Installing and running the local check and grader projects in Eclipse

Setup projects
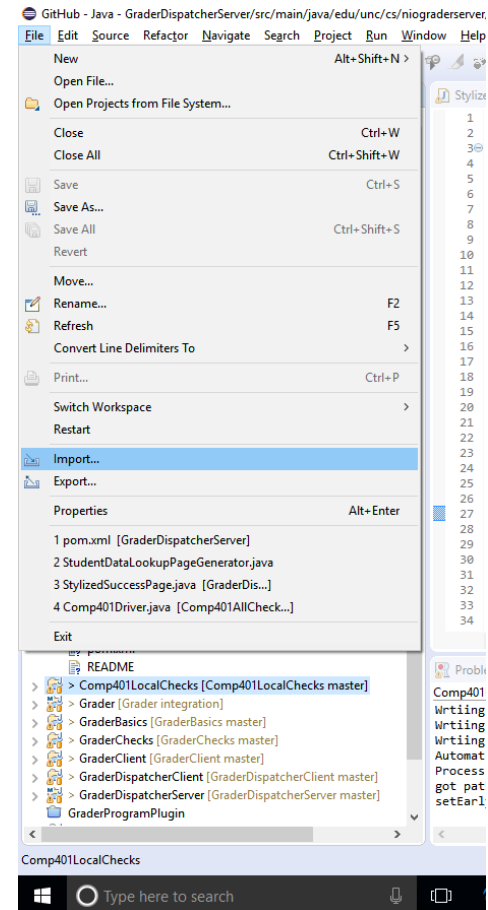
Download projects from Github

Quick overview, in depth follows

- File->Import…
- Git->Projects from git
- Clone URI
  - https://github.com/pdewan/Comp401LocalChecks.git
  - https://github.com/pdewan/GraderBasics.git
  - https://github.com/pdewan/Comp401AllChecks.git
  - https://github.com/pdewan/Grader.git
- Grader branch = integration
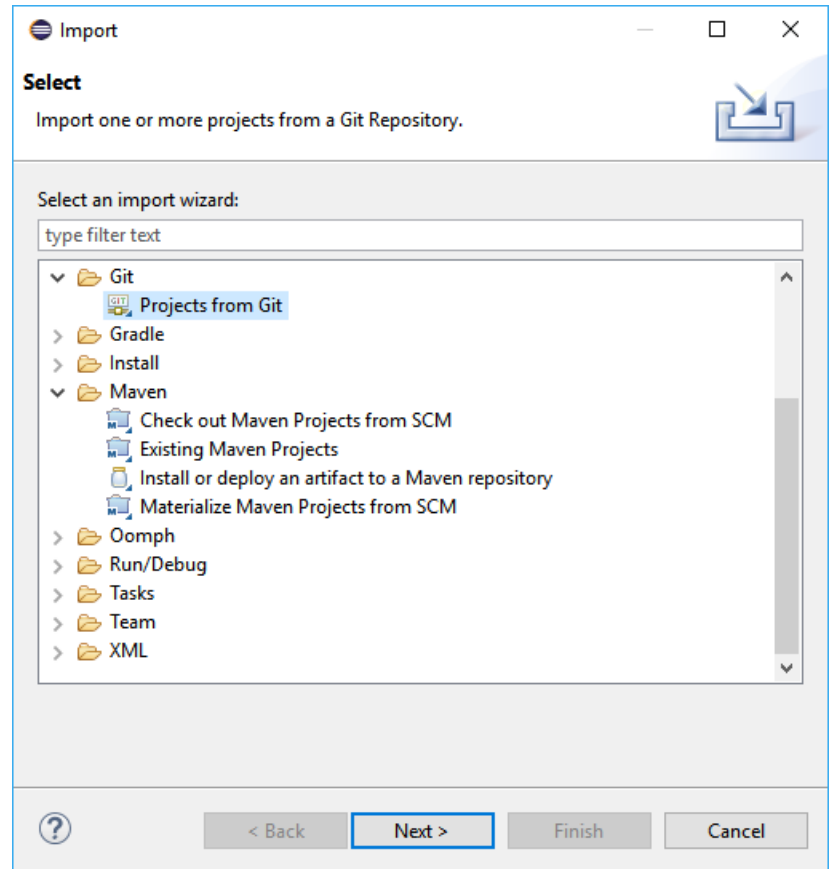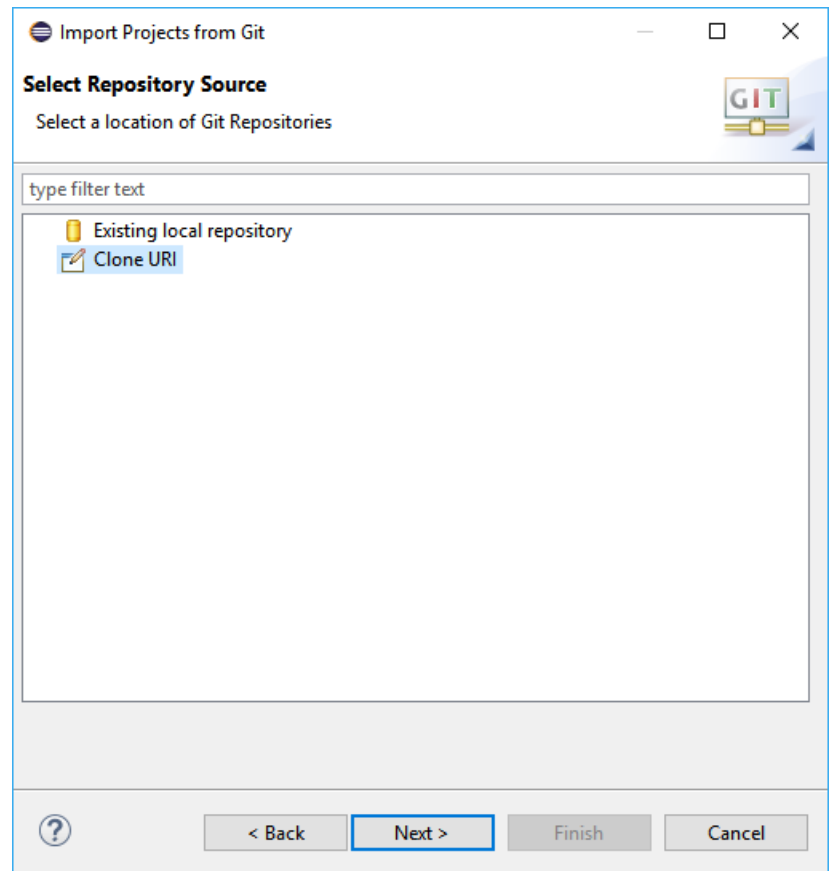- Rest = master

