PA04: RideShare

PA04 is due Thursday night 2/15/2018 before midnight on Latte.
You may ask the TAs for help and you may ask your teammates for help as well.

You are to create two new classes:

LytfRide.java
LyftDriver2.java
and them with the following class attached to the Latte assignment
TestLyftDriver2.java

LyftRide should store the information about a single ride:
customer id
number of miles
number of minutes
and have a nice constructor and a toString method which prints out this information.

LyftDriver2 will keep track of all of the rides by a driver as an array (or ArrayList) of LyftRides
It will also have a new instance method:
getRides() - which returns the array of all of the driver's current LytfRides
It should not return an ArrayList, and the array should be exactly the size of the number of rides the driver has completed.

If you want you can use inheritance to create **LyftDriver2** from **LyftDriver**, but you may need to change some private variables of LyftDriver to protected variables so you can access them in LyftDriver2.

You can also just create an entirely new class by copying LyftDriver.java and renaming it to be LyftDriver2.java. Also you can use an ArrayList instead of an array if you want, or you can assume that the driver will never have more than 10000 rides and create an array of that size.

TestLyftDriver2 tests the LyftDriver2 class.

It constructs a couple of LyftDriver2 objects (e.g. tim and jiarui)

```
LyftDriver2 tim = new LyftDriver2("Tim", 1, 3.00, 2.00, 0.20);
LyftDriver2 jiarui = new LyftDriver2("Jiarui", 2, 4.00, 3.00, 0.25);
```

gives them a few rides (just as before in TestLyftDriver)

```
tim.completeRide(1729, 5.0, 20.0);
jiarui.completeRide(24, 40.0, 60.0);
tim.completeRide(314, 20.0, 30.0);
jiarui.completeRide(271, 4.0, 12.0);
```

then gets their rides (e.g. tim.getRides()) prints them

```
printRides(tim);  printRides(jiarui);
```

where printRides uses a for loop over their rides:

```
public static void printRides(LyftDriver2 driver){
        System.out.println("Driver: "+driver);
        LyftRide[] rides = driver.getRides();
        for (int i=0; i<rides.length; i++){
                System.out.println(rides[i]);
        }
        System.out.println("------\n\n");
}
```

Run TestLyftDriver2 and then cut/paste the output into a file output.txt
You should get something like the following for your output.txt

```
$ java TestLyftDriver2
Tim: driver(Tim,1,0.0,0)
Jiarui: driver(Jiarui,2,0.0,0)
Tim: driver(Tim,1,17.0,1)
Jiarui: driver(Jiarui,2,139.0,1)
Tim: driver(Tim,1,66.0,2)
Jiarui: driver(Jiarui,2,158.0,2)


Testing the getRides method


Driver: driver(Tim,1,66.0,2)
LyftRide(1729,5.0,20.0)
LyftRide(314,20.0,30.0)
------


Driver: driver(Jiarui,2,158.0,2)
LyftRide(24,40.0,60.0)
LyftRide(271,4.0,12.0)
------
```

WHAT TO HAND IN:

Write a reflection.txt in which you state what you would have done if you had more time to work on this project.

Upload the following files to Latte:

1. LyftRide.java,
2. LyftDriver2.java,
3. TestLyftDriver2.java,
4. output-pa04.txt (the result of running java TestLyftDriver2)
5. reflection.txt