

## Spelling Corrector

For this assignment, you will write a program that reads in a text and outputs a suggested correction for each misspelled word.

Here are the steps:

- find the misspelled words (spell checker)

read in the words from the dictionary file and store them

read in the test file, tokenize it (splitting it by whitespace, removing non-internal punctuation and capitalization) and search the dictionary for each word  
=> any word not found there is assumed to be misspelled

- find the set of possible replacements

generate all permutations with an edit distance of 1

insertion adding every letter from 'a' through 'z' at every position  
(before word, between each pair of letters, after word)

deletion: deleting each letter from the word

substitution: replacing each letter by 'a' through 'z'

transposition: switching each pair of adjacent letters

find the subset that are actual words (i.e., found in the dictionary)

- find the best replacement for each misspelled word

count the number of times each permutation is found in the sample file and choose the one that occurs most often

store each word and its suggested replacement in an output file