

Overview of Week 4

#	DATE	LECTURES	iPAD NOTES	STUDY MATERIALS
4	WED, Sep 29 to TUE, Oct 5	<p> Playlist for Week 4</p> <ul style="list-style-type: none">• Week 4 - Intro• Lecture 2a - Part A1 - Revisiting the Catch-or-Specify Requirement• Lecture 2a - Part A2 - Introducing the Bounded Counter Problem• Lecture 2a - Part B1 - Sketching the Design of Test Cases• Lecture 2a - Part B2 - ConsoleTester1: VTSE expected• Lecture 2a - Part B3 - ConsoleTester2: Correct Implementation• Lecture 2a - Part B4 - ConsoleTester2: Incorrect Implementations• Lecture 2a - Part B5 - Exercise and an Iterative Console Tester• Lecture 2a - Part C - Deriving Test Cases, Limitation of Console Testers• Lecture 2a - Part D1 - Automated Unit Testing via JUnit Assertions• Lecture 2a - Part D2 - Example JUnit Assertions• Lecture 2a - Part E1 - Testing for Legal Usage of the Counter Method• Lecture 2a - Part E2 - Testing for Illegal Usage of the Counter Method• Lecture 2a - Part E3 - Exercises and Using Loops in JUnit Tests• Lecture 2a - Part F - Regression Testing Visualized	<p> INTRO</p> <p> NOTES</p>	<ul style="list-style-type: none">• <u>Slides</u><ul style="list-style-type: none">▪ Lecture 2b: Test-Driven Development (TDD) with JUnit▪ Lecture 2b: Test-Driven Development (TDD) with JUnit [4-up]• <u>Questions?</u><ul style="list-style-type: none">▪ <u>Post Your Questions in this Document.</u>• <u>Diagrams</u><ul style="list-style-type: none">▪ <u>Regression Testing Visualized</u>• <u>Source Code</u><ul style="list-style-type: none">▪ <u>Testing Counter: Console vs. JUnit</u>

Learning Objectives of Week 4

- Revisiting the Catch-or-Specify Requirement
- The Bounded Counter Problem
- Deriving Test Cases for a Bounded Counter
- Design Logic of Test Cases: Normal vs. Abnormal
- Console  Testers: Manual, Error-Prone, Non-Scalable
- JUnit  Tests: Automated, Scalable
- Test-Driven Development (TDD) via Regression Testing

Milestones of Week 4

- Submit Lab1
- Complete Written Test 1 (to be released on Thu & Fri)
- Look Ahead: Lab2 and Programming Test 1 (see calendar)!
- Extra Practice: Java Tutorial from EECS1022-W21