1. You are given an English file wsj_pos_tagged_en.txt that contains 3914 Part-of-Speech (POS) tagged sentences where each word in a sentence is associated with a tag. Perform the following tasks.
   a. Split the data into K folds (K >= 3).
   b. Find the emission and transition probabilities from the training data.
   c. Implement the Viterbi decoding to predict the tag sequence given a sentence.
   d. Evaluate the performance of the tagger using precision, recall, and F1-score across all folds.