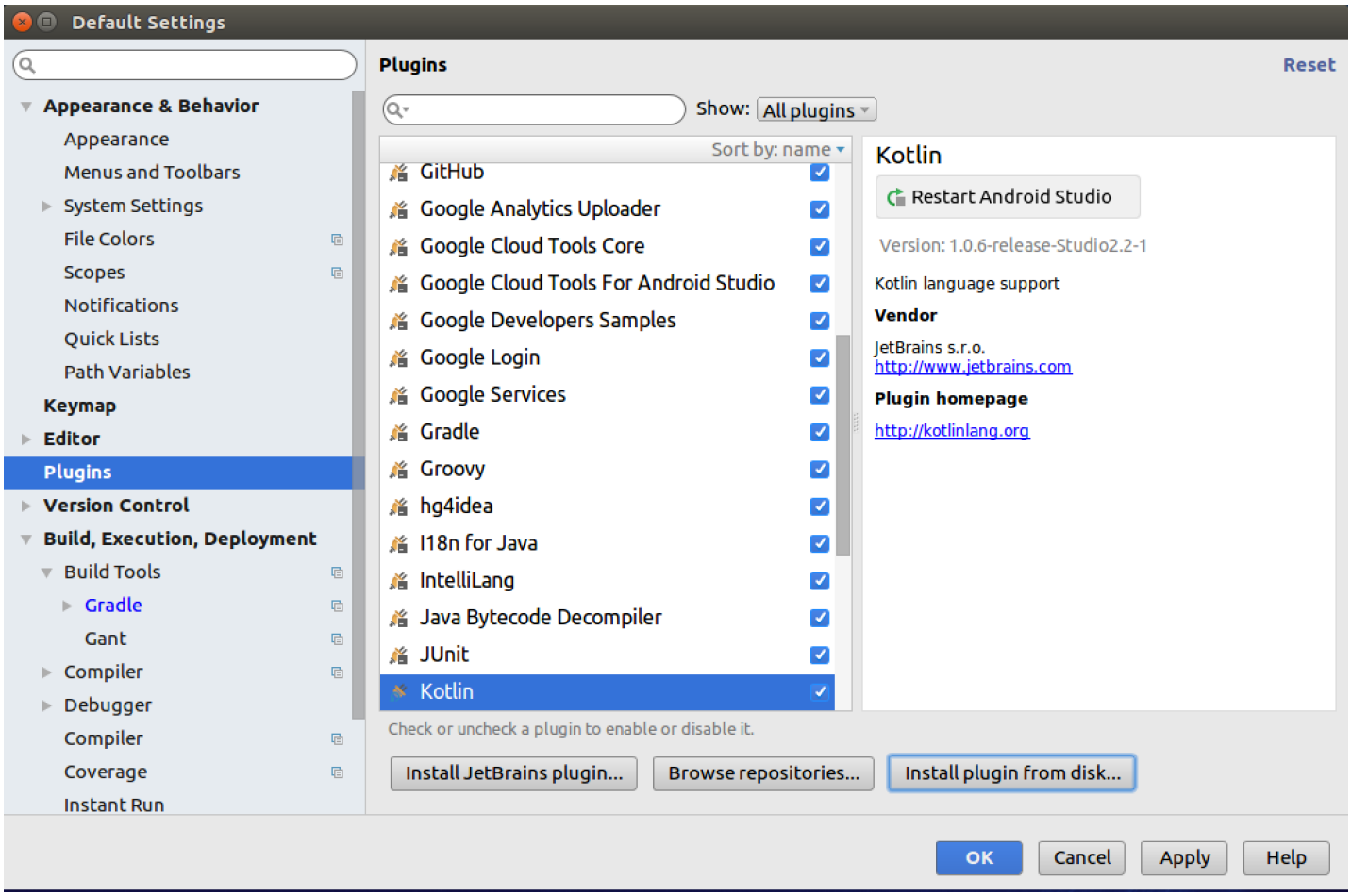
- Select `Plugins`
- Click on `Install plugin from disk...` button



