Howdy!

1. Download github and install.

go to github.com

2. If you do not have an account please register for a github account.

Send your github account name to hammond@tamu.edu to get access to the repository.

3. Clone

Once you have access to the repository, open the github application on your computer, click the coursesketch repository and click “clone to computer”. **Make sure to note the location that it is installed.**

DO NOT FORK

if you have a mac then you will have an easy life using github
if you have windows and you are struggling using github then you can download other git clients or if you are advance you just the command line. (something that will probably happen at least once because the windows interface sometimes breaks)

4 Download intillij (latest version):

and install it (this is done by moving it the location you want to put it and open it)
If it does not open chances are that the sdk is not installed.
google “java sdk 7” and follow the instructions to download it and install it.

When you open intillij for the first time it should look like this

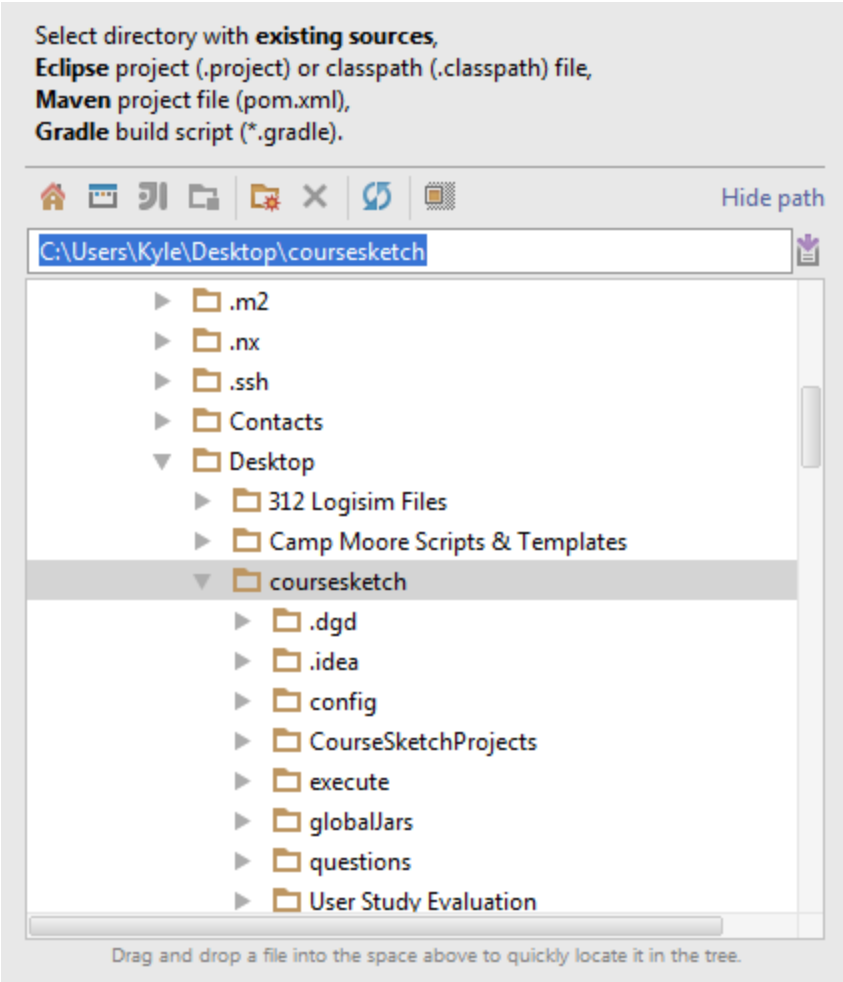
If it says that you need legacy java 6 se runtime on a mac use this
http://thegothicparty.com/dev/article/how-to-install-legacy-java-se-6-runtime-for-mac-10-10/

From this page we import the project

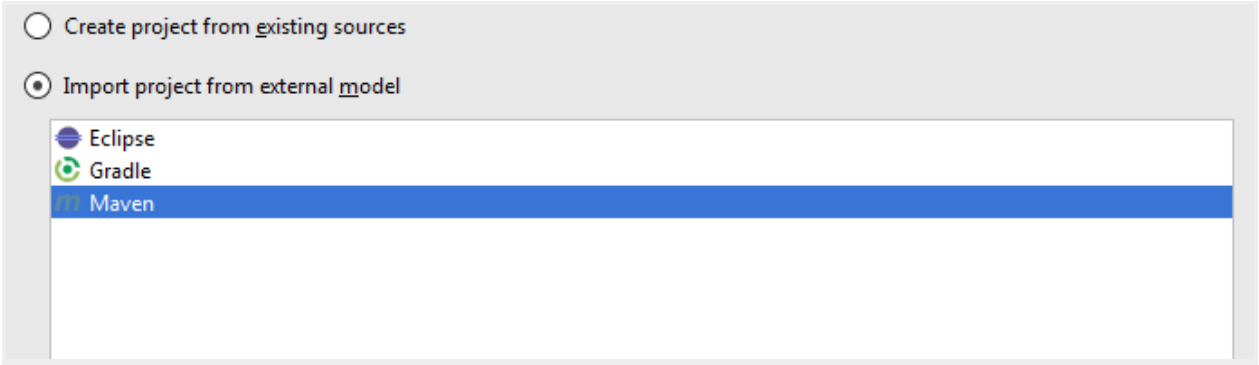
5. IMPORT PROJECT

On this page click import project

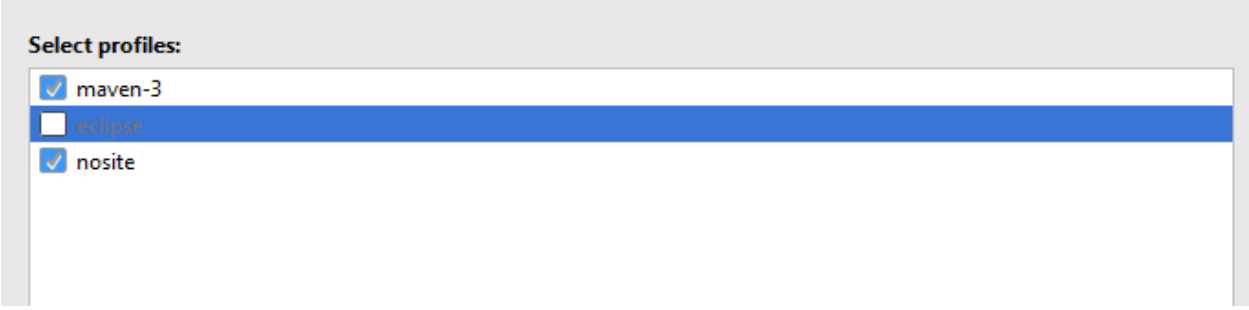
It should bring you to a file viewer. Find the coursesketch folder select it and press next



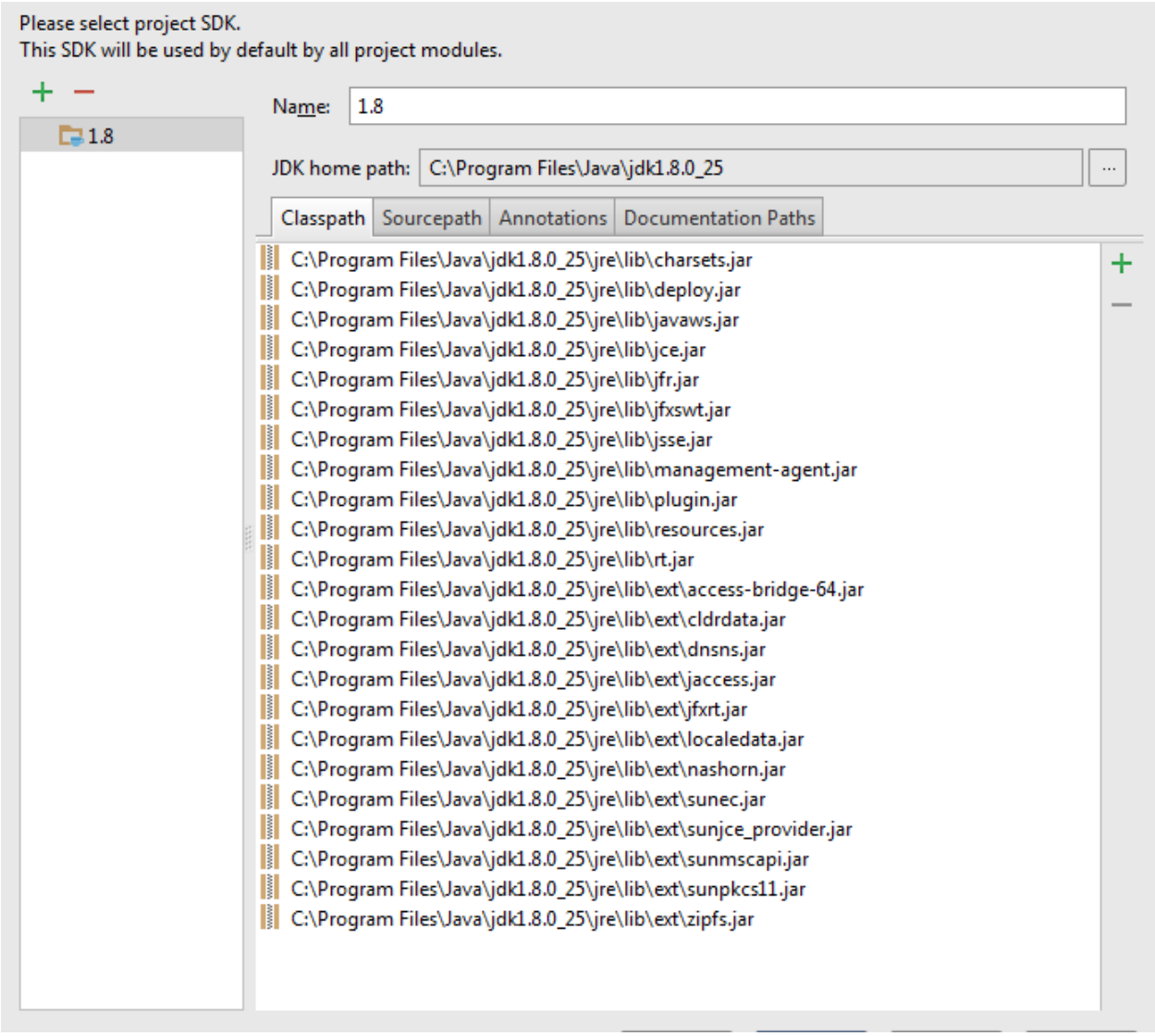
Here you select import project from external model and select maven.



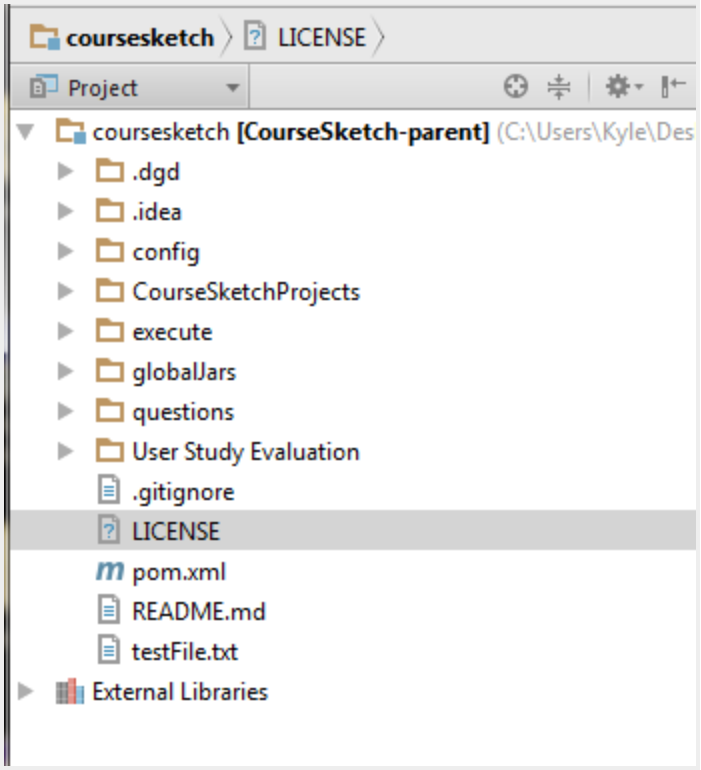
Click next till you find this screen



Click next till you find this screen: NOTE it may be blank
If it is blank press the + button and select the jdk you installed earlier (or install it now) The location of it is different for different operating so google “jdk location <OS>”



press next till you are done. It should show this on the left hand side.



6. Download google app engine (python)

https://developers.google.com/appengine/downloads

[LINUX ONLY]

You should probably use chromium instead of chrome for all CourseSketch related work

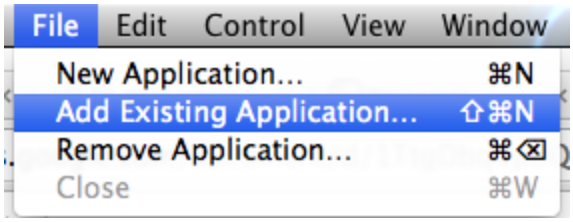
---

if you do not have python installed on your computer you should install the latest version of 2.7

7. IMPORT APPLICATION into Google App Engine

after downloading open up google app engine launcher (it may be various places depending on the operating system)

After opening up we go to file and add an existing application



Navigate to course sketch -> CourseSketchProjects and select “coursesketchwebclient” click ok
after adding it should show a line in the launcher

8. RUNNING google app engine

select the new application and click the run button (should be an arrow)
after the browse button is available click browse.
(on a mac you may have to click on the launcher to have it redraw and enable the button)

[LINUX/UNIX ONLY]
To start the google appengline on linux, please type this command
$ /opt/google-appengine-python/dev_appserver.py
~/coursesketch/CourseSketchProjects/coursesketchwebclient/

where ~/coursesketch is my directory of coursesketch
---

9. Download and run mongodb

(http://docs.mongodb.org/manual/installation/)
After you have installed it you only have to run mongodb (stop after step #2) and the second half of the guide focuses on testing so you do not need to worry about.

10. Download maven

[WINDOWS ONLY]
if you are using windows then we have a script that *should* set it up for you. This can be found in the config section of course sketch. after that please skip to step 12.

[NON WINDOWS]

if you have a package manager use that to install maven.

If not windows (and no package manager):
google “install maven <OS>”
after it is installed you should be able to run:
mvn -v
and it should not throw any errors

the next thing you have to do is set the JAVA_HOME variable.
Mac
http://stackoverflow.com/a/26456579/2187510
Then

`/usr/libexec/java_home -v '1.7*'` Or 1.8* if you installed Java 8 instead

Windows
Run the batch file (RunMe.bat) in the coursesketch config\windows folder. This will setup maven, protobuf, and protoc in the directory of your choice. You may skip to step 12.