Download projects from Github

- Import project

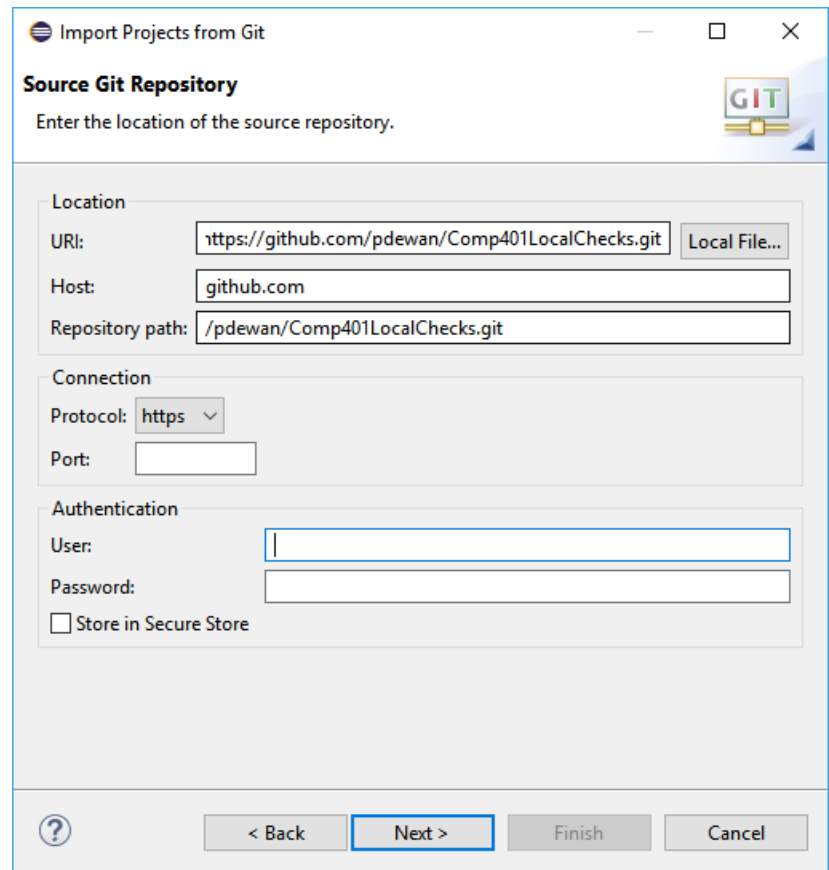# Download projects from Github

- Select "Projects from Git"

Download projects from Github

- Clone URI

- Comp401LocalChecks
  - https://github.com/pdewan/Comp401LocalChecks.git
- GraderBasics
  - https://github.com/pdewan/GraderBasics.git
- Comp401AllChecks
  - https://github.com/pdewan/Comp401AllChecks.git
- Grader
  - https://github.com/pdewan/Grader.git

Download projects from Github

- Set the URI for the project from GitHub

- Eclipse autocompletes the rest
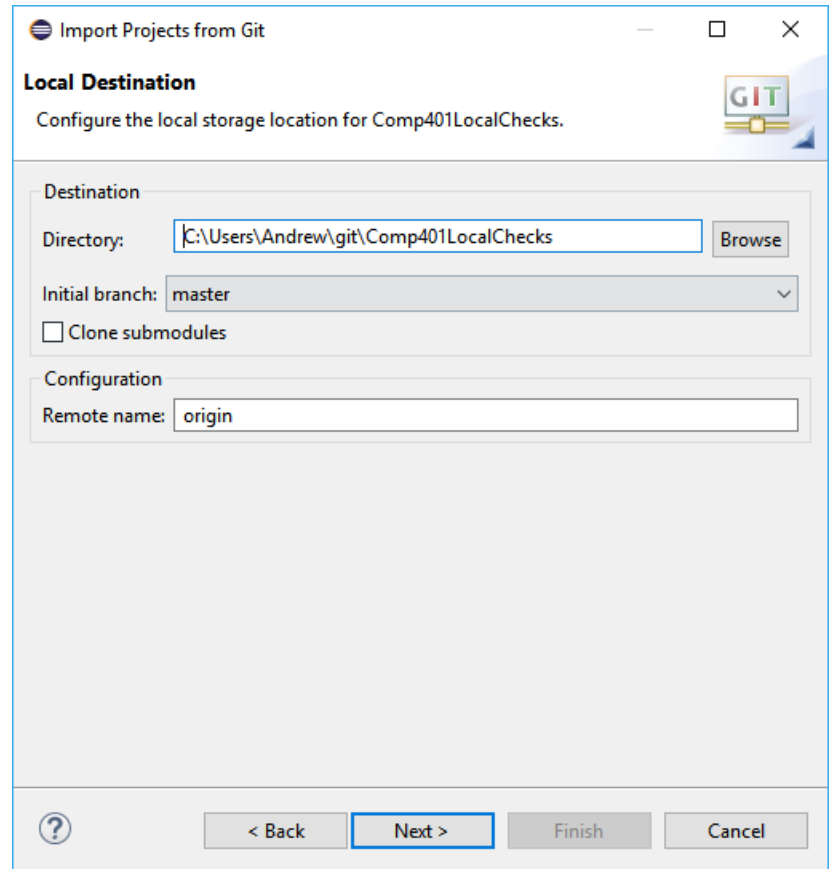
Download projects from Github

