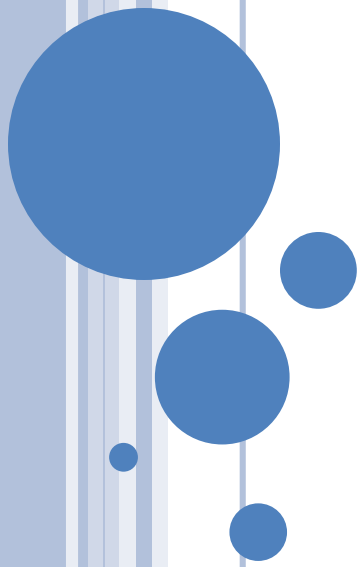


Executing Runtime Checks (For Comp401 and Comp410)

Instructor: Prasun Dewan (FB 150, dewan@unc.edu)

Goal

- To run checks provided by the instructor on some testable project that a student has written

Download Instructor Checks

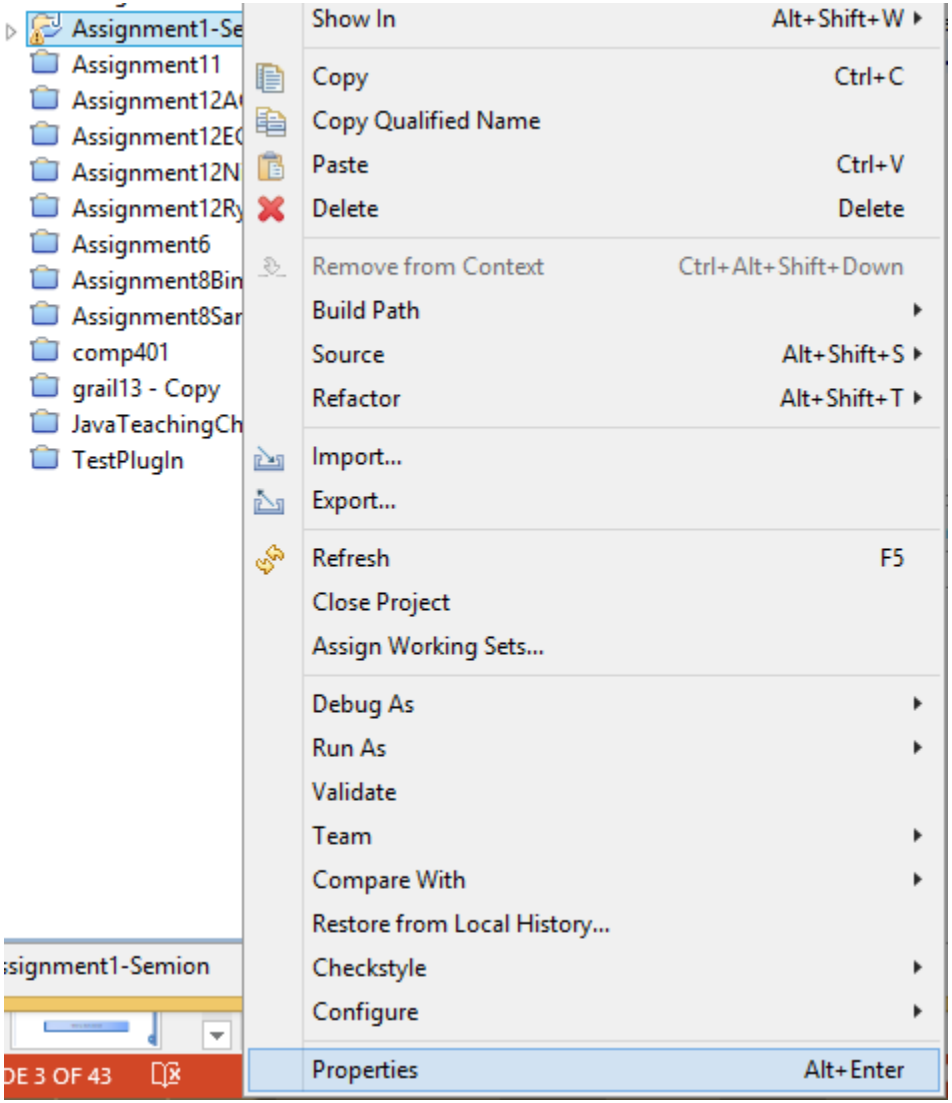
Downloads

ObjectEditor Version 3 (used in comp110)	oeall3
ObjectEditor Version 19 (used last year)	oeall19
ObjectEditor Version 21	oeall21
ObjectEditor Version 22 (latest, use this unless it fails on you)	oeall22
Checkstyle	UNCChecks_6.5.0.jar Checkstyle 6.5 zip
Runtimechecks (Includes oeall22.jar)	Comp401LocalChecks (Git code) Comp401LocalChecks.jar (Library)
Consent Form	ConsentForm
Images	images.zip

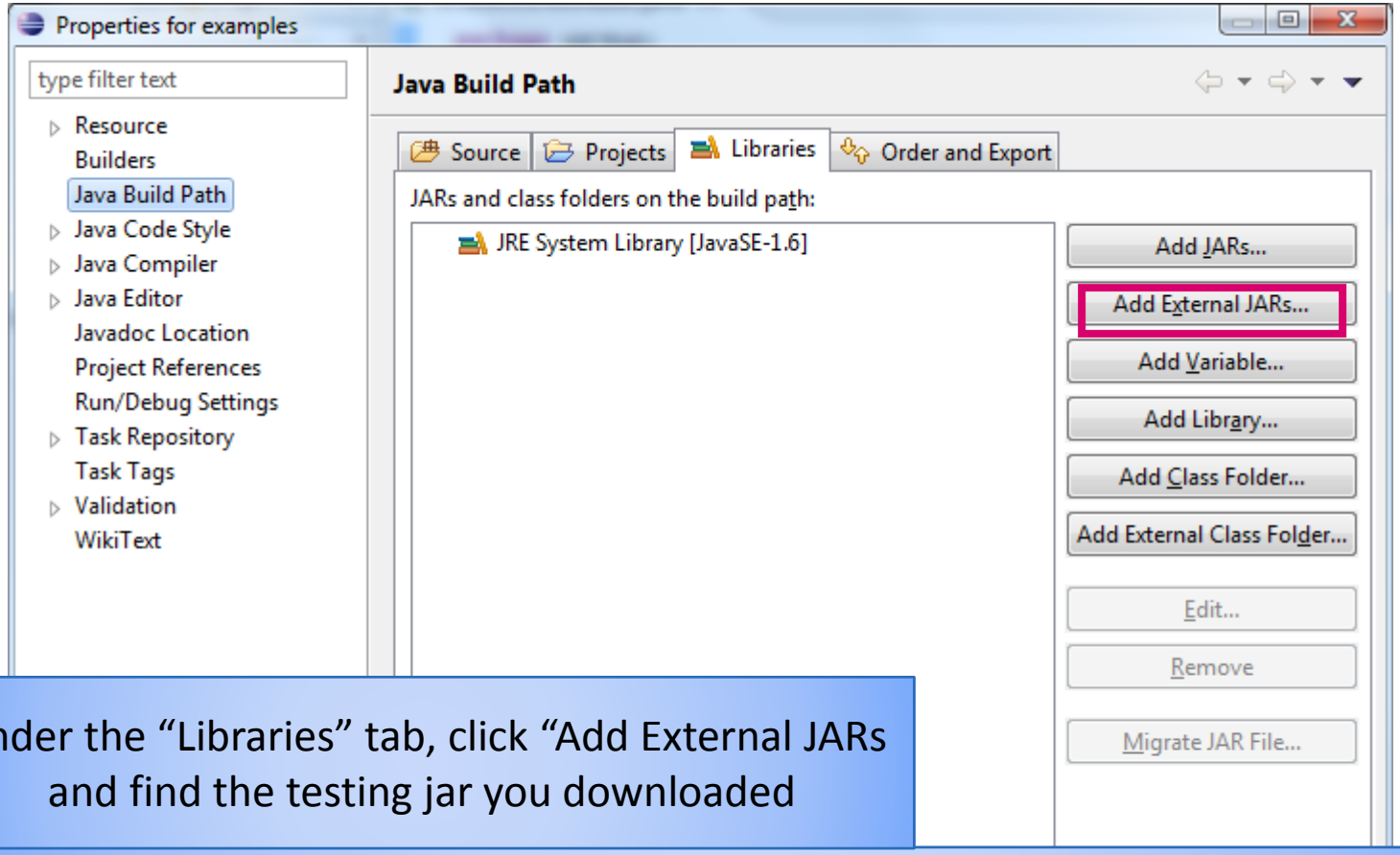
The name of the jar file and the web page from where it is accessible will depend on the course. This is the Comp401 jar