11. Download protobuf

We are currently using version 2.6
google “protobuf download 2.6”
then follow instructions

Linux:
if you run into protoc errors it could be in the wrong place.
It needs to be in:
/usr/local/bin/protoc

12. Last set up for deving

On a mac open up terminal
change directory till you are inside course sketch:

On windows go to github and select the course sketch repo. Then open a terminal (it should open in the directory of CourseSketch)

Now you change your directory into CourseSketchProjects:

```
$ cd CourseSketchProjects
```

Then run

```
$ mvn clean install
```

After it runs it should look like this. Mostly the part where it says build success.
If it does not look like this scroll down on this page till you see a header that says “Different possible errors”

```
[INFO] ------------------------------------------------------------------------
[INFO] Reactor Summary:
[INFO]
[INFO] ProtoFiles ......................................... SUCCESS [ 30.542 s]
[INFO] WebClient .......................................... SUCCESS [01:28 min]
[INFO] ShortBuild ......................................... SUCCESS [  0.082 s]
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 01:59 min
[INFO] Finished at: 2015-05-13T14:20:29-05:00
[INFO] Final Memory: 25M/64M
```

13. Compiling servers

On a mac open up terminal
change directory till you are inside course sketch:

On windows go to github and select the course sketch repo. Then open a terminal (it should open in the directory of CourseSketch)
(This is done in the main directory)
Both:

```
$ mvn clean install
```

Different possible errors:

can not compile to target version 1.7: It means your JAVA_HOME is not set to the correct version (probably running 1.6) point it to 1.7 or 1.8 (which ever one you have)

JAVA_HOME is not defined: You never set the path for java home (needs to be found)

you have X number of checkstyle errors: Everything was installed correctly. But you either have an old version of master or you should fix them.

Can not find binary for protoc: it means protobuf is either in the wrong spot or was never installed correctly.

[ERROR] Failed to execute goal com.google.protobuf.tools:maven-protoc-plugin:0.3 .2:compile (default) on project ProtoFiles: protoc did not exit cleanly. Review output for more information. -> [Help 1] - it means protobuf is either in the wrong spot or was never installed correctly.

14: RUNNING COURSE SKETCH

App Engine

make sure google app engine is running (see #8)

Mongodb

Open up the terminal (or command prompt)
type:
mongod

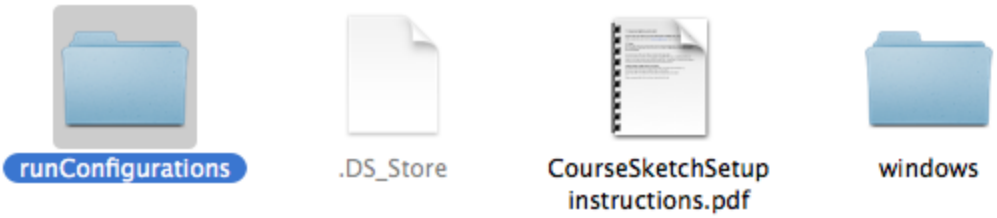
mongodb should now be running

Servers

(Automatically)

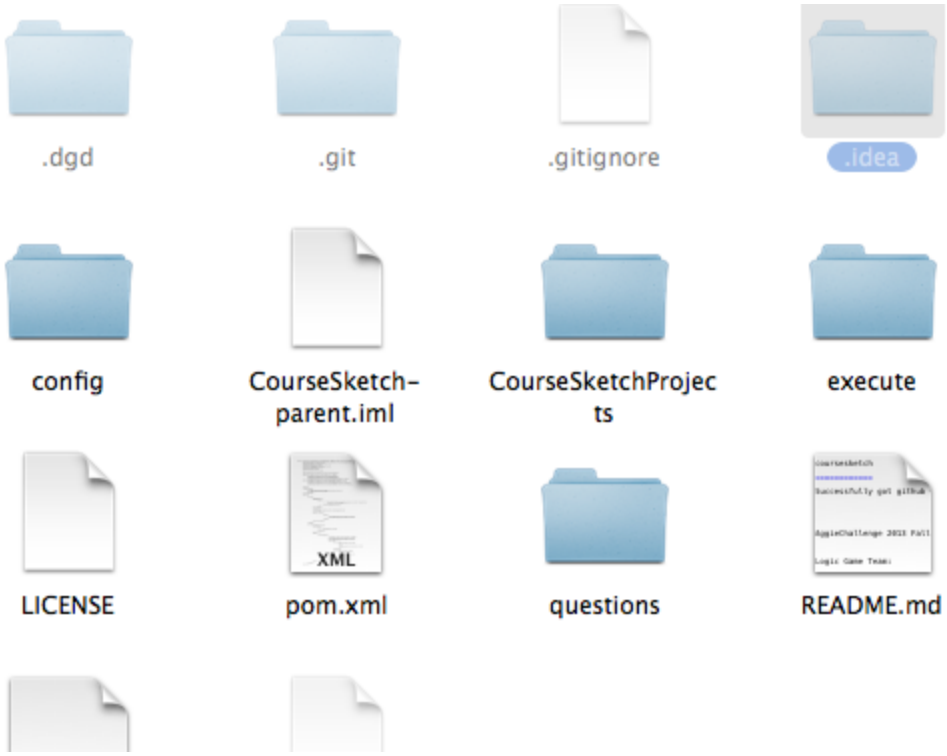
If you complete this option you do not need to go through the manual method as you will already be set up.

Inside the instructions folder there should be a folder called runConfigurations



Please copy that folder.

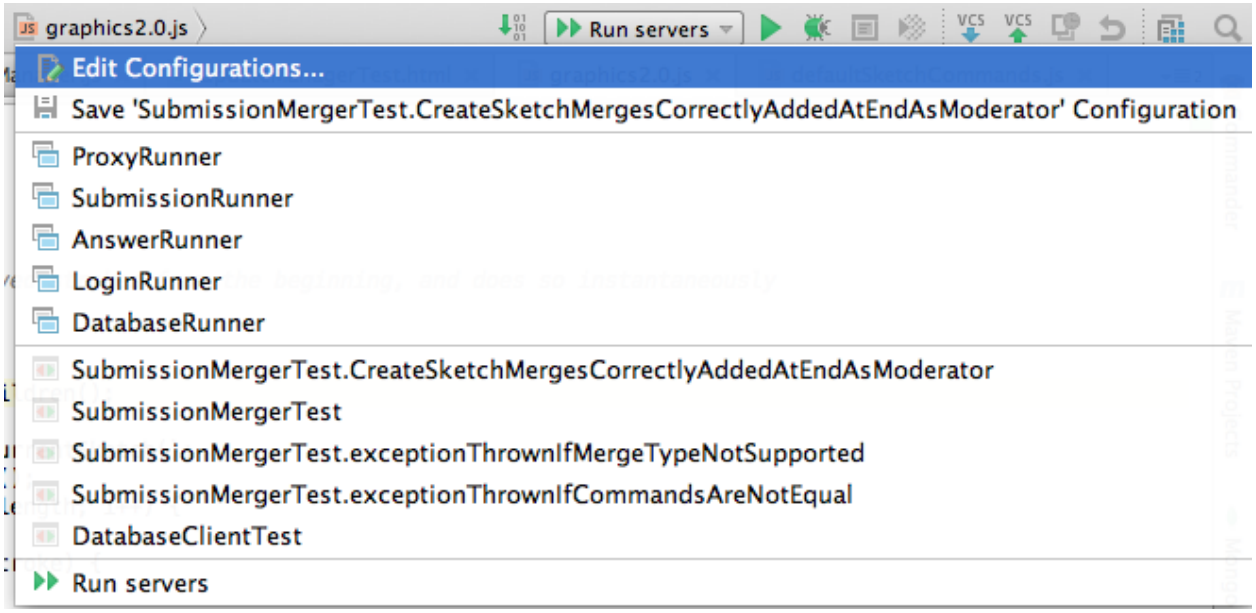
And put it inside a folder called .idea



The .idea folder should be in the main directory of CourseSketch

(Manually)

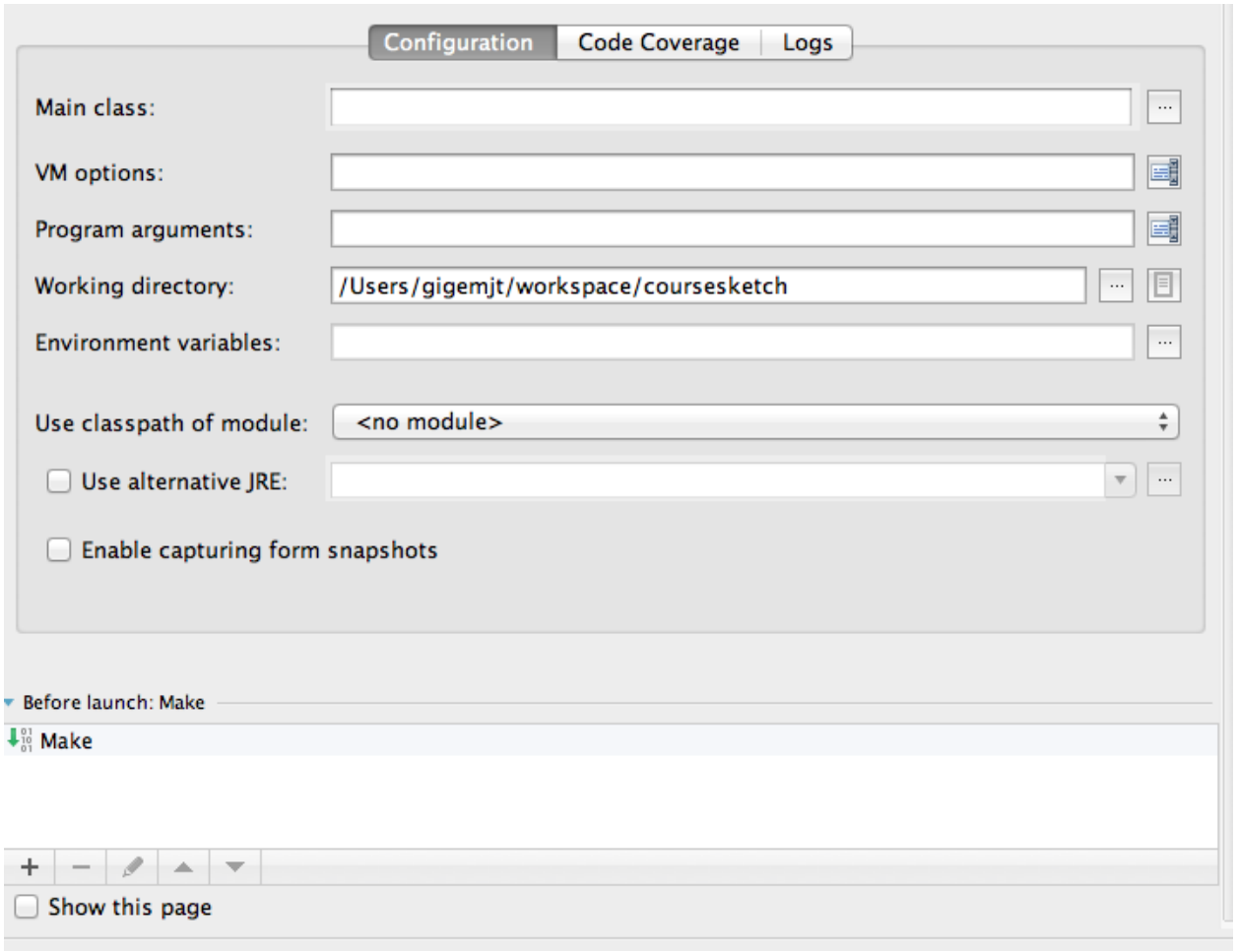
you have to create a launch configuration (select the down arrow next to the play arrow)



Click edit configurations

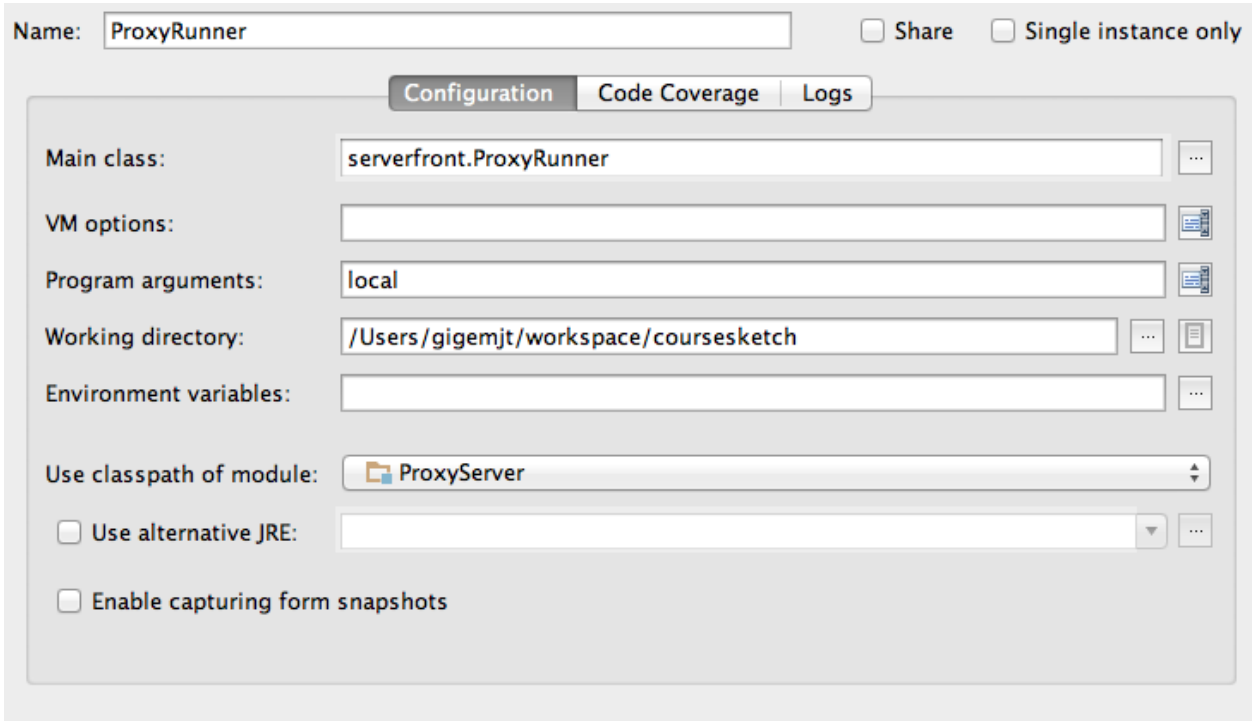
After the window pops up click the + button and choose “Application”

