CS 163: Java (CS1) No prior programming experience

http://www.cs.colostate.edu/~cs163/

canvas.colostate.edu

Instructor

Kristina Brown

Section 001, MTWR 12:00pm - 1:15pm CSB 130

Office: CSB 258

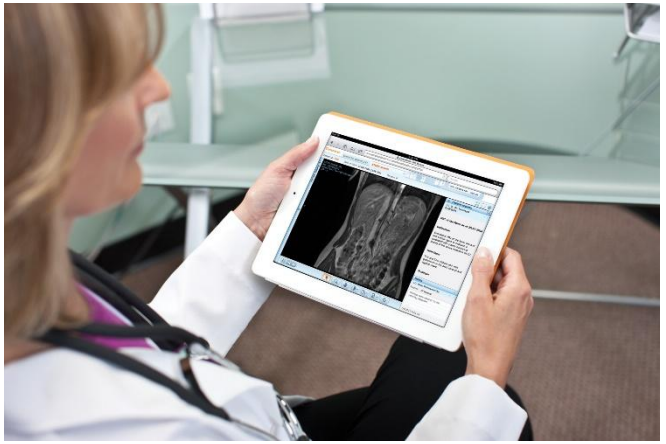
Email: Kris.Brown@colostate.edu

Office hours are TBD right now.

Teaching assistants are Ariana Mims & Westin Musser.

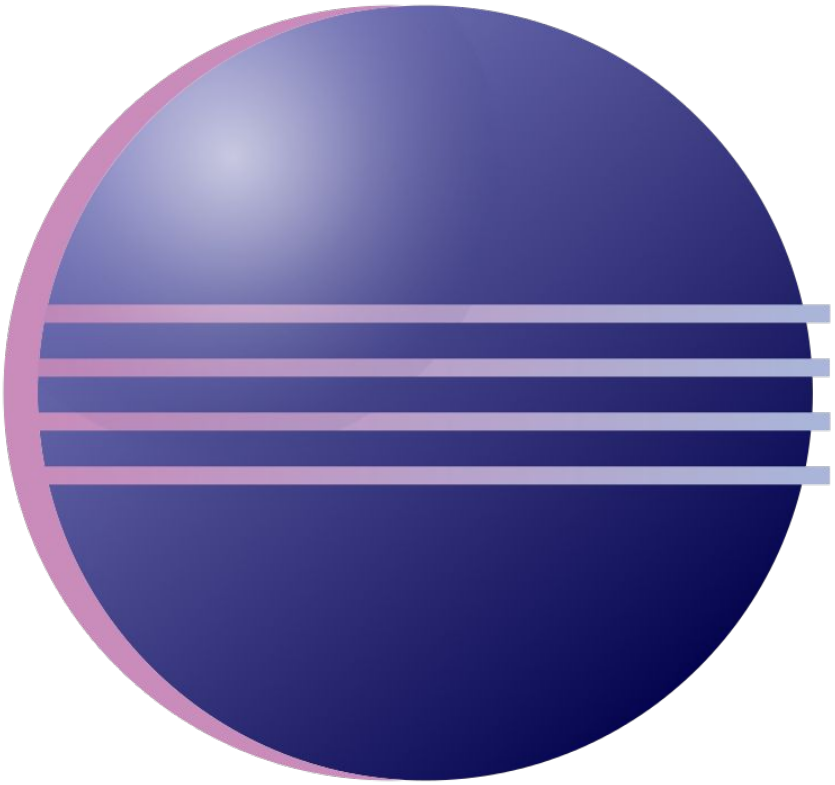
Why Computer Science?

- It's exciting
- It's lucrative
- It's fun (sometimes!)