Next step is to associate the tested project with this downloaded external library, which also includes oeall22.jar, in case your project requires it

Select Testable Project and Right-Click



Build Path

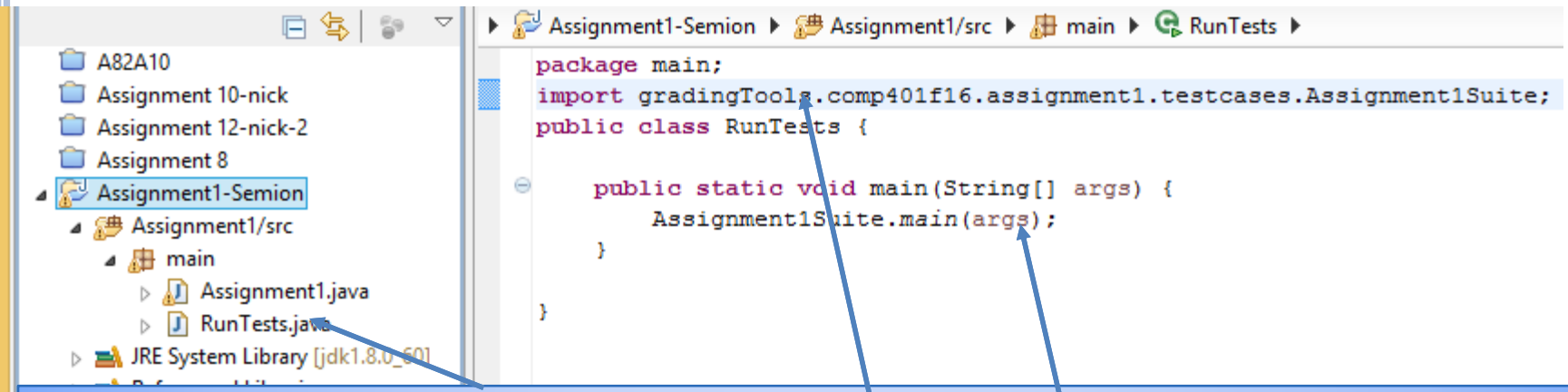


Under the “Libraries” tab, click “Add External JARs and find the testing jar you downloaded

Next step is to run the appropriate method of the downloaded checks

There are three ways to do so; Method 1 may be the easiest but requires the creation of a new class, which methods 2 and 3 do not

Creating Test Main Class in Testable Project: Method 1

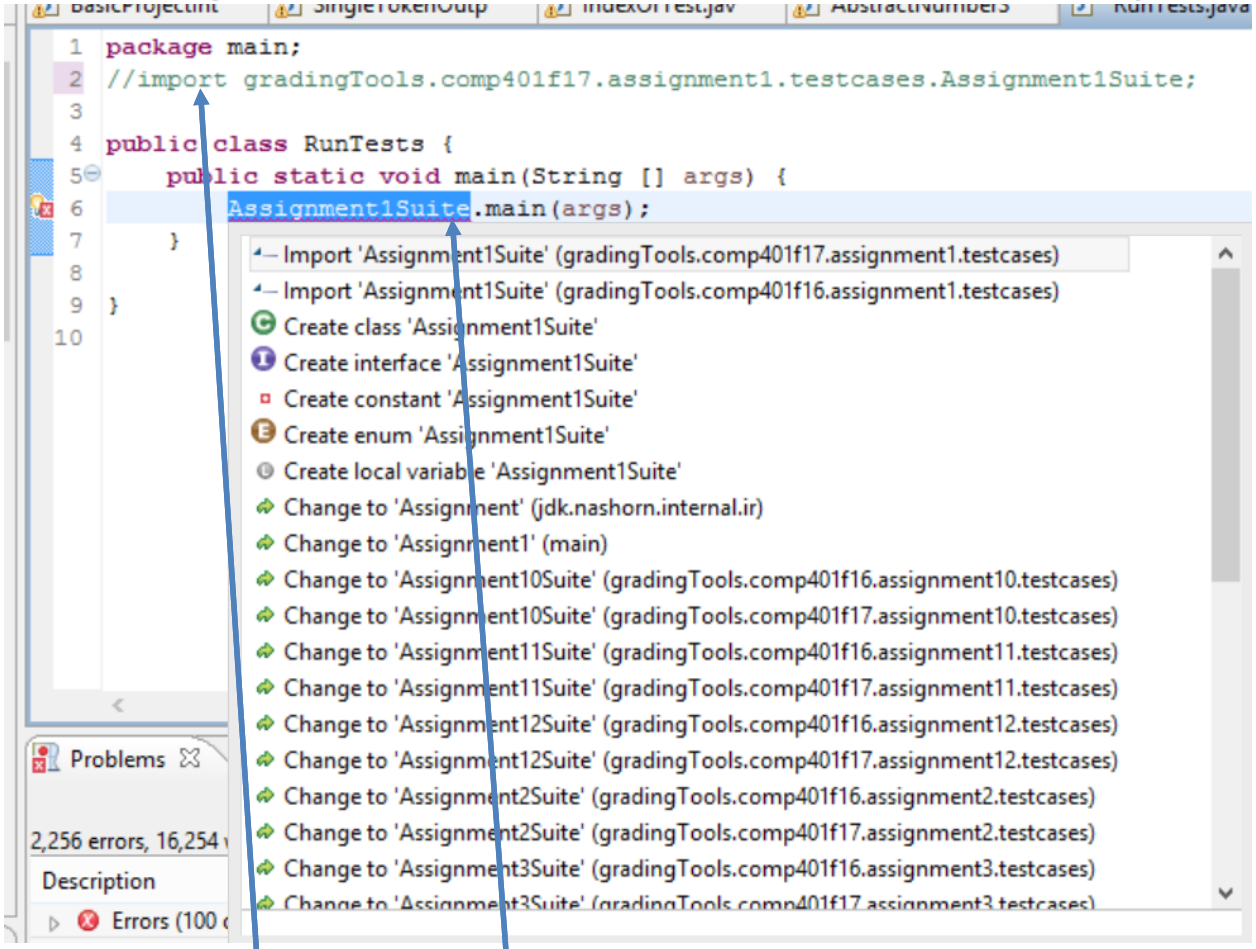


Create a class in your project (e.g. RunTests.java) with a main method

Import the library class used for testing (The name follows the pattern: gradingTools.<CourseName><Semester>.<Assignment>.testcases.<Assignment>Suite

