-:Report-:

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preprocessing includes punctuation removal and lower casing and used own built dictionnaires for encodings.

most got unknown `<unk>` tags as next word for input test file sentences with higher probabilities hence results in better perplexity than train.

The average perplexity of language models for train data is around 16.48 while the perplexity for test data is around 16.46.

The average bleu score for test data for Machine translation model 2 means from scratch is 0.06169 while the bleu score for train data is 0.063.

The average bleu score for test data for Machine translation model 1 means from scratch is 0.58 while the bleu score for train data is 0.0599.

Preprocessing-:
preprocessing includes punctuation removal and lower casing and spacy.
 i found an increase of 6.67% in train data and 6.0% in test data by using transfer learning from model trained in `Languauge Model` part

Hyperparameter-:
 used early stopping techniue and saved the best model for dev dataset

The models can be found here.
https://drive.google.com/drive/folders/1_ucfCLtaaSOXbNA0CU1wUz6dDV9yW9H_?usp=sharing

The best epochs has been found 2 and 3 for MT-1 and MT-2 using validation data and 92 for langauge model.