1. **Algorithms**
   1. **Group similar Strings .**
      1. **Calculate similar score of two String .**

* Define problem : Given two String . Calculate their matching percent
* Requirement : two strings
* Solution :
  + If a string contains many words, break it into a list of words.
  + For each word, we find out how many adjacent character pairs are
  + contained in it.
  + Create a function pairs(s) which returns a list of adjacent character pairs of string s.
  + Then, we use below formula to calculate matching percent.
* Example :

Calculate the matching percent of 2 strings : *KHANG , KHUONG .*

Break string into list of adjacent character pairs:

KHANG 🡪 = {KH,HA,AN,NG}

KHUONG 🡪 = {KH,HU,UO,ON,NG}

Find number interaction of 2 Strings

Find number union of 2 Strings

Calculate matching percents

* + 1. **Group similar strings**
* Define problem : Given list strings . Group its based on similar score .
* Requirement : List strings.
* Solution:
  + Calculate total similar score of each element in list with other elements .
  + Order list by total score .
* Example :

Given List strings :

List A = {Khang,Huan,Khuong,Hung}

Expected Result :

List A = {Khang,Khuong,Huan,Hung}

Calculate total similar score of First Element with other elements :

Total(Khang) =

We do the same thing with other elements . We will get these results :

Total(Huan) = 0.509

Total(Khuong)= 0.571

Total(Hung) = 0.509

Order list by decrese of total similar score we got :

List A = {Khang,Khuong,Huan,Hung}