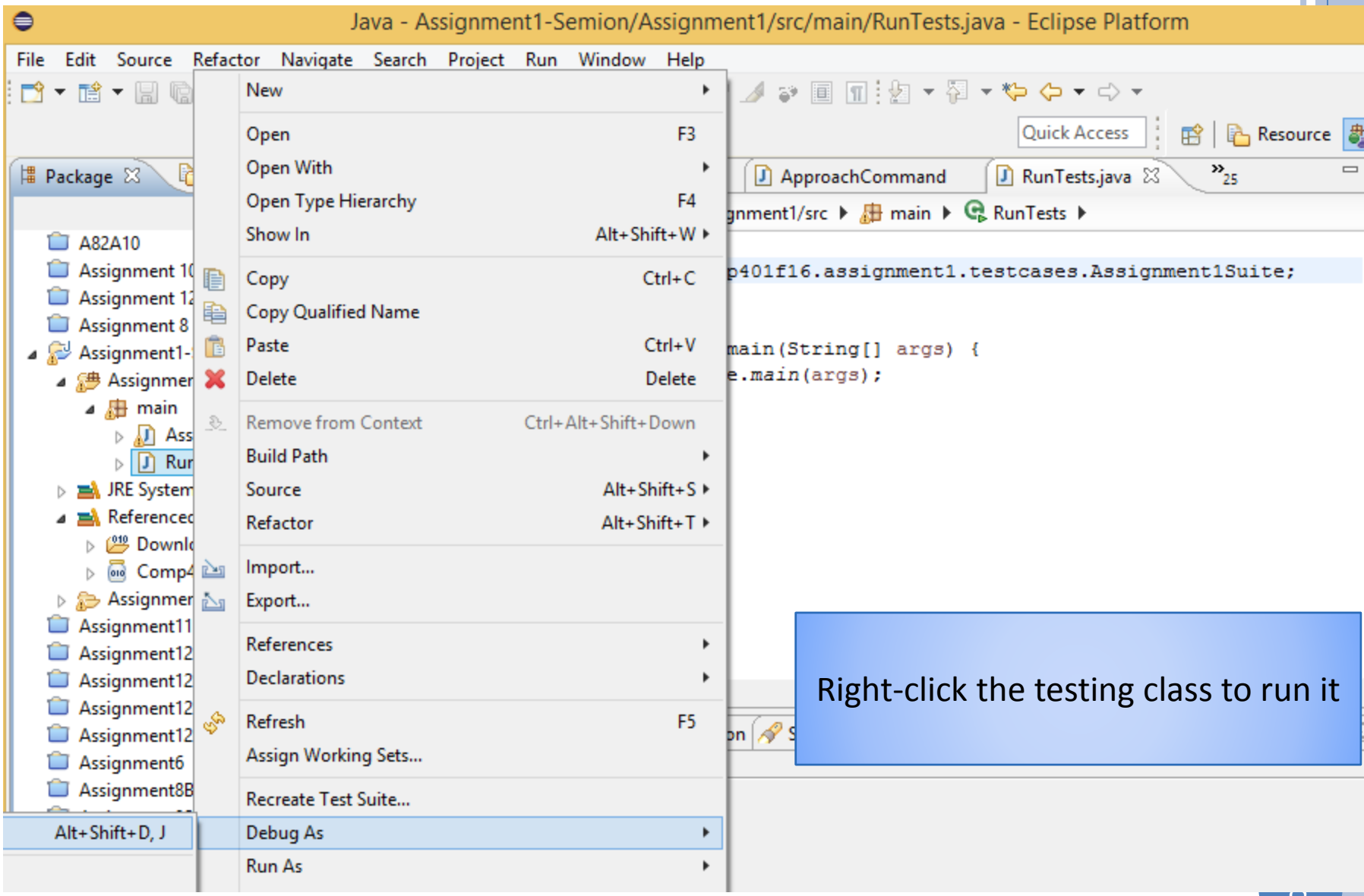
Call the library main method from your main class, passing through args

Let Eclipse Find the Import

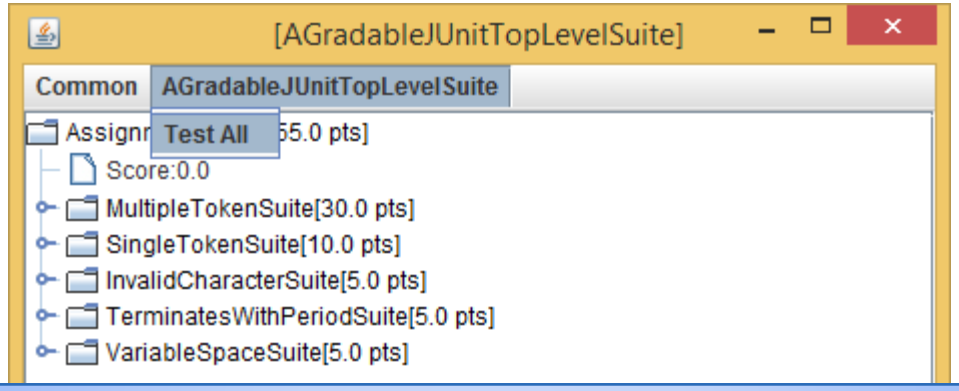


Import commented out, click on error message to let Eclipse find the package

Call Test Main: Method 1



Test Controls



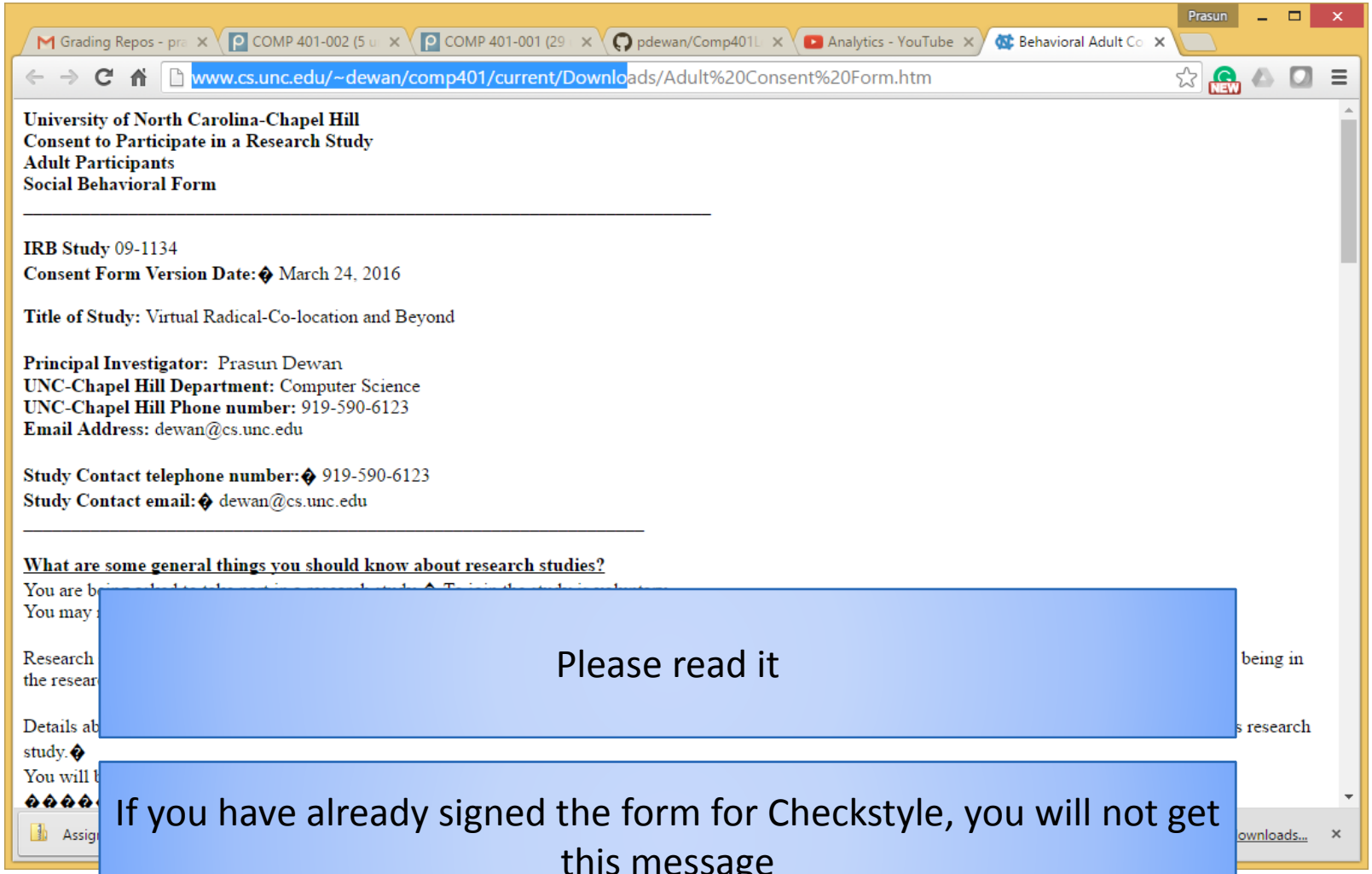
A UI is created to test assignment features and display results

Test All will test all of them.

