**TASK 1**

**PALINDROME PAIRS:**

**Description:**

You are given a **0-indexed** array of **unique** strings words.

* A **palindrome pair** is a pair of integers (i, j)
* i != j, and
* words[i] + words[j] (the concatenation of the two strings) is a
* palindrome

Return *an array of all the* ***palindrome pairs*** *of* words.

**Solution:**  
palindrome words are those when you read them from forward or backward direction, it read as one word  
 let suppose:  
 list=["bat","tab","cat"]

When bat added to tab it become = battab when you read form backward direction it also read as it read from forward direction = battab

Now use 2 for loop i:e “nested loop:

* 1 to iterate over list
* 2 to iterate length of list
* Firs loop run first it give first value “bat”
* Now 2nd loop run it give value 0, find the value of list at 0 index it give output = bat
* Add both values i:e 1st loop value bat and 2nd loop value bat = batbat
* Now use list negative slicing which convert the given output in reverse order i:e batbat reverse = tabtab
* Now compare adding value output with reverse output it both values are equal then it’s palindrome pair otherwise it’s not. In this case it’s not a palindrome pair because batbat != tabtab

**TASK 2**

**MEDIAN of Two Sorted Arrays**

**Description:**

Given two sorted arrays nums1 and nums2 of size m and n respectively, return **the median** of the two sorted arrays.

**Solution:**

* Numpy library have different functions like sort, concatenate , median
* Sort function used to sorting the dis-odered array
* Concatenation used to concatenate the arrays
* Median is used to find the median from concatenate array