CS 5254: Concurrent Object-Oriented & Functional Programming

Course Overview (Part 2)

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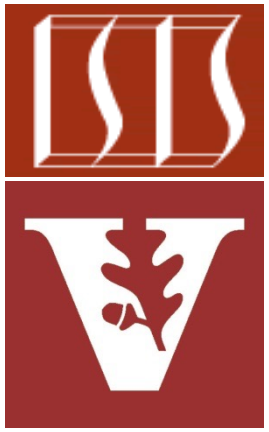

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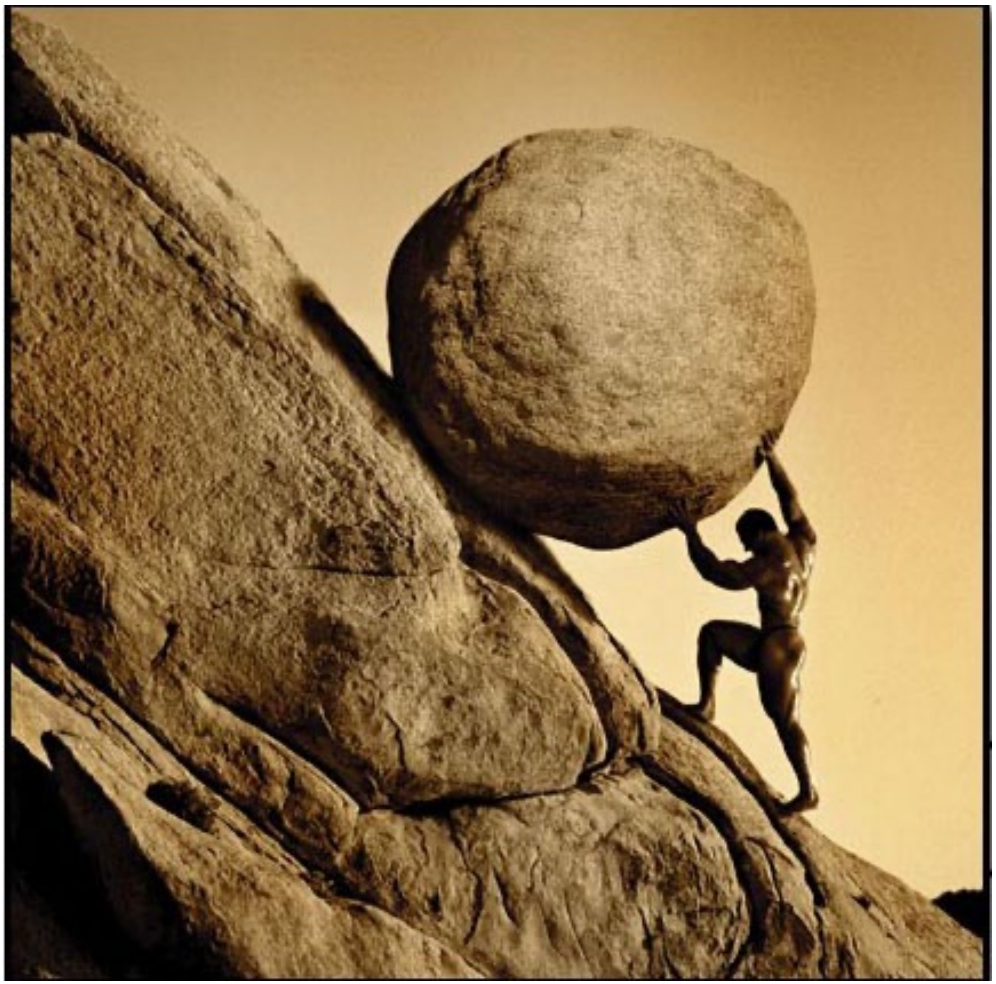
Learning Objectives in this Lesson