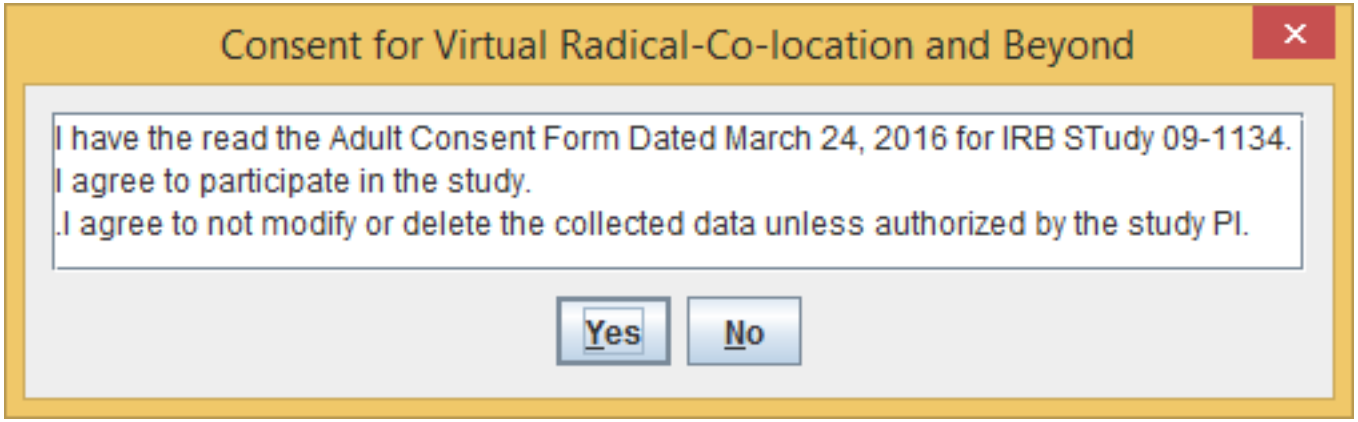
Unfortunately Java does not resize text when you resize windows, this window may be too small to read. Will use a bigger font as soon as I get a chance to change the UI code.

This is research code and we will collect data to improve its usage and report on it – so you must agree to our doing so.

IRB Form Displayed in Browser



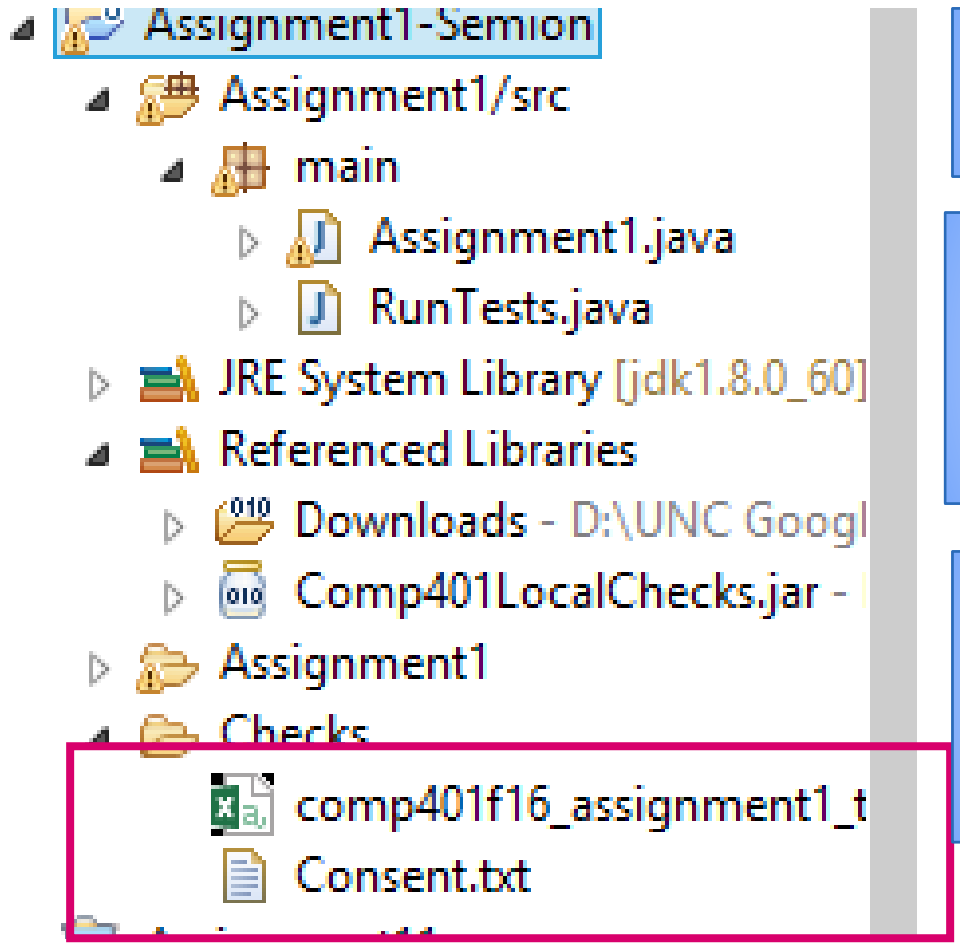
Signing Consent Form



Sign it if you agree (We will not look at the data the semester you take the course)

This window may be under some other windows – in particular the web browser, so you may have to minimize other windows to find it