Kotlin 1.0.6 plugin is provided along with the Android SDK archive under the `Plugins` directory :

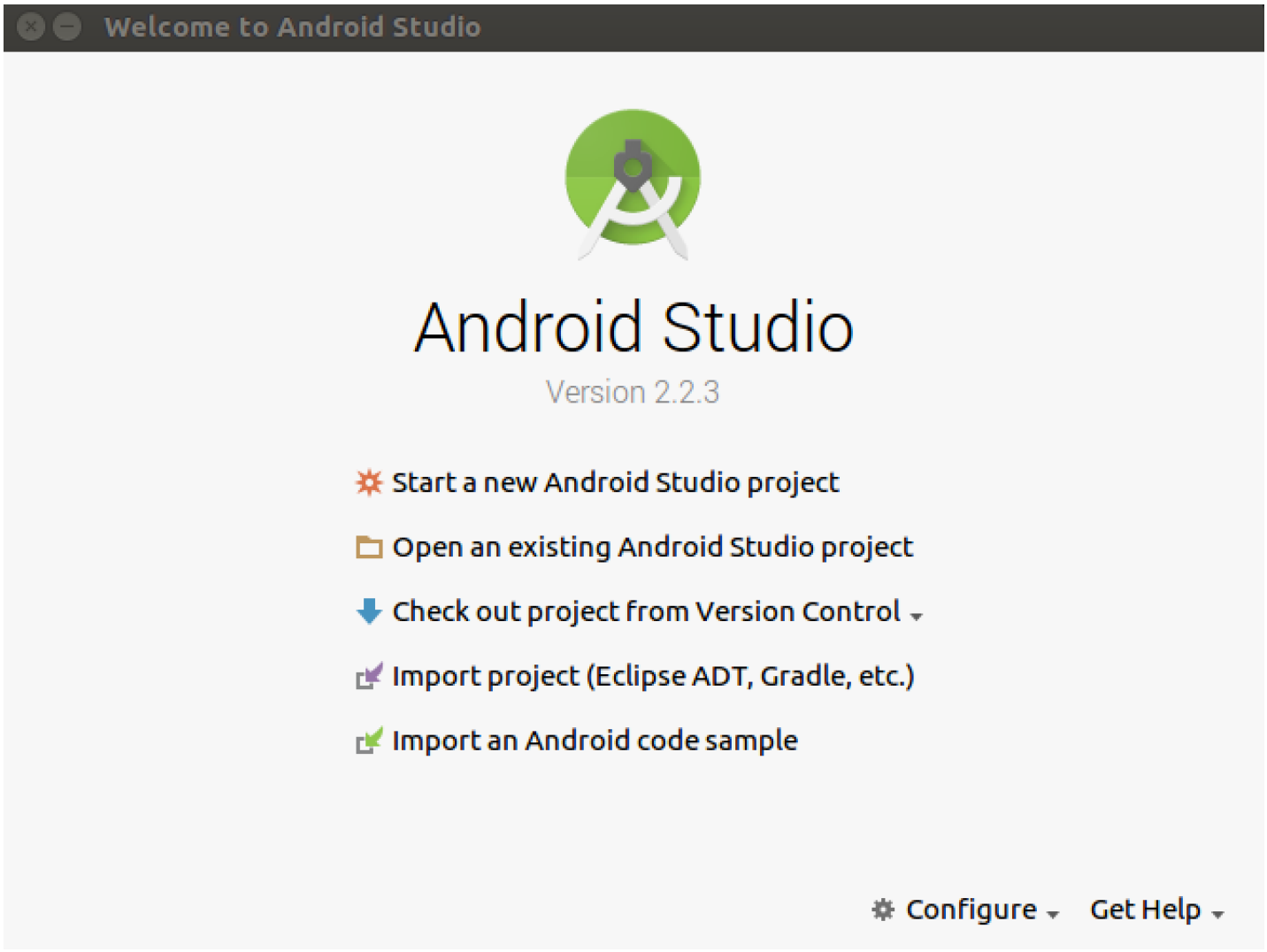
- `~/Hands-on/Android/Plugins/kotlin-plugin-1.0.6-release-Studio2.2-1.zip`