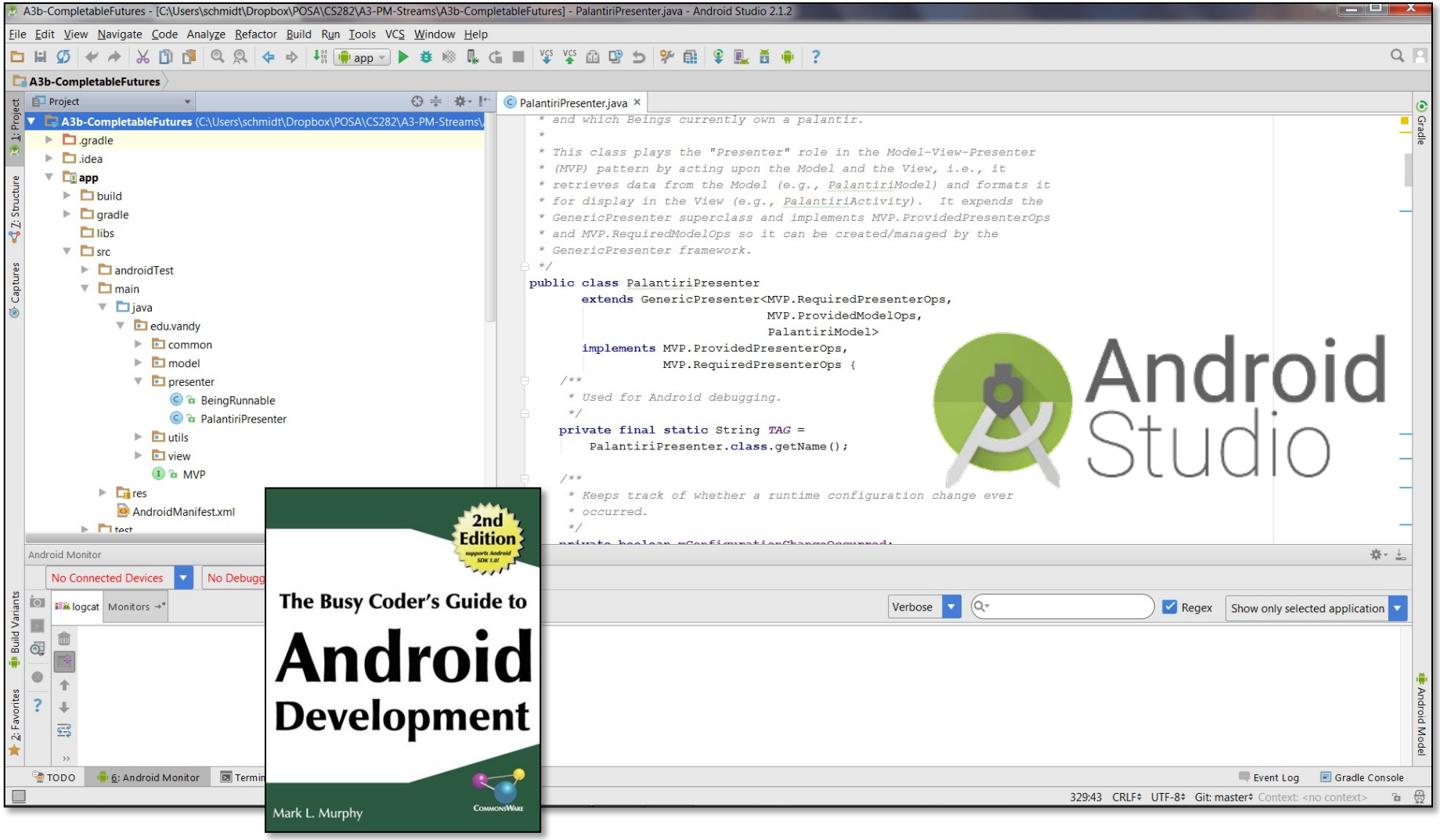
- Understand the course topics & logistics
  - Course philosophy
  - Course contents
  - Structure of the lecture material
  - Overview of the assignments & assessments



Overview of the Assignments & Assessments

Overview of Assignments & Assessments

- Programming assignments should be written in Java 11 using Android Studio



You can use any IDE, but your final submission *must* build/run with the latest Android Studio & Android 13 "T" (API level 33)

Overview of Assignments & Assessments

- Android programming assignments must be submitted using Android Studio

- A wizard for creating new apps
- A visual editor for creating GUIs
- An editor for manipulating Android XML descriptors needed for your app
- An emulator for testing your apps on your PC
- A debugger for finding errors in the emulator or on a device

