#!/usr/bin/env python

#Introduction to Python : Classes & Objects, Functions

#a) Write a python class to reverse a sentence (initialized via constructor) word by word.

#That is: “I am here” should be reversed as “here am I”. Create instances of this class

#for each of the three strings input by the user and display the reversed string for each,

#in descending order of number of vowels in the string

# Note : Handle all other corner cases which are not handled here

class SentenceReverser:

vowels = ["a","e","i","o","u"]

sentence = ""

reverse = ""

vowelCount = 0

def \_\_init\_\_(self,sentence):

self.sentence = sentence

self.reverseSentence()

def reverseSentence(self):

self.reverse = " ".join(reversed(self.sentence.split()))

def getVowelCount(self):

self.vowelCount = sum(s in self.vowels for s in self.sentence.lower())

return self.vowelCount

def getReverse(self):

return self.reverse

items = []

for i in range(3):

sentence = input("Enter a phrase : ")

reverser = SentenceReverser(sentence.strip())

items.append(reverser)

print()

sortedItems = sorted(items, key=lambda item: item.getVowelCount(), reverse=True)

print ("Sorted on vowel count (descending) : \n")

for i in range(len(sortedItems)):

print ("Reverse : ", sortedItems[i].getReverse(), ", Vowel Count : ", sortedItems[i].getVowelCount())