

Family Map Server Test Driver Tutorial

Remote Pass-Off Instructions

Purpose

This document will instruct you on how to download and run the test driver for the Family Map Server test driver for a remote pass-off.

System Requirements

To run this test driver on your own machine, you will need java installed and configured properly. To check if it is installed and configured properly, open the command line (or command prompt if you are using Windows), and just type in “java” into the command line. If a usage statement comes up, you are good to go. If an error that says something like the command “java” is not found, look at Appendix A at the bottom of this document for more instructions.

Downloading the Drivers

Go to the [CS 240 class website](#) and navigate to the Projects page by clicking “Projects at the top of the page.

The screenshot shows the top navigation bar of the CS 240 website. The 'Projects' link is circled in red. Below the navigation bar, the page title is 'Home' and the course is identified as 'CS 240 - Winter 2020'. A prominent blue banner reads '*** --->HELP QUEUE<--- ***'. Underneath, there are announcements: 'See the [FAQ](#) for common questions and errors!!', 'Please read the [Help policies](#) for our policies on TA assistance and passoffs.', 'Click [HERE](#) for the Java book.', and 'Click [HERE](#) for the Android book.'. There are also two book covers: 'Core Java SE 9 for the Impatient' by Cay S. Horstmann and 'Android Programming: The Big Nerd Dip' by the same author. At the bottom, the course instructor is listed as Dr. Ken Rodham with an email address: kratham@cs.byu.edu.

Once there click on “Test Driver” on in the Family Map Server section.

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Specification (pdf) Example (zip) How To Make Good JUnit Tests

Family Map Server

Server Specifications (pdf) FMS-Architecture How to Get Started Files (zip) Pass Off Tips File Handler **Test Driver**

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Specification (pdf) Video

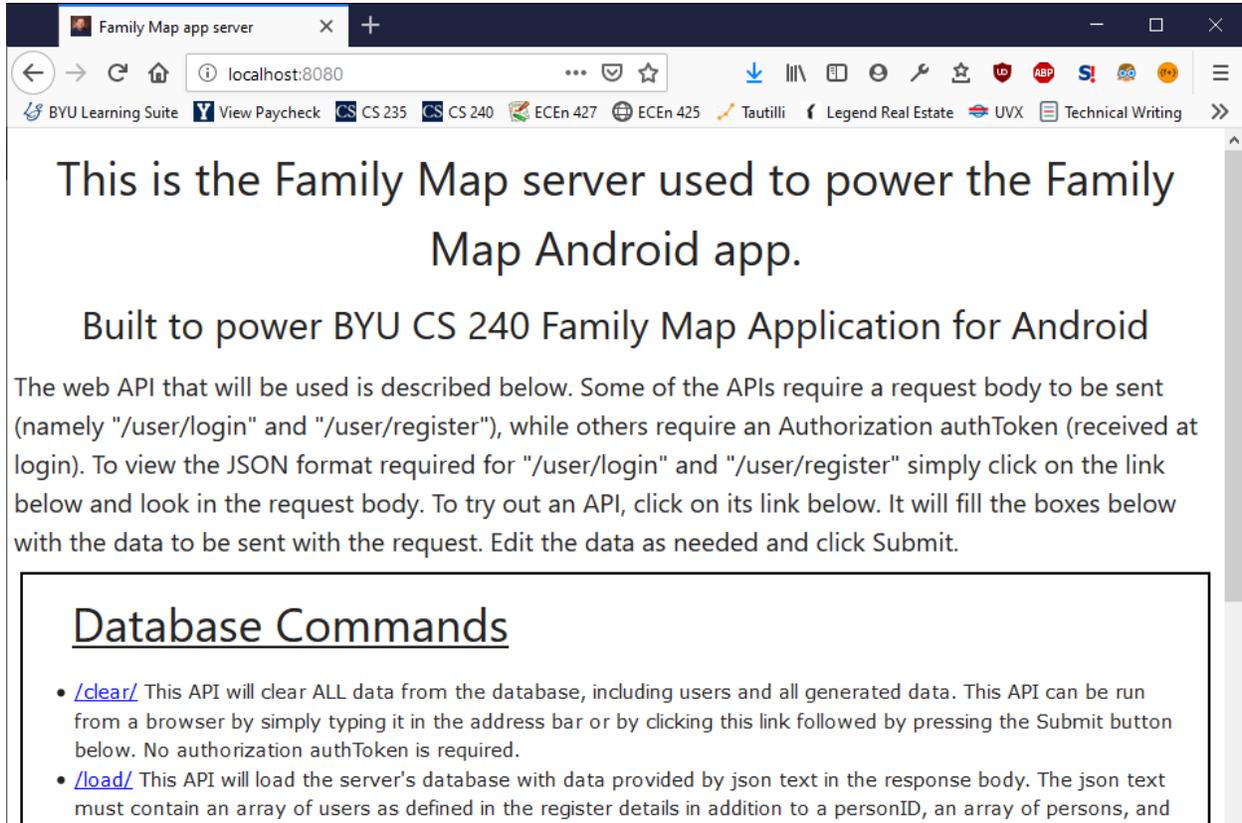
You should then be prompted for where to save the FMSTestDriver.zip file. Save it wherever you'd like. Then extract its content to wherever you'd like. After the extraction, you should have a new folder named "FMSTestDriver". Open a terminal or command prompt and navigate to FMSTestDriver/driver.

```
Terminal
File Edit View Search Terminal Help
jka21495@ta-24:~/Desktop$ ls
CS235TA  CS240      MidtermExamFiles  'VM Instructions.ogv'
CS236TA  FMSTestDriver  MidtermExamFiles.tar.gz  'Windows VM.desktop'
jka21495@ta-24:~/Desktop$ cd FMSTestDriver/driver/
jka21495@ta-24:~/Desktop/FMSTestDriver/driver$ ls
FMSTesting.jar  LoadData.json  README  web
jka21495@ta-24:~/Desktop/FMSTestDriver/driver$
```