See developer.android.com/sdk

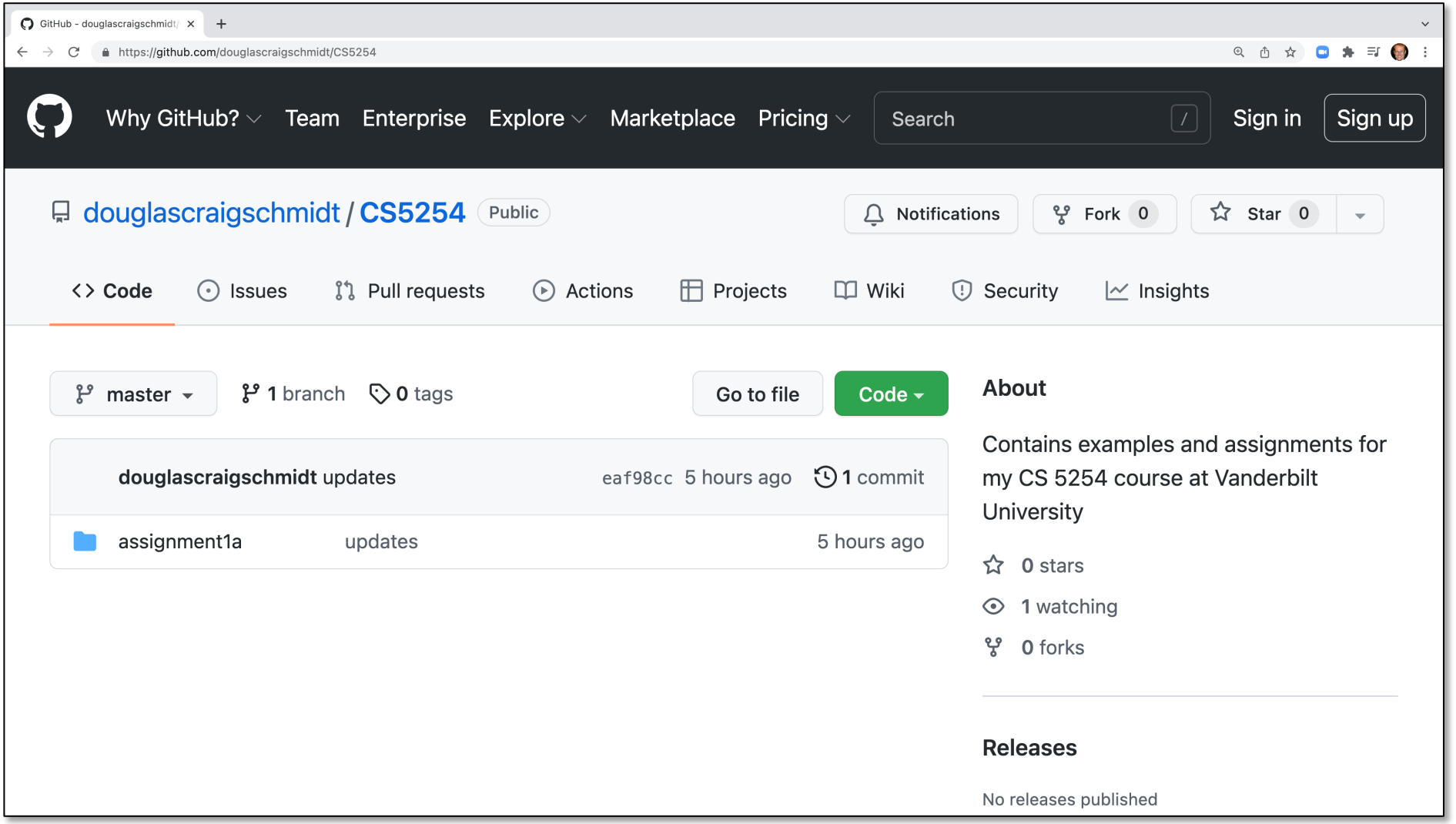
Overview of Assignments & Assessments

- Android programming assignments must be submitted using Android Studio
  - Please install Android 13 "T" (API level 33)

See en.wikipedia.org/wiki/Android_13

Overview of Assignments & Assessments

- All source code for assignments & examples available at GitHub



Go to GitHub at github.com/douglascraigschmidt/CS5254

Overview of Assignments & Assessments

- All source code for assignments & examples available at GitHub
  - You will need to learn how to use GitLab et al.

We'll discuss how to setup GitLab shortly

Overview of Assignments & Assessments

- All source code for assignments & exam
  - You will need to learn how to use GitLab et al.
  - Be prepared to update your repositories multiple times
    - i.e., you need to understand Git!

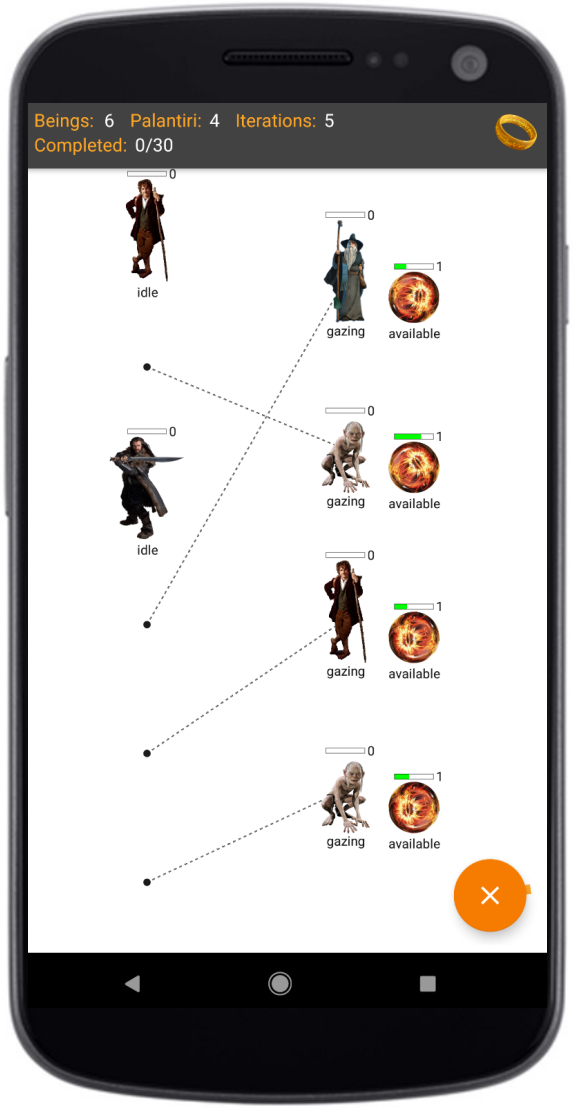
Overview of Assignments & Assessments

- Assignments will provide a range of experience with Java 11 & Android concurrent programs

