

LAB 1 - SHORT DOCUMENTATION

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SECTION J

ASSIGNMENT 1 :

Key Concepts : 1)Text generation

2) Filling Masked word

3) Question-Answering

This lab included comparative study of 3 models : BERT, RoBERTa and BART for all the above concepts. Since BERT is an encoder only, it does not generate anything and hence fails completely at text generation and partially at question-answering. RoBERTa is an optimized version of BERT, hence it excels at filling missing key-words and also excels at question-answering, extracting all the required keywords precisely. Even though BART is specifically trained for generating, if a base model is used for text generation it outputs gibberish language. It fails at Q-A as it does not specialize at extraction.

ASSIGNMENT 2: Poetry/Song-writer

To create a song-write/poetry writer, best models include : gpt2-medium, distillgpt, EleutherAI/gpt-neo-125M, mistralai/Mistral-7B-v0.1 and bigscience/bloom-560m. gpt2-medium Gives output regarding random topics, better than distillpt2, but EleutherAI/gpt-neo-125M gets better. The other two models, require GPUs and a lot of time to run.