It should pop up with a blank configuration

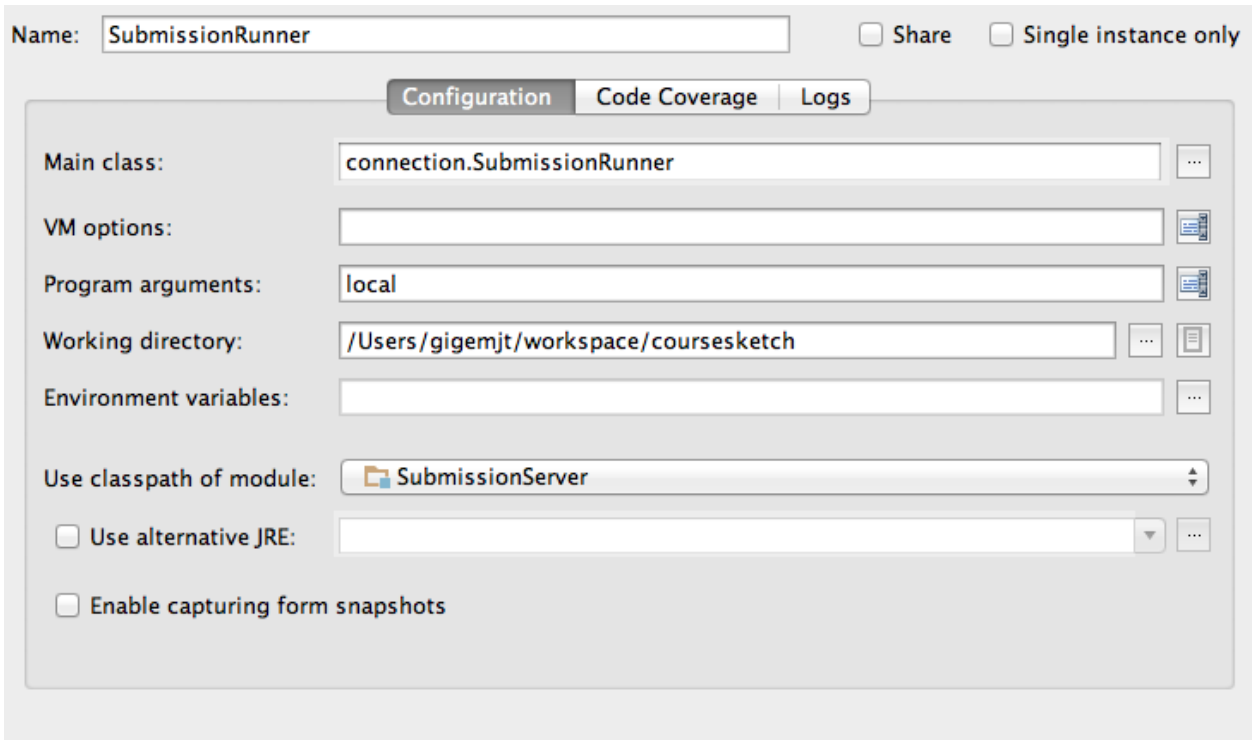


Fill it out and a couple of additional configurations for each server:

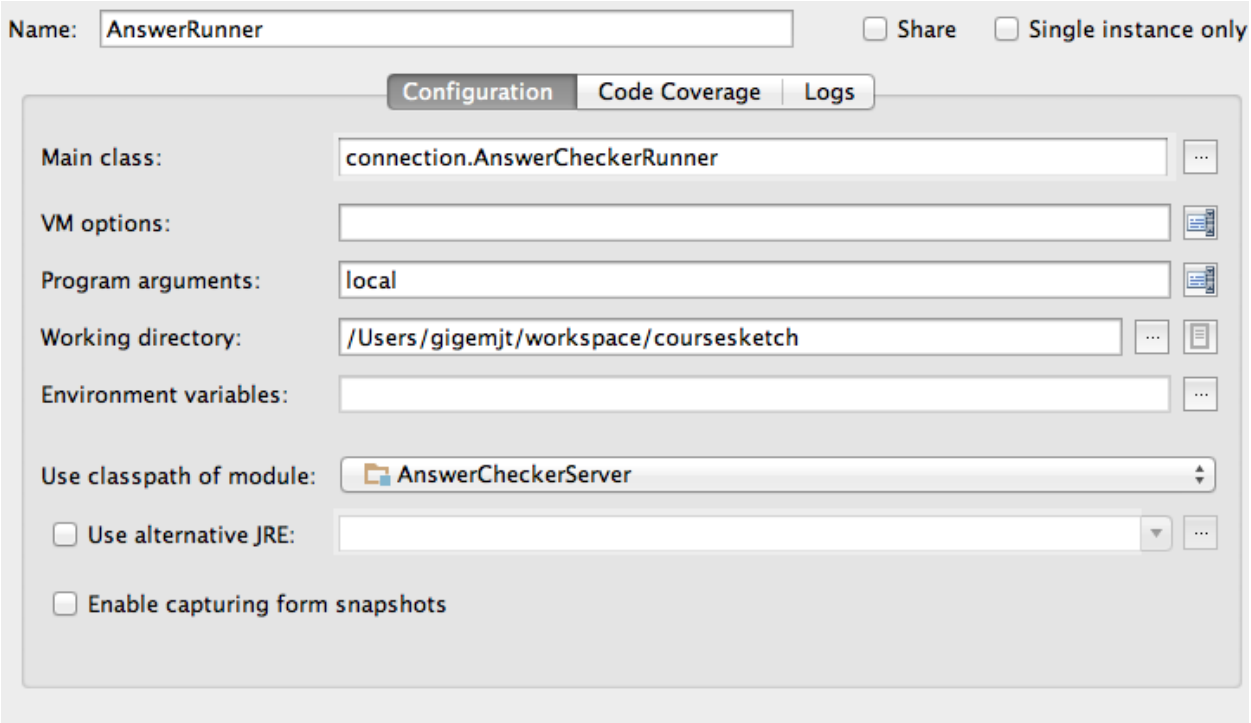
Proxy



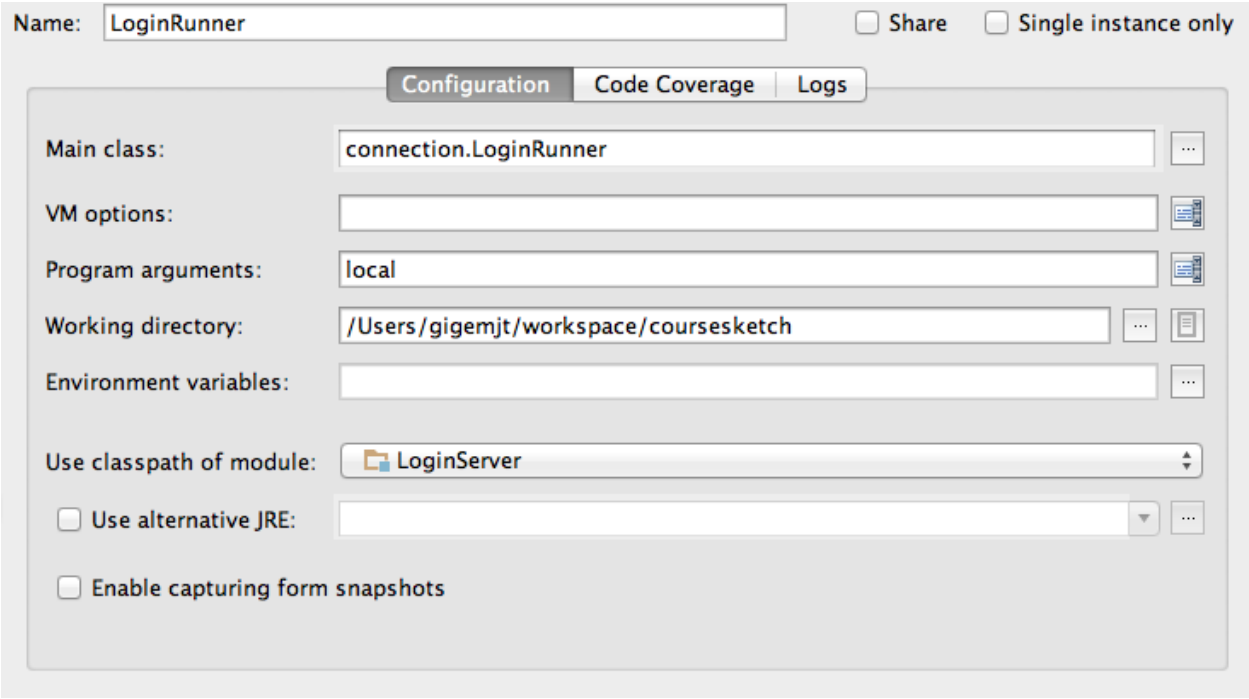
Submission



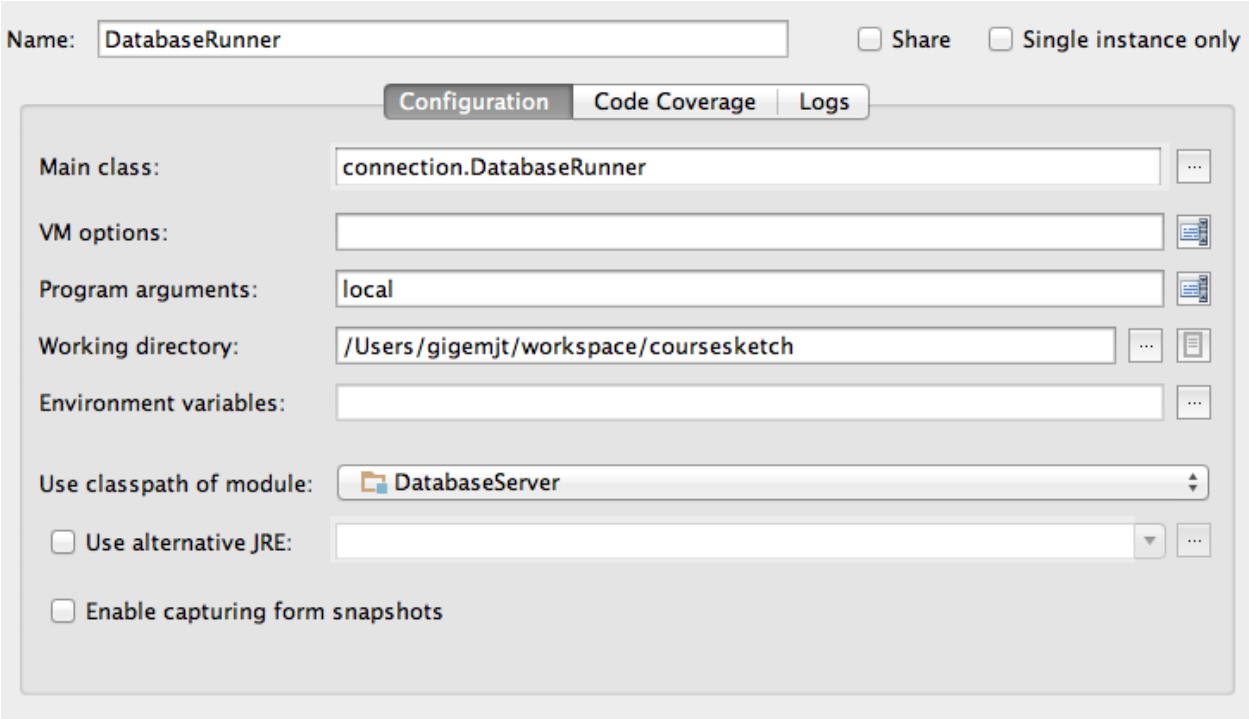
Answer checker



Login Server



Database Server



Run order:

LOGIN
DATABASE
SUBMISSION
ANSWER CHECKER
PROXY

Or install multirun (below in additional setup)

15: FINAL SETUP

good news if you made it this far you are 99%. please feel free to look at the code, follow additional optional setup below or follow any additional instructions you are given in class

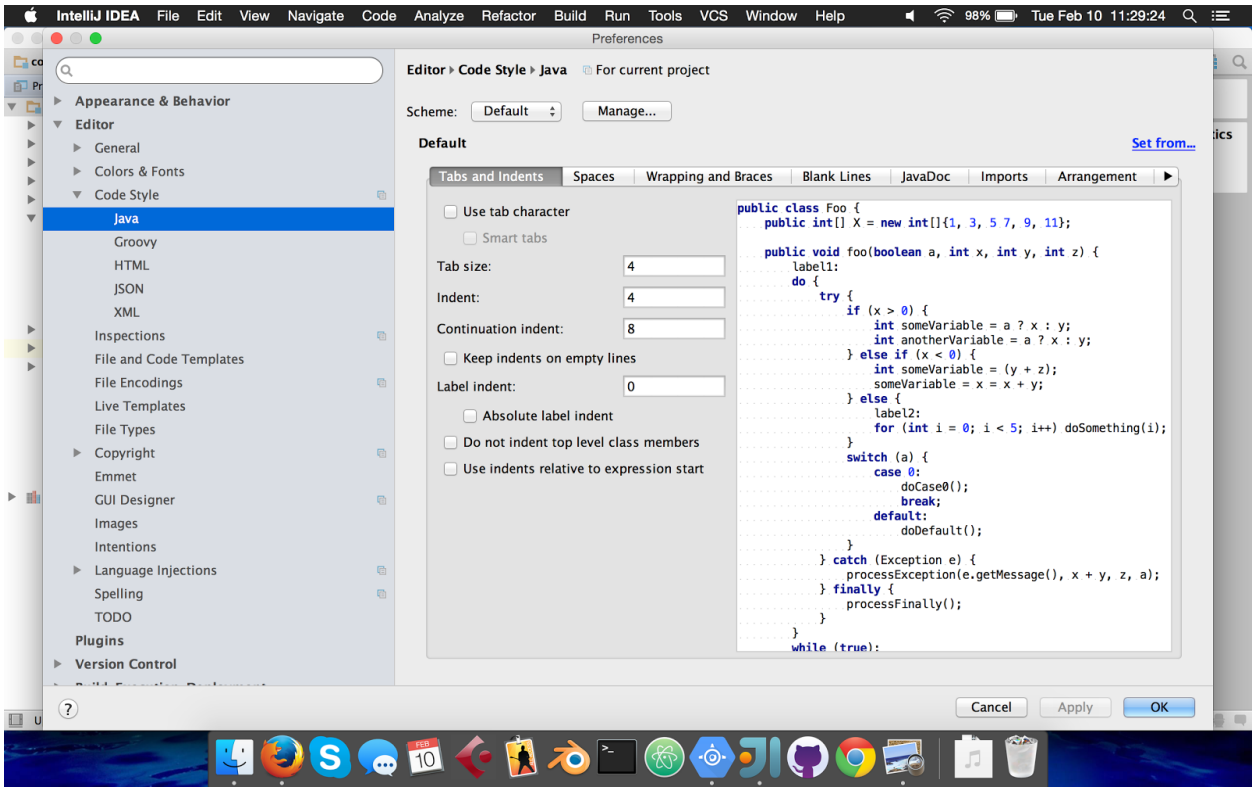
16. Additional Setup (Optional but recommended)

