**Data Science**

**Situation**

Have you ever hopped on a scooter and realized the battery is dead? 😣 What an upsetting experience!

In order to prevent that horrible user experience from happening, the data science team is focusing its efforts on coming up with the best scooter charging strategy.

You can find a data set below with scooters’ current geolocation and power level. Power level ranges from 0 - 5 (0 as completely out of battery, 5 as fully charged). It takes 5 hours to charge a scooter’s power from 0 to 5. TechPointX talent team also has a mega charging bus that drives around to pick up scooters and charge them inside. Unfortunately, the bus can only park and start at location 20.19 (xcoordinate), 20.19 (ycoordinate) and only travel 50 miles per hour.

**Your Task**

Review the data set, and draw any conclusions you can find from the data set. Try to identify the most popular scooter location, demonstrate your findings using data visualization tools, calculate operation time cost (Operation Time Cost: How long it takes to fully charge all the scooters), and come up with the most efficient scooter charging strategy.

**Submission Directions**

Prepare your conclusions from the data set, including the components described above. Your research and conclusions should be submitted as a link to a github repository. It is encouraged that your repository hosts a Jupyter (formerly iPython) notebook.

**FAQ**

* What if I cannot download the data file?
  + If switching browsers does not resolve the issue, please reach out to [x@techpoint.org](https://x@techpoint.org/) and we will email you a direct copy of the file at our earliest convenience.
* Is there a required tool for the data analysis?
  + There is no required tool for the analysis, however, some tools may be better suited for the type of file and work needed.
* What if I’m craving more information?
  + This prompt is intentionally very open. We know you will likely run into many questions about the scooters, the charging regulations, and more that are not fully explained here. Feel free to make assumptions that enable you to create solutions, just be sure to identify what assumptions you create

**Supplemental Resources**

* Data file: [Data Set](https://drive.google.com/file/d/1ck6iTBtPx7VKVvm---1O2gTKtQkAmb_Z/view?usp=sharing) (Download as CSV)
* Jupyter Notebook: <https://jupyter.org/>
* Hosting Information: [Jupyter Notebook in Github](https://help.github.com/en/articles/working-with-jupyter-notebook-files-on-github)
* Python: <https://www.python.org/>
* Pandas: <https://pandas.pydata.org/>