**Weekly Status Submission Template**

**Week Number: 5**

**Date: Thursday, February 13, 2025**

**Student Name: Jake Cook**

**Original Plan for This Week: (5 points)**

From Project Proposal…

Week 1: Finalize project scope, gather initial datasets, and define metrics.

Week 3: Complete the data cleaning and preprocessing.

Week 5: Perform initial analyses and calculations for CO2 emissions per kilowatt-hour.

**Tasks Accomplished This Week: (10 points)**

This week I was able to sit down and change direction and scope of this project. After comparing R + Shiny vs. PostgreSQL + Python/Flask + JavaScript, I have decided to go with the ladder. I have loaded my data into PostgreSQL via PgAdmin and began EDA. I have reconstructed my dashboard deliverable concept, to allow a user to choose the state in which they reside and compare: the grams of CO2 per mile of fully electric vehicles to internal combustion engine counterparts, the miles per gallon/kWh of all vehicles, MSRP of top 10 efficient vehicles in 2023 from the datasets, and total distance that can be traveled on one charge/tank. I think these four graphs provide the user with the best information possible in order to make an educated purchase of an EV.

**Comparison of Planned vs Actual: (10 points)**

Originally for this project I wanted to have an R based project since I do not have one in my portfolio. After doing some research on R and Shiny, I don’t think that this is the right project for this type of application. I think R + Shiny would really thrive in a stock prediction analysis, forecasting a stock based off factors, and showing the prediction with confidence level. For this project I have changed my scope to using..

PostgreSQL: Data Management

Python & Flask API: Handle data queries

HTML/CSS/JavaScript: Front end display

**Self-Rating of Progress: (5 points)**

* [ ] Met the Planned Tasks
* [X] Did Not Meet the Planned Tasks

For the reason’s stated above with deciding to change the scope and framework of the project, I did not meet the planned tasks for the project, although I do have the data loaded into Pg Admin and have began EDA for the two csv’s. As mentioned, I have also taken on a new role and have been adapting to this new work/school balance.

**Plan for Next Week: (5 points)**

My plan to get back on schedule with these new adjustments is

* Complete EDA of datasets using SQL
* Derive a rough html web page of the structure for the future dashboard
* Aquire any cross reference data that may be needed for the dashboard
* Construct the project folder structure for the different .py and html files

**Evidence of Tasks Completed: (15 points)**

Here is the link to my google drive..   
[Jake Cook Senior Thesis](https://drive.google.com/drive/folders/1IIM_tHgYPyQQYPgINpBM8kvYwi2nZjDa?usp=drive_link)