See github.com/douglascraigschmidt/CS5254

Overview of Assignments & Assessments

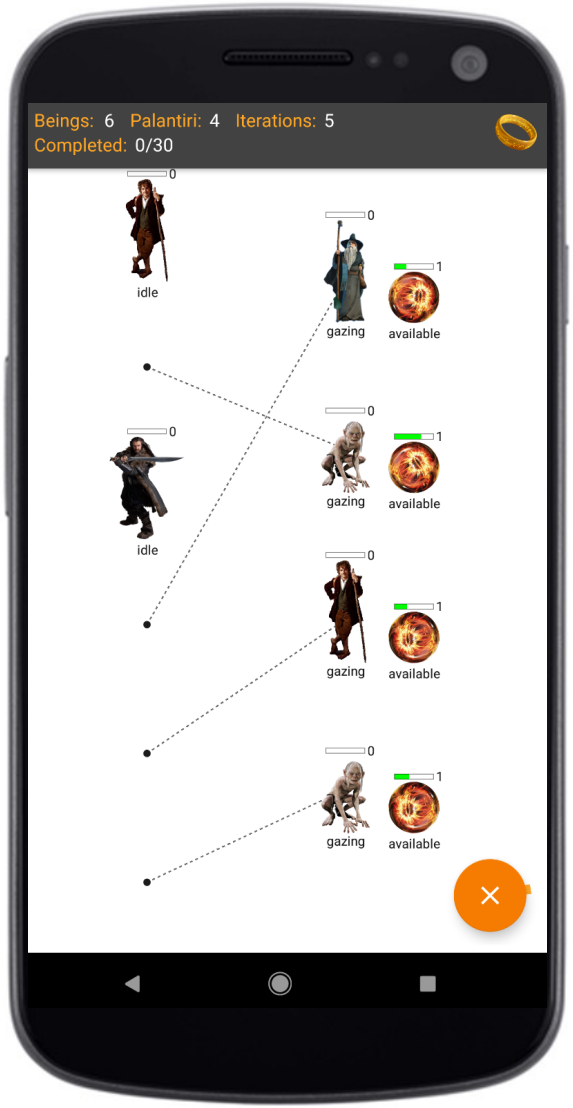
- In particular, you'll implement multiple variants of a Java concurrent resource manager & an associated Android app



See en.wikipedia.org/wiki/Palantir

Overview of Assignments & Assessments

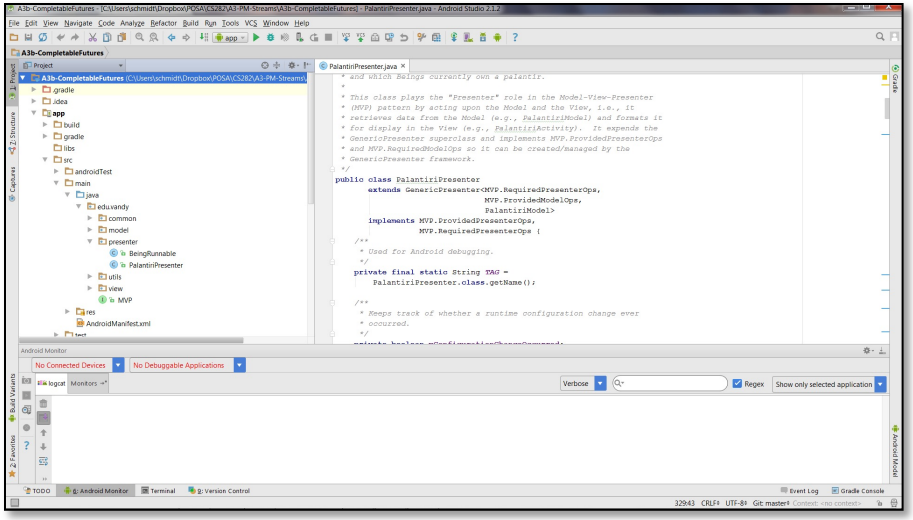
- In particular, you'll implement multiple variants of a Java concurrent resource manager & an associated Android app, e.g.
  - Java Thread & Runnable
  - Java Executor framework (e.g., ExecutorService, ExecutorCompletionService, & ForkJoinPool)
  - Java Semaphore, built-in monitor objects, Stamped Lock, ReentrantLock, ConcurrentHashMap, etc.



The topics covered by the assignments generalize to more than Android!

Overview of Assignments & Assessments

- Assignment assessments will be done via reviews by course staff



Overview of Assignments & Assessments

- Assignment assessments will be done via reviews by course staff
  - Assignments *must* be submitted on time or you'll get a 0