Import settings

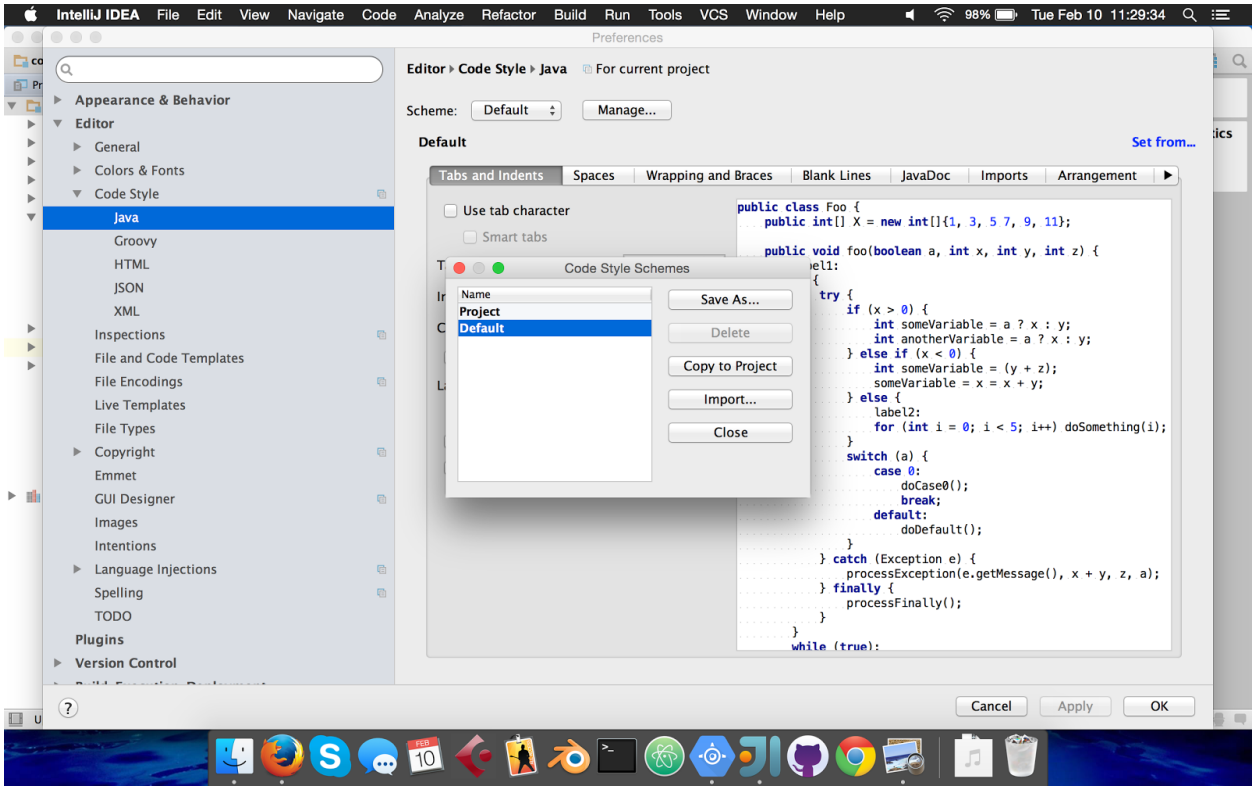
Import settings for intillij (this helps with auto formatting)

Go to settings (under preferences for mac) OR got to help -> find action and type “settings”

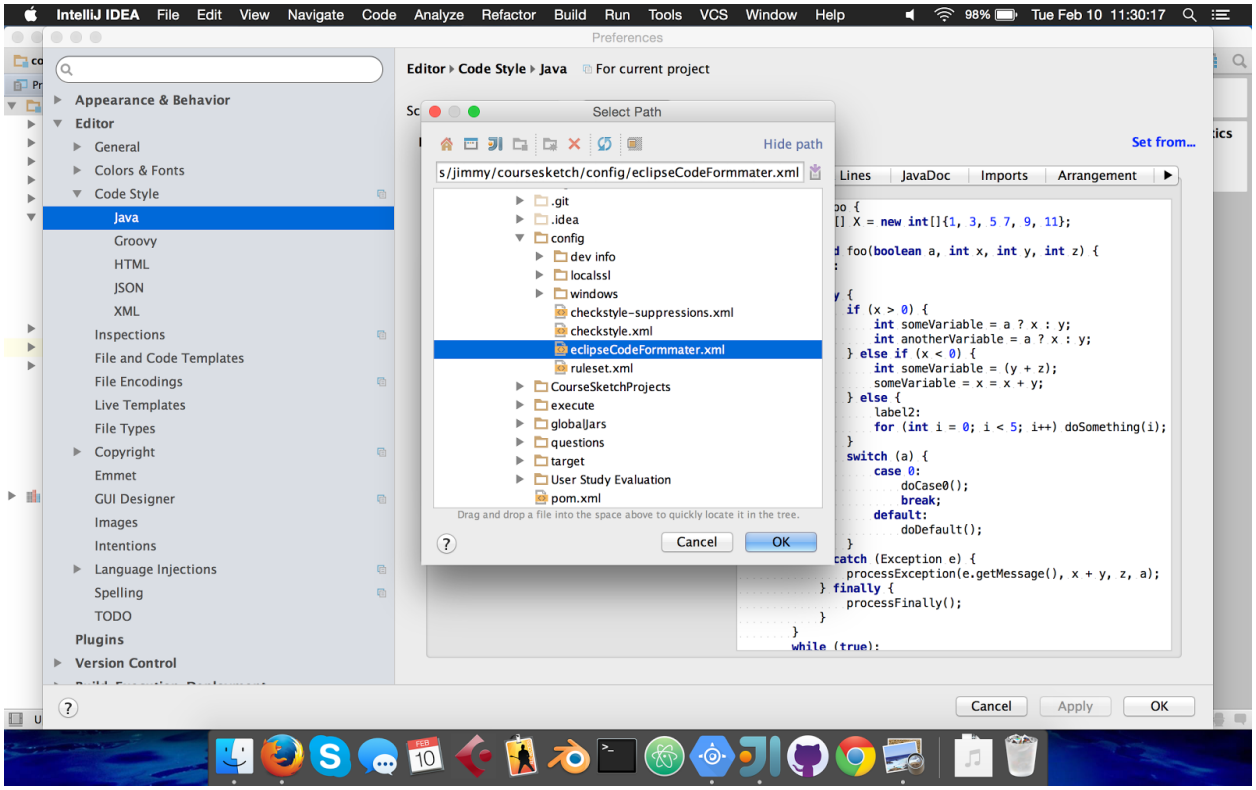
It should pull up this screen:

