ICS 211 Introduction

Jan Stelovsky
Instructor

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- POST 305C
- office hours (preliminary): Mo 12:00-1:00
TA's

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• Anthony Christie
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  – office hours: Monday 1:30-2:30
Course

- [www2.hawaii.edu/~janst/211](http://www2.hawaii.edu/~janst/211/)
- lecture
  - Mo, We 10:30-11:45
  - MSB (Marine Sci.) 114
- lab
  - Section 1: We,Fr 12:00-1:15, POST 319
  - Section 2: We,Fr 12:00-1:15, POST 318A
  - Section 3: We,Fr 1:30-2:45, POST 319
Grading

• 1 midterm exam
• final exam
• homework assignments
• quizzes
• attendance (via quizzes + in labs)
• no cheating will be tolerated
  – offenses will be reported
Let's Start

• Java proficiency
  – Tasks
    • Greatest Common Denominator
    • Fibonacci series
    • Reverse elements in an array
    • Shuffle cards
    • Model of a university
  – Method
    • Groups of two students develop code together
    • Exchange code with another group
Greatest Common Denominator

- **GCD** \((X, Y ; X \geq Y) =\)
  \[= \text{GCD} \left(X \mod Y, Y; \text{and } Y > X \mod Y\right)\]

- Euclid Algorithm

- Compute GCD \((X, Y)\)
Fibonacci Numbers

- $\text{Fib} (N) = \text{Fib} (N-1) + \text{Fib} (N-2)$
- $\text{Fib} (0) = 0$
- $\text{Fib} (1) = 1$

- Compute $\text{Fib} (N)$
Reverse an Array

• $a[0]..a[length-1]$
• for loop
  – how many iterations?
  – instead of producing a new array, can we replace the elements in the source array?
• can we satisfy both requirements?
  – does it matter whether there are odd or even number of elements?
Shuffle cards

• A card has
  – an ID, e.g. "hearts 10",
  – suite, e.g. hearts,
  – value, e.g. 10,
  – and an image

• Given a card deck, shuffle it
Model of a University

• Devise a set of classes that can model a university, e.g. with students, instructors, admin staff, departments, courses, grades, etc.