CS6910-A3

The repository contains the code of assignment 3 of cs6910 (Fundamentals of deep learning) written by Raveena Rai(ED21S006).

Keras and Tensorflow v2.3 are used for training all models.

A description of all the files used for the assignment is given below:

1. raveena_a3_train25.ipynb: this file contains the model for vanilla prediction, wandb sweep used, and the training for the best model.
2. best_enc.h5: The encoder model was built using the weights of `best_model.h5'
3. best_dec.h5: The decoder model was built using the weights of `best_model.h5
4. prediction_vanilla_beam.csv: This file contains the prediction with the highest score made using decoder beam search for the entire test set. It contains the original English word, the reference Hindi word, and the predicted Hindi word with the highest score.
5. attention_final.ipynb: this file contains the attention model training and the wandb sweep option.
6. 5d.ipynb: this file contains the sweep configuration, which is also mentioned in attention_final.ipynb.
7. 6.ipynb: this file is the code for q.6 of the assignment. The code is not a stand-alone code and just mentions the answer for q.6 separately.
8. prediction_attention.csv: This file contains the prediction with the highest score made using a decoder (with attention) beam search for the entire test set. It includes the original English word, the reference Hindi word, and the predicted Hindi word with the highest score.
9. prediction_attention_beam.csv**: This file contains the topmost 5 predictions made by the decoder (with attention) beam search with a beam size of 5 for the entire test set. It includes the original English word, the reference Hindi word, and 5 topmost predictions made by beam search.
10. VesperLibre-Regular.ttf**: Font used for printing Hindi characters in plots.