- Choose the "master" branch for all but grader
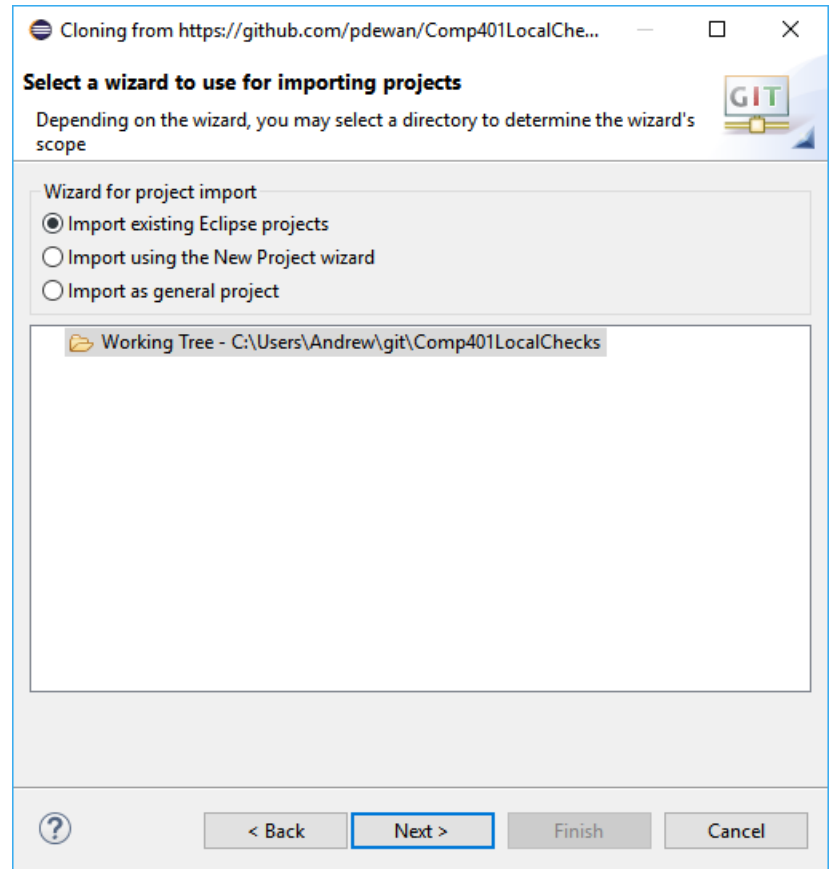
- Grader is "integration" branch
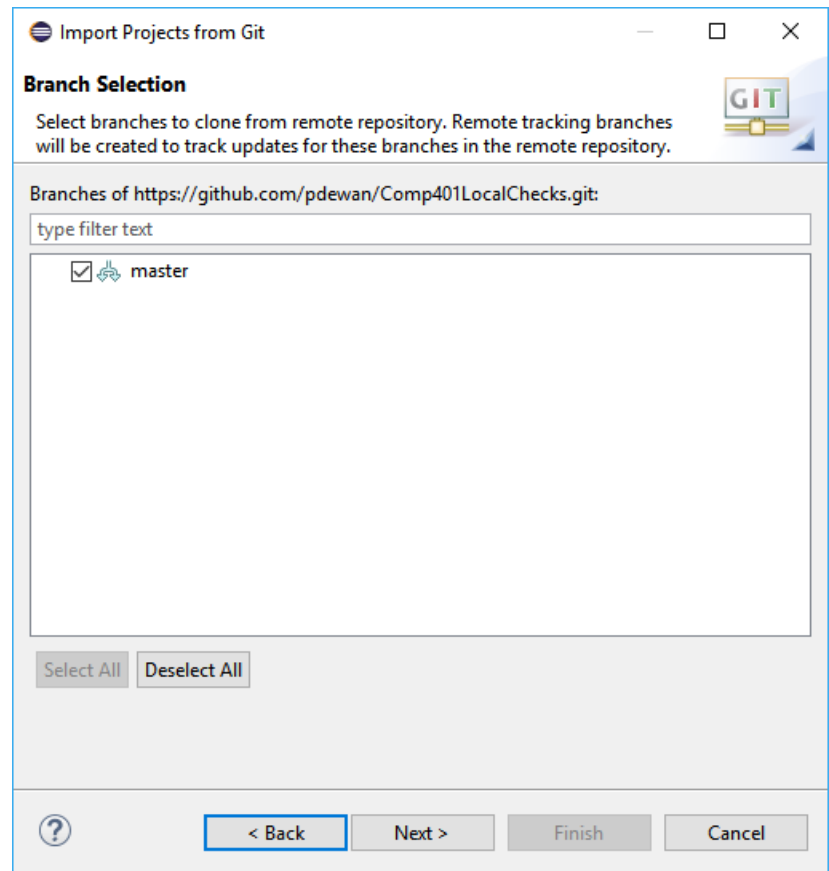
Download projects from Github
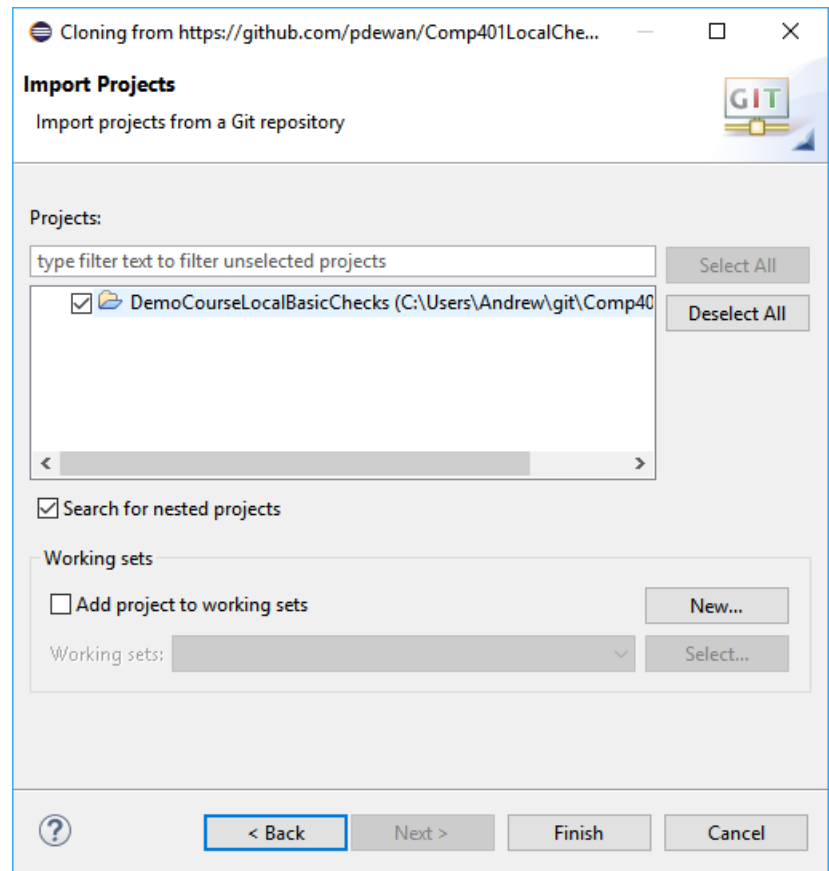
- Choose a directory to save the git project

Download projects from Github

- All projects are existing Eclipse projects

Download projects from Github

- There may be other projects in the git repository, only import the relevant ones (not Assignments)
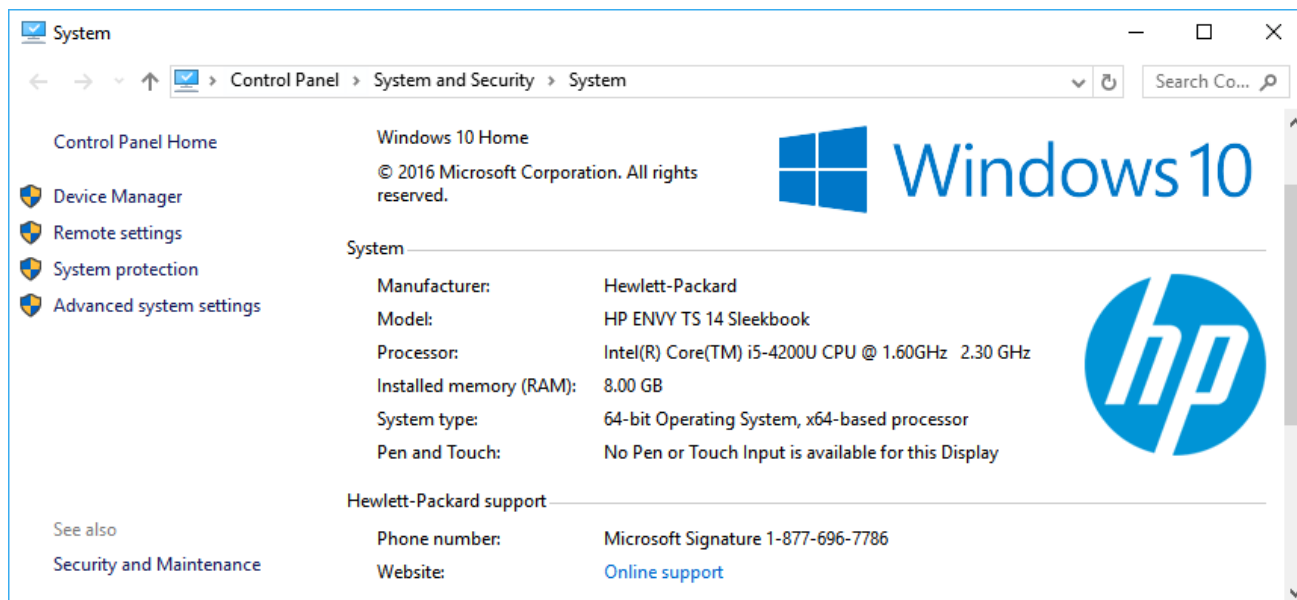
Correct dependencies

