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# Starting a local server (on MacOS): Existing Docker container

NOTE: This procedure assumes that mySQL is running locally. See below for instructions on how to do this.

**1. Make sure the Docker app is launched on MacOS.**

**2. Run the server: Do this from MacOS**

**a) Open a terminal window**

**b) Then,**

cd ~/Desktop/Apps/SyncServerII/SyncServerII

**c) Last—run the server as a docker image**

./devops/runLocally.sh ~/Desktop/Apps/SyncServerII/Private/Server/ClientTesting-local.json latest

**3. Get the logs**

**a) Open a new terminal window**

**b) Change into the directory**

cd ~/Desktop/Apps/SyncServer.Run

**c) tail the log**

tail -f output.log

**4) Test the server:**

From a browser:

<http://localhost:8080/HealthCheck/>

(trailing slash is important)

# Building server

**1. Make sure the Docker app is launched on MacOS.**

**2. Start Docker build container**

docker run --rm -i -t -v /Users/chris/Desktop/NewSyncServer/:/root/Apps crspybits/swift-ubuntu:5.2.3

**3. In the Docker container Terminal**

cd root/Apps/ServerMain

./Tools/clean.sh

./Tools/build.sh

If build.sh has problems (e.g., is very slow to build, and perhaps stalls/blocks), try:

./Tools/build.sh verbose

However, that’s not what helped in my most recent go-around with this (5/30/20). Rather, after floundering for several hours, I updated from Swift 5.0.1 in my Docker build container (devops/Docker/Building) to Swift 5.2.3 and now my

./Tools/build.sh

works with no delays. I assume there have been dependency resolution changes in the last few Swift releases.

I haven’t seen many other references to these issues online. Here’s one:

<https://stackoverflow.com/questions/47431510/swift-package-manager-not-resolving>

# Starting server from local build

This depends on you having carried out the “Building server” steps above. Then, do the following from the MacOS Terminal (not from within the Docker Terminal):

# Build the docker image syncserver-runnerimage:latest, without pushing it up to docker hub:

**./**devops/buildlatest.sh

# Then, do the following. Note that `latest` refers to the image created in the last step

./devops/runLocally.sh ~/Desktop/NewSyncServer/Private/Server/ServerTests.json latest

# Build server in Xcode

Make sure you have “My Mac” selected.

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If you get failures, you may need to regenerate the Xcode project:

**./**generateXcodeproj.sh

# Run local tests

These need to run under Docker. See initial steps under “Building server” above.

./Tools/clean.sh

./Tools/runTests.sh filter ServerTests.SpecificDatabaseTests\_UploadRequestLog

./Tools/runTests.sh suites all

Test output logs are written into the .testing directory in the same place where you run the tests.

**Starting mySQL for local running of the server**

**Checking the local database**

**Creating** ClientTesting-local.json for running the server.