PAIR UP TO DO THIS ONE:

You will do software design to handle customer below……I tried to write this like a customer would really act……but I didn't do a good job. Normal customers never lay things out this nicely……as bad as this is, it's still better than what most customers have given me.

I am your customer. I own a drone company. I need software to run my drone and provide information to the users programs that will be flying the drones as well as ways to adjust the parameters of how the drone is flying. I have many different drones that I sell and it would be great if all the drones could be run with this one program. All the drones have motors and they all have the same camera. They all have a different size and they all have different weights, some have more motors than others do. They all fly on their own; you just have to tell it where to go. You can tell it to take a picture and it will. You can tell them to go to an x, y, z location and it will, with y being the height and you can think of x and z as longitude and latitude. Sometimes you only want to tell it to fly higher; this can be accomplished without changing the x and z. They all run on different batteries that have different capacities, so one drone might run twenty minutes and another might run an hour. The time that the battery has left over is automatically provided by a static method called time left in a class called Battery; it would be nice if our clients could request this value from our software if needed. The speed of the drone is 0-20 and sent in to the program from a app that will use our program, zero will just hover, and anything over that will have it move which ever direction it is facing. That's pretty much what my drones do, can you design a piece of software to run this….and did I miss anything ?

Now design the software, no actual code, just classes, method definitions (input and output), and instance fields…..the functionality of the software without any logic. Empty methods.

Do it like I did in class on Monday.

If you finish early, try to figure this one out:

> Most modern Java compilers have optimizers that can detect simple cases when it is logically impossible for certain statements in a program to ever be executed. In such cases, the compiler warns the programmer about the useless code. Write a short Java method that contains code for which it is provably impossible for that code to ever be executed, yet the Java compiler does not detect this fact.