

MAKEFILE

ASSIGNMENT-1

CS689A- Computational Linguistics for indian Languages

Question (1)

- a) Unicode :rule 1)halant is add to the corresponding consonants
2)after consonants add vowel अ

Question (2)

- a) syllables :rule 1) Breaking at consonants consonants
2)Breaking at vowels as i defined in notebook
3) consider halant as vowel
- b) Bigram_frequencies :function use: find_ngrams
- c) Used libraries-collections

Question (3)

- a) BPE: used libraries collections,re
- b) Remaining same as question 2

Question (4)

Precision is around 100% for 1k BPE tokens

And recall is around 0% for 1k BPE tokens

- a) $\text{Precision} = \frac{\text{TruePositives}}{(\text{TruePositives} + \text{FalsePositives})}$
- b) $\text{Recall} = \frac{\text{TruePositives}}{(\text{TruePositives} + \text{FalseNegatives})}$
- c) $\text{F_Measure} = \frac{(2 * \text{Precision} * \text{Recall})}{(\text{Precision} + \text{Recall})}$

Question (5)

- a) Used libraries-pyconll for extractions of lemma

Question (6)

- a) I have made the graph between frequency vs rank for zipfian distribution
- b) Token follow zipfian
- c) Bpe tokens not follow zipfian
- d) Syllables follow zipfian
- e) Characters follow zipfian

- f) Lemma follow zipfian
- g) Libraries used: matplotlib

Question (7)

- a) First i match original word with lemma after that characters that are left in original word append to any of list that i call it suffix