- Projects
  - DemoCourseLocalBasicsChecks = Comp401LocalChecks
  - comp110-grader = Grader
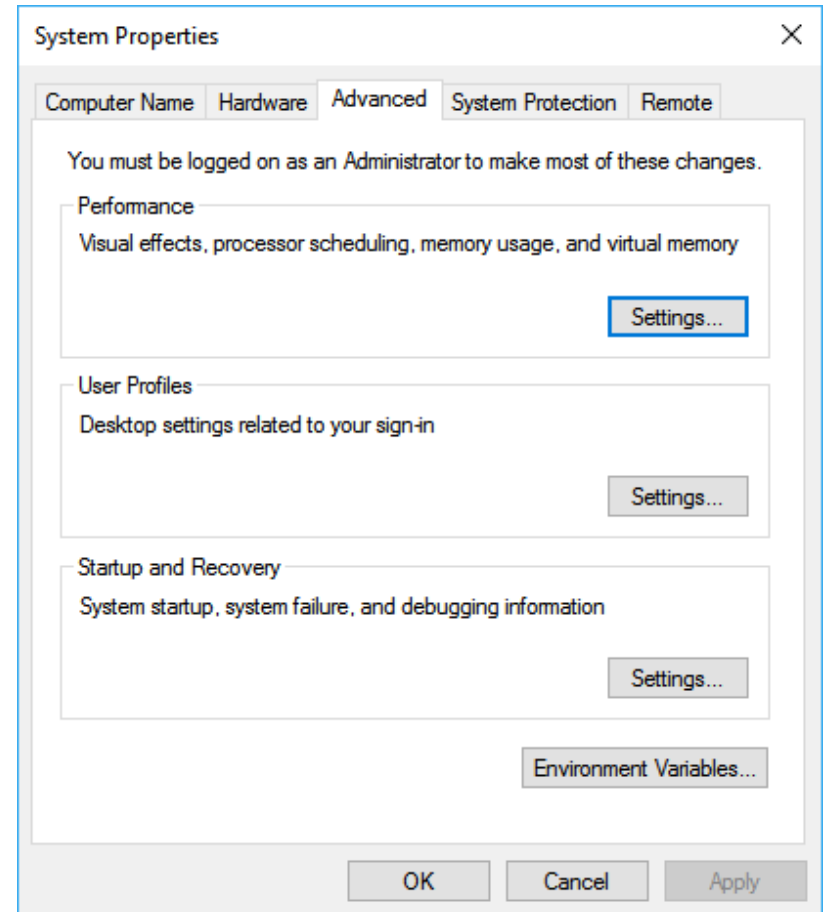- Libraries
  - oeall22.jar from course website

Setup Checkstyle/UNC Checks (Windows)

- Open "System" from "System and Security" in the Control Panel
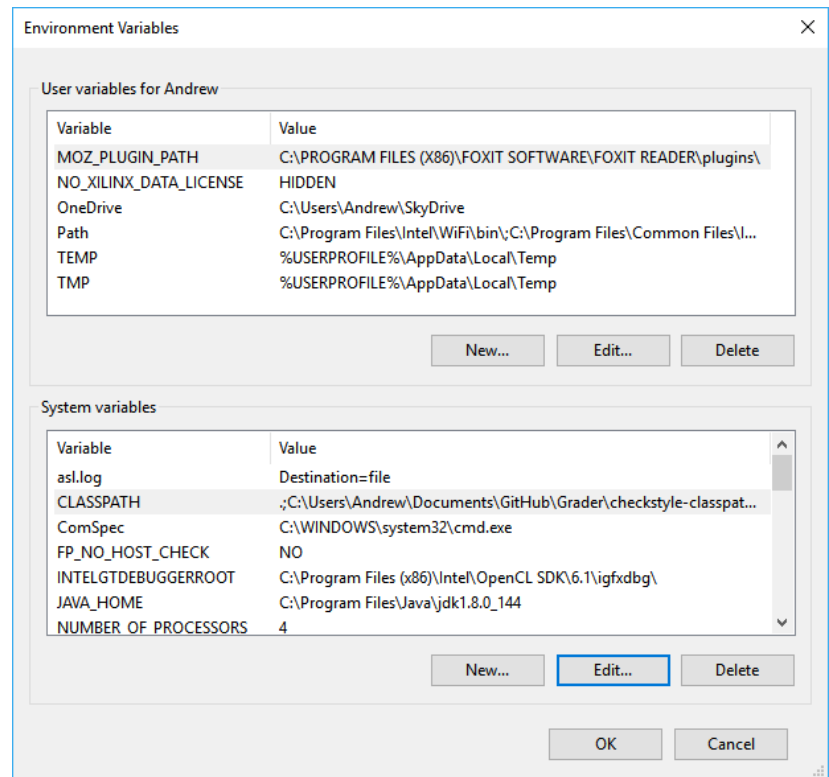- Select "Advanced system settings"

Setup Checkstyle/UNC Checks (Windows)

- Select Environment Variables...

Setup Checkstyle/UNC Checks (Windows)

- Create a new environment variable called "CLASSPATH" and set it to contain 3 paths separated by semicolons
  - .
  - Path to checkstyle-6.5.0-all.jar
  - Path to UNC_Checks6.5.0.jar
- .;C:\Users\Andrew\Documents\GitHub\Grader\checkstyle-classpath\checkstyle-6.5-all.jar;C:\Users\Andrew\Documents\GitHub\Grader\checkstyle-classpath\UNCChecks_6.5.0.jar

Setup Checkstyle/UNC Checks (Mac)