See item #4 at github.com/douglascraigschmidt/CS5254/wiki/CS-5254-FAQ

Overview of Assignments & Assessments

- Assignment assessments will be done via reviews by course staff
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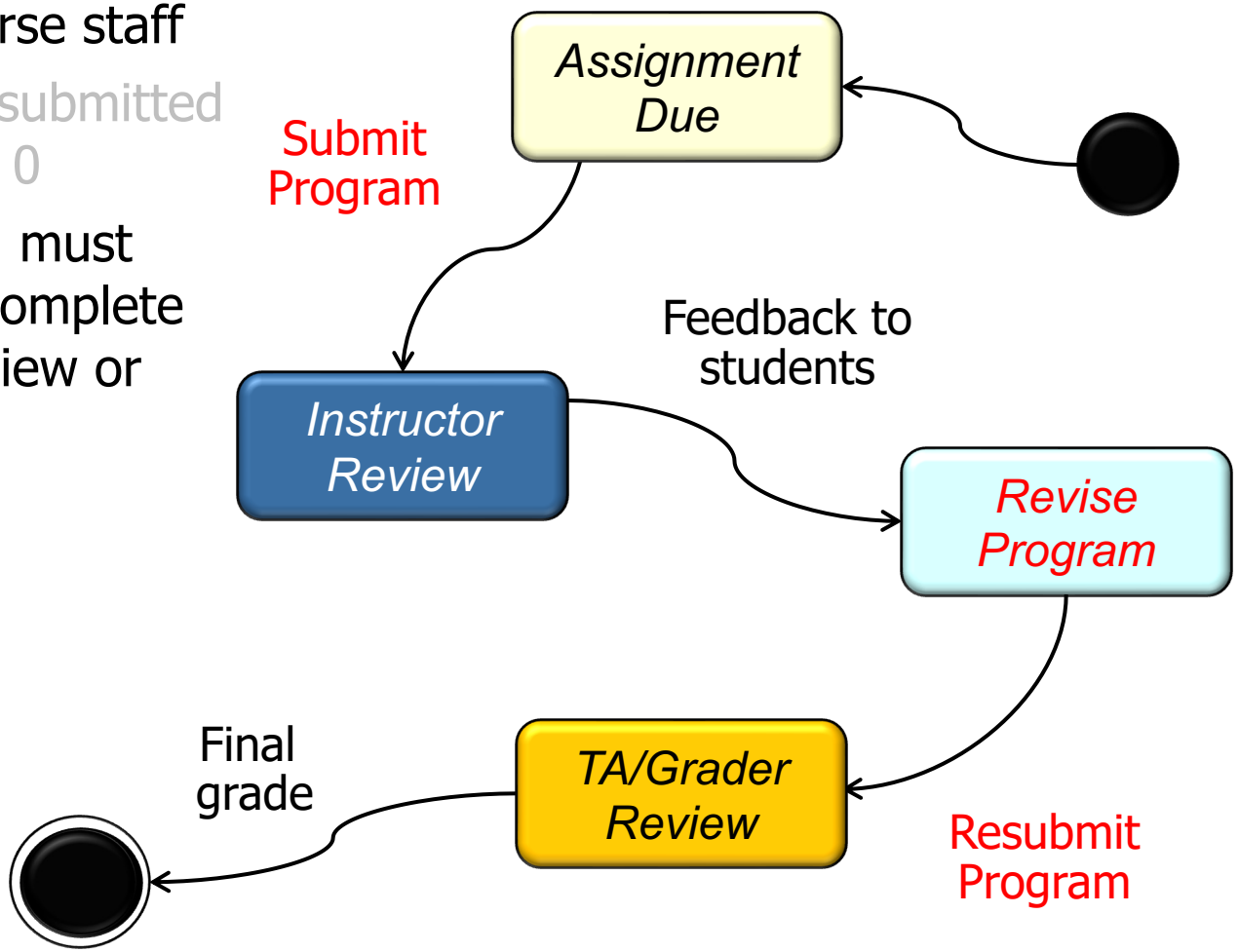
  - Your initial submission must compile & be largely complete or you won't get a review or a final grade



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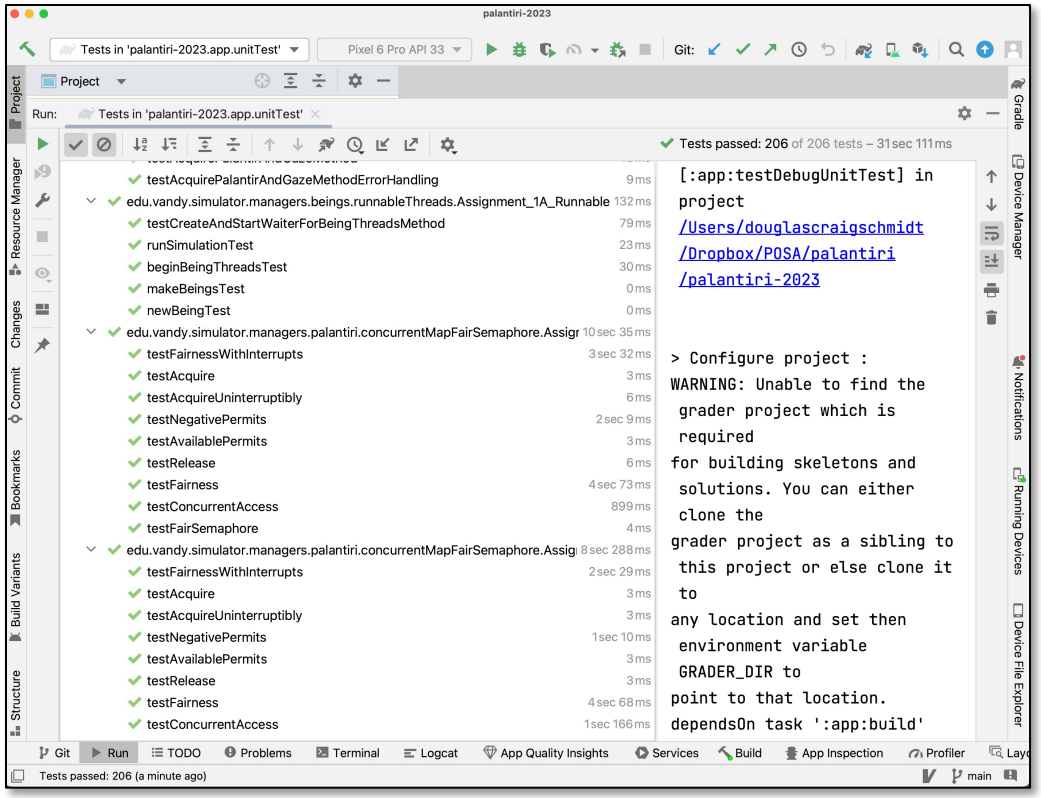
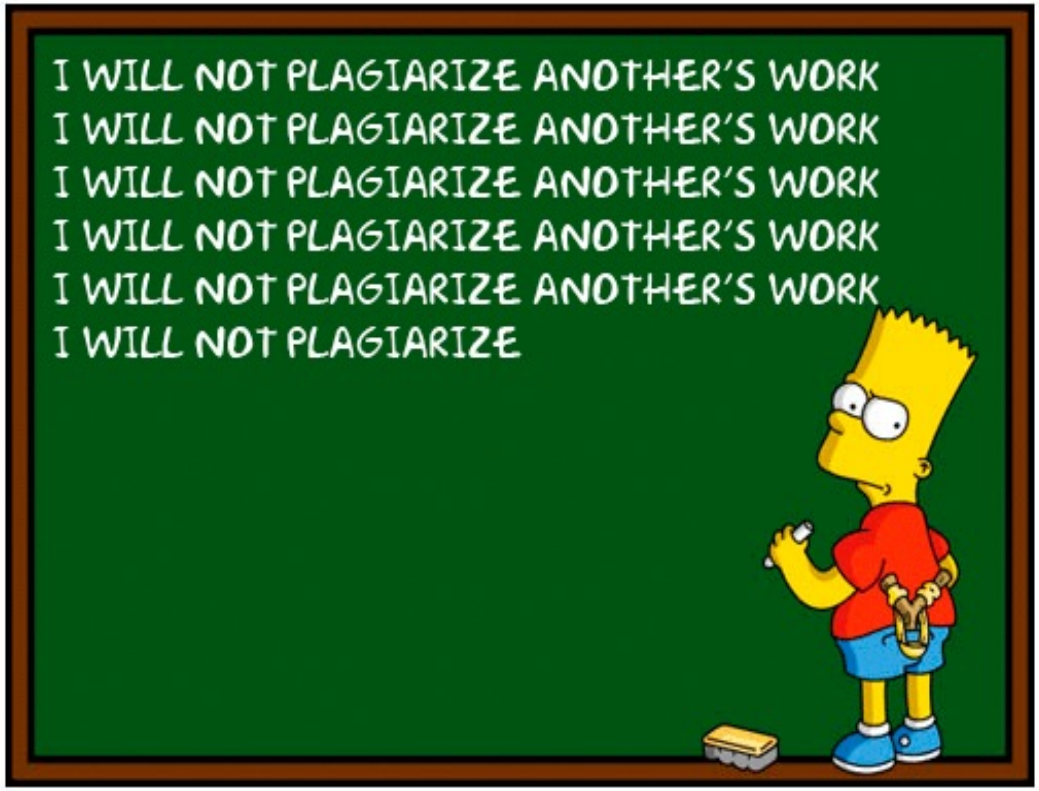
  - Assignments *must* be submitted on time or you'll get a 0
  - Your initial submission must compile & be largely complete or you won't get a review or a final grade
    - You *must* also run the regression tests & push a screenshot of the results to GitLab



