**python3 student_no.py** # takes inputs from the terminal and displays results (if any).

**python3 student_no.py<input1.txt** # it takes inputs from input1.txt and displays the result in the terminal.

**python3 student_no.py<input1.txt>myoutput.txt** # it takes the inputs from input1.txt and creates the myoutput.txt document and writes the result here.

**diff output1.txt myoutput.txt** # compares the document output1.txt with the document myoutput.txt.

**diff --ignore-all-space output1.txt myoutput.txt** # compares the document output1.txt with the document myoutput.txt without ignoring the spaces.

**QUESTION 1**

Given a list of words, group the characters by their positions across all the words. Each position should map to a list of characters that appear at that position in the words. If a word is shorter than the current position being processed, skip that position for the word.

Input:

A list of words where each word is a string containing only alphabetic characters.

Output:

A dictionary where:

- Each key is an integer representing the character position (starting from 0).
- The value is a list of characters appearing in that position across the words.

**Note:** It is mandatory to use a function.

| **Input 1**<br>**["cat", "dog", "bat"]** | **Input 2**<br>**["cat", "dogs", "batman", "ok"]** |
|---|---|
| **Output 1**<br>**{**<br>**0: ["c", "d", "b"],**<br>**1: ["a", "o", "a"],**<br>**2: ["t", "g", "t"]**<br>**}** | **Output 2**<br>**{**<br>**0: ["c", "d", "b", "o"],**<br>**1: ["a", "o", "a", "k"],**<br>**2: ["t", "g", "t"],**<br>**3: ["s", "m"],**<br>**4: ["a"],**<br>**5: ["n"]**<br>**}** |