- Add checkstyle files to Library/Java/Extensions

- If you add oeall to it also, the UI becomes strange and bad

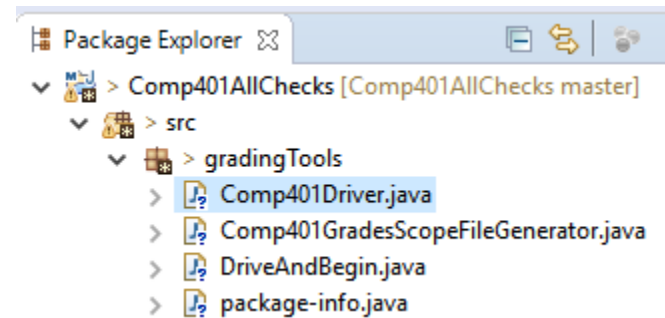- May need to add localcheckswithoutoe in folder to compile student files
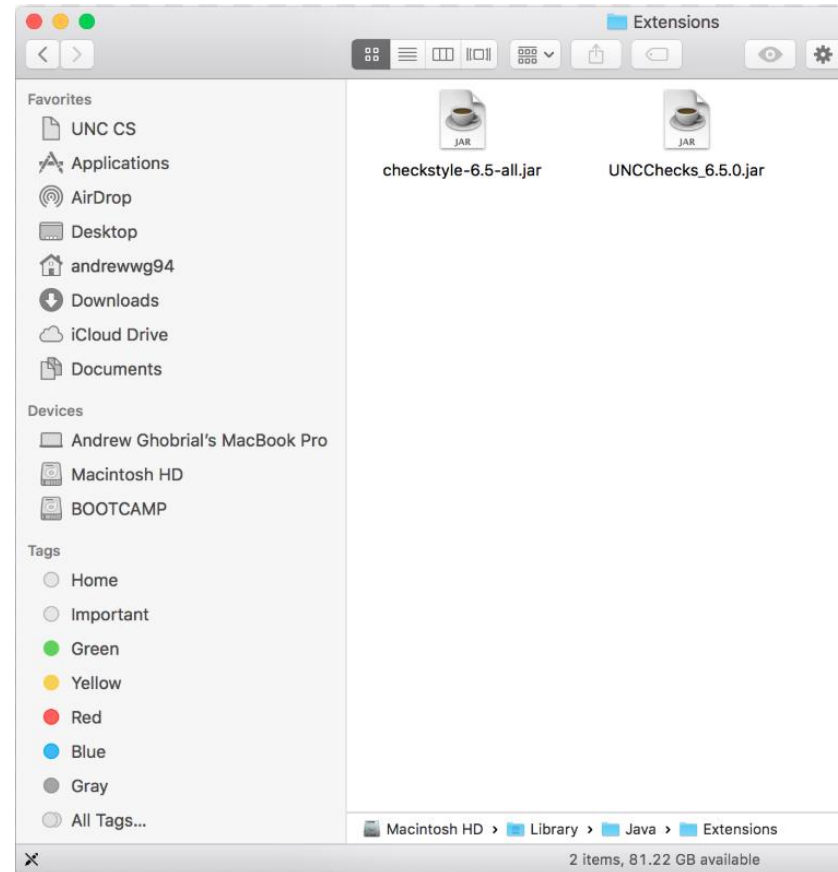
Run local checks

see local checks ppt

Running the grader

What to run
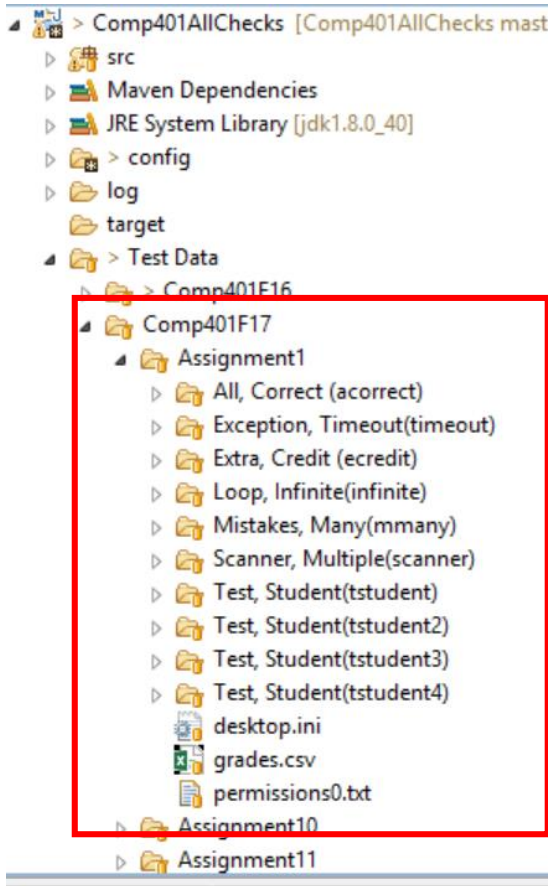
- gradingTools.Comp401 Grader from Comp401AllChecks

Submissions directory structure

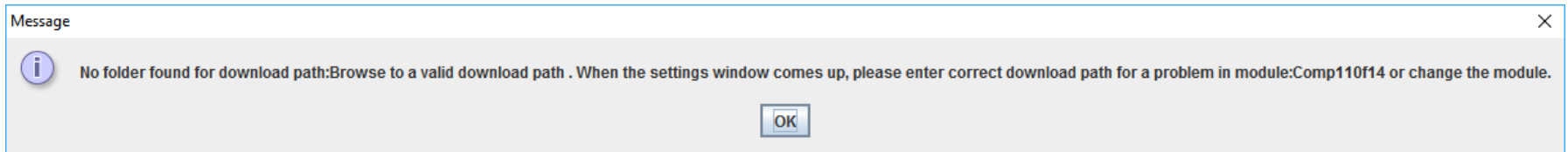- Should use data straight from Sakai
- Check *Comp401AllChecks\Test Data\Comp401F17\Assignment1* for example

Test Directory Structure in Project

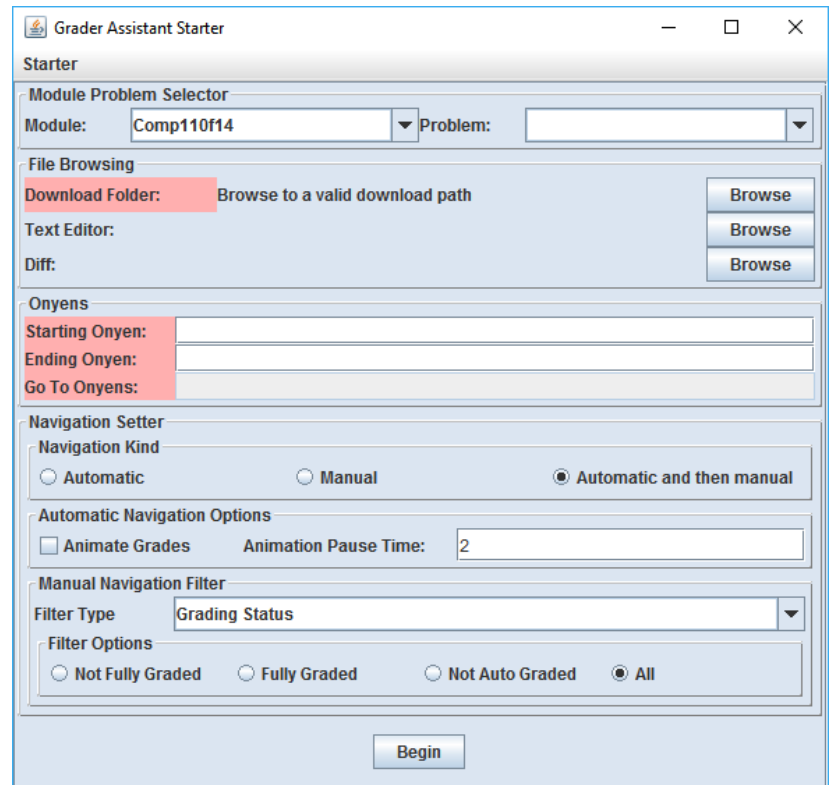• Sakai directory mimicked for different courses

First run

- There will be a message about missing download path, this is okay

- Grader saves paths, course/assignment choices, and onyens in config files when run

Message   ×

(i) No folder found for download path:Browse to a valid download path . When the settings window comes up, please enter correct download path for a problem in module:Comp110f14 or change the module.

