CS 253: Parallel Functional Programming with Java, Android, & Spring WebFlux: Overview (Part 2)

Douglas C. Schmidt
d.schmidt@vanderbilt.edu
www.dre.vanderbilt.edu/~schmidt

Professor of Computer Science
Institute for Software Integrated Systems
Vanderbilt University
Nashville, Tennessee, USA
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 Assignments & Assessments
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- Programming assignments are written in modern Java using Android Studio.

You can use any IDE, but your final submission must build & run with the latest Android Studio & Android 12 (API 32).
Overview of Assignments & Assessments

- Programming assignments are written in modern Java using Android Studio
- The Java runtime environment (JRE) is pre-installed with Android

See [github.com/douglasraigschmidt/CS253/wiki/Installing-Software](https://github.com/douglasraigschmidt/CS253/wiki/Installing-Software)
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 12 (API level 32)

See [en.wikipedia.org/wiki/Android_12](http://en.wikipedia.org/wiki/Android_12)
Overview of Assignments & Assessments

• All source code for assignments & examples available at GitHub

Go to GitHub at github.com/douglascraigschmidt/CS253
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 & exams
  • You will need to learn how to use GitLab et al.
  • Be prepared to update your repositories occasionally

“If you don’t like change, you’re going to like irrelevance even less.”
Overview of Assignments & Assessments

• Assignments will provide a range of experience with modern Java & Android parallel programs

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Overview of Assignments & Assessments

• Assignments will provide a range of experience with modern Java & Android parallel programs

• Implement an image crawler app on Android & Spring using modern Java features, e.g.
  • Java lambda expressions, method references, & functional interfaces
  • Java sequential & parallel streams
  • Java completable futures
  • Java reactive streams
  • Spring WebSvc & WebFlux

The topics covered by the assignments may change during the semester
Overview of Assignments & Assessments

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

See github.com/douglascraigschmidt/CS253/wiki/CS-253-FAQ
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
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
• You will not receive a grade for assignments if you do not attend class regularly

See www.dre.vanderbilt.edu/~schmidt/cs253/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
  • You will not receive a grade for assignments if you do not attend class regularly
• Work *must* be your own
  • This applies for quizzes & programming assignments

www.vanderbilt.edu/student_handbook/the-honor-system#statement-of-the-honor-code
The bulk of your grade is based on the results of the automated unit tests.

See www.dre.vanderbilt.edu/~schmidt/cs253/assignments.html
Overview of Assignments & Assessments

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

It’s also important that any given assignment also passes all unit tests for previous assignments!

See item #16 at github.com/douglascraigschmidt/CS253/wiki/CS-253-FAQ
Overview of Assignments & Assessments

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

These weightings may change, depending on various factors
Overview of Assignments & Assessments

• The relative weighting of each portion of the course is:
  • 45% Quizzes
  • 40% Programming projects
  • 10% Final exam
  • 05% Participation
    • Participation includes attendance, involvement, & “following directions”
Overview of Assignments & Assessments

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  - 05% Participation

- Participation includes attendance, involvement, & “following directions”

Attendance also affects other aspects of your quiz & assignment grades

See [www.dre.vanderbilt.edu/~schmidt/cs253/work-summary.html#quizzes](http://www.dre.vanderbilt.edu/~schmidt/cs253/work-summary.html#quizzes) & [www.dre.vanderbilt.edu/~schmidt/cs253/assignments.html](http://www.dre.vanderbilt.edu/~schmidt/cs253/assignments.html)
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  - Participation includes attendance, involvement, & “following directions”

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