#### **README**

MCIT 591 Project Title: Tesla: Saving Hard-earned Cash or Not?

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GitHub Repository Link: TBD

### **Purpose:**

Using internal combustion engine (ICE) vehicle information on the Mercedes GLC and Lexus LX vehicles, as well as the current national average gas price per gallon, the average gas-powered car cost per mile to run, gasoline grade cost, and stated mpg, our team designed a JAVA program that can read data files, input user information, and calculate whether driving a Tesla is a cost-savings strategy when compared to driving select ICE vehicles in Miami FL, New York NY and Charlotte NC.

#### **Tech Stack:**

This project was built using Java, Excel, two electricity bills from one Tesla owner available data for one Mercedes and Lexus owner, and mpg and gasoline cost from the US Department of Energy.

# **Project Elements:**

There are four main elements comprising this project:

- 1. the user interface (UI),
- 2. a Java project built to read data from comma delimited files,
- 3. current data from vehicle owners, and
- 4. historical data on gasoline costs

#### **User Interface:**

The user interface has one option:

1. search fields

#### **Classes:**

There are several classes that organize the functions within the project:

- 1. ElectricUsageReader
- 2. ElectricUsage
- 3. GasInfo
- 4. PlotSetting
- 5. DrawingSourcing
- 6. Validations
- 7. Rate Calculator
- 8. Runner

# **Start Project:**

To start the project, go to Runner class and click on the main method to run the program.

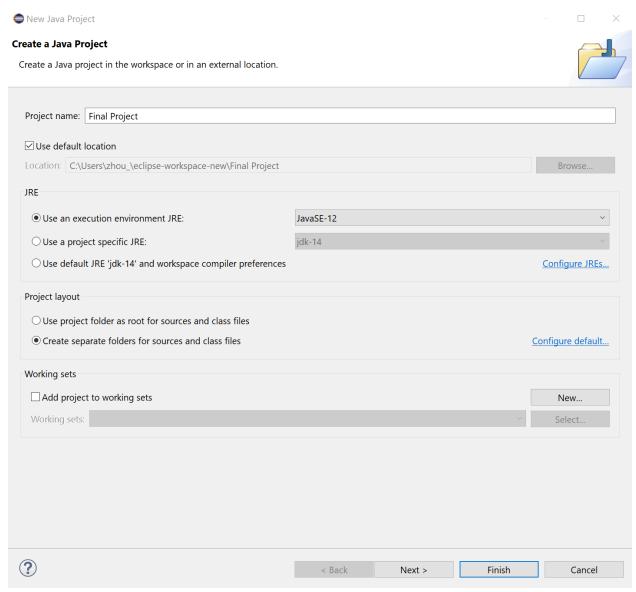
## To import the csv files:

# To import an external library that used to plot the chart:

- 1. Update Eclipse to version 12 or above. Below is the link for downloading the JDK 14 version, please select the one for your own operational system. <a href="https://www.oracle.com/java/technologies/javase-jdk14-downloads.html">https://www.oracle.com/java/technologies/javase-jdk14-downloads.html</a>
- 2. Create a Java Project

Project name: Tesla

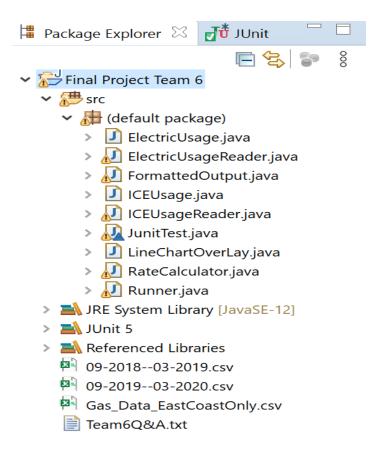
JRE – use an execution environment JRE: JavaSE-12 (or above)



3. Copy all classes and sourcing files into correct paths.

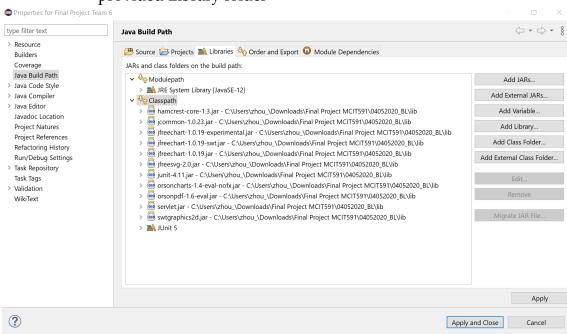
All java classes under src folder

All source files (csv files) under Project folder.



4. Import library folder files into correct path.

Right click project name → Build Path → Configure Build Path
Under Libraries Tab, left click Classpath → Add External JARS → Import
provided Library folder



# 5. Ready to run. source code