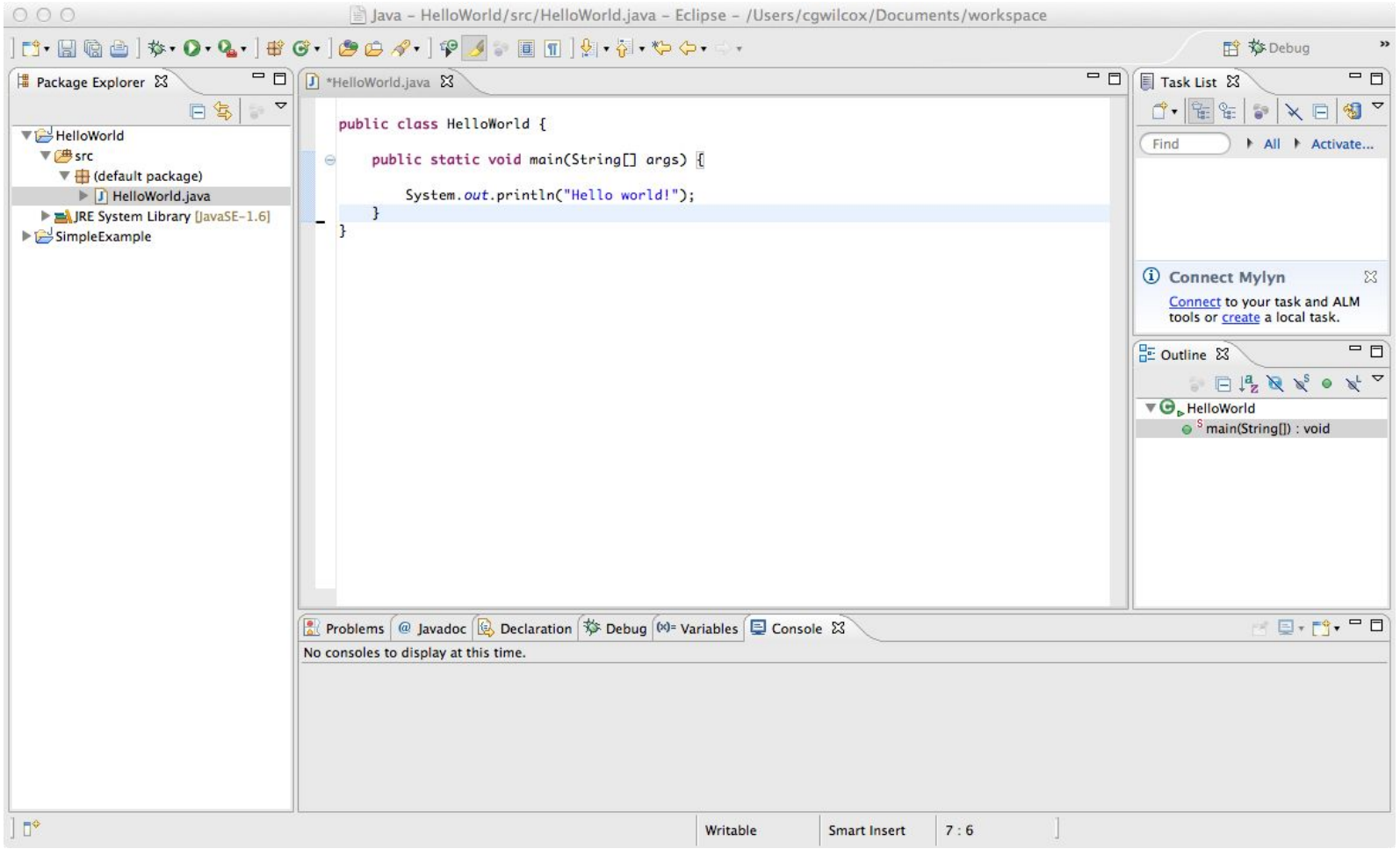


Curriculum

- C1: Languages, Computers, Operating Systems
- C2: Identifiers, Variables, Expressions, Operators
- C3: Conditionals, Booleans, Logical Operators
- C4: Math Functions, Characters, Strings
- C5: Loops: while, do/while, for
- C6: Methods: Parameters, Return Values
- C7, C8: Single and Multidimensional Arrays
- C9: Objects and Classes
- C12: Exceptions and File Input/Output
- C13: Interfaces
- C18: Recursion
- C20: Lists, Collections, Iterators
- C22, C23: Algorithms, Complexity, Sorting