See www.dre.vanderbilt.edu/~schmidt/cs254/assignments.html

Overview of Assignments & Assessments

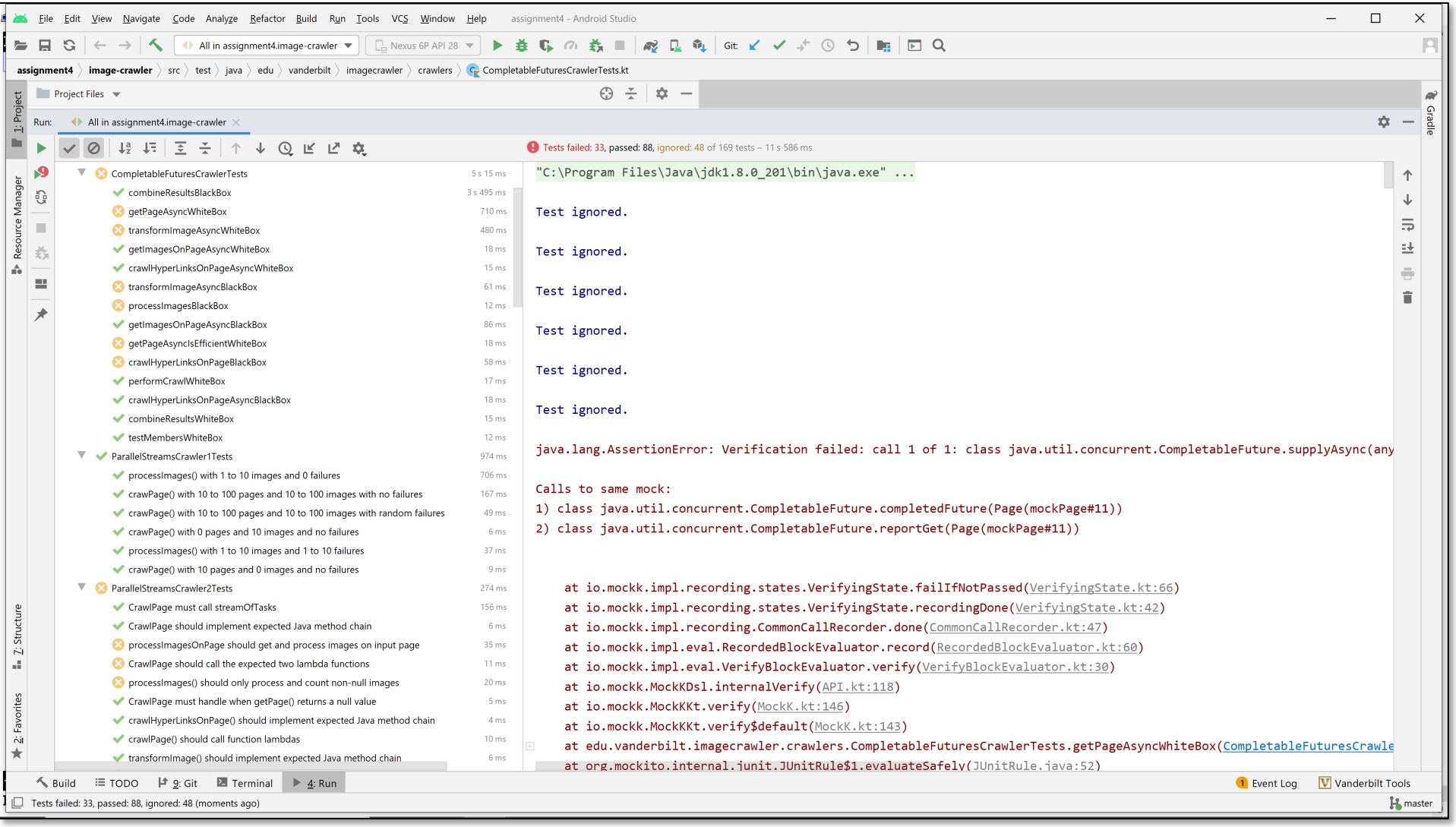
- Assignment assessments will be done via reviews by course staff
  - Assignments *must* be submitted on time or you'll get a 0
  - Your initial submission must compile & be largely complete or you won't get a review or a final grade
  - Work *must* be your own
    - This applies for exams & programming assignments



