# USE CASE 2: The Role of Hyperparameters

## Instruction:

1. Start a new notebook (anywhere you like, local machine, Google Colab, DSRI, etc)
2. Use the dataset link (the same one in the example notebook):
   1. <https://drive.google.com/file/d/1053Y9qjnI3GVAnXLe39d0qVJ7Evvftz_/view?usp=drive_link>
3. Select 1 generative model (you can try more models if you manage to finish 1)
4. Explore the hyperparameters in this model (need to check the documentation or the original code)
5. Select one evaluation criterion (variable distribution, correlations, ML accuracy, efficiency, etc)
6. Select at least 3 hyperparameters and give different values to them when you train the generative model
7. Get evaluation results and observe the impacts of these 3 hyperparameters.

## Answer the following questions:

**Q1: What model did you choose and how many hyperparameters are in this model?**

**Q2: what and why did you choose these hyperparameters and what values did you give?**

**Q3: How do the hyperparameters affect the model training (such as computational time)?**

**Q4: What evaluation metric(s) did you choose and how the different hyperparameters affect the quality of generated synthetic data?**

**Question 5: Any discovery or insights to share?**