Keith Yrisarri Stateson

COMSC 140 Python

Program Documentation for

As7\_8\_Substring

1/ Link  
<https://github.com/DVC-COMSC/assignment-7-8-enduringwriter/blob/main/main.py>

2/ Program Purpose  
This program finds words that contain the letters 'a', 'r', and 'e' in sequence.

Assumptions: string input is lowercase, and algorithm checks for lowercase only

3/ Input/Output Description  
Input: a list of string values.  
Output: a list of those string values that contain 'a', 'r', and 'e' in sequence within each value.

4/ Explanation of All Variables

words = list of string values

are = ['a', 'r', 'e'], sequential pattern to find within a word

word = counter and each word (value) in the list

character = counter and each character in ‘word’

check\_subset = check if ‘are’ subset is found in word by checking length

result = list to store words that contain the letters 'a', 'r', and 'e' in sequence

5/ Flow Chart  
Start > Input a list of string values > Declare a variable for the empty list of results matching the pattern criteria, and ‘are’ variable with pattern to match > Loop through each word > Loop through each character > Check if 'a', 'r', and 'e' appear in sequence in a word by using logical condition == and counting length (3) > Append words meeting the criteria to the result list > Output the result as a list > End

6/ Lesson Learned  
Find substrings within strings using loop and counter for text manipulation and pattern recognition.

7/ Errors

* Needed additional ‘=’ sign for conditional check
* Incorrect use of ‘for’ loop for ‘are’ variable
* Hardcoded len(are) with 3, but changed it to dynamic
* Tab indentation error