

Getting Server Runtime Files

Modules

For each module that is part of your server, get the module's JAR file at:

MODULE/build/libs/MODULE.jar

If it is not there, you will have to create it. Click on the Gradle tab in the top right area of Android Studio. You should see your project name and module names as tabs. Go to

MODULE_NAME/Tasks/build/jar

When you click on the jar script (it should have a gear as a symbol) it will create the jar file for you.

Libraries

For each external library that is part of your server, get the library's JAR file from the web or where ever:

LIBRARY.jar

Getting Client's APK file

Your client app's .apk file can be found here:

app/build/outputs/apk/app-debug.apk

Creating your README.txt

Create a text file named README.txt containing the following information:

1. The full text command (see 'Running the Server') to run your server from the command line.
2. Explanation of any command-line parameters accepted by your server (port number, etc.)
3. The type/size of emulator/device your app should be tested on

Create your ZIP file

Create a zip file containing the following, and give it to your testers:

Server MODULE.jar files

Server LIBRARY.jar files

Client app-debug.apk file

README.txt file

Running the Server

[IF USING UNIX (MAC OR LINUX), REPLACE ';'s with ':'s]

```
java -cp MODULE-1.jar;MODULE-2.jar;LIBRARY-1.jar;LIBRARY-2.jar  
<FULL-PACKAGE-NAME-OF-SERVERS-MAIN-CLASS> <COMMAND-LINE-ARGS>
```

Installing the Client on the Emulator

Easy Way

Drag and drop the apk file onto the emulator screen.

Hard Way

You can install the app via the cmd line. "adb" should already be installed as part of the Android sdk in the platform-tools subdirectory of your Android sdk directory, which can be located by looking in the local.settings file in your Android project. If you for some reason do not have it, you will need to install it.

```
sudo apt install adb
```

If that doesn't work you can use the following link to download adb files:

<https://www.xda-developers.com/install-adb-windows-macos-linux/>

If you are having trouble installing adb onto your computer, consider using the lab machines.

These adb commands are useful:

List the names of the devices and emulators that are currently running:

```
adb devices (may need to use ./adb)
```

Install the app to a specific device:

```
adb -s <device-name> install app-debug.apk
```

```
EXAMPLE: adb -s emulator-5554 install app-debug.apk
```

If you get the INSTALL_FAILED_TEST_ONLY error try:

```
adb install -t app-debug.apk
```

Uninstall app from a specific device:

```
adb -s <device-name> uninstall <JAVA-PACKAGE-NAME-OF-CLIENT-APP>
```

```
EXAMPLE: adb -s emulator-5554 uninstall edu.byu.cs340.tickettoride
```

Running the Client

Once the app is installed on a device, you can run it from the emulator by pressing the app's icon. On many devices, if you slide the circle icon up, icons for all of your installed apps should appear.

Passoff

Come into the TAs and run your client and server with the files from your ZIP file. Your client and server should at least be able to do a simple register.