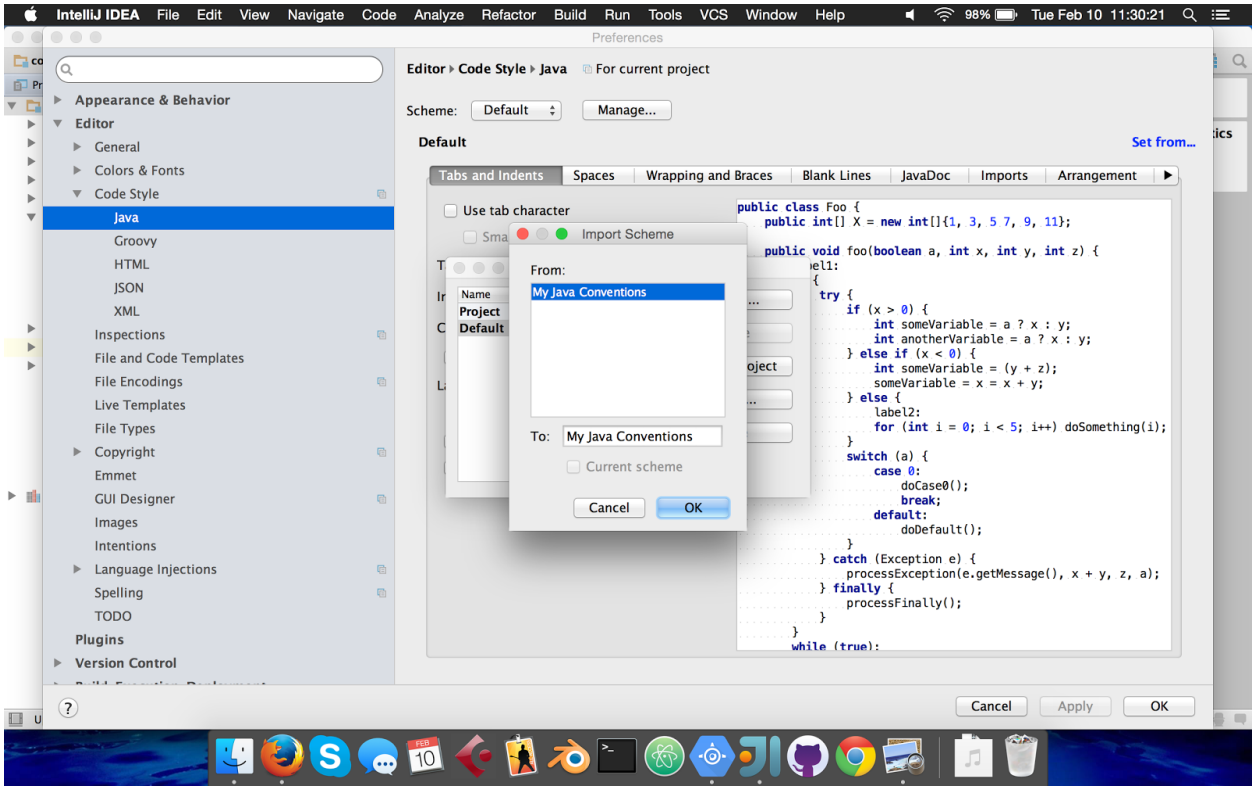


Click on Manage



Choose import



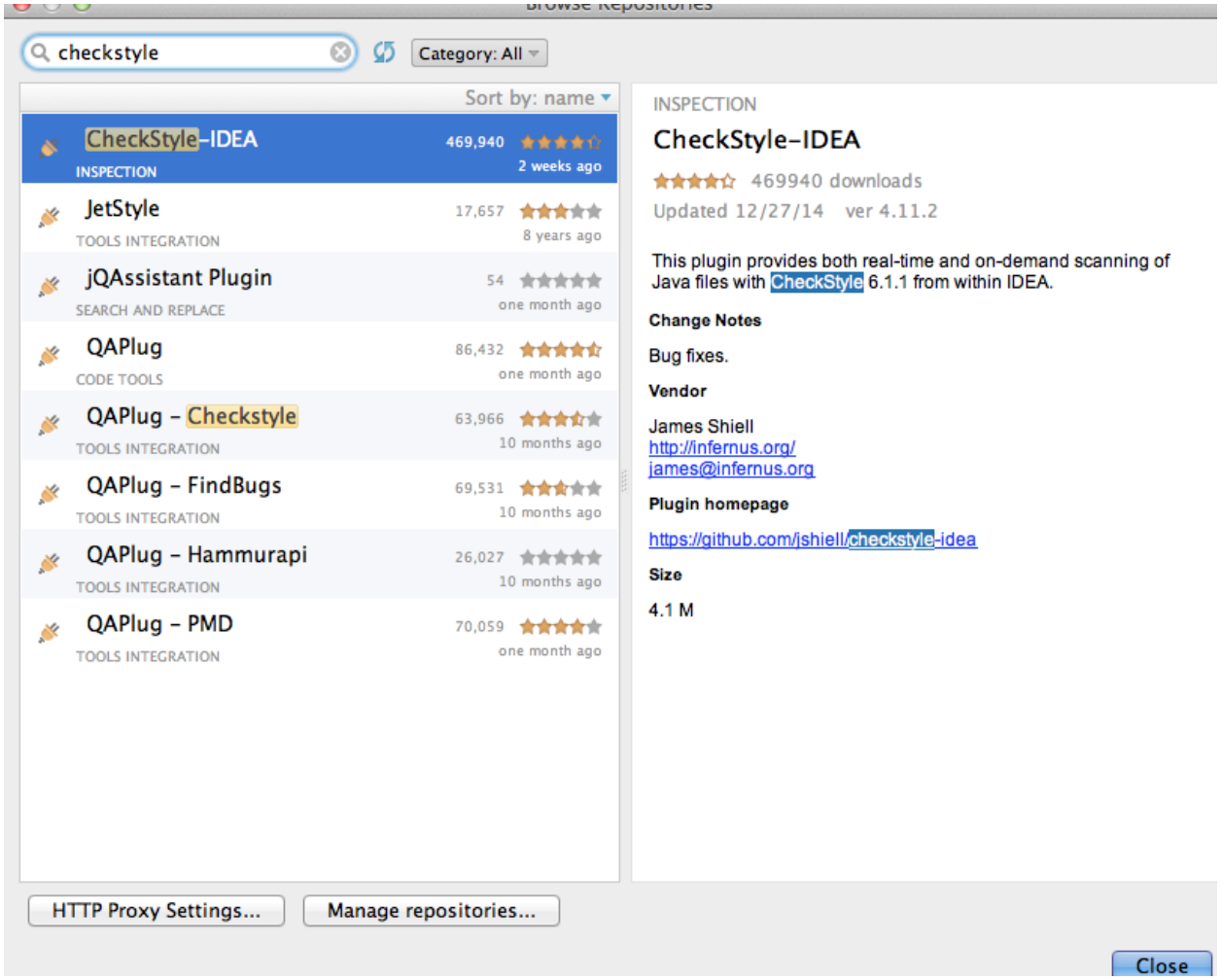


How to Install checkstyle for IntelliJ

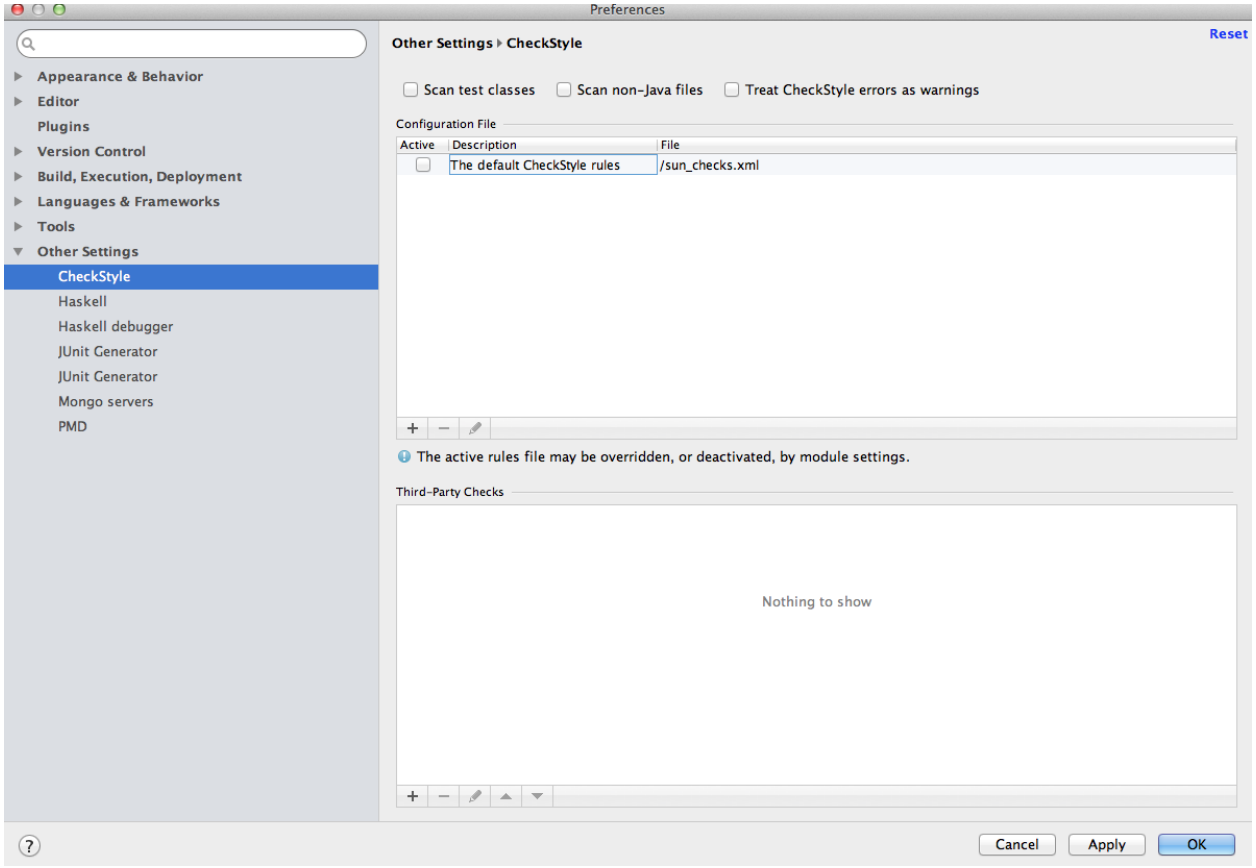
go to help -> find actions

then type plugins

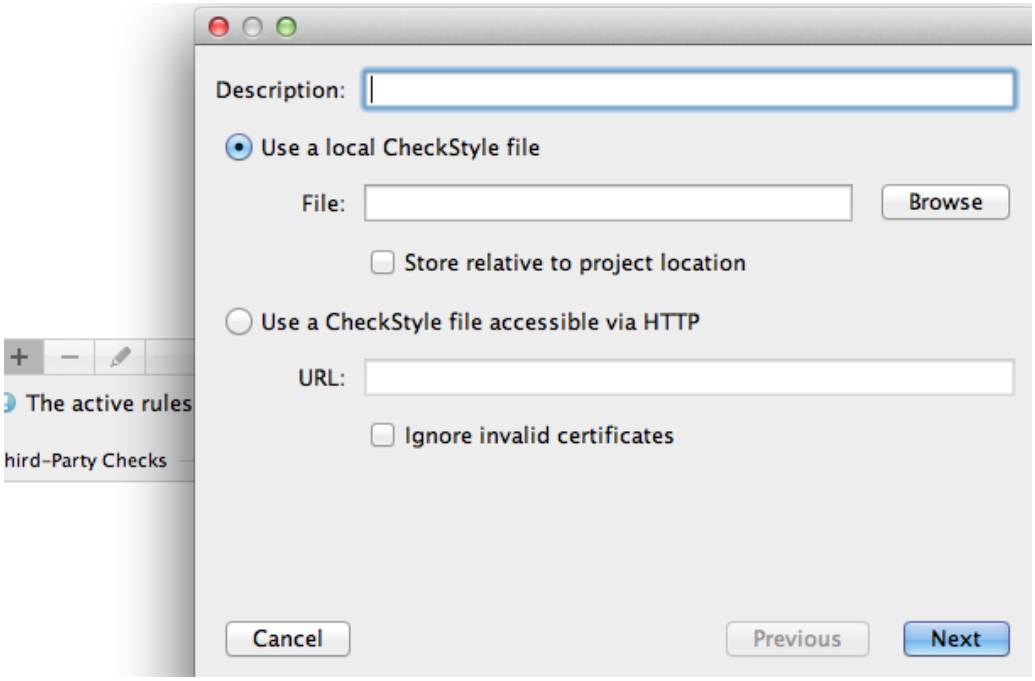
then click browse repositories



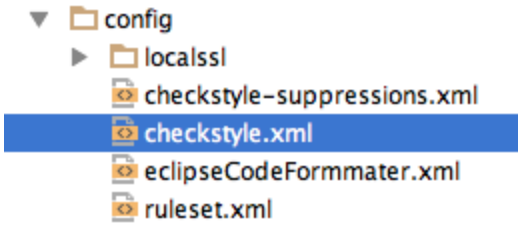
Now go to other settings



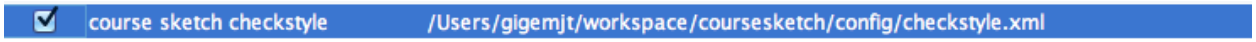
After you are at this page under “Configuration File” click the +



Click browse and find the file under config -> checkstyle.xml



Add a description and click next then finish
And select the newly added line. And click Apply

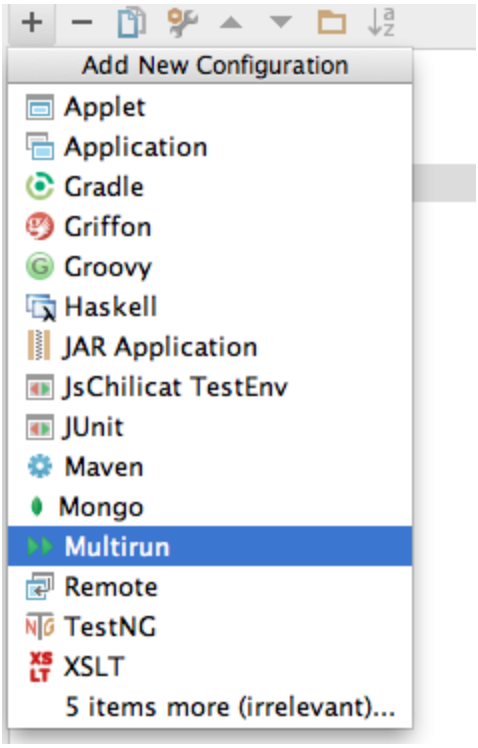


Install Multirun

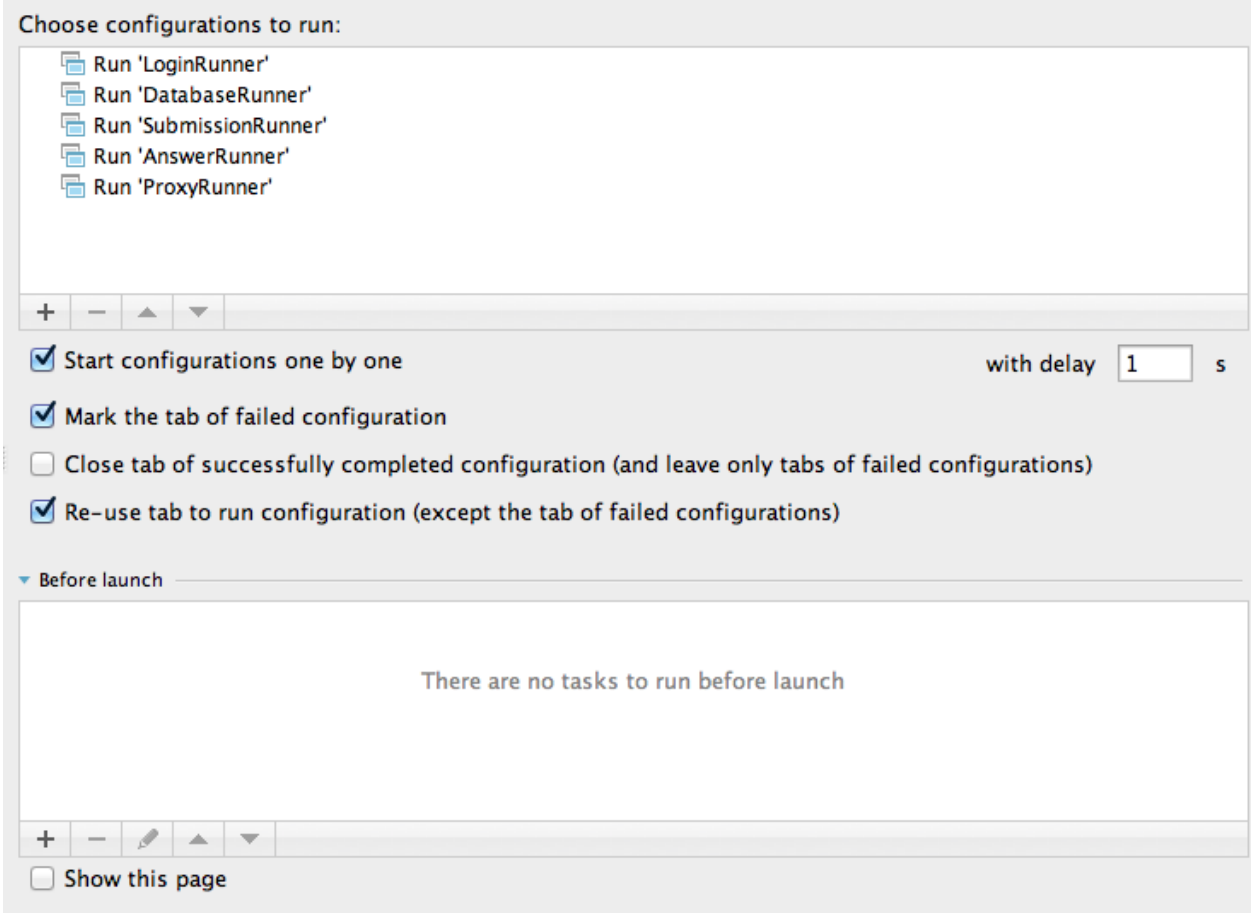
same process as above with installing checsktyle
go to plugins and browse repository but type “Multirun” instead

(this is the plugin webpage)
https://plugins.jetbrains.com/plugin/7248?pr=idea

When you add a new configuration you can create a multirun configuration that runs multiple run configurations (A lot of this is explained in running the application)



Here is what my run configuration looks like yours should end up looking very similar:



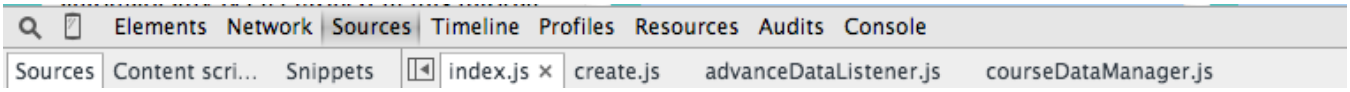
Chrome workspace

This allows you to edit files in chrome and have that reflected in your physical editor.
Great for fixing tiny bugs with perfect autocomplete.

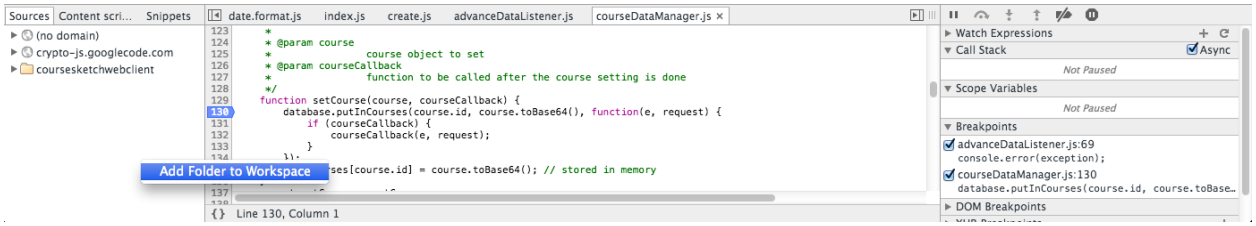
This requires that app engine is already set up (see #8)

(If you have any issues visit here but the instructions will accomplish your goal just fine)

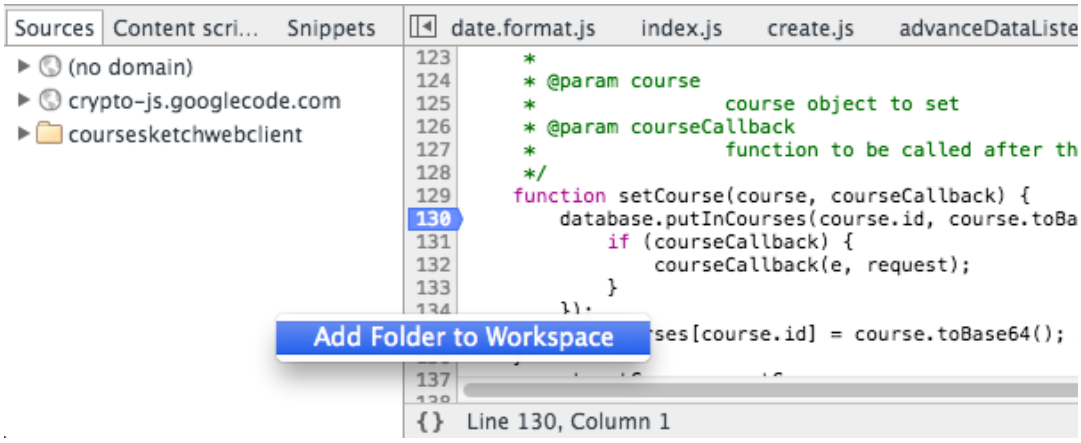
Go into the dev console (you can right click anywhere and click inspect element.
Then go to the source page view