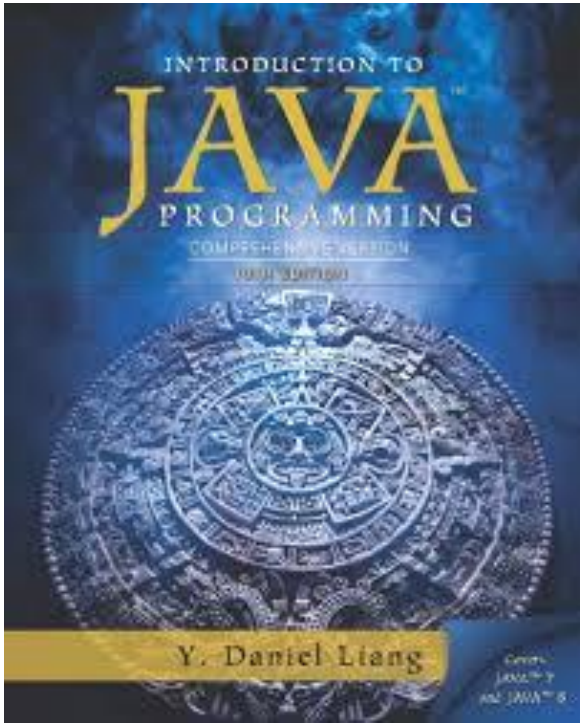


Java Programming



Resources: Java Textbook

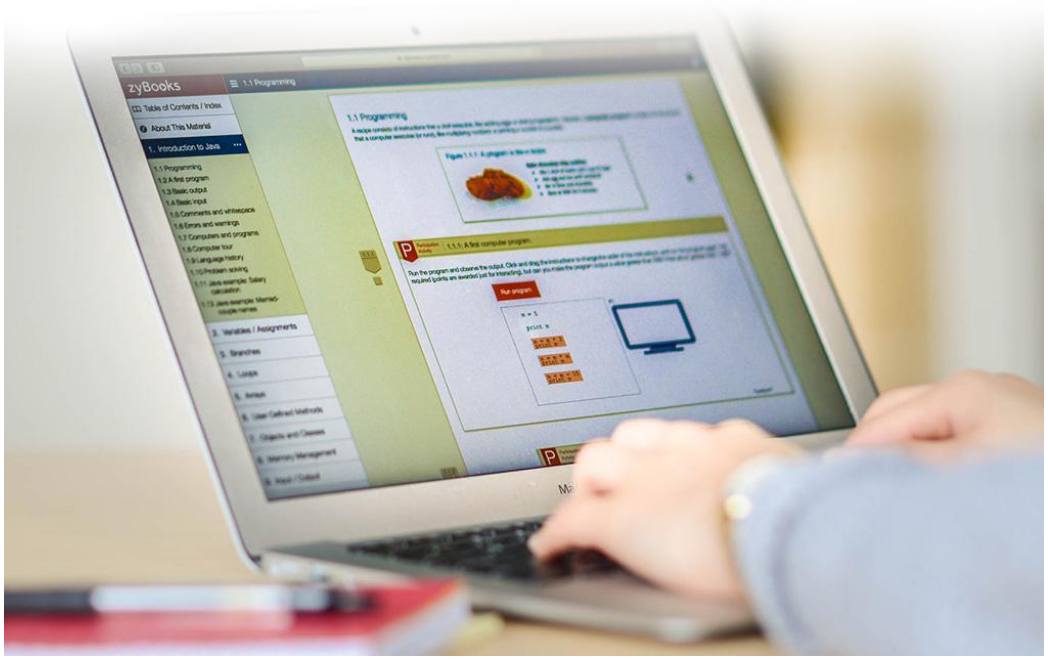
Introduction to Java Programming – Daniel Liang, 10th or 11th Edition



Resources: zyBooks

- Setup instructions on syllabus
- Activities are graded!
- Required by Lab this week!