OK

Setting download directory

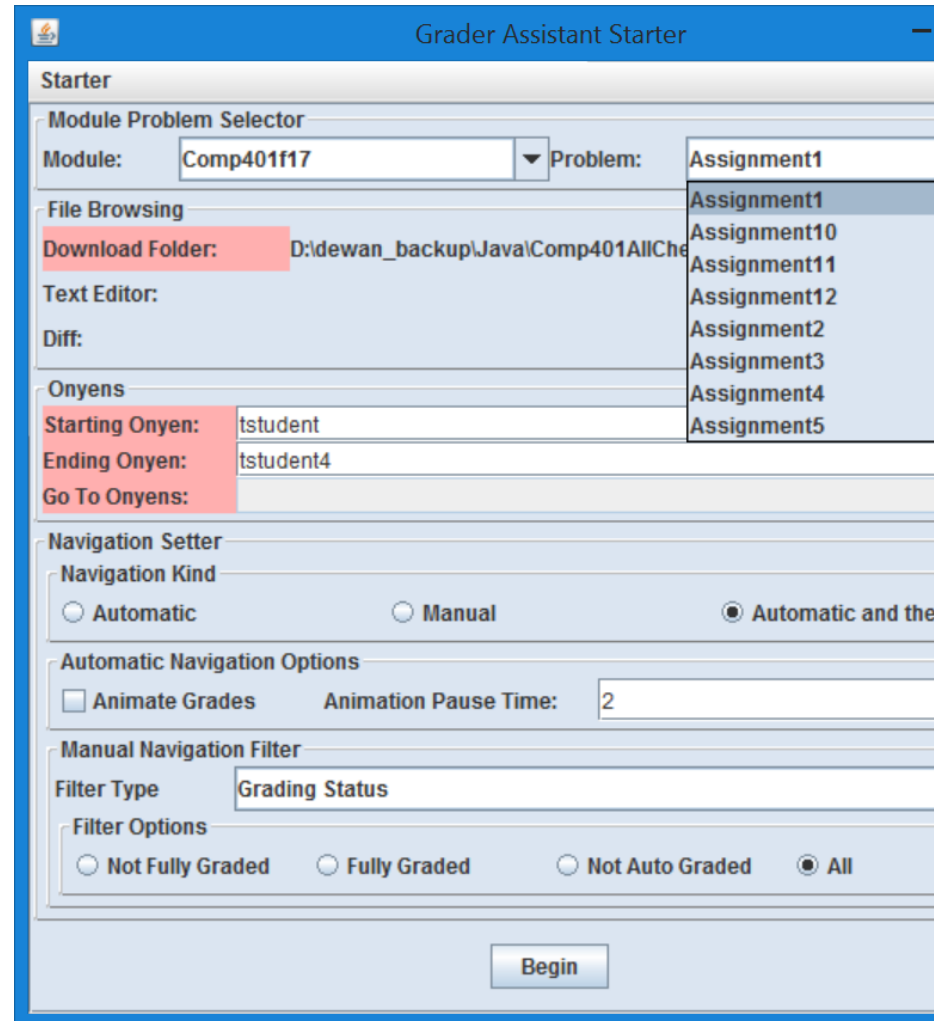- Press browse next to Download Folder

Setting download directory

- Press browse next to Download Folder and browse to test data or actual data
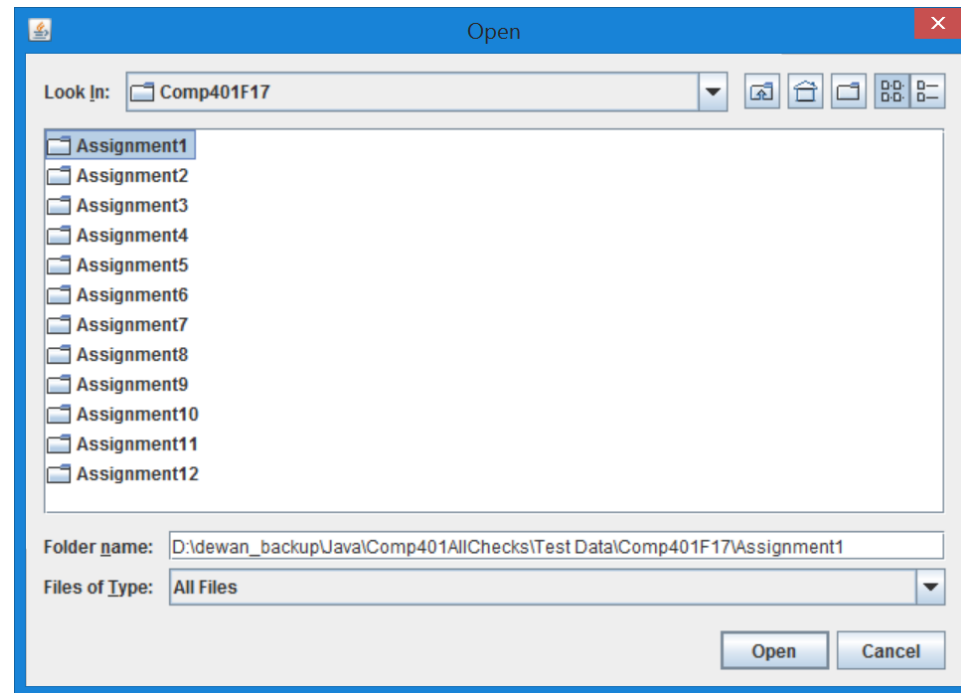
Setting download directory

- Grader will know about all assignments in parent directory, so if parent directory is the same for all assignments, this step is not repeated for each course

Setting what to grade

- Set Download folder to folder containing assignments

- Set Module to correct course

- Set Problem to assignment to grade

Setting who to grade

- Range of onyens
  - First/last in starting/ending onyen boxes
- List of onyens
  - Comma separated list I go to box.

Setting how to grade

- Navigation Kind
  - Automatic
    - Auto grade all students then exits
  - Manual
    - No auto grading, just opens grading review view
  - Automatic and then manual
    - Runs all auto grading then opens the review view

Setting what to see

- Automatic Navigation Options
  - Animate grades
    - Shows the review for each student view during auto grading
  - Animation pause time
    - Time before displaying next student after finishing previous

Setting what to see cont.

