(30 pts) Approx. 3 days

This unit covers the basics of *object oriented design*, and in particular the role that classes, constructors, and methods play in the development of a larger program. So far, every program we've written has been contained within a single class. In reality, programs are often built with many classes that all talk and interact with each other. This allows us to consider the different parts of our program as 'objects' within the program, and tell them to do different things that we'll define as special 'methods'.

The first part of this unit has us make our first classes and constructors. **Classes** are the structures that let us define types of things (like Jeroos), and the their corresponding **constructors** give us a way to define important variables upon making those objects (like new Jeroo(2,3,SOUTH,35)).

1. Start by watching the three introductory videos on classes, variables, and constructors. Watch closely, because these concepts will be the foundation of the rest of the year!
2. Take a full page of good notes on classes, variables, and constructors. Make sure that your notes include details on the class signatures (how to define classes), private vs. public variables (when to use each), and constructor signatures (how to define constructors).
3. Now, complete the next 6 Java Tasks below that are all about defining classes, their variables, and their constructors!
    a. JAVA TASK 24: Write a class called ASSIGNMENT that could be used to keep track of single assignments in a gradebook program. Include at least 5 variables and 1 constructor.
    b. JAVA TASK 25: Write a class called CAR that could be used to keep track of individual cars in a database. Include at least 4 variables of 2 different types, and 1 constructor.
    c. JAVA TASK 26: Write a class called SHAPE that could be used to keep track of individual shapes for a geometry program. Your class should include at least 3 variables including 3 different variable types, and 1 constructor.
    d. JAVA TASK 27: Write a class called SPORT that could be used to keep track of individual sports at a big event like the Olympics. Your class should have 4 boolean variables and 1 constructor.
    e. JAVA TASK 28: Write a class called SCHOOL that the school district could use to keep track of information about their schools here in Fairbanks. Your class should have 10 variables that include some ints, some doubles, some Strings, and some Booleans. You should also have 1 constructor.
    f. JAVA TASK 29: Write a class called ACCOUNT that a bank could use to keep track of user accounts. Your class should have at least 4 variables and 1 constructor.
4. Lastly, create an account using your student s# e-mail at the website codingbat.com. This website gives a cool way to start working with single methods, and will even test your methods for you! Go to the Java programming site (not the Python site), and go to Warm-up 1. Pick any 6 challenges and complete them (all test cases green!).

Part 1: Tasks	*5 points*	*4-3 points*	*2-1-0 points*
▢ Conditionals Notes	+ Watch all presentations + You took a full page of notes on classes and constructors + Your notes include detailed information on how to make constructors and class variables	- Less than a full page of notes on classes and constructors - Your notes are missing important parts	- Very brief or no notes in your notebook
⊕ Java Tasks 24-29	+ You completed all 6 Java Tasks from this section	- You did not complete all 6 tasks	- You did not complete any tasks
⊕ Coding Bat	+ You created an account at codingbat.com + You completed 6 WarmUp#1 challenges in codingbat.com	- You only completed 4 or 5 codingbat.com challenges	- you completed fewer than 4 codingbat challenges
☆ Checkoff from Benshoof	+ Mr. Benshoof got to see your Java programs run successfully	N/A	N/A