



Prescriptive Data | Data Science and Analytics Challenge

Goal

The goal of this challenge is to design and develop web-based interactive data visualization software. You should use Python-based interactive data visualization techniques and your creativity. The following important factors could be targeted: (i) electricity usage vs. time, (ii) electricity usage vs. outdoor temperature, and (iii) yearly/monthly/daily/hourly electricity usage.

Dataset

The data directory in the PD_challenge.zip folder contains the datasets you need for this challenge. It includes the electricity data usage by building in kW and the outside temperature [in Fahrenheit].

Language / libraries

Our recommendation is to use Python and Flask toolkit; however, using another toolkit will not count against you if you are more comfortable in another environment.

Deliverable

Include a document describing your design/developed software along with any other notes and your source codes with brief instructions on how to build and run the code.

Time Expectation

We expect this task to take about 10 hours for a developer experienced with data visualization techniques in addition to the time it takes for the documentation. Of course, as with most data visualization tasks, you can always improve your design. Feel free to spend as much time as you wish on the task, as long as you submit within 7 days of your starting date. We also accept late submission of the documentation—at most, several days—so please let us know if that is necessary for you.

Note

Please let us know if the requirements are unclear or ambiguous.