

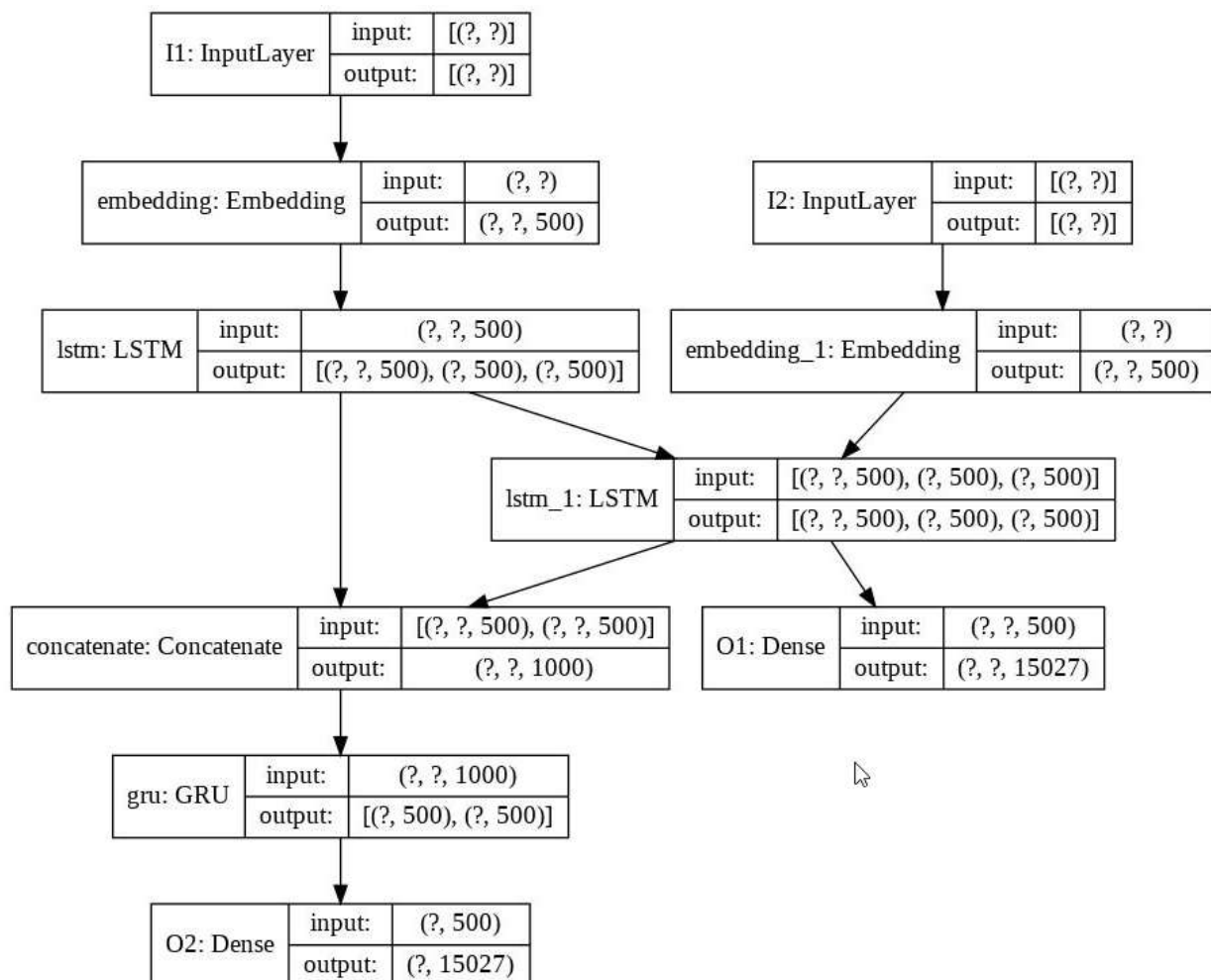
This code trains a sequence to sequence (seq2seq) model for English to Hindi translation with reverse dictionary feature.