Consent File and Log

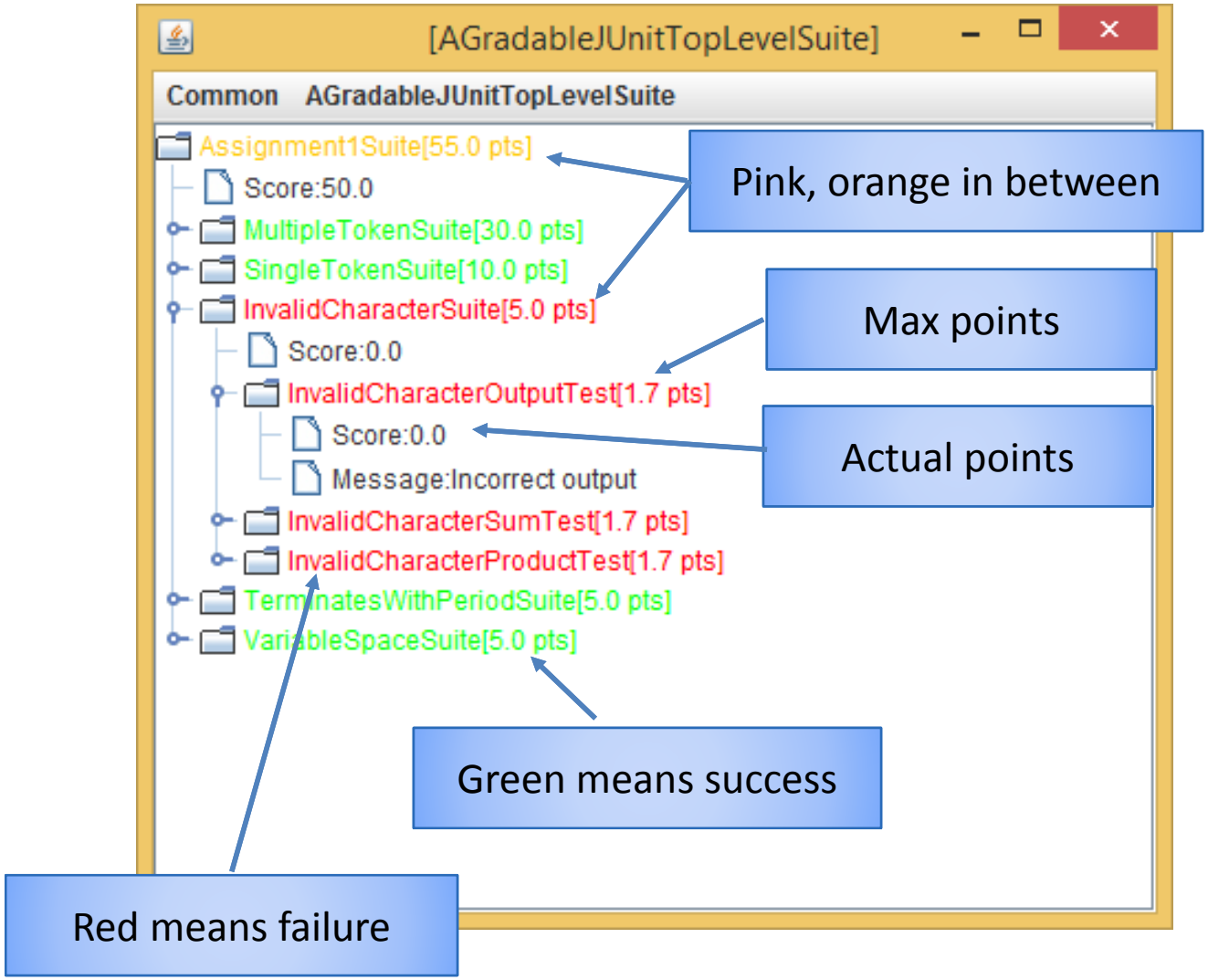


Consent is per project

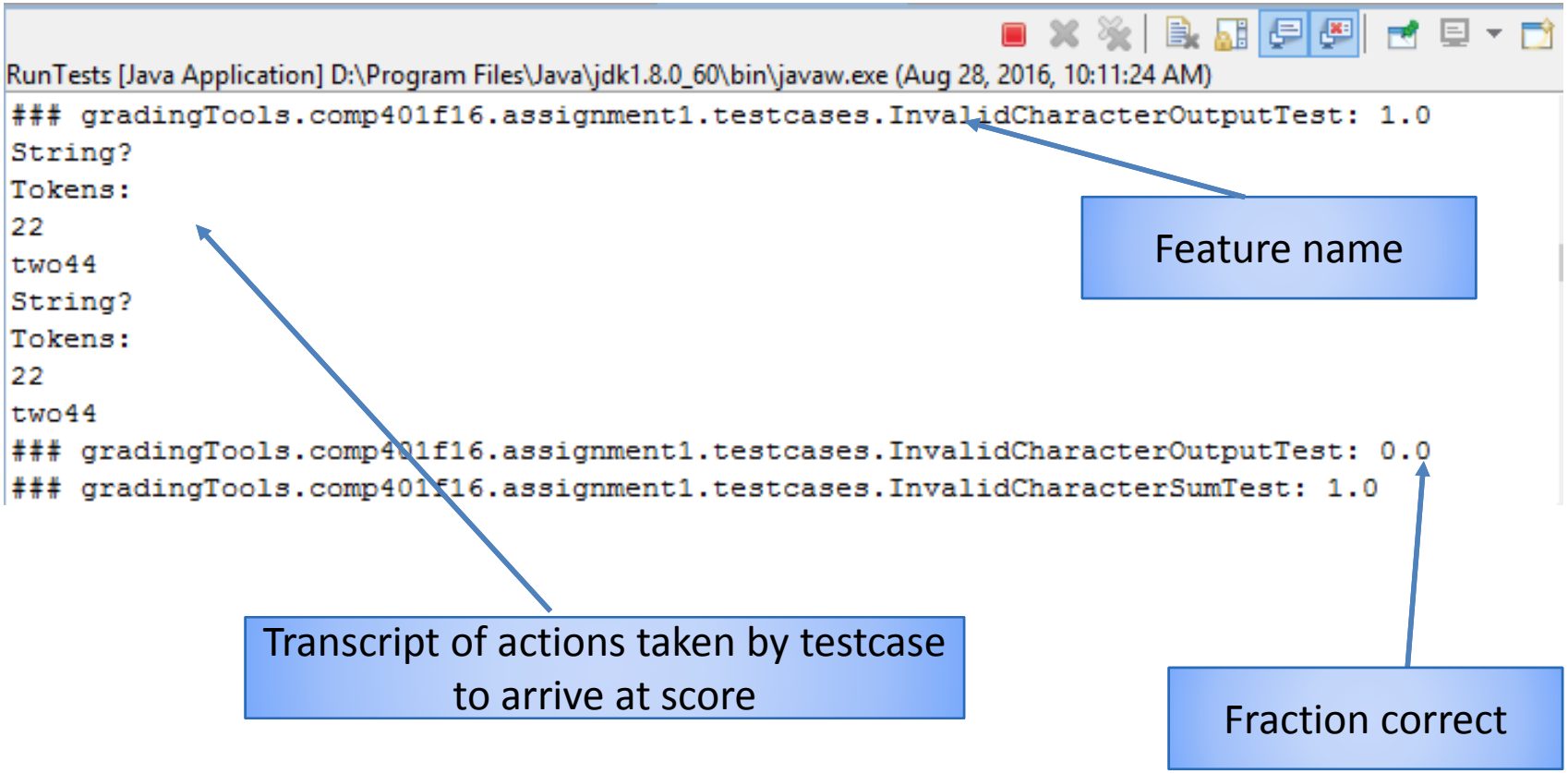
If you create a new project by copying a previous project, the consent form gets copied

(The folder on the left can be found by using the "Navigator" view of eclipse (Window->Show View->Navigator). Right-click and hit refresh if you do not see it.)