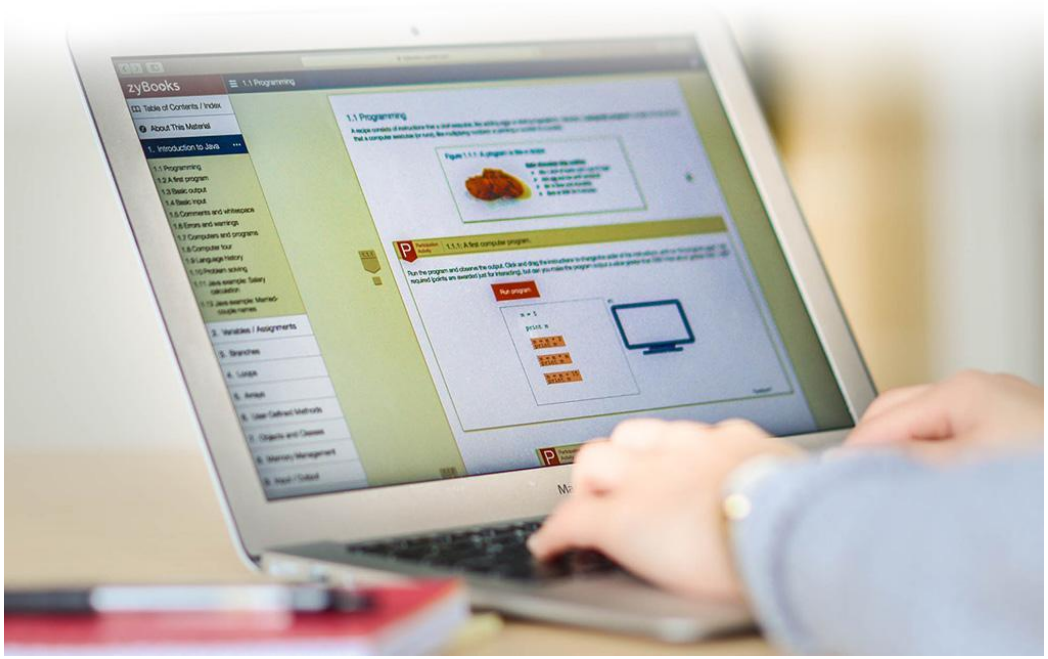
zyBooks



Resources: zyLabs

- You will have programming assignments Required in zyLabs
- Your recitations will use zyLabs as well as Eclipse

zyBooks



Resources: GitHub

GitHub Classroom

- Create an account in GitHub
- Send the email address that you used to sign in to your instructor
- You will turn in programming quizzes and projects to GitHub Classroom

Resources: iClickers

- Register your clicker on Canvas by June 18
- Bring your iClicker to every lecture!

Resources: Piazza

- Have a question about content? Check Piazza
- Need clarification on an assignment? Check Piazza
- DO NOT post code to Piazza. You WILL get a zero on the assignment.

Grading Criteria

- Your grade will be based on:
  - 4 Exams : 60%
    - 1st midterm : 15%
    - 2nd midterm: 15%
    - 3rd midterm: 15%
    - Final exam : 15%
  - 4 Quizzes: 5%
  - Programming Assignments: 10%
  - iClickers & zyBooks: 10%
  - 20 Labs: 10%
  - 2 Projects: 5%

Grading Criteria

Grades will not be assigned lower than shown:

>= 90% A

>= 80% B

>= 70% C

>= 60% D

Else F

The instructor reserves the right to assign plus and minus grades. However, an A- (a minus), for example, is a **lower** grade than an A and therefore cannot be assigned to a score >= 90%. The instructor may choose to lower the cutoffs (i.e. be **more generous**) at his sole discretion at the end of the semester.

You must have a minimum average of 60% on the exams to receive a C

Grading Policy

- If you think you have been graded unfairly on a programming assignment, visit the cs163 help desk for an explanation.
- All lab grading issues should be resolved in lab with the lead Lab TA BEFORE seeing the instructor.
- If you cannot resolve the problem, email the instructor.
- Complaints about grades must be made within two weeks of when the grade is released - you cannot come to be more than two weeks after the grade is released to dispute a grade.

Communications

- Talk with your teaching assistant before or after labs, at help desk, or during lab hours.
- Talk with your instructor during office hours.
- Email your instructor directly only if privacy is needed (health issue, staff complaint, etc.)
- Do not attach comments to Canvas, use the **Piazza** bulletin board instead.
  - Piazza is in Canvas modules.
  - Topics for assignments, Labs, ...

Late Policy

- Every assignment lists a due date
  - Full credit requires meeting this deadline
- Every assignment lists a late date
  - Late submissions have 20% penalty
  - After this deadline, no credit is given
- Exceptions only for excused absences
  - Medical emergencies, family emergencies, with documentation
  - If an emergency happens, email your instructor right away
  - You may have to get documentation from Student Case Management
- Do not miss in-class quizzes!
  - Very hard to get right without group help

Getting Help

- Web Sites:
  - www.cs.colostate.edu/~cs163
- Lectures, Recitations, Lab Hours, Help Desk
- Lab operators (general questions)
- Office Hours (see syllabus)
- Tutors, Friends, Consultants (be careful)
- Textbook, Internet

Academic Integrity

- All assignments, labs, quizzes, exams are solo
  - Unless otherwise specified
  - You may get help from course instructors and TAs
  - You may discuss concepts with other students, but:
    - Never share code with another student
    - Never copy code from another student
    - Never let anyone else type in code for you
- Know the department academic honesty code!

Lecture Expectations

- Come to class
  - Attendance predicts success
- Be active, not passive:
  - Take notes, Ask questions
- Be prepared
  - Do reading assignments before the lecture
- Be on time
  - Lectures start and end on time

Lecture Expectations

- Cell phones off or on vibrate-only
  - If you need to answer, leave the room first
- Laptops for note taking or coding!
  - No games, audio, video, inappropriate websites
- Respect your colleagues
  - No snide or rude comments
  - No comments on abilities
  - No extended conversations

Lab Expectations

- Use the Linux Lab – CSB 120
  - Not the Windows Lab – CSB110
  - No uncovered drinks and no food
- Treat the lab as a professional workplace
  - No disparaging comments
  - No loud/rude/distracting behavior
  - Professional composure at all times
  - No sexual harassment of any sort, not ever!

