

- 1) Below is what I did for lab 11, in this case I did not do the name changes
- 2) Download the files for program 7 from Brightspace
- 3) Here are the steps that I did
 - a) your_last_name_in_lower_case_Car.java
 1. Add the four fields, all are private, three are final
 2. Add the four parameter constructor
 3. Add the four getters and one setter
 1. Copied the definitions from CarFunctions.java
 1. **public int** getFuelEconomyInMilesPerGallon()
 2. **public int** getFuelCapacityInGallons()
 3. **public double** getCurrentFuelInGallons()
 4. **public** String getId()
 5. **public void** setCurrentFuelInGallons(**double** v)
 - b) testCarData.java
 1. Update the five commandline arguments
 1. The first is a String
 2. The other four are doubles
 - c) your_last_name_in_lower_case_ManageCarData.java
 1. Added the fields
 1. One ArrayList of type CarFunctions named carList
 2. Two PriorityQueues of type CarFunctions named carListByTotalRange and carListByRemainingRange
 2. Added a no parameter constructor
 1. Instantiate the three fields
 2. Here are the statements for the PriorityQueues
 1. carListByTotalRange = **new** PriorityQueue<>(**new** TotalRangeComparator());
 2. carListByRemainingRange = **new** PriorityQueue<>(**new** RemainingRangeComparator());
 3. Implement **public** ArrayList<CarFunctions> getCarList()


```

public ArrayList<CarFunctions> getCarList()
{
    ArrayList<CarFunctions> tempCarList = new ArrayList<>();
    for( int i = 0; i < carList.size(); i++ )
    {
        tempCarList.add(carList.get(i));
    }
    return tempCarList;
}

```
 4. Implement **public void** readData(String filename)
 1. Added try/catch block for reading the input file
 2. Added BufferedReader (I copied the line from lab11.pdf)
 1. The statement had a line break in it, so I made it a single line
 3. Added a while loop to read the BufferedReader input


```

String inn;
while( (inn = input.readLine()) != null )
{
    ...
}

```
 4. Inside the loop
 1. Created a StringTokenizer for the current input line, inn, with a "\t"

delimiter

1. I added "import java.util.StringTokenizer;" to the top of the file
2. Parse the four values from the current line
 1. One string, two ints, one double
 2. Instantiate a your_last_name_in_lower_case_Car object using the four values we just got from the current line of input
 1. CarFunctions c = **new** your_last_name_in_lower_case_Car(id, fuelEconomy, fuelCapacity, remainingFuel);
 3. Added the Car object to the ArrayList and two PriorityQueues
- d) At this point we are done, compile and execute testCarData.java