

**MAI372– Large Language Model**  
**IV MSAIM**  
**06-05-2024**

**Regular lab Question**

**Lab Exercise 1:**

1. Implement transfer learning to fine-tune a language model on a Question Answering/Machine Reading Comprehension dataset.
  - a. Download the Question Answering/Machine Reading Comprehension Dataset (You can utilize any of the following link and not necessary to incorporate the complete dataset, ~5k- 10k instances are sufficient)  
[https://huggingface.co/datasets?task\\_categories=task\\_categories:question-answering&sort=trending](https://huggingface.co/datasets?task_categories=task_categories:question-answering&sort=trending)  
<https://huggingface.co/datasets/rajpurkar/squad>
  - b. Understand and implement the concept of Transfer Learning.
  - c. While testing the Model, Understand the concept of Prompt Engineering, Optimization of the Prompt and Understand the impact of prompt formulation on model output. (Give all the insights as an example in the Colab file)
  - d. Write in detail the usage of Transfer Learning insights and represent the required visualization in Colab file.

NB: No marks will be credited for the pipeline implementation.

**Program Evaluation Rubrics**

C1-Timely Submission---2 marks,

C2-Correctness & Clarity---4 marks,

C3-Complexity & Validation---2 marks,

C4-Viva Voice-----2 marks

**General Instructions**

- The file you have to save with your name, last 3 digits of register number and program number "Aaron\_201\_Lab1".

- The implemented code you have to download and upload in the Google Class room in the given scheduled time.