Python Lab Assignment, AIML, 3rd Sem, 12th September

1. You are given a string S. Write a function count_letters which will return a dictionary containing letters (including special character) in string S as keys and their count in string S as values.

2. For the given file, i,e open any python file and count the total number of lines that contain def or for as whole words.

3. Read one string txt=' Hello hello students of AIML 2024' and do the following operations

   #Find all lower case characters alphabetically between "a" and "m":

   #Find all lowercase character which excludes [a-m]

   #Find all digit characters:

   #Search for a sequence that starts with "he", followed by two (any) characters, and an "o":

   #Search for a sequence that starts with "he", followed by 0 or more (any) characters, and an "o":

   #Search for a sequence that starts with "He", followed by 1 or more (any) characters, and an "o":

   #Search for a sequence that starts with "He", followed excactly 2 (any) characters, and an "o":

4. Create a text file test.txt with the following sentences.

   This is a lab assignment based on Regular expression.

   I am doing it.

   This is very easy.

   This is very helpful for understanding Regular expression.

   Write a python code which will read test.txt file and find all lines those start with This. Copy those lines into a new file dest.txt by substituting the word This with That

5. Write a Python code using Regular Expression to check whether the password given by the user follows a set of rules.

   (i) There must be at least 8 characters

   (ii) There must be at least 1 small letter

   (iii) There must be at least 1 capital letter

   (iv) There must be at least 1 numeral

   (v) There must be at least 1 special character

Take new password from the user with proper prompt. Display message to the user, depending on whether the password is correct or not. If incorrect, display the type(s) of errors.