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### Project 4 Reflection

Upon being assigned Project 4, I had the opportunity to collaborate with Mariam Shah. We proved to be a hardworking pair that was able to divide the work amongst ourselves into even portions, as well as working together on parts that challenged us by receiving assistance from Dr. Russo. We first divided the TrackPoint class into two large chunks: Mariam worked on import statements and declared the private variables of latitude, longitude, radius, and speed that were to be used later on in the program. This involved declaring each variable as a private double and setting their default value to 0.0. In addition, she also worked on the public TrackPoint method. This involved splitting the line at the comma, trimming the latitude and longitude, and parsing the speed and radius. I further continued the program by retrieving the latitude, longitude, speed, and radius from the given file with the methods `public double getLatitude()`, `public double getLongitude()`, `public double getSpeed()`, and `public double getRadius()`. I then completed the main method by declaring our test point and running it through the TrackPoint method declared earlier in the program. Finally, I wrote the print statements that would print out the latitude, longitude, speed, and radius of our test point.

Next, we worked on the Hurricane class. Mariam began with the import statements and constructing the basics of the public Hurricane class. This included using a try/while loop to load a text file in, analyze it line by line, and adding it to the array list. We finished the details of this

with the help of Dr. Russo. I then attempted to finish the program with the getName(), getNumPoints(), getPoint(), and main method, which returns the name of the hurricane and the number of TrackPoint objects from the ArrayList as well as the TrackPoint object stored in the ArrayList, and prints the number of TrackPoint objects in DEAN.

Finally, we applied the same method of dividing the code into two chunks for the final Tracker.java class. I began with the import statements and the public class Tracker method by typing out all the private double variables, from minx (the minimum x-pixel coordinate on the chart) to private hurricane h1. This included a total of 11 variables. I then continued by using Dr. Russo's tracker sample method on the board, but I had to code the "1275" and "825" dimensions from the chart when I declared the super class constructor. The basics of the onTick method was written by Mariam. Finally, Mariam and I received assistance on working out the finer details of this method from Dr. Russo.

One thing that worked extremely well team wise was how Mariam and I were able to evenly divide the work, then work together on parts that needed further editing. We were both willing to work hard and stay persistent by staying an extra 3 hours after class to finish the project, as we both are extremely busy the following few days. Because of our harmonious work division, similar work ethic, and desire to finish the project, we were able to complete the project in a relatively short time. Challenges we had to overcome included the typical program errors, like not declaring variables, mis-capitalization, and mis-coding certain actions the program was supposed to carry out, which we then proceeded to ask Dr. Russo for help with. We also ended up wasting some time with indentation errors. Overall, it was an amazing learning experience both coding wise and teamwork wise.