*Due July 5th @ 11:59p*

**Part 1: GitHub Repo**

Your project needs to be located in a well-organized public github repository with clear directory structure. The repository needs to include:

1. Comprehensive README with project overview, BLUF, and data usage guide
2. .gitignore file appropriately configured
3. Any necessary data and/or image files
4. Your comprehensive project Jupyter Notebook/s

**Part 2: Jupyter Notebook**

Your project notebooks should contain the **full project including all your code, comments, and analysis**. You may split it into multiple logical notebooks or contain the full project in one notebook. It needs to include:

1. Data exploration with comprehensive EDA
2. ML Modeling with clear progression from baseline to final model
3. Well-formatted markdown cells explaining your process and findings
4. Code cells that run without errors
5. Visualizations with clear titles, labels, and legends
6. A Sci-kit Learn Pipeline Implementation

**Part 3: Sci-kit Learn Pipeline**

Your sklearn Pipeline should contain any necessary data preprocessing, feature engineering, and model selection components. It needs to include:

1. Properly structured preprocessing pipeline with appropriate transformers
2. Feature engineering steps incorporated into pipeline
3. Model integration with pipeline
4. Pipeline serialization for reproducibility (pickled)
5. Model optimization and tuning process

**Final Steps**

Make final checks for the following:

* Code quality and documentation
* Visualization clarity and relevance
* Pipeline functionality and reproducibility
* Statistical validity of conclusions
* Alignment of technical results with business objectives

**Important**

**Before you submit your solution, you need to save your progress with git.**

1. Add your changes to the staging area by executing git add .
2. Create a commit by executing git commit -m "Your commit message"
3. Push your commits to GitHub by executing git push origin main or git push origin master , depending on the name of your branch (use git branch to check on which branch you are).