www.vanderbilt.edu/student_handbook/the-honor-system#statement-of-the-honor-code

Overview of Assignments & Assessments

- The bulk of your grade is based on the results of the automated unit tests



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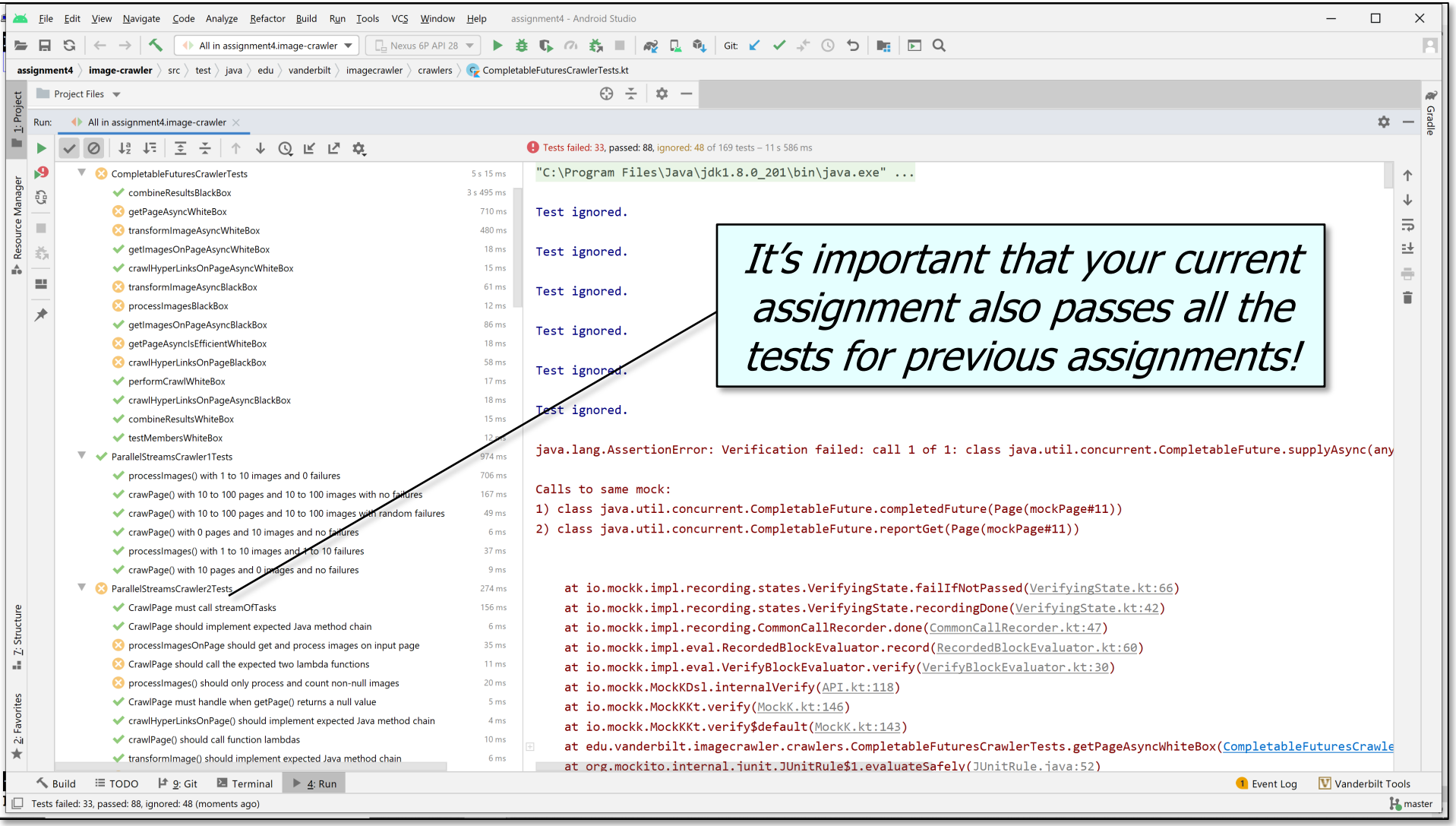
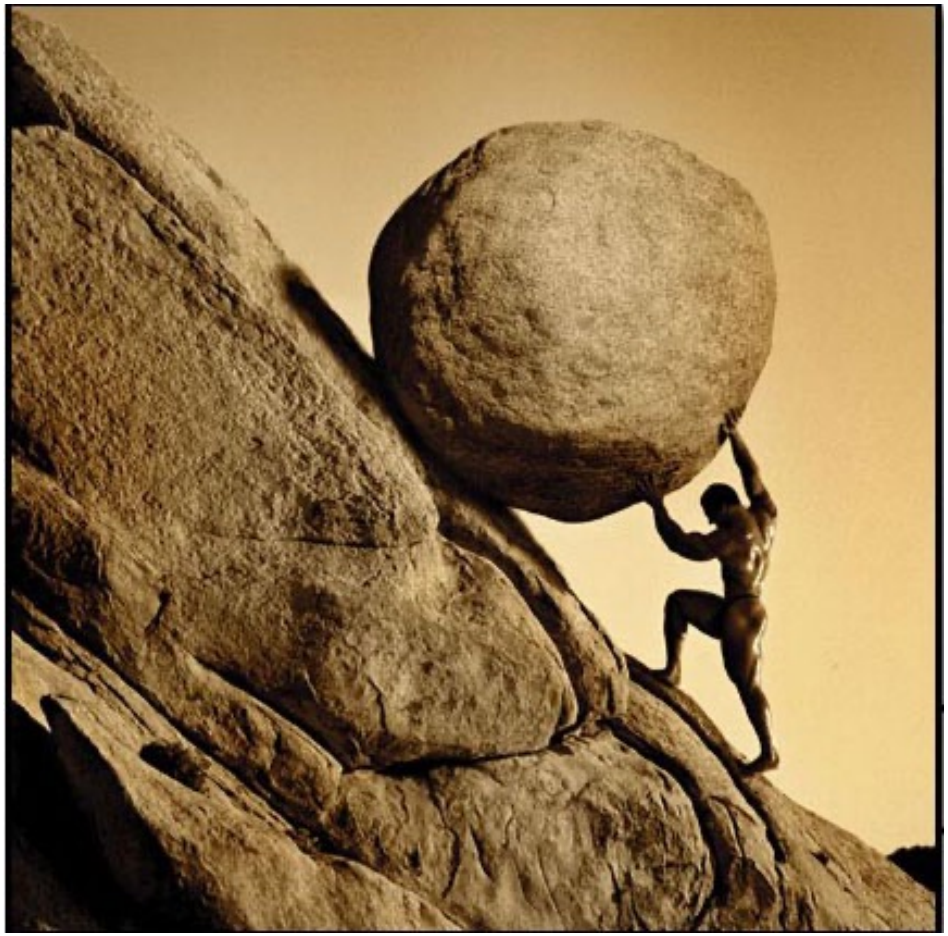