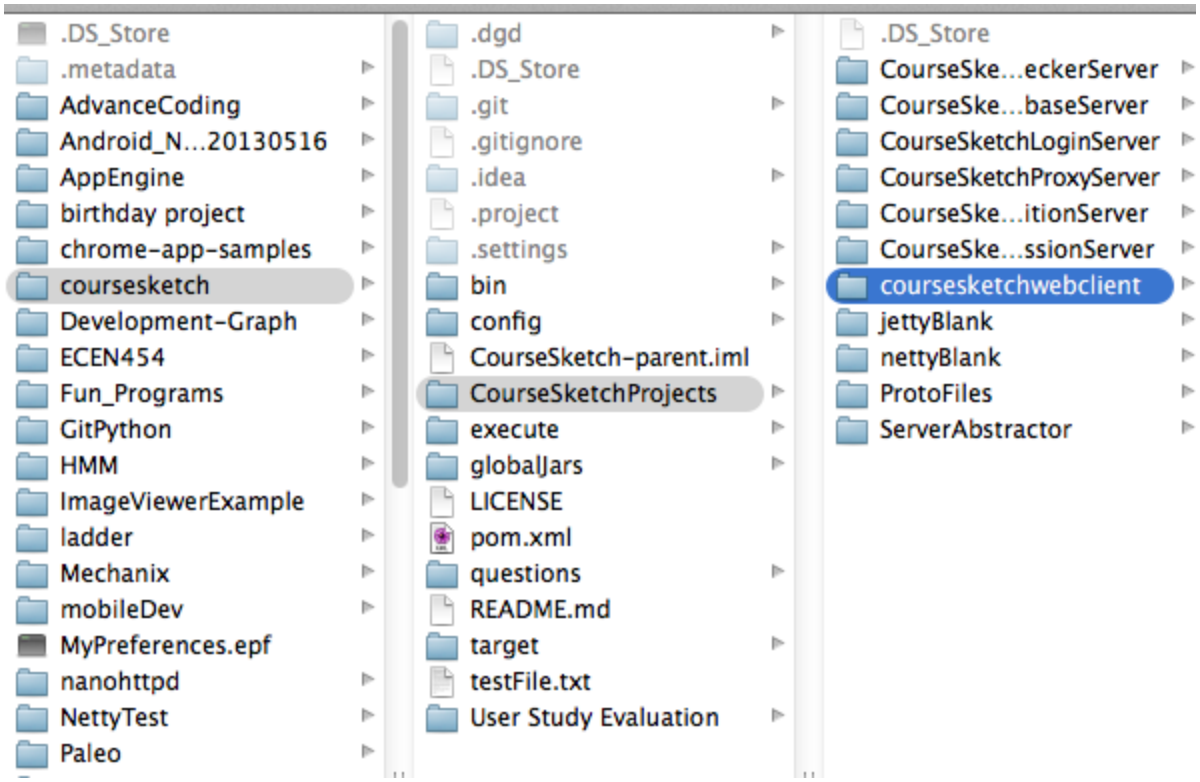
Next look on the left hand side and see a series of folders.



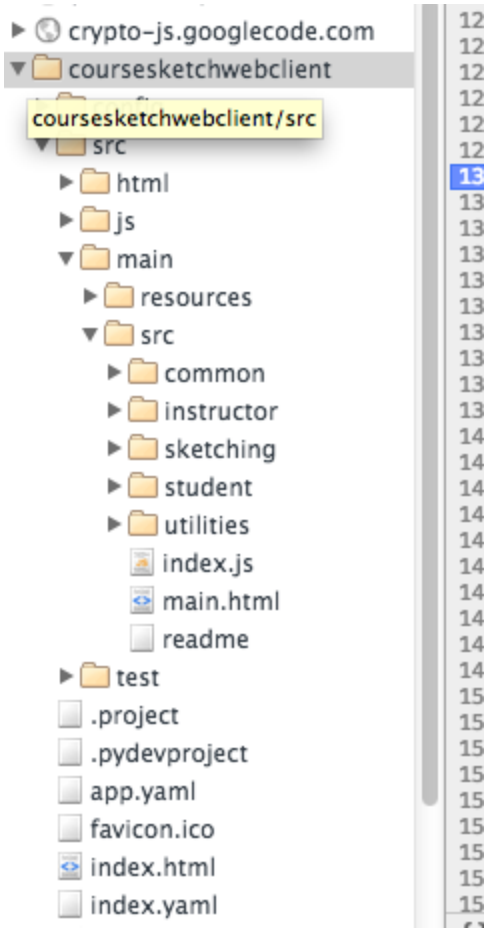
Right click and a box that says “Add Folder to Workspace” should appear.



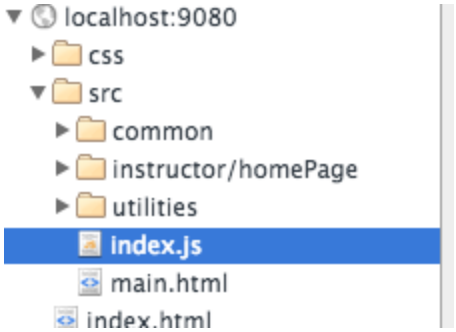
Click it and navigate to the coursesketchwebclient



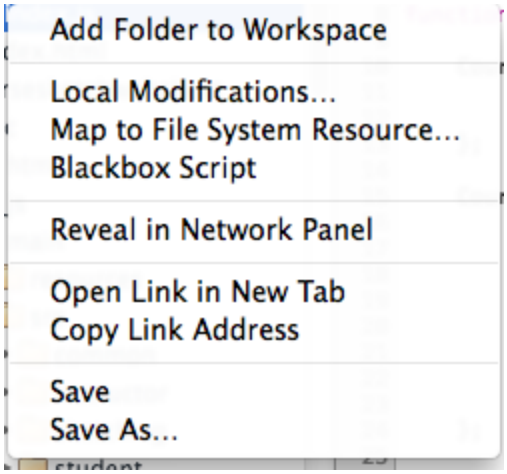
It should now have a folder that looks this when you expand it.



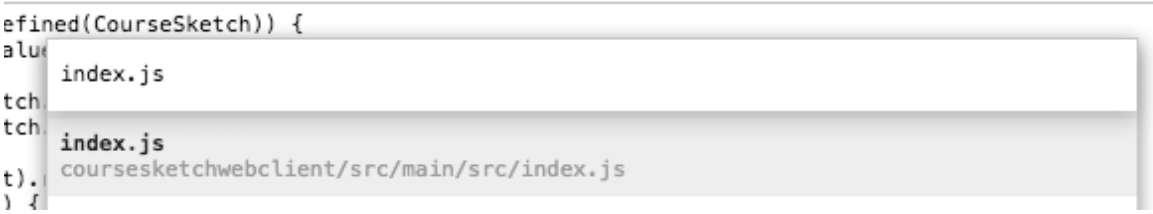
Now we need to map a file to the physical location.
So this is the actual website itself coming from the local server.
You need to specifically right click index.js (any other and a bunch of things get messed up)



Now select “Map to File System Resource”



Then choose the option of index.js that is shown below.
It was the first one for me but it may not be the first one for you.

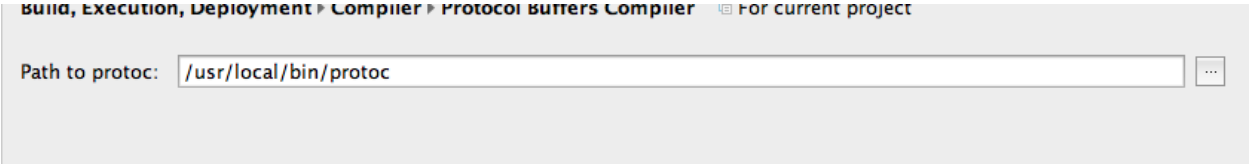


Now if you edit a js file in chrome it will update locally if you save it.
This also allows you to edit javascript without needing to reload the page and instead it will just run the new code.

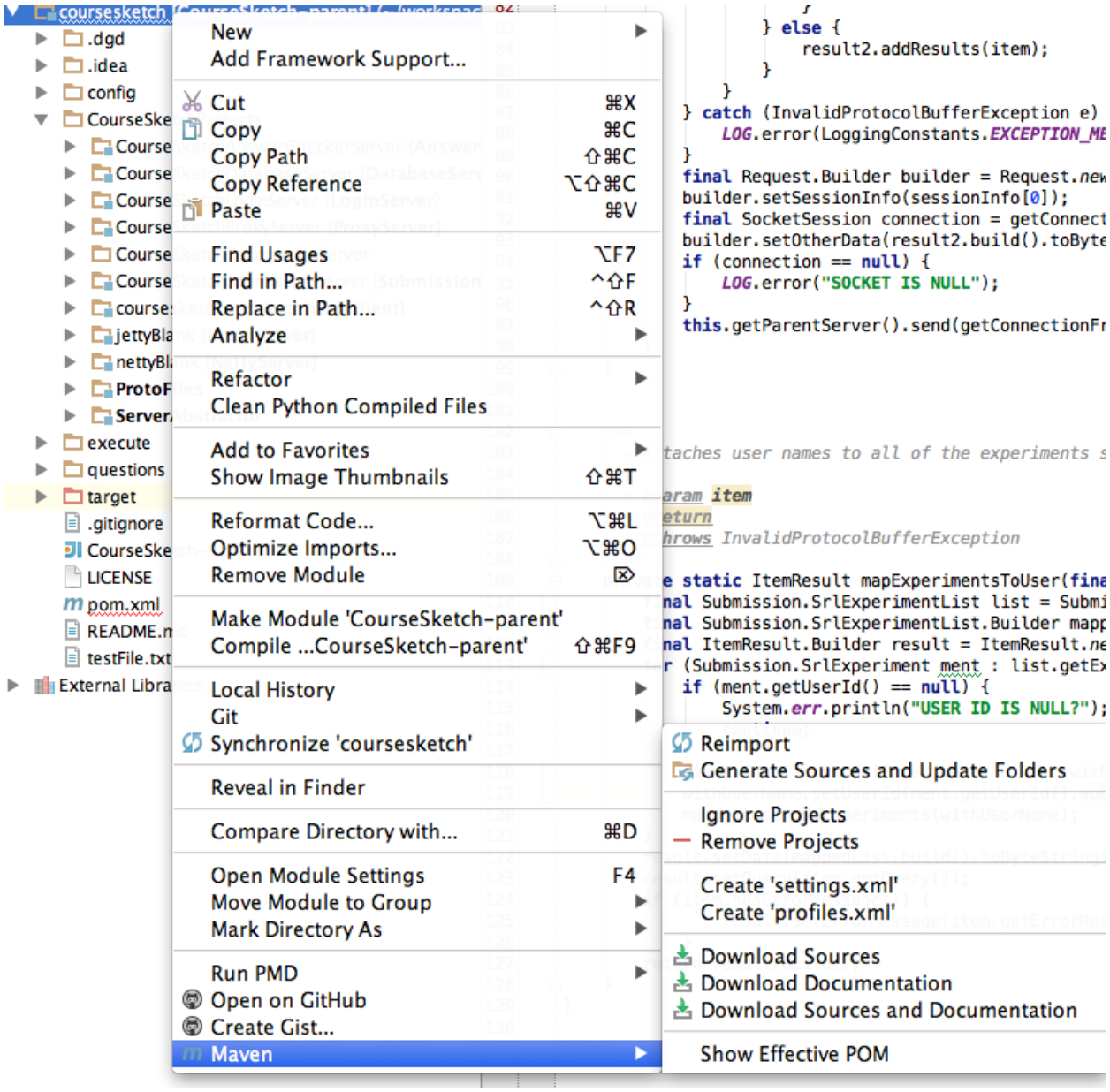
Fixing protobuf errors

first install the protobuf plugin for intillij
this can be done by opening a protobuf file and hoping intillij recognizes it and asks to install the plugin.

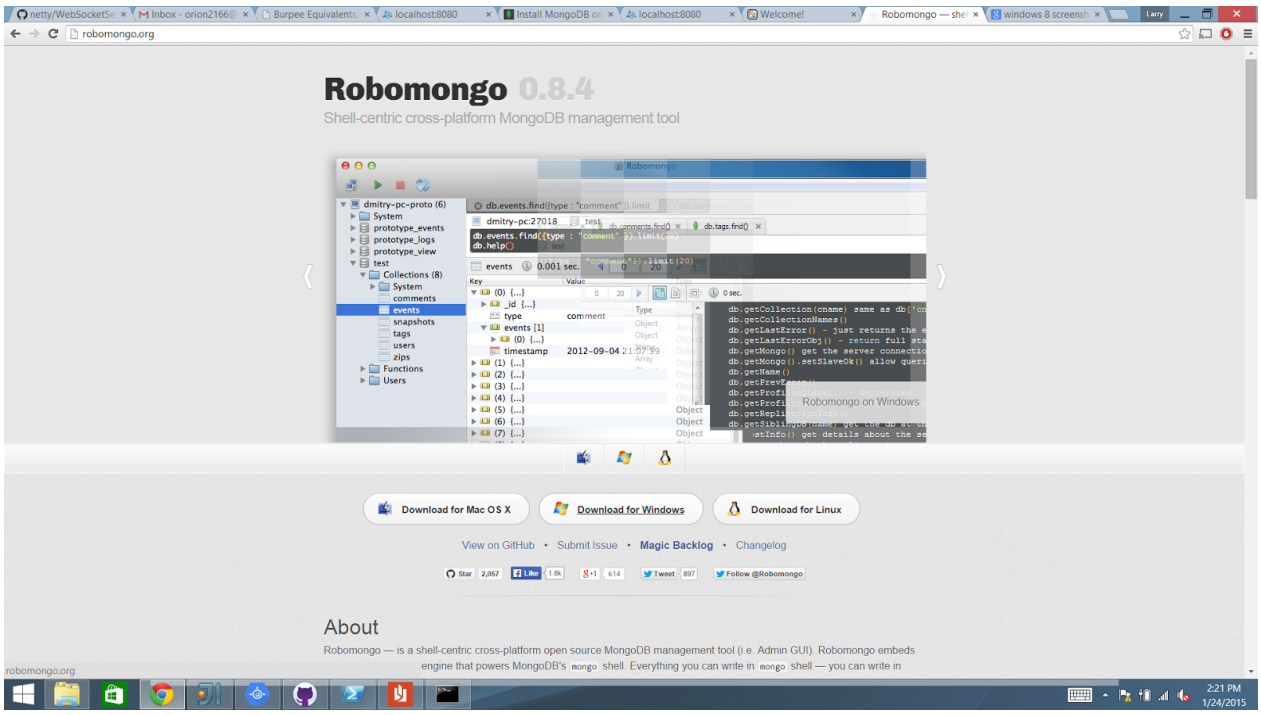
After the plugin is installed you need to provide a link to the protobuf compiler it is in different locations depending on the operating system.



