This is the final guided project of the course. Here, we are given a .txt file delimited by commas. Basically a .csv file. We have to import it in Excel.

The instructor opens the .txt using Excel. Excel at this point takes us to the import wizard which is basically the *Text to Columns* wizard. Once imported, we start working on the spreadsheet.

**Step 1: Understanding the data**

The first column titled *Car ID* contains all the information we need. One sample from this column is FD06MTG001. Here the first two characters FD denotes the car company. The second two characters 06 represents the manufacturing year. The next three characters MTG denote the car model. The last three characters is just the ID of similar cars.

The *Miles* column denote the total miles on the said car. Three additional columns are provided – one is the *Warrantee Miles* and the other two are *Color*, denoting the color of the car,and *Driver*, denoting the name of the driver of the car.

**Step 2: Understanding the primary task**

We need to fill the *Make, Make (Full Name), Model, Model (Full Name), Manufacture Year, Age, Miles / Year, Covered?,* and *New Car ID* columns from the given information. Note, for the full name we need two more tables which are given during the lesson.

The rule for the *New Car ID* is to embed the first three characters of the *Color* column within the *Car ID* right after the car model.

**Step 3: Completing the primary task**

The  *Make, Model,* and *Manufacture Year* can be derived from the *Car ID* as explained in the Step 1. The commands that can be used in this case are =LEFT and =MID.

*NOTE – Excel indices start from 1*

For the *Make (Full Name)* and *Model (Full Name)* columns, we need the additional tables and we use =VLOOKUP functions to complete these. VLOOKUP stands for Vertical Lookup and as expected there is also a function called =HLOOKUP for Horizontal Lookup. Either way, the lookup table indices are set as dynamic when selected normally. So, we have to make their references absolute for the function to work properly.

*NOTE – For VLOOKUP, the values have to be sorted in an ascending fashion.*

*NOTE – When quick sort is applied to multiple columns, the sort works only on the left column.*

*\*\*NOTE – Some data had formatting issues, they had to be manually fixed like 0 was written with O and so on.*

The next column to be filled is *Age.* I used 2014 as the reference because the instructor designed the data to teach some issues that arise when *Age* becomes 0. Either way, since there were some cars manufactured in the ‘90s we couldn’t just subtract the manufacturing year from 14. This issue arises because they didn’t use 4-digit years but instead just used the last two digits of the year. This had to be solved using =IF function.

The *Covered?* column was an easy fill as we just had to compare the *Warrantee Miles* with *Miles* on the car. But the *Miles / Year* had one issue. Remember when I said I used 2014 because the instructor made the data to teach what happens when a number gets divided by 0 in Excel. This issue was designed for this column, the *Miles / Year.* Although a proper work around wasn’t showed, the instructor added 0.5 years to the age while dividing, to solve this issue.

The final challenge was to fill in the *New Car ID*. This had to be solved using the =CONCAT and =UPPER functions. I had to nest a =LEFT and =RIGHT function as well within the =CONCAT function. The instructor used the extracted columns to recreate the ID, but I found it to be more tedious and so I just extracted the information from the *Car ID* column again.

**Step 4: The secondary task**

Well now that we are done with the primary filling task, the instructor handed out 3 more tasks –

* Create a Pivot Table and extract the total miles vs. each driver. Represent it using a chart to find the driver having the most miles.
* Establish the correlation between the total miles on a car vs. the age of the car as a scatter plot.
* Conditionally format the *Miles / Year* column to make it easy for the viewer to demarcate the higher values from the lower.

There are nothing new to learn here and so, I am not writing any notes on these. They can be found in the Excel worksheets.

**Step 5: Creating a report in MS Word**

Well, I didn’t create a extra report according to the instructor cause I have already written down an extensive note on the task.