See item #19 at github.com/douglascraigschmidt/CS5254/wiki/CS-5254-FAQ

Overview of Assignments & Assessments

- The relative weighting of each portion of the course is:
  - 45% Monthly exams
  - 40% Programming projects
  - 10% Final exam
  - 05% Participation



These weightings may change, depending on various factors

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    - Participation includes attendance, involvement, & "following directions"

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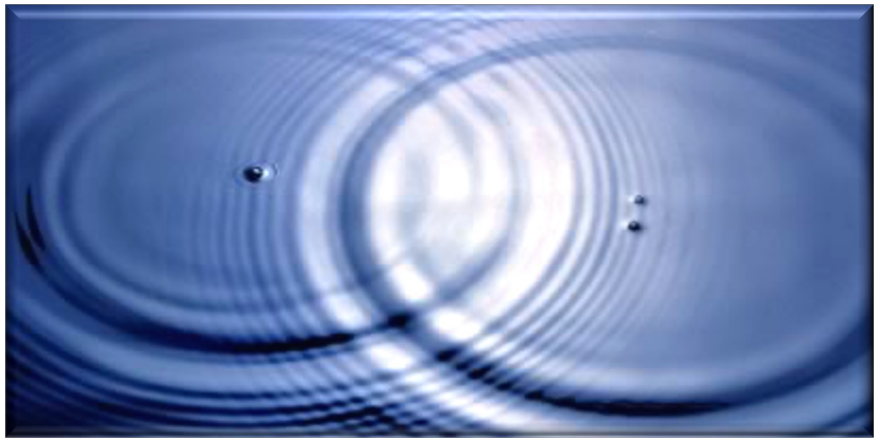
Attendance also affects other aspects of your quiz & assignment grades



See www.dre.vanderbilt.edu/~schmidt/cs254/work-summary.html#quizzes & www.dre.vanderbilt.edu/~schmidt/cs254/assignments.html

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Don't expect to get an A in this class if you do not actively participate!!!!

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