After training the model we will be able to input a English sentence, such as *"someone who maintains and audits business accounts"*, and return the Hindi translation: *"START_ वह कर्मचारी जो आय-व्यय आदि का हिसाब लिखता या रखता हो_END"* and word *"गणक"*

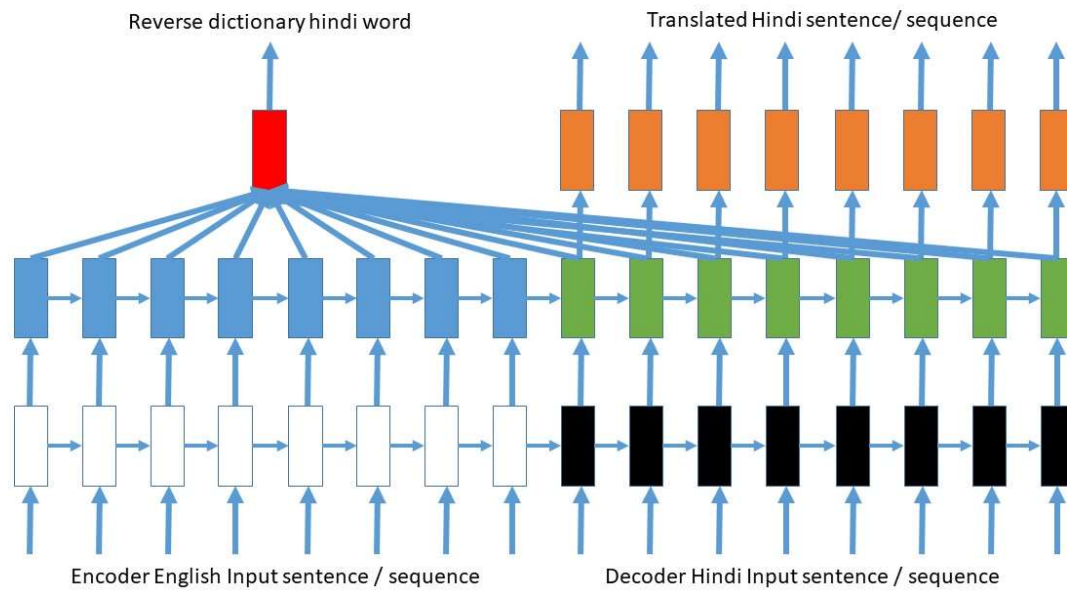
The translation quality is reasonable, but the generated attention and its corresponding word is perhaps more interesting.

Encoder-Decoder model

Implement an encoder-decoder model with attention, which is similar to [Neural Machine Translation \(seq2seq\) tutorial](#).

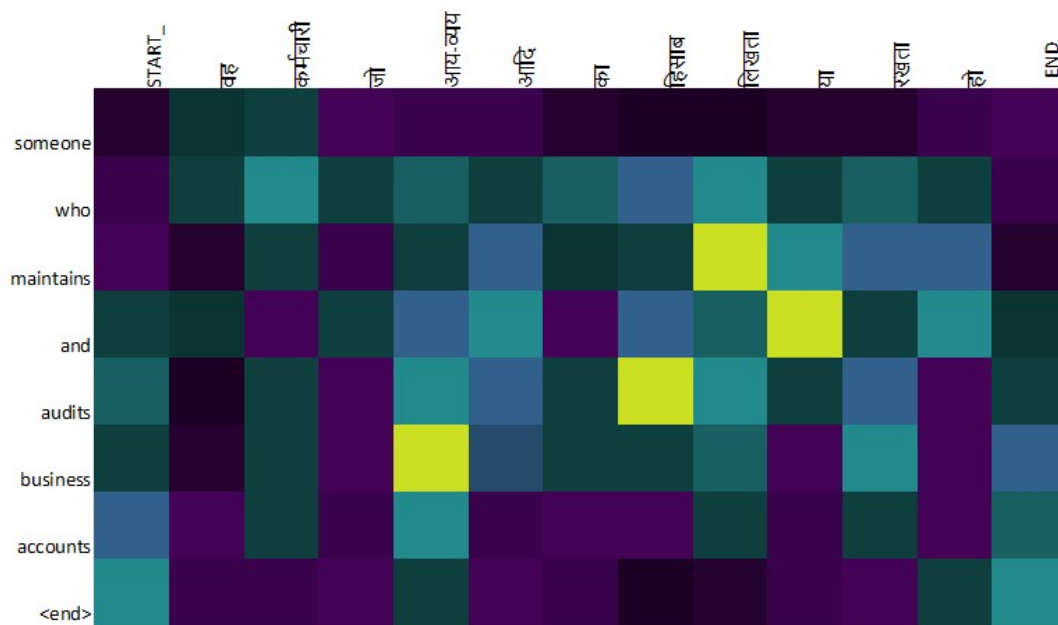


Which can be realized as



Here the reverse dictionary word is predicted along with translated sequence.

This shows which parts of the input sentence has the model's attention while translating:



Thus a word to word mapping is realized though this model and though the translation are not so perfect but gives or shows a significant direction towards the right word with much more complex dataset. Currently we use the data set from a parallel dataset of ~11k samples from IndoWordNet in 5 languages - English, Hindi, Marathi, Punjabi and Bengali.