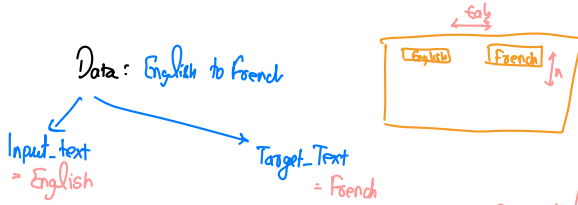


lib → numpy
lib → pandas

Import: tensorflow.keras.models → Model
tensorflow.keras.layers → Input, LSTM, Dense

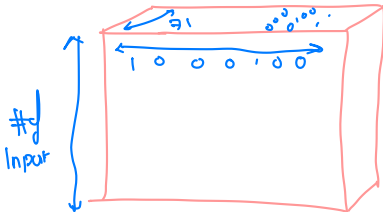


Step1 • while preprocessing data → also create a set for English & French word
a = set()

Step2 • Now find Max Seq. length for English (Input) → 16
& French (Output) → 59
Gives: # of encoder tokens → 71
Gives: # of decoder tokens → 92

Step3: Create a dictionary: input_token_index = dict([(char, i) for i, char in enumerate(input_words)])
// by for french

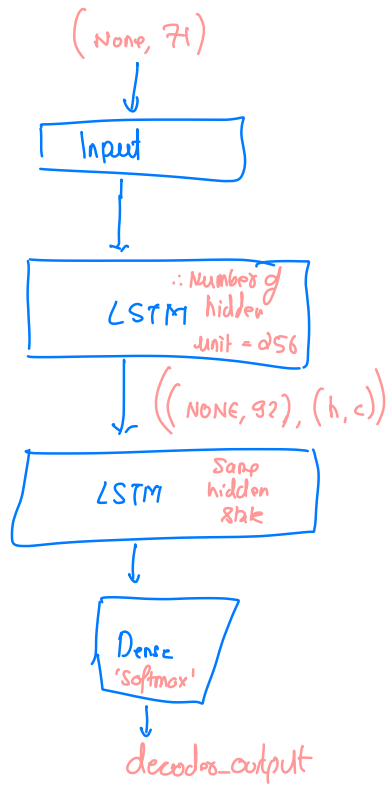
Step4: Encoder Input data = (np.zeros (# of Example in Input × Max-encoding-Seq × number of encoder token)
10,000 16 71



decoder_input_data = np.zeros(# of input example, Max-decoder-seq-length, # of decoder token)

decoder_target_data = np.zeros(# of input example, Max-decoder-seq-length, # of decoder token)

Step 5: functional api :



Step 6: model = `Model([encoder_inputs, decoder_inputs], decoder_outputs)`

Step 7: compile with $\begin{cases} \text{RMSProp} \\ \text{'Categorical_crossentropy'} \\ \text{Metric is accuracy} \end{cases}$

Step 8: fit: $\begin{cases} \text{batch_size} = 64 \\ \text{epochs} = 100 \\ \text{validation_split} = 0.2 \end{cases}$

Step 9: Predict & Reverse look-up for token