Assignment 5

Start Assignment

Due Friday by 11:59am **Points** 100 **Submitting** a website url

Goals:

Enhance the Sevir application to incorporate:

1. Usage logs by user using big query and Google Data Studio OR AWS Quicksight
2. Use Hugging face, Lambda functions and Docker to:
    1. Summarize the Event and Episode narratives
    2. Do Named Entity Recognition for the Event and Episode narratives
    3. Update the Streamlit application to display/render the Summarization and Named Entity Recognition outputs

Todos:

1. Update the SEVIR application so an authenticated user can only use unto <n> requests to the api. Build a LIVE admin dashboard that would reveal the user analytics and how many queries each user has invoked

2. You will build two APIs: Summarization and NER. Both APIs are hosted and you will invoke them using the Sevir application to the summary and NER for the closest event and episode ID.

For the NER, use **https://huggingface.co/hoanhkhoa/roberta-base-finetuned-ner (https://huggingface.co/hoanhkhoa/roberta-base-finetuned-ner)**

For Summarization, see **https://huggingface.co/course/chapter7/5?fw=tf (https://huggingface.co/course/chapter7/5?fw=tf)**

Note: Use the architecture from the tutorial below to launch the two NLP services. You have to dockerize the services

Preparation:

Tutorials for Visualization

- **https://cloud.google.com/bigquery/docs/visualize-data-studio (https://cloud.google.com/bigquery/docs/visualize-data-studio)**

OR

- **https://aws.amazon.com/quicksight/features/ (https://aws.amazon.com/quicksight/features/)**

Tutorials for Hugging face, Docker and Lambda

- **https://www.youtube.com/watch?v=Q10vhymrGh4 (https://www.youtube.com/watch?v=Q10vhymrGh4)**

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- **https://www.philschmid.de/serverless-bert-with-huggingface-aws-lambda-docker (https://www.philschmid.de/serverless-bert-with-huggingface-aws-lambda-docker)**
- **https://github.com/philschmid/serverless-bert-huggingface-aws-lambda-docker (https://github.com/philschmid/serverless-bert-huggingface-aws-lambda-docker)**

Deliverables:

- Proof of completion of tutorial (Each team member should complete the tutorials and submit proof)
- Github with formal documentation (code labs), docker images, docker files, and instructions to build and deploy the system
- Working demo hosted on a service of your choice
- Disclosure about what each team member worked on and their % contribution