Choose Plugin File
JAR and ZIP archives are accepted
Hide path
oxx2017/Android/Plugins/kotlin-plugin-1.0.6-release-Studio2.2-1.zip
cdrom
dev
etc
home
laurent
Android
Bureau
Devoxx2017
Android
Plugins
kotlin-plugin-1.0.6-release-Studio2.2-1.zip
Sdk
android-studio
devoxx2017-handson-kotlinAndroid
Documents
Drag and drop a file into the space above to quickly locate it in the tree
OK
Cancel
Help

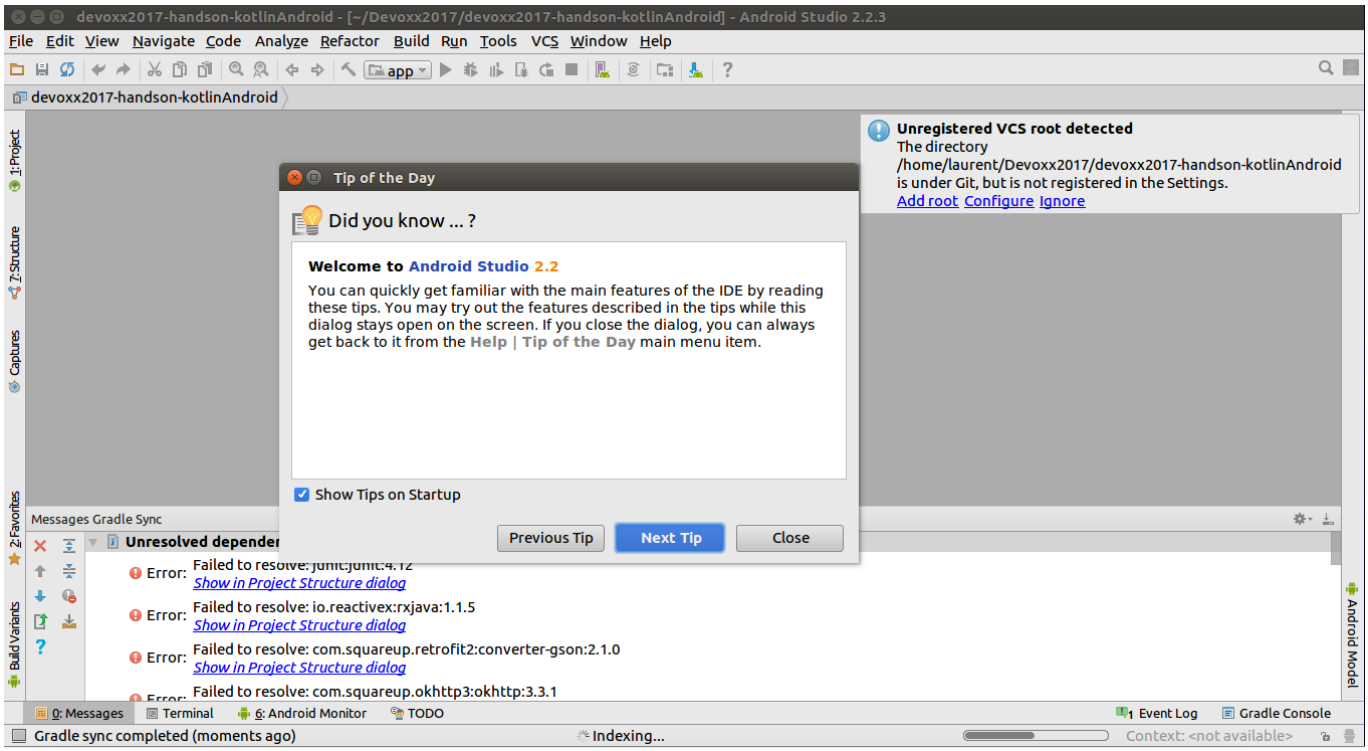


- Then Click on `Apply` button
- Click on `Restart Android Studio` button

5. Import Hands-on project

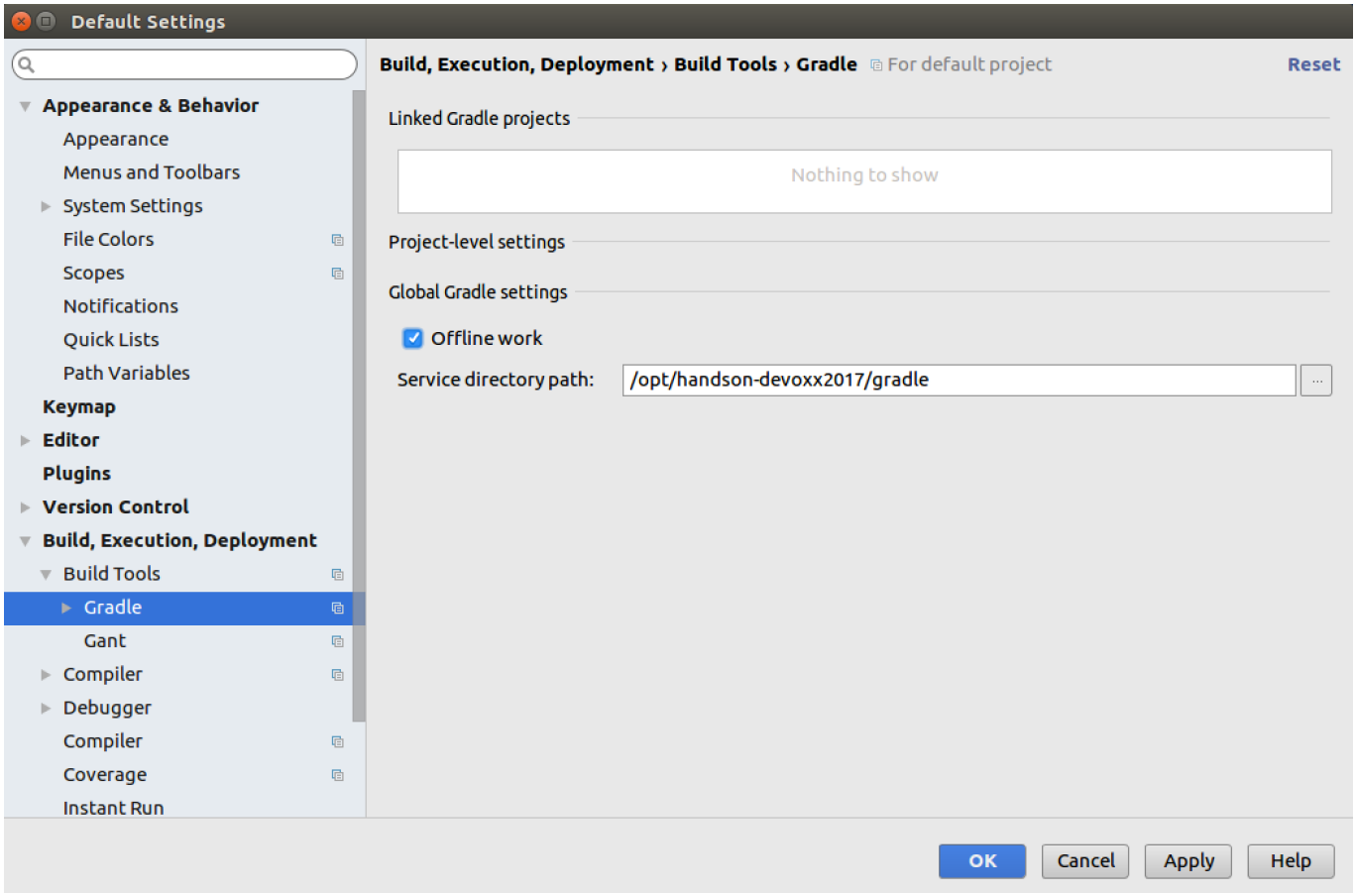


- Click `Import project (Eclipse ADT, Gradle, etc.)` and choose `~/Hands-on/2017-handson-kotlinAndroid` directory
- Click `Add Root`