- Manual Navigation Filter
  - Grading Status
    - How graded is the submission?
  - Note Status
    - How much has the grade been explained
  - Letter Grade
    - What grade was recieved

Grading

- Run gradingTools.Comp401Driver from Comp401AllChecks
- Select Relevant course (e.g. Comp401f17) in the "Module" dropdown
- Set "Download Folder" to assignment directory
- Select the correct assignment in the "Problem" dropdown
- Enter first and last onyen to grade
- Set "Navigation Kind" to "Automatic and then manual"
- Select "Begin"

Pressing Begin on Test Data

Missing Checkstyle File in Automatically or Manually created directory

```
ObjectEditor(Version 22, built on Thu Feb 16 12:15:26 EST 2017). Copyright Prasun Dewan, 2012, A
rights reserved. US Patent Appl. No.: 12/532,327
W***Could not find checkstyle
file:D:\dewan_backup\Java\Comp401AllChecks\.\log\AssignmentsData\Comp401f17\Assignment1/unc_chec
_401_f17_a1.xml
W***Using default checkstyle file:config/checks.xml
Searching for onyens between:tstudent->tstudent4
Found start onyen:Test, Student(tstudent)
```
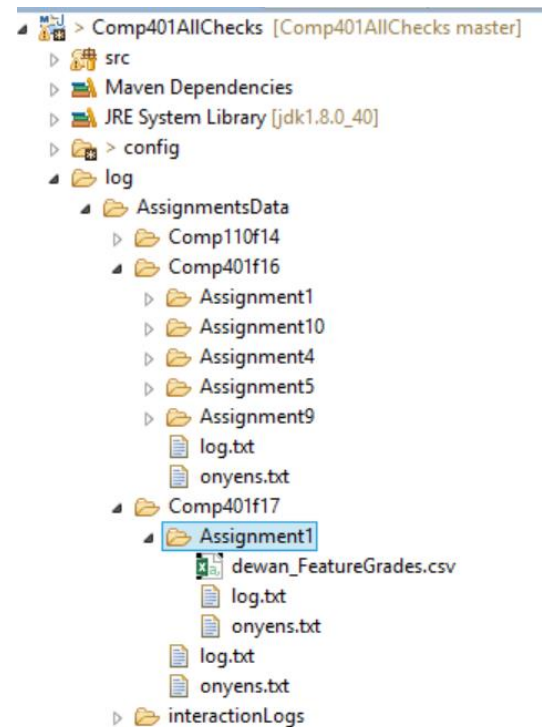
Download checkstyle file from course page

Scanning	PowerPoint PDF YouTube Mix	Docx PDF Drive	Scanning Visualization	A1. Number Scanner	lectures.scanning Package Git (Scanning)
				A1. Checks File	
Class Dual Role	PowerPoint PDF YouTube Mix	Docx PDF Drive		A2. Number And Word Scanner Bean	lectures.class_dual_roles.statics Package Git (Static) lectures.class_dual_roles.instances Package Git (Instances)
				A2. Checks File	

Checks file in log folder
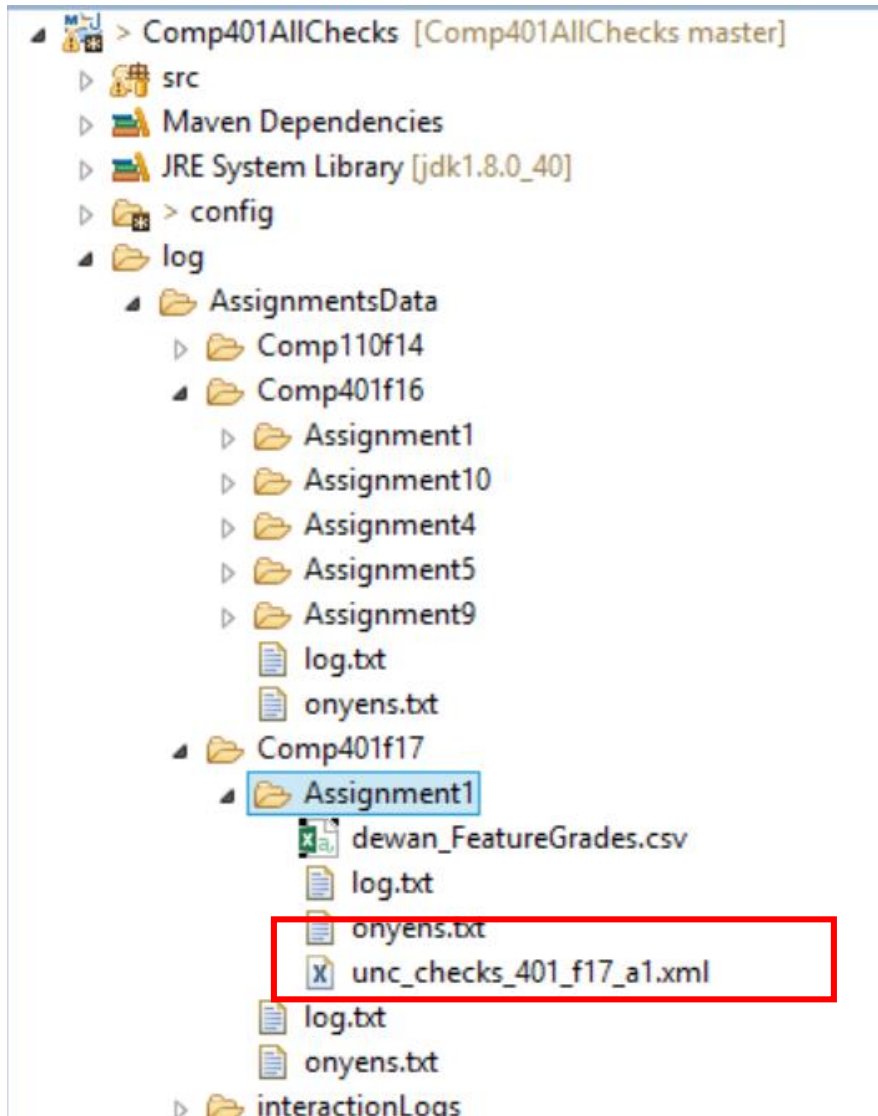
How do you know checkstyle ran

Running command:java com.puppycrawl.tools.checkstyle.Main -c
D:\dewan_backup\Java\Comp401AllChecks\.\log\AssignmentsData\Comp401f17\Assignment1/unc_checks_401_f17_a1.xml D:\dewan_backup\Java\Comp401AllChecks\Test Data\Comp401F17\Assignment1\Test,
Student(tstudent3)\Submission attachment(s)\Assignment1-Semion\Assignment1\src
Running in folder: D:\dewan_backup\Java\Comp401AllChecks\.
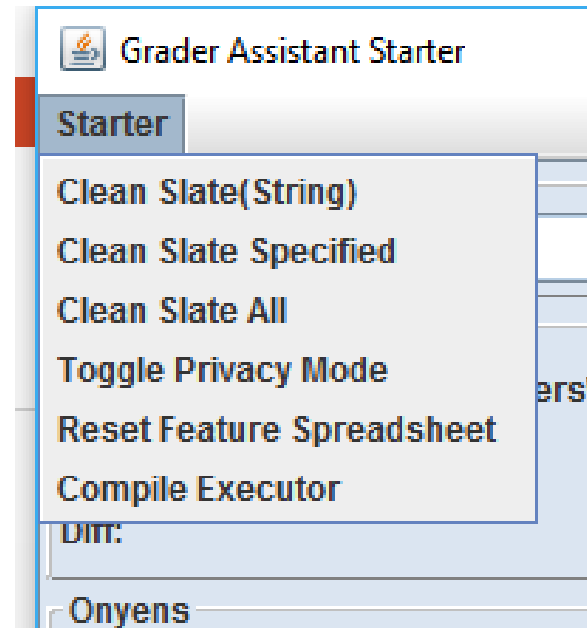$
Process line:Starting audit...
Starting audit...
Process line:D:\dewan_backup\Java\Comp401AllChecks\Test Data\Comp401F17\Assignment1\Test,
Student(tstudent3)\Submission attachment(s)\Assignment1-Semion\Assignment1\src\main\Assignment1.java:0:
expectedTypes: Expected type names/tags [main.Assignment1, ScanningIterator//EC]
D:\dewan_backup\Java\Comp401AllChecks\Test Data\Comp401F17\Assignment1\Test, Student(tstudent3)\Submission
attachment(s)\Assignment1-Semion\Assignment1\src\main\Assignment1.java:0: expectedTypes: Expected type
names/tags [main.Assignment1, ScanningIterator//EC]
Process line:D:\dewan_backup\Java\Comp401AllChecks\Test Data\Comp401F17\Assignment1\Test,
Student(tstudent3)\Submission attachment(s)\Assignment1-Semion\Assignment1\src\main\Assignment1.java:1:
warning: missingMethodCall: (Assignment1.java:1) has not made expected call (.*)!hasNext:->boolean//EC
D:\dewan_backup\Java\Comp401AllChecks\Test Data\Comp401F17\Assignment1\Test, Student(tstudent3)\Submission
attachment(s)\Assignment1-Semion\Assignment1\src\main\Assignment1.java:1: warning: missingMethodCall:
(Assignment1.java:1) has not made expected call (.*)!hasNext:->boolean//EC
Process line:D:\dewan_backup\Java\Comp401AllChecks\Test Data\Comp401F17\Assignment1\Test,
Student(tstudent3)\Submission attachment(s)\Assignment1-Semion\Assignment1\src\main\Assignment1.java:1:
Audit done.
setEarlyLatePoints:Setting Late Penalty:tstudent3 score 1.05

