* **Section 1: Project Definition**
  + **Project Overview:** state the high-level overview of the project, including the background information such as problem domain, project origin, and related data sets or input data.
  + **Problem Statement:** define the problem to be solved.
  + **Metrics:** define the metrics to measure the results and justifications to use the metrics. For example, if you use time-series data sets, what metrics will be appropriate to measure the results.
* **Section 2: Analysis**
  + **H:** describe the data sets, including the features, data distributions, and descriptive statistics. Identify any abnormalities or specific characteristics inherent in the data sets.
  + **Data Visualization:** build data visualization based on the data exploration in the previous step.
* **Section 3: Methodology**
  + **Data Preprocessing:** describe the steps taken to preprocess the data and address any abnormalities in the data sets. If data preprocessing is not needed, please explain why.
  + **Implementation:** discuss the process using the models, algorithms, and techniques applied to solve the problem. Any complications during the implementation should be mentioned.
  + **Refinement:** describe the process to refine the algorithms and techniques, such as using cross-validation or changing the parameter settings. G
* **Section 4: Results**
  + **Model Evaluation and Validation:** discuss the models and parameters used in the methodology. If no model is used, students can discuss the methodology using data visualizations and other means.
  + **Justification**: discuss the final results in detail and explain why some models, parameters, or techniques perform better over others. Show and compare the results in tabular forms or charts.
* **Section 5: Conclusion**
  + **Reflection:** summarize the end-to-end problem solution and discuss one or two particular aspects that you find interesting or difficult to implement.
  + **Improvement:** provide suggestions for the next research to improve the experiment.

**Submit: Mỗi cá nhân sẽ làm 1 bài riêng (Không làm nhóm)**

1. **Code**

* File Jupyter Notebook: **Python + SQL**
* Web app by **Flask**

1. **Report**

* Slide

1. **Submit bài Final lên link bên dưới trước 0h ngày 26/7/2024:**

**Link**: https://drive.google.com/drive/u/0/folders/1-\_khEH9ISVk7m09txNU27P26YBplceQr

1. **Ngày báo cáo dự kiến:** 27-29/7/2024

Tài liệu tham khảo:

* <https://github.com/nguyenduchuyvn/Udacity-Data-Scientist-Nanodegree/blob/main/MyCapstoneProject/Sarcasm_Detection.ipynb>