Now after that select “Maven” and click “Reimport” and it should have the protobuf set up correctly.

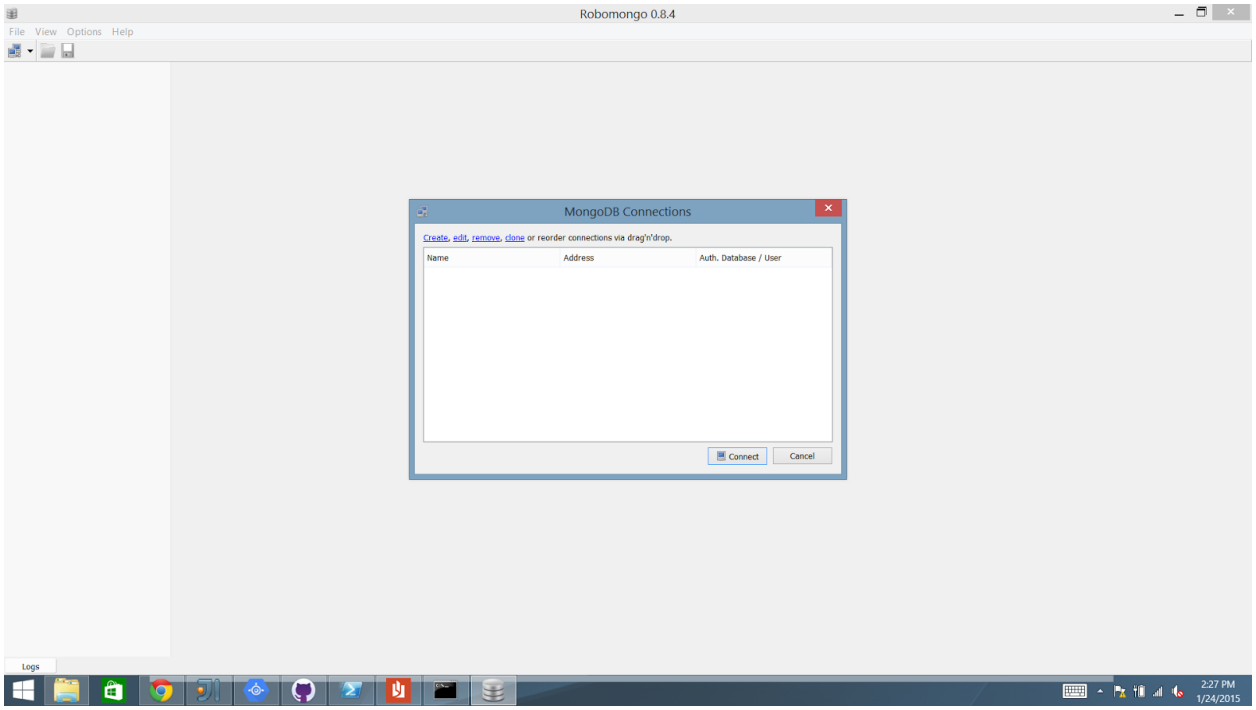


Viewing Mongo Database

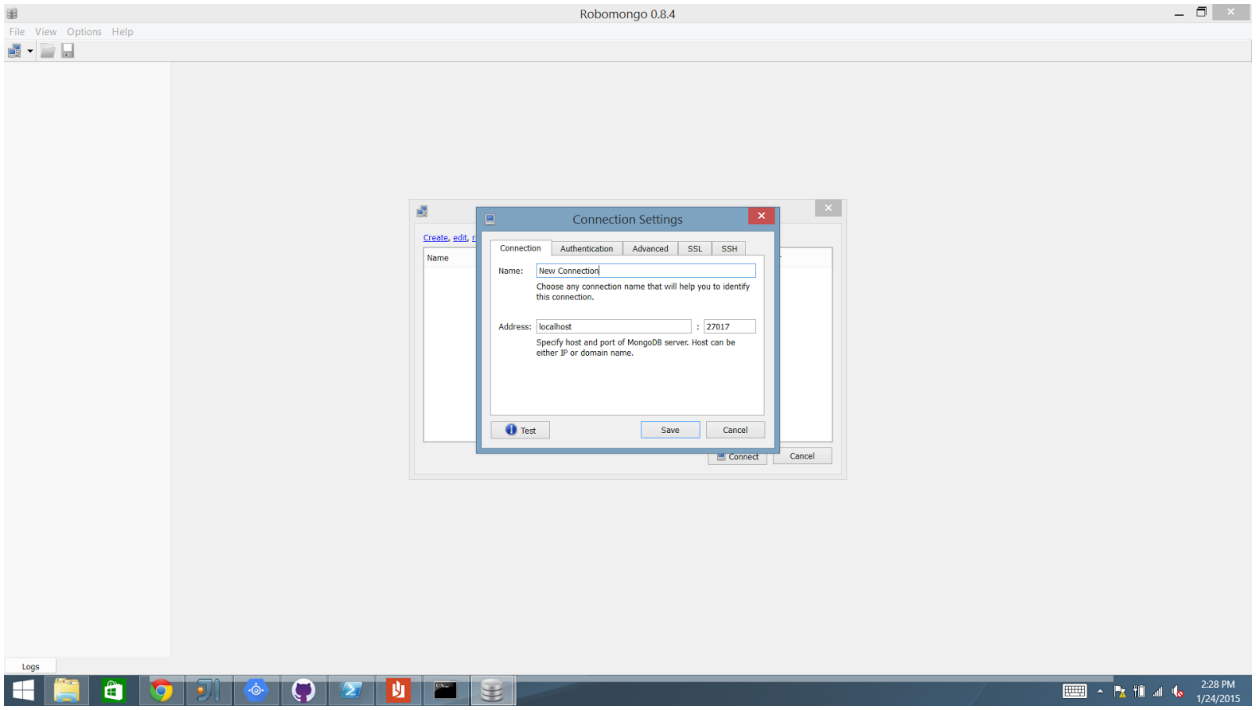


To install ROBOMONGO
Google Robomongo and click the right operating system.

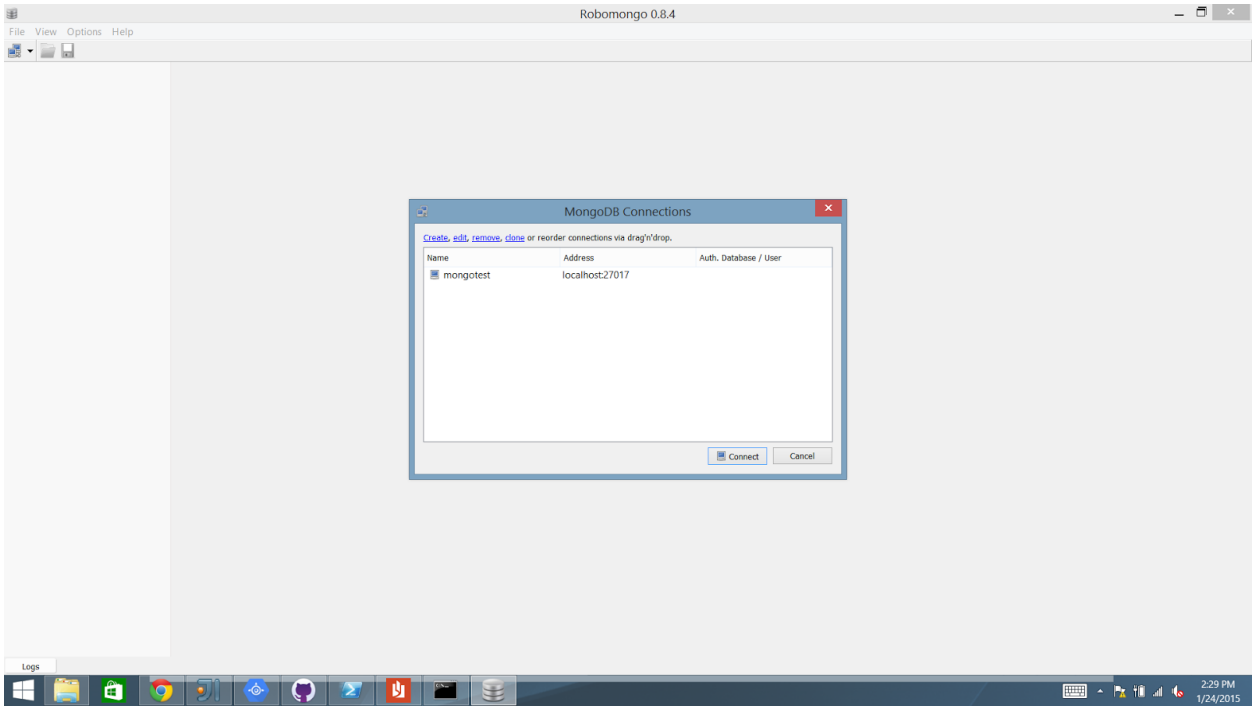
Open it up and click connect under the file bar.



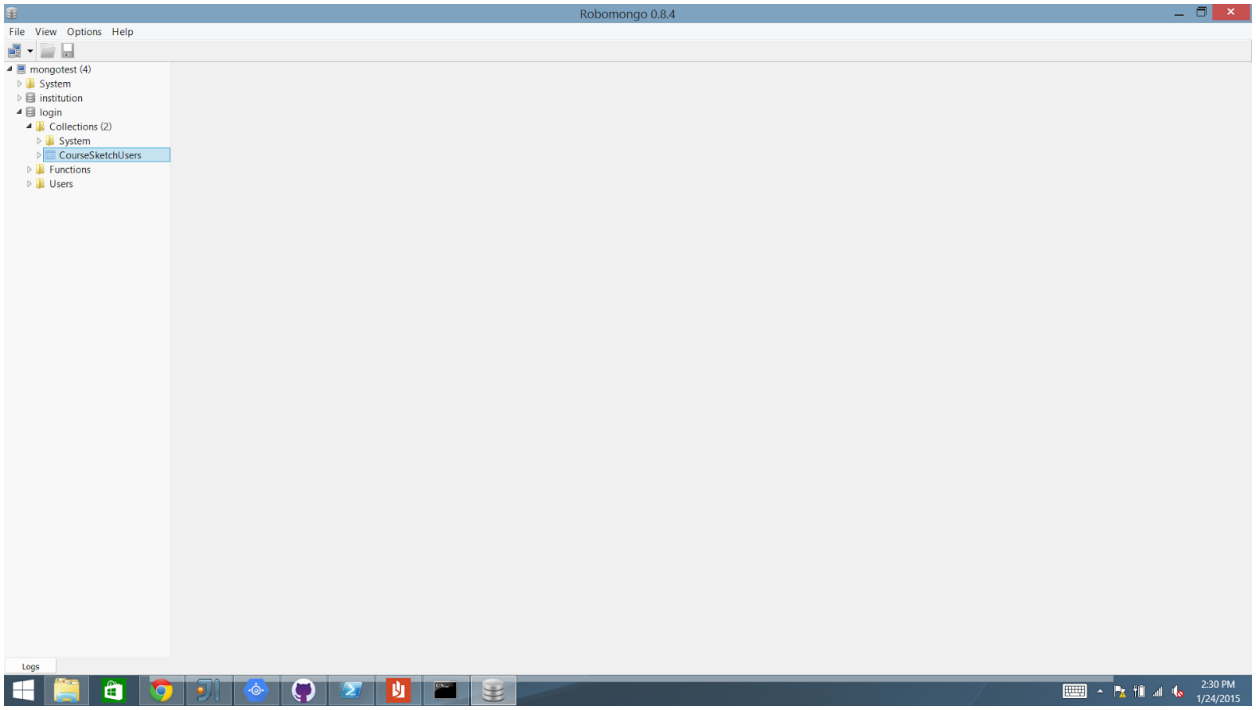
click create and then you should see this screen



put something in the name section EX(mongotest)
then press save

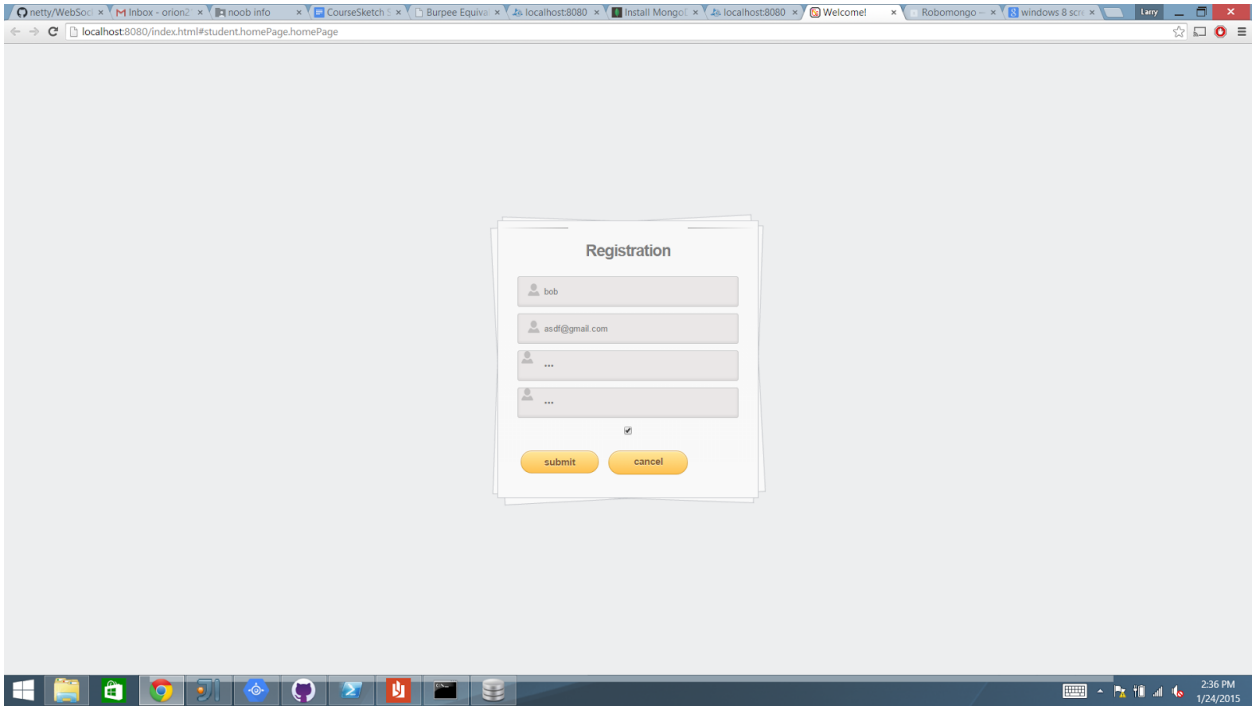


after you selected and connect and you should be able to open it up and look like this