Inside this folder you should see FMSTesting.jar, LoadData.json, README, and web, as shown above. Don't modify LoadData.json or web. If you forget the command to run the driver, you can read the README file.

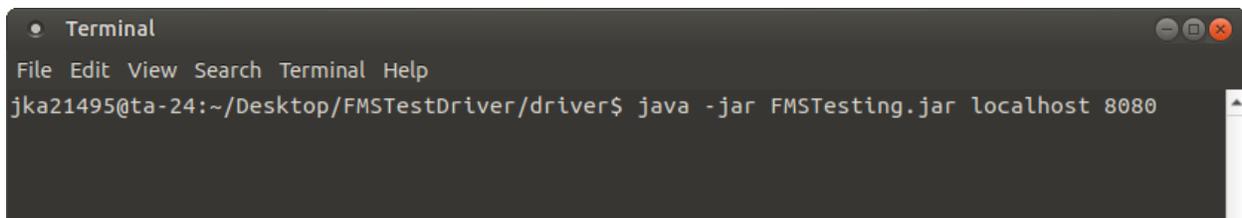
Running the Test Driver

First, make sure that your server is running. You can do this by opening a web browser and typing “`http://localhost:<port>`” in the address. You should see the `index.html` displayed as shown below using port 8080.

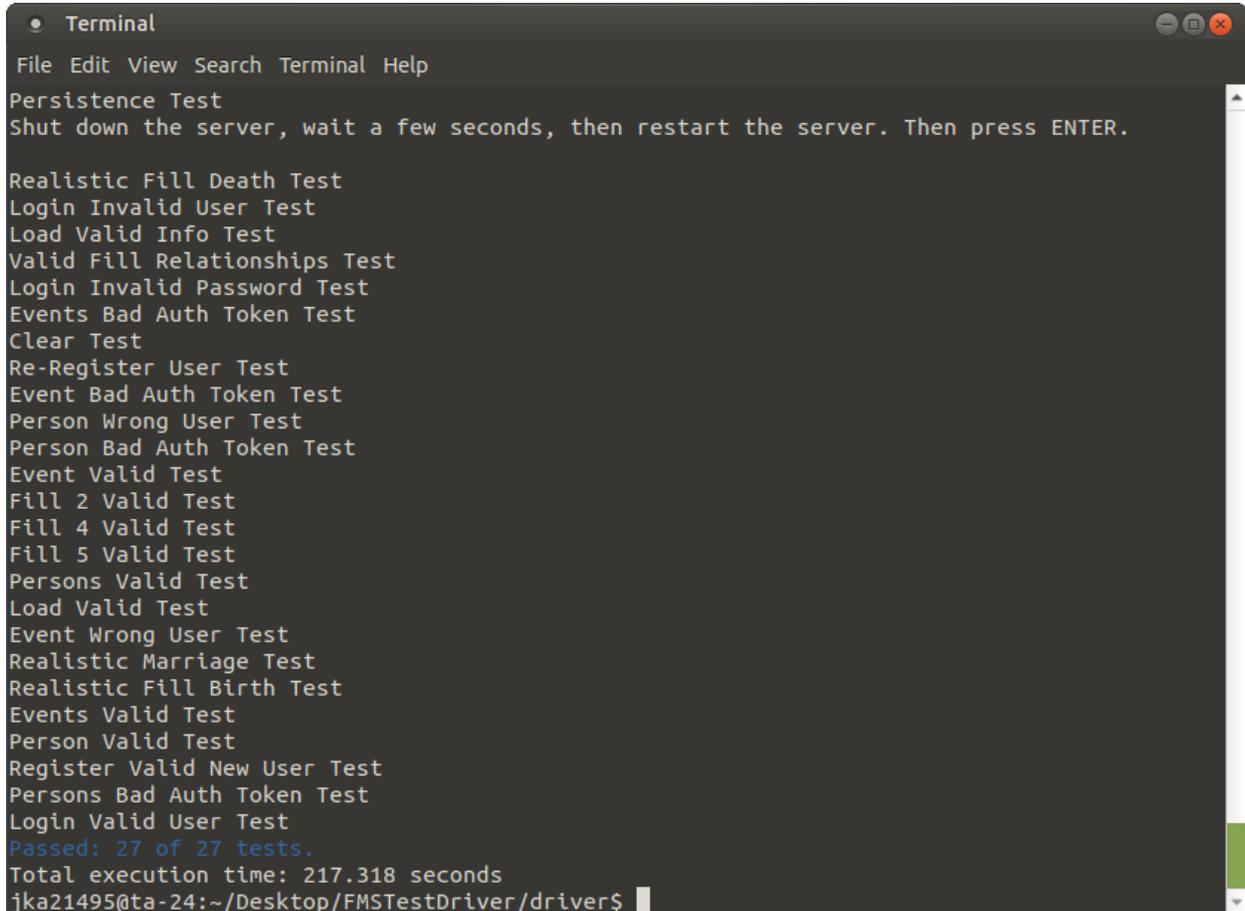


Once you have your server running and a terminal open to the `FMSTestDriver/driver` folder, you are ready to run the test driver. To run the test driver, run the following command: “`java -jar FMSTesting.jar <host> <port>`”.

The test driver has been compiled to the jar file `FMSTesting`. It accepts as parameters the host and port of your server. If you’re running the test driver on the same machine as your server, you can replace “`<host>`” with “`localhost`”. You should replace “`<port>`” with the port that your server is running on (usually 8080). The command you run might look like the image below.



Usually the first test to run is the Persistence Test. When this test runs, it will prompt you to turn you server off and back on. Once you have done this, press enter to finish the test. The rest of the tests will run without any user interaction. It normally takes one to five minutes to run the tests. If you pass all the tests, you should see an output similar to the below image. If you fail any tests, you will see output for each failed test explaining why it failed.

A terminal window titled "Terminal" with a menu bar (File, Edit, View, Search, Terminal, Help). The output shows a list of 27 tests, all of which passed. The tests listed are: Persistence Test, Realistic Fill Death Test, Login Invalid User Test, Load Valid Info Test, Valid Fill Relationships Test, Login Invalid Password Test, Events Bad Auth Token Test, Clear Test, Re-Register User Test, Event Bad Auth Token Test, Person Wrong User Test, Person Bad Auth Token Test, Event Valid Test, Fill 2 Valid Test, Fill 4 Valid Test, Fill 5 Valid Test, Persons Valid Test, Load Valid Test, Event Wrong User Test, Realistic Marriage Test, Realistic Fill Birth Test, Events Valid Test, Person Valid Test, Register Valid New User Test, Persons Bad Auth Token Test, Login Valid User Test. The final output is "Passed: 27 of 27 tests." and "Total execution time: 217.318 seconds". The prompt is "jka21495@ta-24:~/Desktop/FMSTestDriver/drivers\$".