Tell Someone!

- If you see something concerning, please Tell Someone
  - Your Instructor
  - Your TA
  - CSU Tell Someone Office
    - http://supportandsafety.colostate.edu/tellsomeone

Motivation

A student asks a roommate, "Could you please go shopping for us and buy one carton of milk and, if they have avocados, get six." A short time later, the roommate returns with six cartons of milk. "Why did you buy six cartons of milk?" asks the student. The reply: "They had avocados."

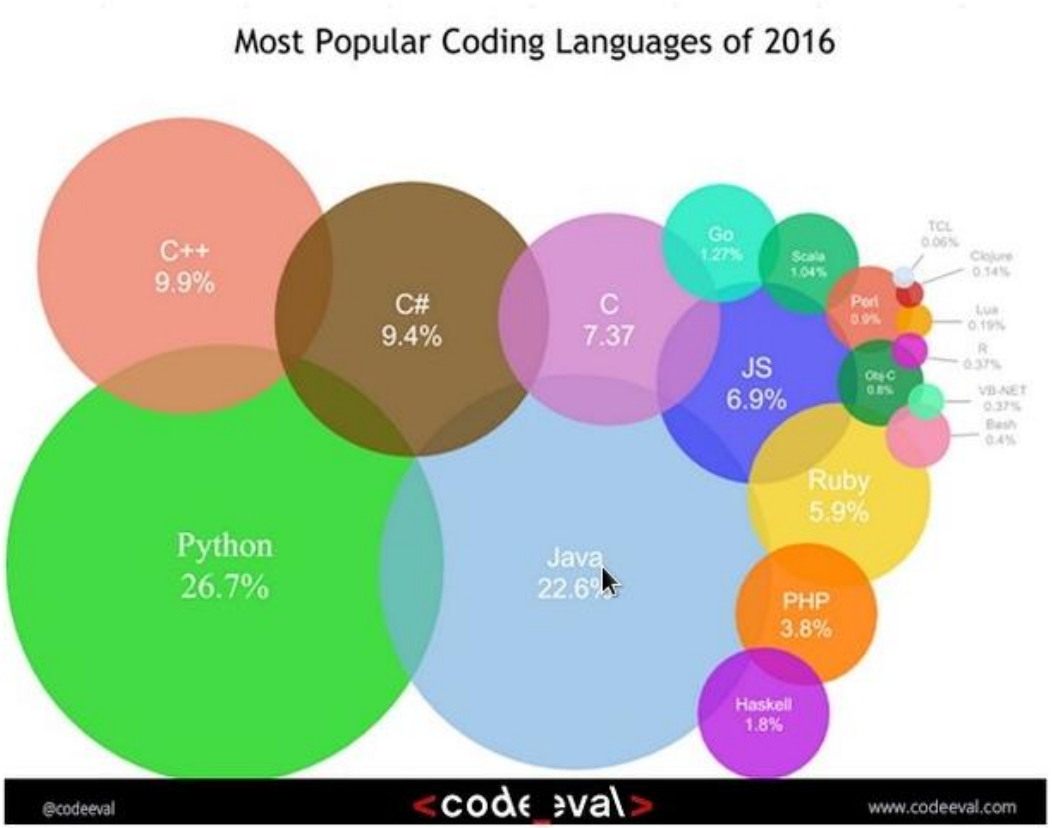
Reader's Digest, September 2013

This is exactly what your Java program will do, because computers do what you ask them to do, not what you want them to do!

Motivation


Java Setup - Progress
Java
ORACLE
Status: Installing Java
3 Billion
Devices Run Java
Java
#1 Development Platform
ORACLE

Motivation



Most Popular Coding Languages of 2016

Motivation

AVERAGE U.S. TECH SALARY 10-YEAR TREND

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AVG. SALARY	AVG. SALARY	AVG. SALARY	AVG. SALARY	AVG. SALARY	AVG. SALARY	AVG. SALARY	AVG. SALARY	AVG. SALARY	AVG. SALARY
$78,845	$79,384	$81,327	$85,619	$87,526	$88,479	$93,328	$92,081	$92,712	$93,244
YR/YR CHANGE	YR/YR CHANGE	YR/YR CHANGE	YR/YR CHANGE	YR/YR CHANGE	YR/YR CHANGE	YR/YR CHANGE	YR/YR CHANGE	YR/YR CHANGE	YR/YR CHANGE
1.0%	0.7%	2.4%	5.3%	2.2%	1.1%	5.5%	-1.3%	0.7%	0.6%