Note: clean slate to regrade onyens

- Previously graded assignments will not be auto graded again
- Clear old grading with clean slate under "Starter"
  - Clean Slate(String)
    - Enter onyen to be cleared
  - Clean Slate Specified
    - Clears based on onyen range in UI
  - Clean Slate All
    - Clears all students

Result UI Overview

Tabs

- Main
  - Grading results
- Source
  - Submitted source code
- Feedback
  - Textual representation of grading results
- Problem History
  - Grading results of other students
- Source Checks
  - Checkstyle output
- Student History
  - Previous results for current student

Main tab overview

Upper Left—Student Overview

- Onyen
- Name
- Score
- Early/late submission score multiplier

Upper Right—Navigation

- Next/Previous
  - Move to next/previous student's grading
- Quit
  - Close grader (all grading saved)
- Open Source/Explore Source
  - Open submitted source files in text editor
- Sync
  - Save changed to text fields and submitted source files.

Upper Right—Navigation cont.

- Next Document
  - Open next submitted document (pictures, text files, etc.)
- First Document
  - Resets "Next Document" queue to first document
- Run
  - Runs the submitted program allowing interaction
- Stop If Not Done
  - Prevents closing the grader if grading is incomplete on any student
- Navigation Distance
  - Current and total assignments graded

Middle—Grading results

- Feature
  - Name of test
- Max/Score
  - Maximum and actual points awarded
  - Score can be manually changed
- Manual
  - If must be manually graded
- Extra
  - Is extra credit?
- Graded
  - Has been graded?

Middle—Grading results cont.

- Full Credit
  - Auto graded as full points
  - Sets feature to full credit
- Validate
  - Marks low scoring feature as being verified as graded properly
- Selected
  - Display output of feature in "Auto Notes"
- Auto/Manual Notes
  - Comments on auto/manual grading
- Transcript
  - Raw output of grading program

Checkstyle tab
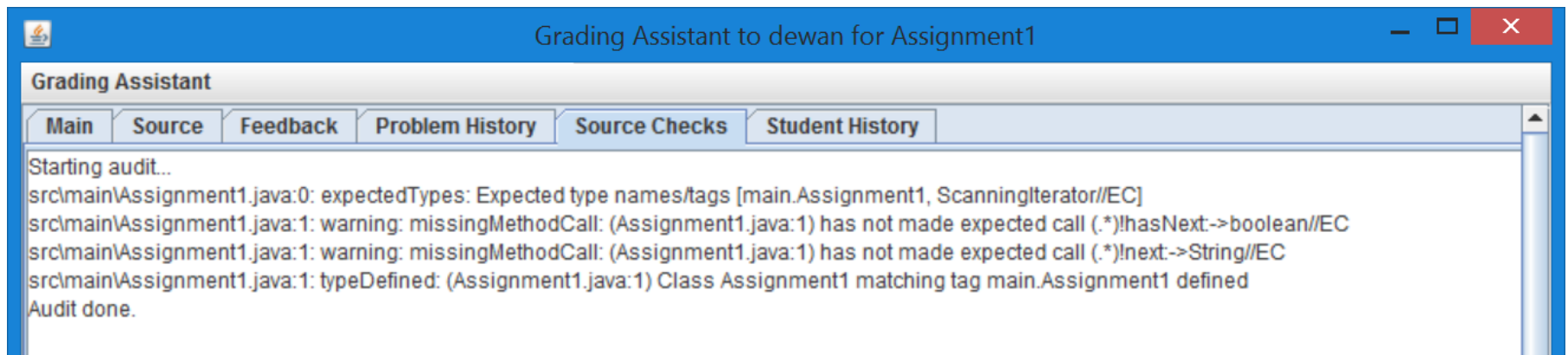
Notes for developers

Config files— dynamicmodules.properties

- config/dynamicmodules.properties
- Automatically generated by grader
- List of modules for grader

Config files—dynamicconfig.properties

- config/dynamicconfig.properties
- Automatically generated by grader
- Saves values of fields in UI
  - Directories
  - Course
  - Assignments
  - Onyens
  - Etc.

Config files—.gradersettings

- .gradersettings
- Automatically generated by grader
- Small subset of data from dynamicconfig.properties

Config files—config.properties

- config/config.properties
- In depth grader runtime controls

Config files—course.properties

- config/course.properties

- Course-specific settings

- List of courses to display

- Checkstyle config file asssociations

- Whether checkstyle is used for course

```
8 Comp401f15.checkStyle = true
9 Comp401f16.checkStyle = true
0 Comp410s16.checkStyle = true
1 Comp401f17.checkStyle = true
2
3 Comp401f15.Assignment1.checkStyleFile = unc_checks_401_f15_a1.xml
4 Comp401f15.Assignment2.checkStyleFile = unc_checks_401_f15_a2.xml
5 Comp401f15.Assignment3.checkStyleFile = unc_checks_401_f15_a3.xml
6 Comp401f15.Assignment4.checkStyleFile = unc_checks_401_f15_a4.xml
7 Comp401f15.Assignment5.checkStyleFile = unc_checks_401_f15_a5.xml
8 Comp401f15.Assignment6.checkStyleFile = unc_checks_401_f15_a6.xml
9 Comp401f15.Assignment7.checkStyleFile = unc_checks_401_f15_a7.xml
0 Comp401f15.Assignment8.checkStyleFile = unc_checks_401_f15_a8.xml
1 Comp401f15.Assignment9.checkStyleFile = unc_checks_401_f15_a9.xml
```

Config files—user-config.properties

- config/user-config.properties
- When running in headless mode the configuration is changed based on command line arguments, the grader makes a copy of the config.properties file with any relevant changes and saves it as this so the default values aren't changed in config.properties