```
Terminal
File Edit View Search Terminal Help
Persistence Test
Shut down the server, wait a few seconds, then restart the server. Then press ENTER.

Realistic Fill Death Test
Login Invalid User Test
Load Valid Info Test
Valid Fill Relationships Test
Login Invalid Password Test
Events Bad Auth Token Test
Clear Test
Re-Register User Test
Event Bad Auth Token Test
Person Wrong User Test
Person Bad Auth Token Test
Event Valid Test
Fill 2 Valid Test
Fill 4 Valid Test
Fill 5 Valid Test
Persons Valid Test
Load Valid Test
Event Wrong User Test
Realistic Marriage Test
Realistic Fill Birth Test
Events Valid Test
Person Valid Test
Register Valid New User Test
Persons Bad Auth Token Test
Login Valid User Test
Passed: 27 of 27 tests.
Total execution time: 217.318 seconds
jka21495@ta-24:~/Desktop/FMSTestDriver/drivers$
```

Appendix A: Setting Up Java

There are two parts to setting up java to be able to run in the command line, installing java and adding java to your system's path variable. If you know that you already have java installed but you are unable to use java on the command line, you will just need to add it to your system's path variable as shown in Part 2 below.

Part 1: Installing Java

Visit this page to download the newest JDK: <https://www.oracle.com/java/technologies/javase-jdk13-downloads.html>

Windows: Choose to download the "Windows x64 Installer" and run the executable once it is downloaded.

Mac: Choose to download the “Windows x64 Installer” and run the executable once it is downloaded.

Linux: You will probably need the “Linux Debian Package” for any version of Ubuntu, but different versions of Linux might need one of the other 2 versions. Once the .deb file is downloaded, open the file to start the install.

- For all 3 Operating Systems, after the install is done, check to see if running the command “`java`” in the command line returns the usage statement. If not, continue to Part 2.

Part 2: Adding Java to your system’s path variable

Windows: Follow this guide: https://www.onlinetutorialspoint.com/java8/java-8-how-to-set-java_home-on-windows10.html

- Make sure that if you have the command prompt open during this to close the window and reopen it for the change to take effect.

Mac/Linux: Follow the single-user portions of this guide for either OS:

<https://www.baeldung.com/java-home-on-windows-7-8-10-mac-os-x-linux>

- Make sure that if you have the command prompt open during this to close the window and reopen it for the change to take effect.