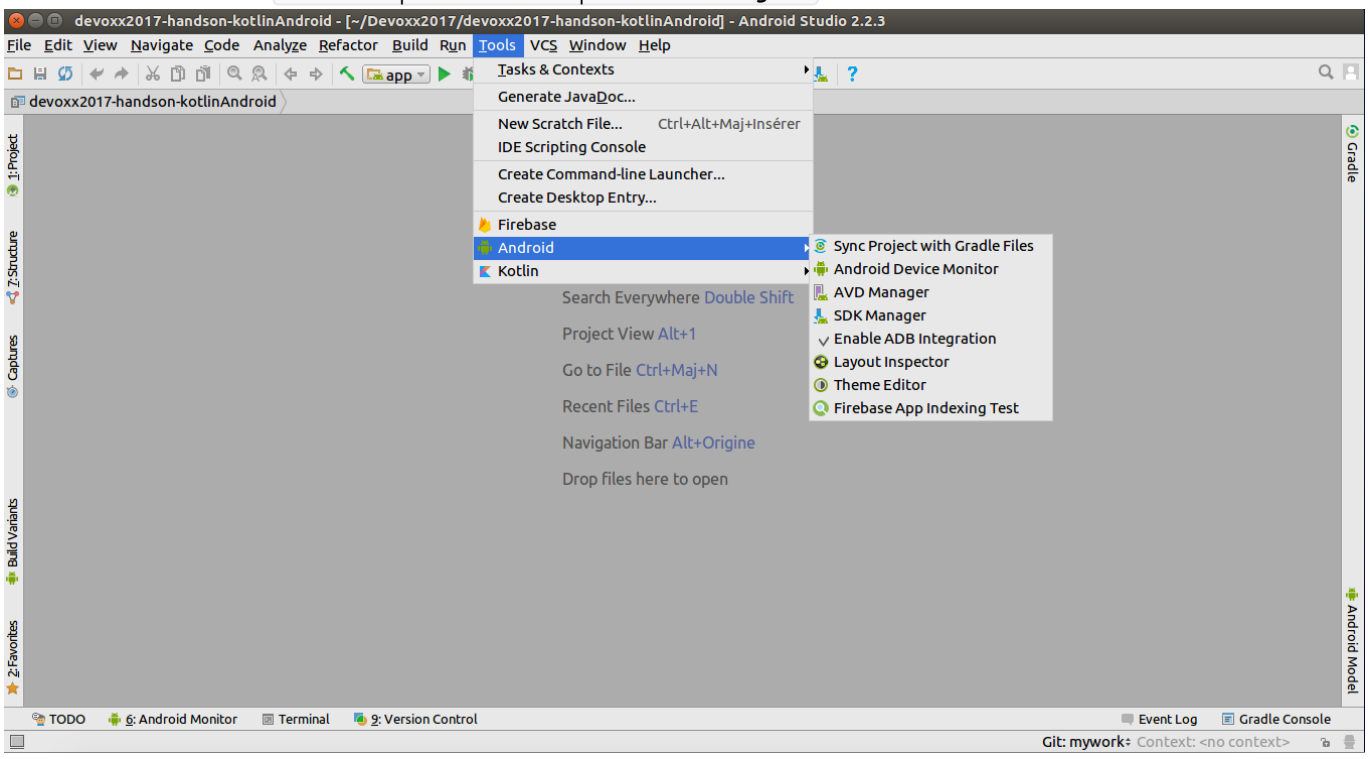
If there is still some errors with Gradle... Double check the following.

- Open `File | Settings...` menu
- Select `Build, Execution, Deployment | Gradle`
- Check `Offline work`
- Set service directory path to : `/opt/handson-devoxx2017/gradle`
- Then Click on `Apply` button



6. Create Virtual Device for Emulator

- Click on the menu : `Tools | Android | AVD Manager` :



- Click on `Create Virtual Device...` button