Exam 2 Review Topics
Fall 2016
Exam technical details

• When: Wednesday, November 2\textsuperscript{nd} 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, iwatch\(\textsuperscript{es}\), 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 Layout Managers: 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)

• Graphics: low-level drawing
  – Not on the exam!