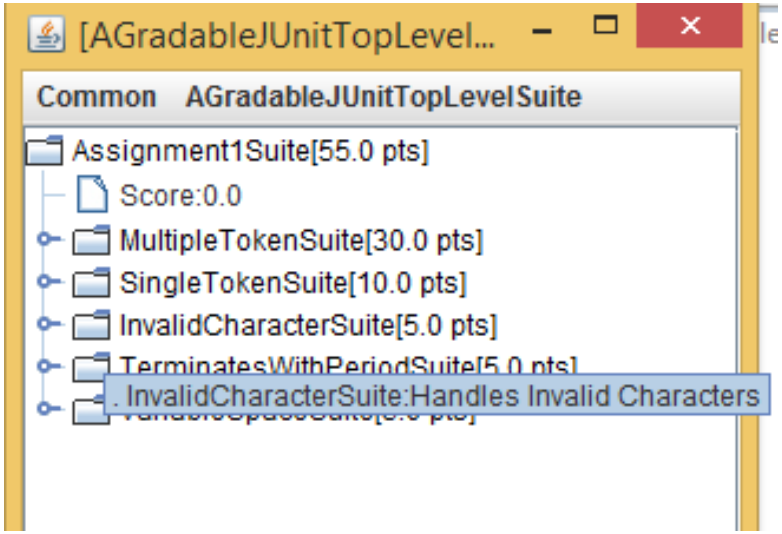
Result of Running Tests in Controls



Result of Running Tests in Console



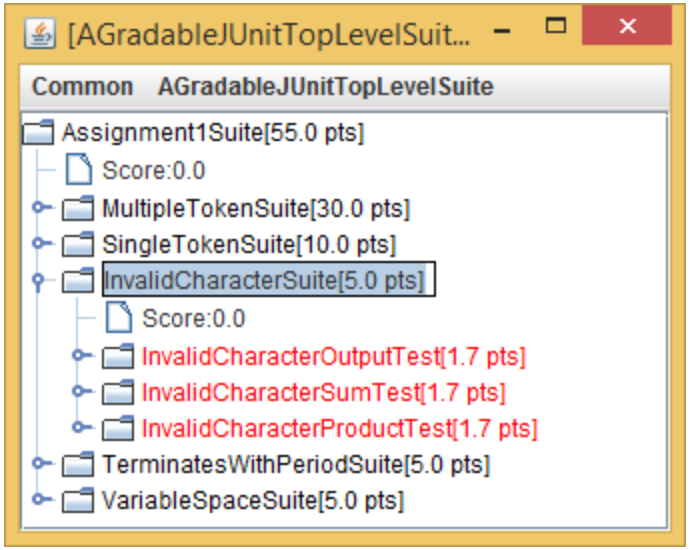
Run an Individual test or Suite



Hovering on a test or suite shows explanation message, if it exists

Double clicking on the suite/test will run it individually

Run an Individual test or Suite

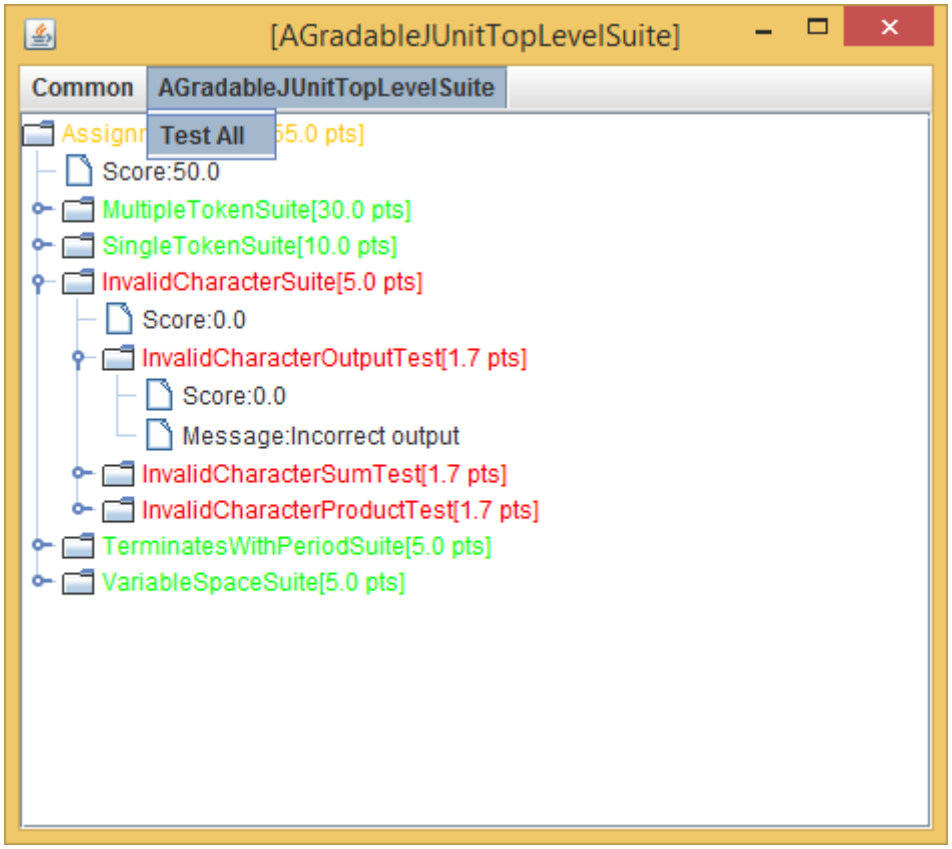


Only that test or suite is run

```
ObjectEditor(Version 22, built on Fri Jul 29 01:20:42 EDT 2016). Copyright Prasun Dewan, 2(
### gradingTools.comp401f16.assignment1.testcases.InvalidCharacterOutputTest: 1.0
String?
Tokens:
22
two44
String?
Tokens:
22
two44
### gradingTools.comp401f16.assignment1.testcases.InvalidCharacterOutputTest: 0.0
```

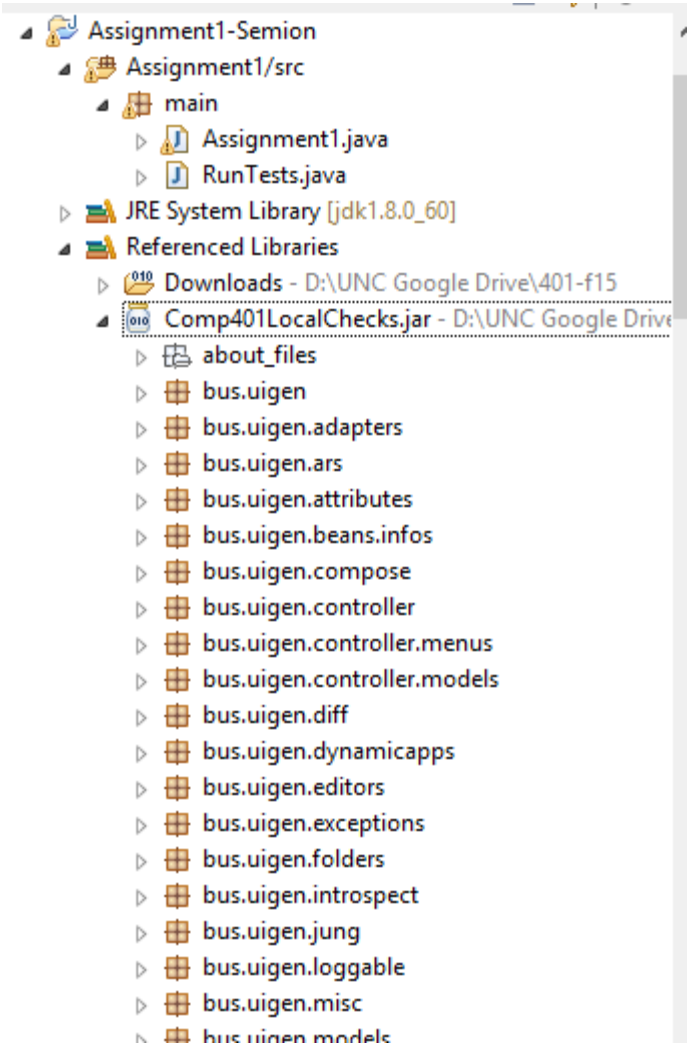
The transcript contains results of only that test/suite

