**Data Science Program Final Project**

**Executive Summary**

Due to the end of the Data Science program, I’m required to complete a final project in order to demonstrate the skillset of a data scientist. This final project will be completed within a six-week time frame.

This document will provide a concise description of the tools and functional strategies that will be used throughout the project. In reference to the purpose and scope of the project; the document will also provide an overview accordingly.

**Business Objectives**

The Data set of choice is entitled “2016cityandcountylightdutyvehicleinventory.” With this data set several skill sets will be used to transform (wrangle) the data into a usable set of data for analytical purposes.

Excel will be used continually to stage, view, and analyze the data. SQL will be used for a similar purpose as well. Tableau will be used primarily for visualization efforts. A combination of R and Python will be called upon to apply specific analytical functions and processes to produce a scientific outcome. Hence a summary will follow.

The dataset in question can be found at <https://data.openei.org/submissions/907>.

A formal presentation will follow the completion of the project after six weeks.

**Background**

One of the most challenging global trends to face these days is the constant rising price of gas. Unfortunately, for most of the common population (non – wealthy) that is, the rising price of gas is affecting the take home pay. This attention getting phenomena can not be ignored and for some of us we must adjust our lifestyle to accommodate for the growing expense at the gas pump.

So it is with growing concern I have decided to take interest in “2016cityandcountylightdutyvehicleinventory” dataset in hopes of making some useful determinations about the use of certain vehicles by city, county, or other specified regions.

**Scope**

The goal of this project will be to use some of the tools and techniques learned during the course to deduce helpful strategies or useful information. Such strategies and information may be used to help with, if nothing else, the use of vehicles to, in the end, maybe save at the pump and or determine different methods of travel to avoid max spending because of rising fuel costs.

**Functional requirements**

* Data Wrangling
* Data Analysis
* Data Visualization
* Presentation

**Personnel requirements**

This is a one student project who will assume all duties.

I will meet with the instructor once a week to discuss the status, questions, and concerns about the project.

**Delivery schedule**

Six weeks from start to finish. Weekly check-ins with the Final-Project instructor. A Final-Project presentation at the completion of six weeks.

**Other requirements**

All programs used should be free of charge. Though Jane and Jessica may decide to use a paid service, such as a more advanced version of Tableau.

**Assumptions**

All tools needed are at the student’s disposal. A knowledge base and help guide will be available through materials and human assistance.

**Limitations**

Just one student working on this project. All phases and requirements must be prioritized and executed through one person.

**Risks**

One set of eyes my have an impact on time it takes to figure out a solution to a potential problem or requirement.