

Exam 2 Review Topics

Fall 2016

Exam technical details

- When: Wednesday, November 2nd 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)
- Graphics: low-level drawing
 - Not on the exam!