Iterative Development



You can modify code and run tests again, to iteratively develop program

Running Local Check Main Directly: Method 2

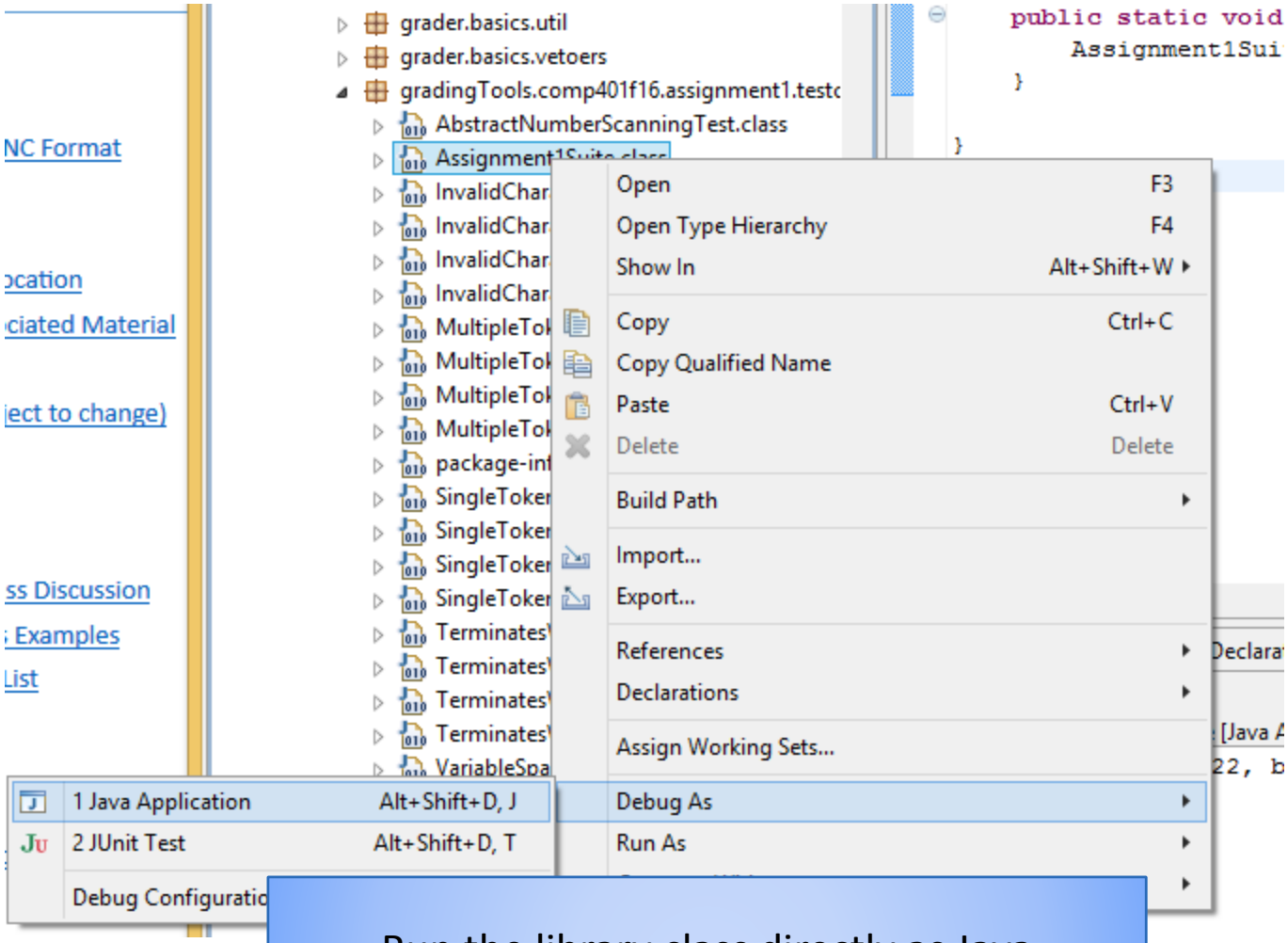


After adding the jar to Libraries, expand “local checks” jar in Referenced Libraries

There are lots of packages in the jar!

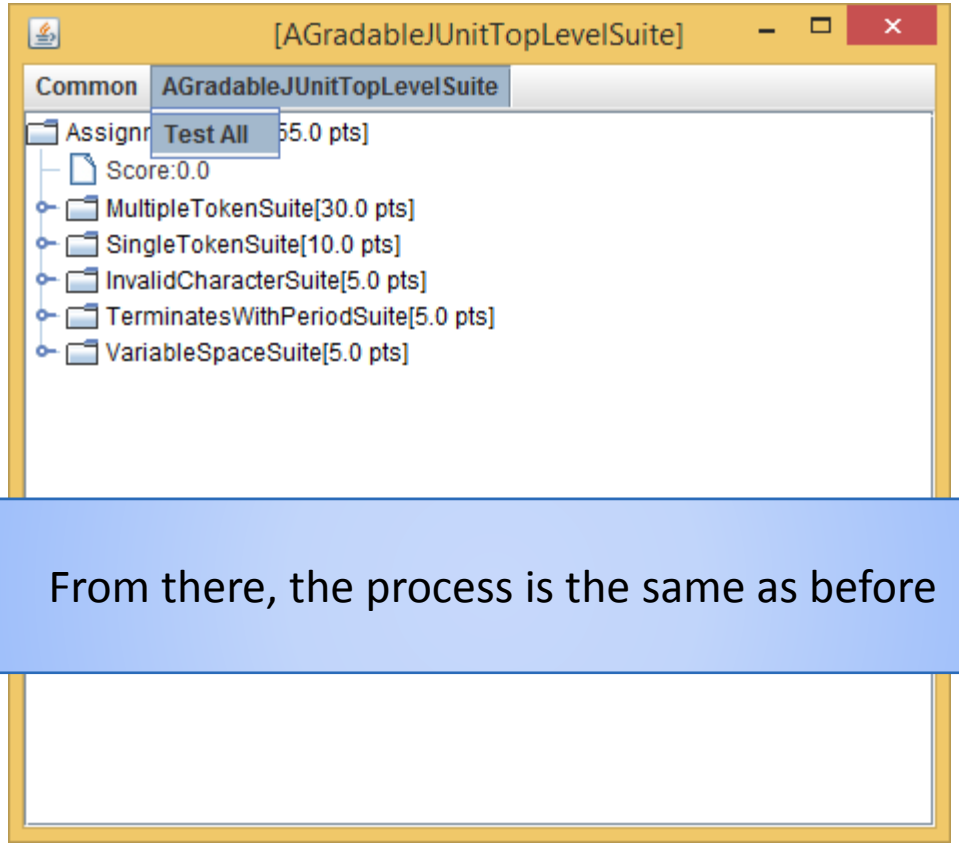
Scroll down to the test suite: gradingTools.<CourseName><Semester>.<Assignment>.testcases.<Assignment>Suite

Running Local Check Main Directly: Method 2



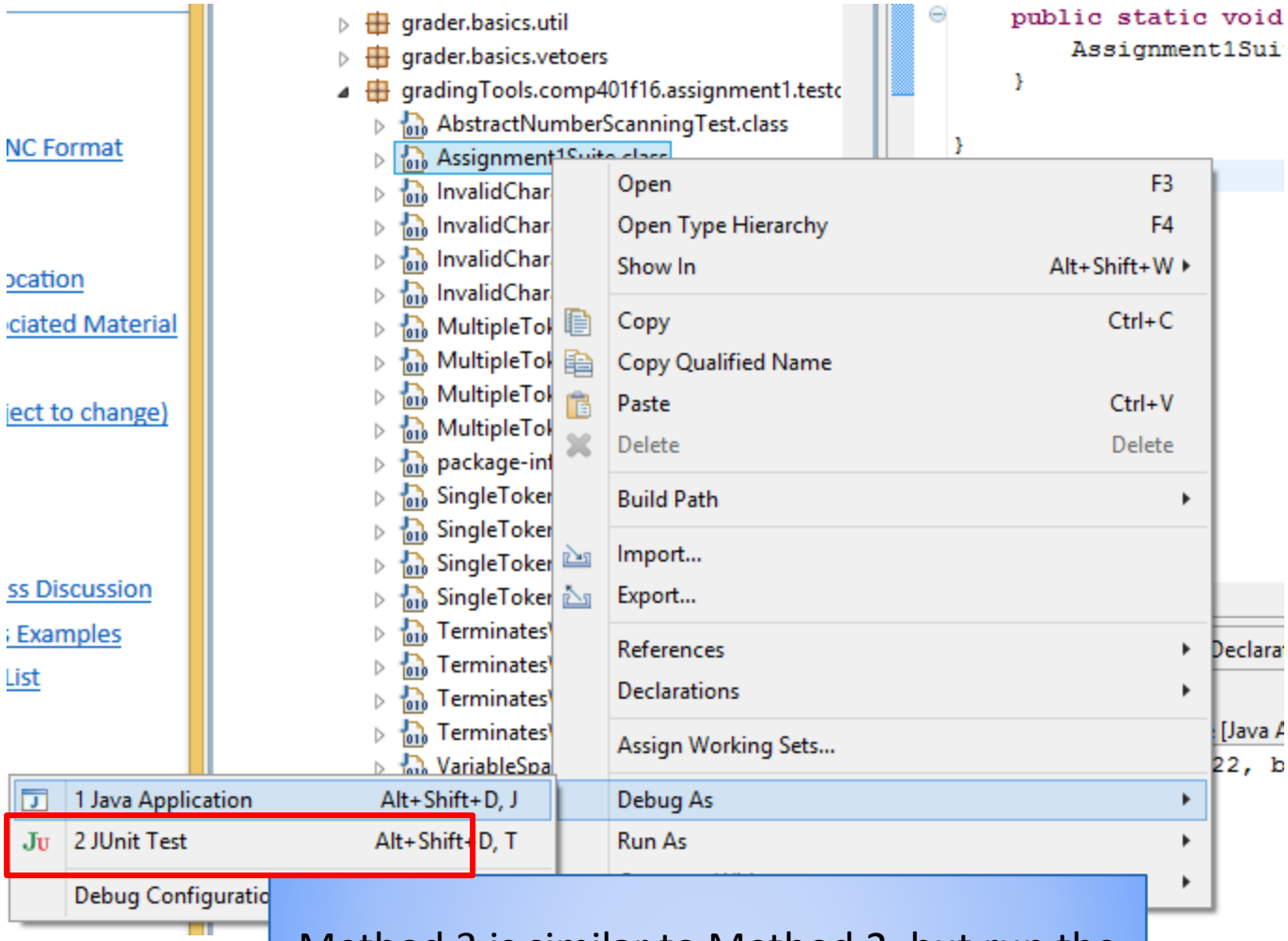
Run the library class directly as Java Application

