

Assignment-3

Part I

Build a toy Word Generator for nouns and verbs in English.

1. Make classes of nouns and verbs on the basis of their similar inflectional process.
2. Write rules to generate all the word forms of each class.
3. The program should generate word forms for new words.

Example: for verbs

Class 1 = play, walk, talk

Class 2 = dance, mince

Class 3 = marry, carry

OUTPUT: Word forms

play, plays, played, played, playing

dance, dances, danced, danced, dancing

marry, marries, married, married, marrying

PART II

Build a simple Morphological Analyzer to deduct the root and affixes of 5 different types of verbs and 5 different types of nouns in English.

Example: for verbs

INPUT: danced

OUTPUT: root=dance, affix= ed

PART III

Write FSAs for each of the following sets. The FSA should NOT accept any other word/number than those in the list.

1. dates: 1st June 2000 to 7th July 2021

[clue: separate months with 30 days from months with 31 days]

2. light, sight, thought, think, thing, sought, sink, sing

PART IV

Give FSTs to generate the inflected forms for any 3 different verbs in your mother tongue. It should include TAM and GNP.