Jeremy Beard – MSDS 610 – 20220605 – Week 5 Assignment

**What is an API, and what can we use them for?**

**When should we consider putting API-fetched data in SQL vs a NoSQL database?**

**What was challenging about using APIs?**

**Technical Section**

For the technical section of this assignment, I utilized Jupyter Notebooks and have uploaded the .ipynb and a pdf file of the Jupyter Notebook. In this pdf there is all code used as well as explanations for each of the steps. Please let me know if there are any questions!

In the section below I have provided screenshots of any steps performed outside of Jupyter Notebooks, which in this case is during the MISO + PostgreSQL part of the assignment.

Using the command line in the PostgreSQL server, I created a database called ‘miso’ and created a table within it called ‘rt\_solar’ (I also created a table called ‘rt\_wind’ to ensure my understanding of the example of the assignment).

For the Python PostgreSQL work to function, I had to install the pip package sqlalchemy. I have noted this installation below.

After using Python to populate the rt\_solar table, I then queried the table using the command line in the PostgreSQL server. The screenshot of that table is shown below.

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Logging into the PostgreSQL server

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Creating the database ‘miso’ in the PostgreSQL server

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Querying the rt\_solar table after performing the “CREATE TABLE IF NOT EXISTS re\_solar” command in the Jupyter Notebook (see Jupyter Notebook documentation)

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After populating the rt\_solar table in the Jupyter Notebook (see the Jupyter Notebook submitted), querying the rt\_solar table using the command line in the PostgreSQL server

Thank you!

Jeremy Beard

References

1. <https://www.misoenergy.org/markets-and-operations/RTDataAPIs/>