Exam 2 Review Topics
Fall 2017

Exam technical details

- When: Wednesday, November 1st in class
- Seats are assigned
- Up to two pages of notes allowed
  - 8.5x11 paper (double sided is fine). Typed or handwritten.
- No electronic devices
  - Including calculators, watches, iwatches, phones, laptops, tablets, …
- Multiple choice
- Can grade as you exit the exam

Topics from Exam 1 Are Still Valid

You are still expected to know things from Exam 1!

- Basic OOP

- Inheritance

- Polymorphism

- Overriding vs overloading

- Abstract classes and interfaces
  - Comparable vs Comparator

Generics

- What are generics used for?

- Why do we need generics?

- What advantages do generics give you?

- Know the basic syntax of using them

- Wildcards

  <? extends FooClass>

- Interpret generic code and find errors

Java collections framework

- Java Collections Framework will form the bulk of the exam
- Abstract data structures:
  - Lists, Queues, Priority queues
  - Collections
  - Stacks
  - Sets
  - Maps
- Know:
  - What the data structure does
  - How do you iterate through the items or the values

Enum

- Know how to create an enum

- How do you refer to enumerated values?

- How do you use enumerated values as keys?

- Why is it useful that an enum is an object?

GUI and Events

- ## Basics of
  - ### Making a GUI
    - JFrame, JPanel, JButton, JRadioButton, Jlabel, JTextField
    - Basic LayoutMangers: FlowLayout, GridLayout, BorderLayout
    - How do the Layout Managers deal with adding multiple components to the same container?
  - ### Event driven programming
    - How to make your GUI do something in response to button presses (ActionListeners)
    - Not: non-ActionListener events (e.g., menus)

- ## Graphics: low-level drawing
  - ### Not on the exam!