**CS 1150 Design Notebook Example**

------------------------------------------------------------------------------------------------------------------------------------------

**Design Notebook**

------------------------------------------------------------------------------------------------------------------------------------------

**Max Santomauro**

**Assignment #7**

**Due Oct 17**

**Step 1: Problem Statement**

Objective: Write a program that simulates an app for a driver of Uber, Lyft, etc.

**Step 2: Understandings**

**What I Do Know**

* I know hoe to use the Math.random() method

**What I Don’t Know – What I’m struggling with – Questions I have**

* I struggled with creating a continuous while loop with the **pickupPassenger** method that allowed the driver to continue picking up passengers until the driver hit “N” or “n”. assigning a Boolean variable that’s equal to true within the while loop condition caused an error which demanded that I return a Boolean variable to get back into the while loop within main.
  + How do I do this infinite loop without using a while(true) loop?

**Step 3: Pseudocode for Main**

* Within the main method:
  + Initialize daily counter variables and equal them to the methods called
  + Display a welcome for the Driver App
  + create a while loop that allows the driver to repeatedly pick up passengers by calling a method in which the driver is prompted on whether they want to continue picking up passengers
    - Initialize variable within this loop
    - Add up counters here for each time the driver decides to pick up passengers
    - display daily total after driver stops picking up drivers
    - Display trip total every time the driver decides to pick up passengers within this loop
    - return user to pickupPasengers method method to continue picking up passengers if they continue typing "Y" or "y"
  + Outside the while loop and with the main method display trip total every time the driver decides to pick up passengers
* Create method in which the driver is prompted to pick up more passengers.
* Create a method that randomly generate the number of passengers for the trip that’s between 1 and 5 passengers
* Create a method that randomly generate the number of mile for the trip that’s between 1 and 20 miles
* Create a method that randomly generate the number of miles per hour for the trip that’s between 30 mph and 60 mph
* Create a method that computes the fare for the trip
  + Cost per mile = $1.75, cost per minute = $0.50, base fare = $.7.50
  + Add $1.00 per passenger if there are 3 or more people
  + The total fare is $7.50 if the fare is less than $7.50
  + The base fair of $7.50 is added to total fare if total fair is more then $7.50.
  + Determine if the fare is less or equal the fare base and return the total fare as $7.50.
    - Otherwise, return the total fare plus $7.50 added to the total fare.
* Create a void method that can be called to displays the results for one trip
* Create a void method that can be called to displays the results for all trips combined

**Step 4: Lessons Learned**

* I learned how to created other methods apart from the main method
* I learned about calling methods into the main method
* Googled and learned that the **while(true)** loop allows the loop to continue until an “N’ or “n’ character is inputted by the driver within the **pickupPassenger** method without the need of returning a Boolean variable to get out of the loop.