Lab 5, CS6379, NLP Lab

1. Build a sentiment analysis using a pre-trained BERT model. The dataset should be from Kaggle, Hugging Face Datasets, or any public dataset repository.
2. Summarize a long paragraph using the t5 (small or base) model with an article or news dataset from Kaggle, Hugging Face, or any public dataset repository.
3. Generate text continuation using the GPT-2 model on a custom prompt.
4. Translate English sentences to French with sample sentences from translation datasets.
5. Explain the architecture of a Transformer model. Clearly describe the concepts of self-attention and positional encoding and why they are important. (***should be handwritten and a neat hand-drawn diagram***)