Running Local Check Main Directly: Method 2



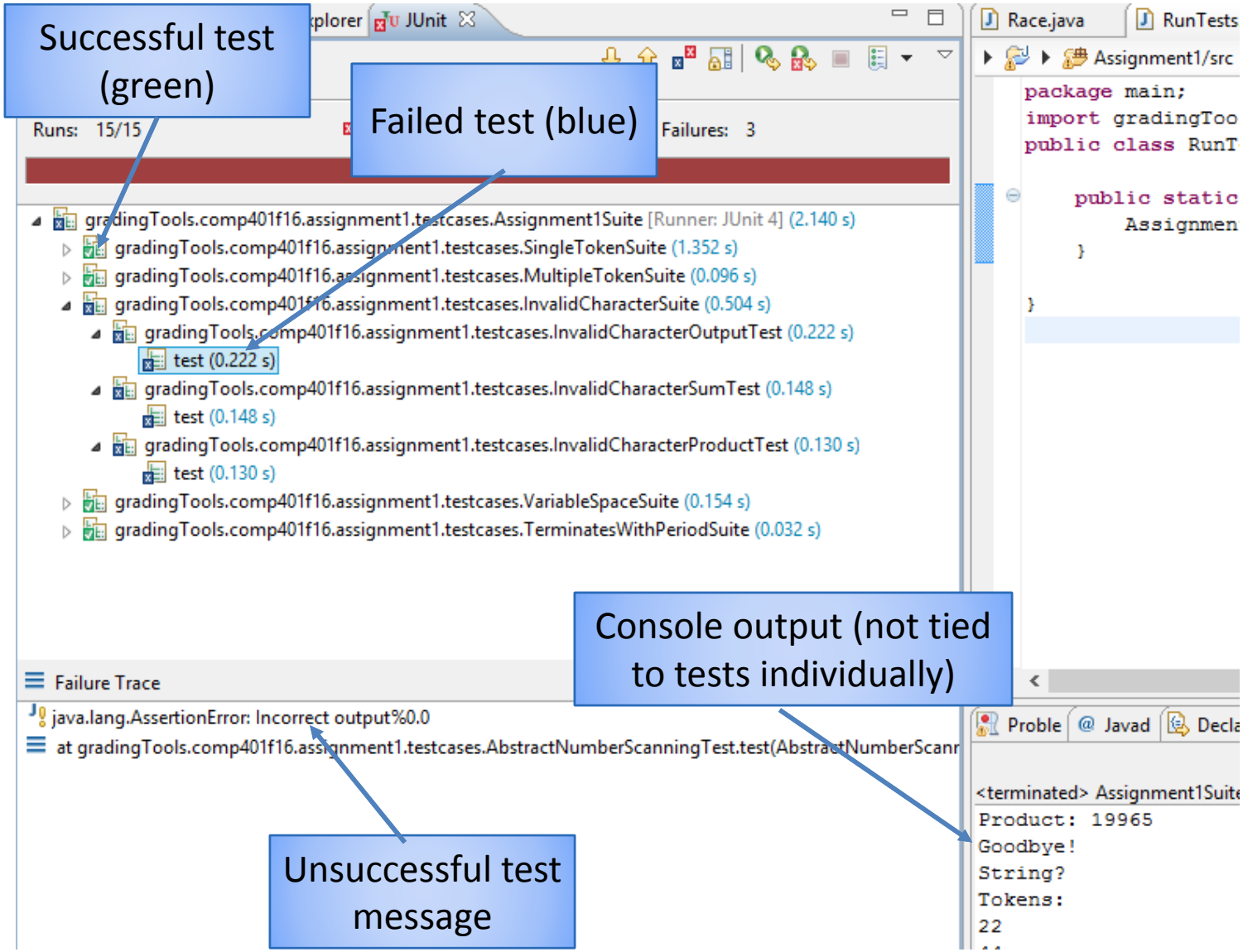
From there, the process is the same as before

Running Local Check as JUNIT Test: Method 3

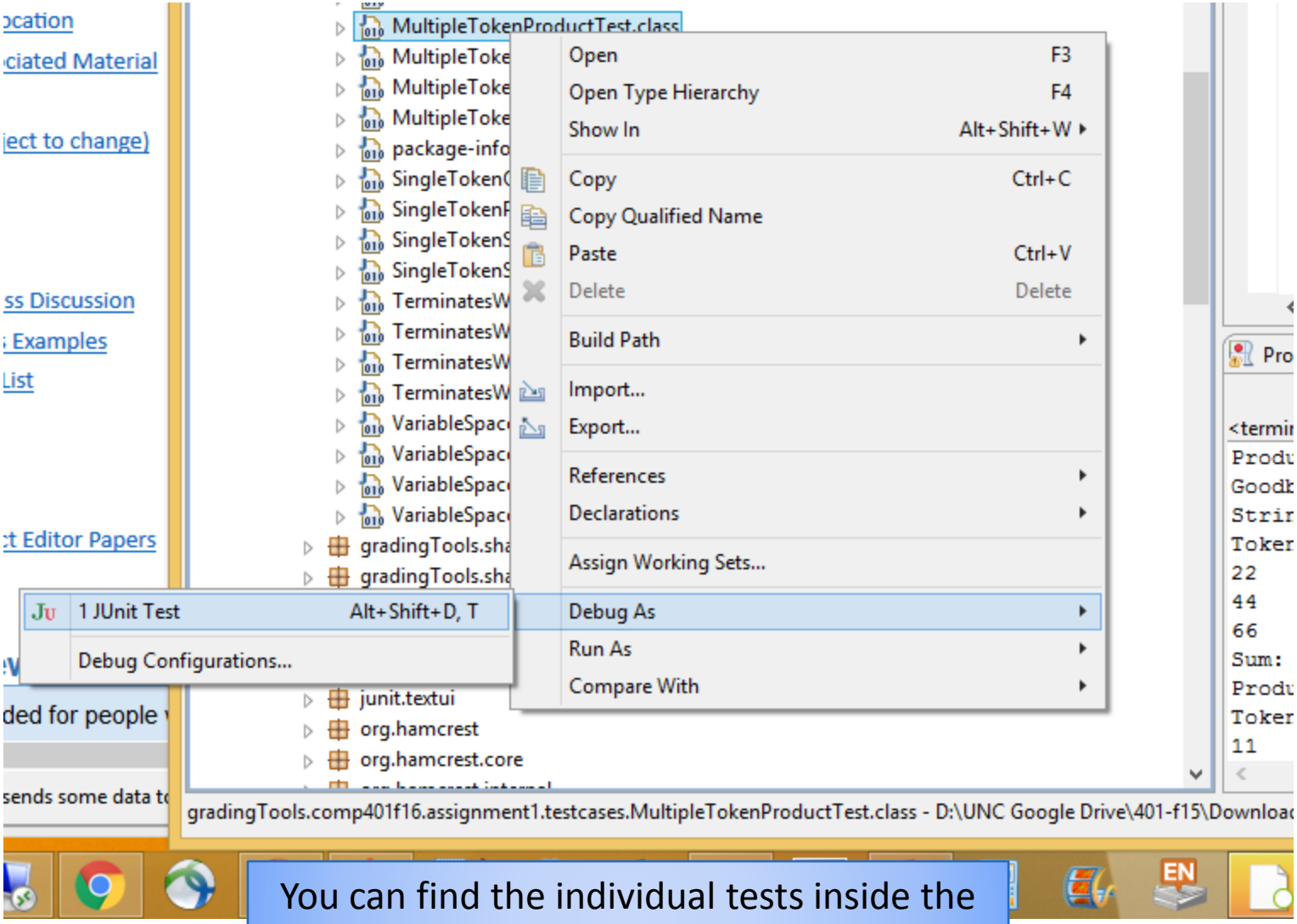


Method 3 is similar to Method 2, but run the library class as JUnit Test

Standard Eclipse JUnit UI



Running Individual tests in JUnit (Method 3)



You can find the individual tests inside the jar and run them as a Junit test

Feedback

Send feedback (pain points, suggestions) to dewan@unc.edu