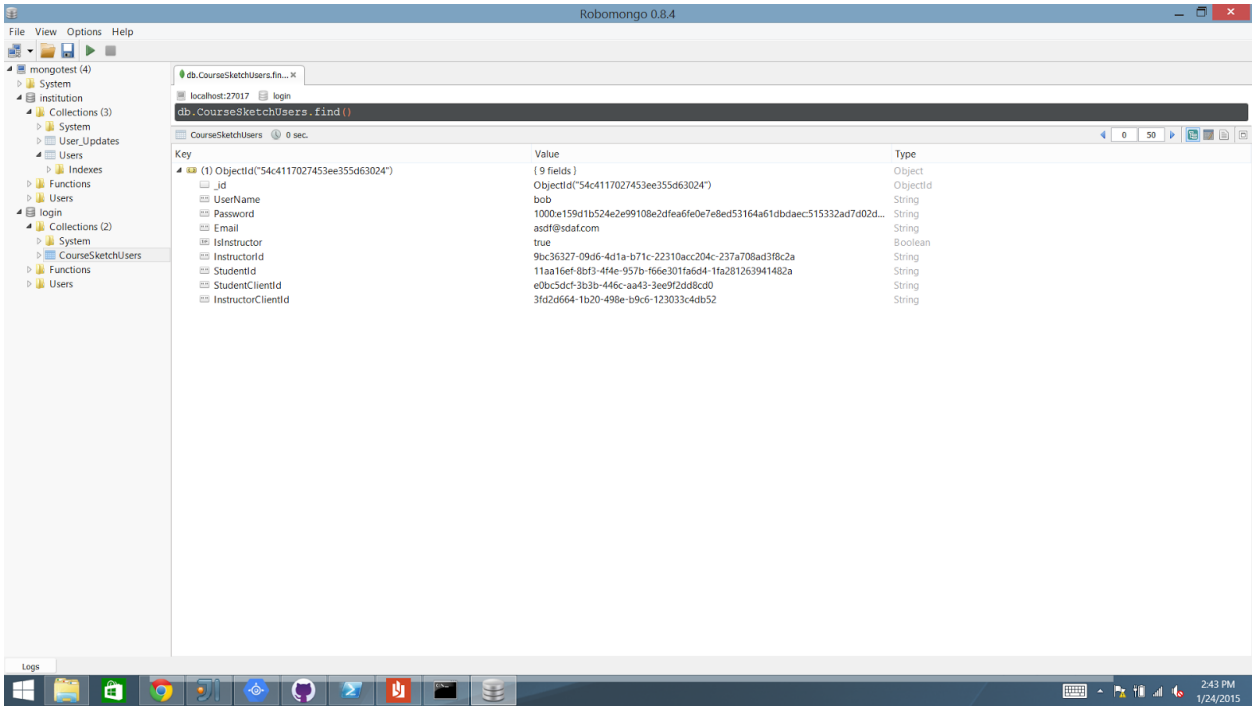


How to set up fake data

make an instructor account

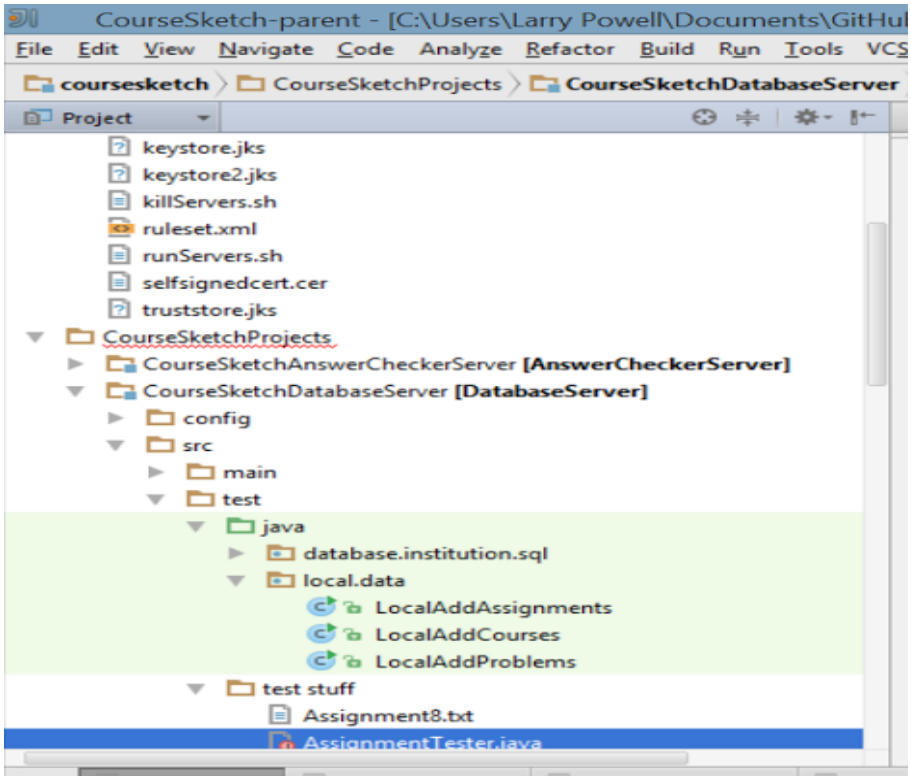


go back to Robomongo

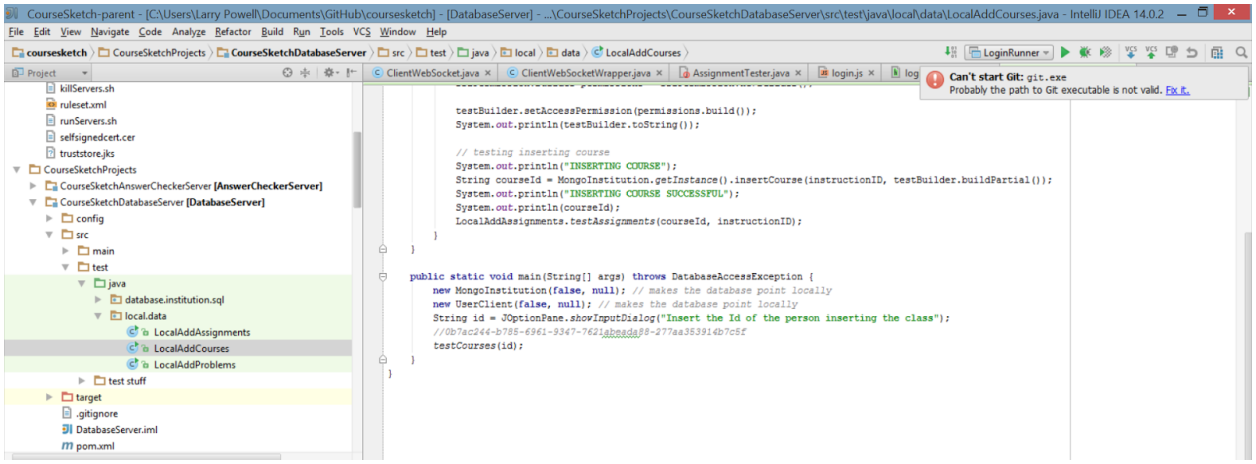


COPY the instructor ID

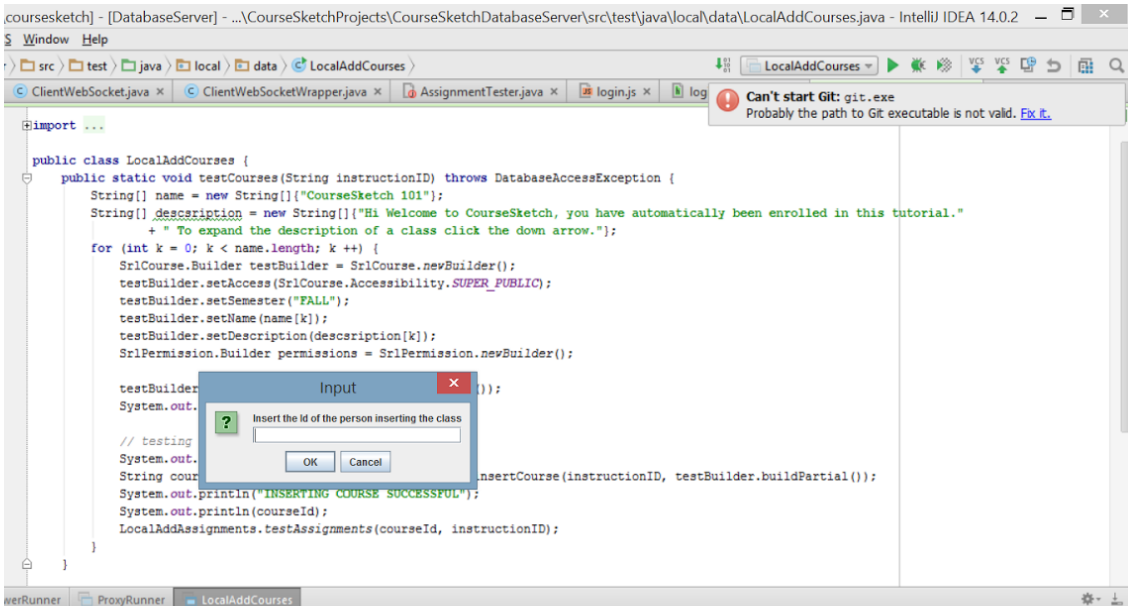
go back to intellij and open up database server



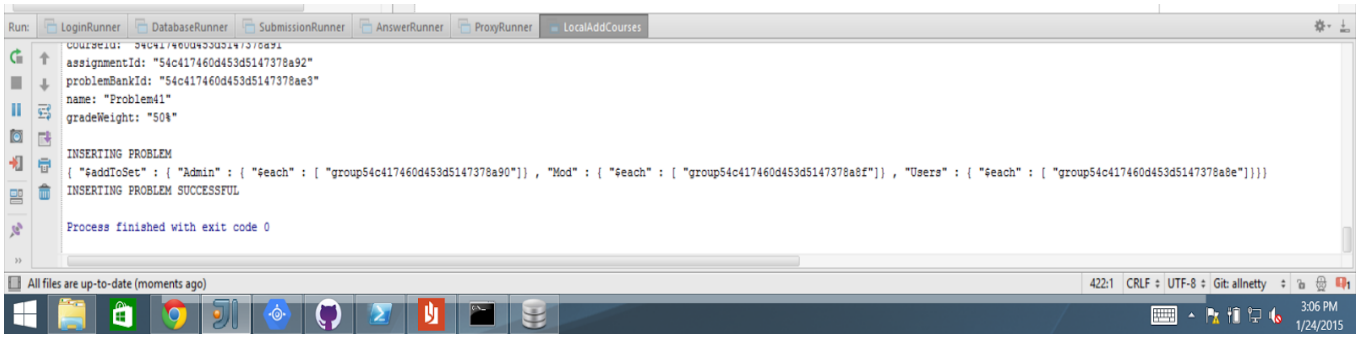
Open up *LocalAddCourses*



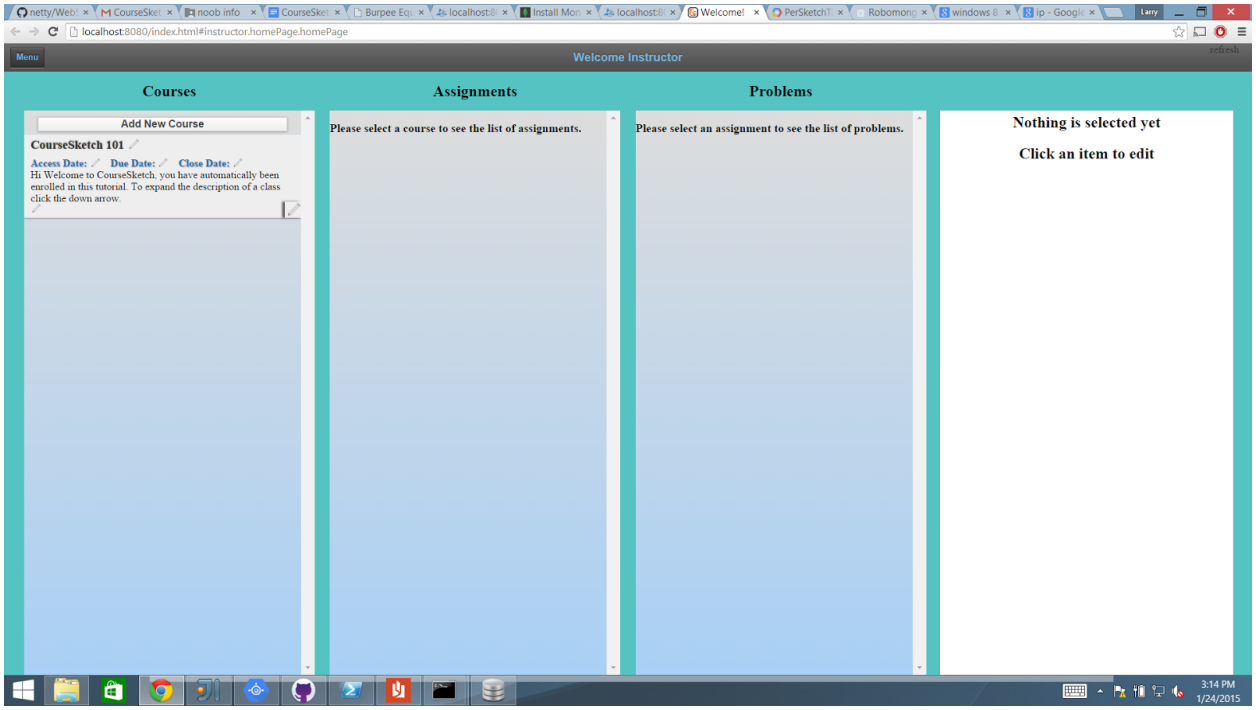
run program you should see this window



paste the ID you copied in Robomongo and put it in the field
you should see these values at the bottom



log back into course sketch you should see this window



YOU MADE IT!!!!!!!

If you made it this far you followed all instructions and you are now 100% setup to develop coursesketch.