

ISSUE

We have texts and we want to know similarity of the texts. We can add new word, delete words in the texts also we want know most 3 pairs in the text. The issue in this question ;How we can find most 3 pairs in the texts and similarity?

AIM

Find similarity and most 3 pairs words also when program work we can add new word and delete ,Of course when we did this things keep minimum in using memory.

SOLUTION

Firstly, I have to take input from user so I make a while loop, when user wrote -d command progress will finish. With "-r xxx.txt" command I take xxx.txt file and read and I put all word in nodes for each word a node so I can know order of words (So I can know which word is back or front which word). When I build a link list I store head of this link list in a array so I can read how many I want. After that I send head of this link a new function, in this function I count a word how many time pass in text. After that, I add word of next node to down of which node in front of it so I have a link list but this link list have more than one same word (if this word have more than one in the text). I have to delete node which one have same word and down of these nodes, too, except which one have max count. Which node is be deleting I have take to down it to which one have max count (if have same down add to count to word one otherwise I add a new node to down this node)

After all I sort the link list when my sort work like this; I did not move any node, I only move element in the nodes. After all this thing, I have a sorted link list and all of link list right. After that I look for command "-a xxx y filename" in this command I firstly I check in link list I have this word or not. If I have this word I add increasing count of this word node otherwise I make a new node and resorted all nodes. The command "-n2 filename" is so simply in there I look for which down have max count, of course when I did it, if I find the most used a pair I marked this pairs so I do not say again is most used a pair so I get easily most three pairs. For "-d xxx" command I look for this word in link list after a remove it from link list when I did it I do not forget remove down of this node, I remove all of them, too. Finally I can calculate similarity for this I make a matrix and I firstly I put number of same word in after that I put number of which word only in first link after that second link list. Logic is there is $s(A \cup B) = s(A) + s(B) - s(A \cap B)$ After that I calculated **cosine** similarity. The last command is "-d" Remember that all this thing in a while loop and this file loop running with a int, in there I make value of this int 0.

What I learned from this homework? How I can use delete, add, move a node in link list and more of it.