Name: Mohana kasi

Note: Unable to do 5th question, remaining all done

*"""1.Write a Python program that takes a string as input and  
counts the number of vowels (a, e, i, o, u) in the string"""*string\_ = 'This is not predicted'  
count\_ = 0  
for char in string\_:  
 if char in 'aeiouAEIOU':  
 count\_ += 1  
print(count\_)  
  
  
"""2.Write a Python program that reads the contents of a text file named "sample.txt"   
(assuming it exists in the same directory as the program) and prints the content   
to the console.   
Make sure to handle any potential exceptions that may occur during file handling."""  
  
import os  
print(os.getcwd())  
with open("sample.txt", 'r') as kasi\_sam\_file1:  
 for line in kasi\_sam\_file1:  
 print(line)  
  
  
"""3.Write a program that takes two lists as input and   
returns a new list containing common elements found in both lists.   
For example, for input lists [1, 2, 3, 4] and [3, 4, 5, 6], the program should return [3, 4]."""  
list1\_ = [1,2,3,4]  
list2\_ = [3,4,5,6]  
merge\_list = [\*list1\_, \*list2\_]  
print(merge\_list)  
new\_list = []  
for item in merge\_list:  
 if item not in new\_list and merge\_list.count(item) > 1:  
 new\_list.append(item)  
print(new\_list)  
  
"""4.Write a program that removes duplicates from a given list while preserving the order of elements.   
For example, [1, 2, 2, 3, 4, 4, 5] should become [1, 2, 3, 4, 5]. Do not convert the list to set."""  
  
list\_ = [1,2,2,3,4,4,5]  
new\_list = []  
for item in list\_:  
 if item not in new\_list:  
 new\_list += [item]  
print(new\_list)  
  
  
#5.Given a square matrix of order n\*n, we need to print elements of the matrix in Z form.  
  
"""  
Examples:  
Input : mat[][] = {1, 2, 3, 4, 5, 6, 7, 8, 9}  
Output : 1 2 3 5 7 8 9  
Input : mat[][] = {5, 19, 8, 7, 4, 1, 14, 8, 2, 20, 1, 9, 1, 2, 55, 4}  
Output: 5 19 8 7 14 20 1 2 55 4  
"""

"""6.Given an input string and a pattern, check if characters in the input string follows the same order   
as determined by characters present in the pattern. Assume there won’t be any duplicate characters in the pattern.  
Input:  
string = "engineers rock"  
pattern = "er";  
Output: true  
Explanation:  
All 'e' in the input string are before all 'r'.  
Input:  
string = "engineers rock"  
pattern = "gsr";  
Output: false  
Explanation:  
There are one 'r' before 's' in the input string."""  
  
# "case 1"  
  
string\_ = "engineers rock"  
pattern = 'er'  
for index, char in enumerate(string\_):  
 if index>1 and char == 'r':  
 temp\_ = string\_[index: len(string\_)-1]  
 if 'e' in temp\_:  
 break  
 print('False')  
 else:  
 continue  
else:  
 print('True')

# "case 2"  
  
string\_ = "engineers rock"  
pattern = 'gsr'  
for index, char in enumerate(string\_):  
 if index > 1 and char == 'r':  
 temp\_ = string\_[index:len(string\_)-1]  
 if 's' in temp\_:  
 print('False')  
 break  
 else:  
 continue  
else:  
 print('True')

Output:

