

(50 pts) Approx. 3 days

Now that we’ve learned how to make the basic framework for a class – signature, variables, constructors – it’s time to start adding methods. Methods in a class come in three main varieties:





Getters are used to ask for and return the value of class variables

Setters are used to set or change the values of specific class variables

Mutators are used to make any other things happen within or between different objects

In this part of the unit, you’ll learn to write a variety of methods and then use a corresponding **Driver (or Runner)** class to confirm that your methods are working.

1. Watch the three videos on *Getters & Setters*, *Static Methods*, and *More About Methods*. Take a full page of good notes on these topics. Make sure that your notes include details about the specific method signatures used by these different methods, as well as the difference in intent behind each one.
2. Now, complete the following Java Tasks below that all require creating your own classes and methods! For every class below, write the class indicated *and include at least 3 variables, at least 1 constructor, all setters and getters, as well as at least 3 mutators*. The mutators in these classes **do not** have to be functional: their signatures should be appropriate, but the body of the method can simply be a comment describing the intended interaction or purpose of the method.
 - a. JAVA TASK 30: Write the class REFRIGERATOR following the above guidelines that could keep track of the contents of your refrigerator at home.
 - b. JAVA TASK 31: Write the class CAT following the above guidelines that could keep track of your pet cat’s day.
 - c. JAVA TASK 32: Write the class BUS following the above guidelines that could be used to keep track of school busses for the school district.
 - d. JAVA TASK 33: Write the class APCOURSE following the above guidelines that could be used to keep track of AP Courses and their parameters here at Lathrop.
 - e. JAVA TASK 34: Write the class VEGETABLE following the above guidelines that could be used by a grocery store to keep track of vegetable-related information.
 - f. JAVA TASK 35: Write the class TEACHER following the above guidelines that could be used by a student-made program to keep track of their teachers during the school year.
 - g. JAVA TASK 36: Write the class STUDENT following the above guidelines that could be used by a teacher-made program to keep track of their students during the school year.
3. Lastly, go back to CodingBat.com and log in with the e-mail you provided when you made the account. Go to the Java resources and the “String 1” section. Pick any 6 challenges from the String 1 group and complete them!

Part 2: Tasks	10-7 points	6-4 points	3-0 points
 Getter/Setter/Mutator Notes	+ Watch all presentations + You took a full page of notes on different kinds of methods in Java + Your notes include details about getters, setters, and mutators	- Less than a full page of methods notes - No notes on method signatures	- Very brief or no notes in your notebook
 Java Tasks 30-37	+ You completed all 8 Java Tasks from this section	- You did not complete all 8 tasks	- You did not complete any tasks
 Coding Bat	+ You completed 6 String #1 challenges in codingbat.com	- You only completed 4 or 5 codingbat.com challenges	- you completed fewer than 4 codingbat challenges
 Take the Unit 4 Quiz!	+ You took the Unit 4 Quiz before the due date + Your grade is based on the number correct	N/A	- You did not take the Unit 4 Quiz by the due date

