#CBSE CS PROJECT IDEA: PYTHON TEXT FILE HANDLING

f=open('words.txt','r') #txt file opening

r=f.read() #reading txt file in string format

s=r.split() #converting string format of the file into list format

def PrintWordsBeginningWithParticularAlphabet(): #2. Function to Print words beginning with particular alphabet

ip=input("Enter the Alphabet :")

l=[]

for item in s:

if item[0]==ip:

l.append(item)

if l==[]:

print('No such word found!')

else:

print("Words beginning with",ip,'are :')

for i in l:

print(i)

def CountWordsBeginningWithParticularAlphabet(): #3. Function to Count number of words beginning with particular alphabet

ip=input("Enter the Alphabet :")

count=0

for item in s:

if item[0]==ip:

count+=1

print("Words beginning with (",ip,') alphabet are :',count)

def CountWordsBeginningWithAnyVowel(): #4. Function to Count total number of words beginning with any vowel

count=0

for item in s:

if item[0]in 'AEIOUaeiou':

count+=1

print("Total number of words beginning with any vowel are :",count)

def PrintWordsOfParticularLength(): #6. Function to Print Words of particular length

ip=int(input("Enter the lenght :"))

c=0

for item in s:

if len(item)==ip:

print(item)

c=1

if c==0:

print("No word found of length",ip)

def CountWordsOfParticularLength(): #7. Function to Count Words of particular length

ip=int(input("Enter the lenght of word :"))

count=0

for item in s:

if len(item)==ip:

count+=1

print('No. of words having',ip,'alphabets are :',count)

def DisplayWordsNotHavingParticularAlphabet(): #8. Function to Display Words not having particular alphabet

ip=input("Enter the alphabet")

print("Words not having",ip,"alphabet are :")

for item in s:

if ip not in item:

print(item)

def CountWordsNotHavingParticularAlphabet(): #9. Function to Count Words not having particular alphabet

ip=input("Enter the alphabet")

count=0

for item in s:

if ip not in item:

count+=1

print("Words not having",ip,"alphabet are :",count)

def DisplayWordsNotHavingAnyVowel(): #10. Function to Display Words not having any vowel

for word in s:

for ch in word:

if ch in 'AEIOUaeiou':

break

else:

print(word)

def CountWordsNotHavingAnyVowel(): #11. Count Words not having any vowel

c=0

for word in s:

for ch in word:

if ch in 'AEIOUaeiou':

break

else:

c+=1

print("Words not having any vowel are :",c)

def DisplayWordsNotHavingAnyVowelAndy(): #12. Display Words not having any vowel and y

for word in s:

for ch in word:

if ch in 'AEIOUaeiouy':

break

else:

print(word)

def CountWordsNotHavingAnyVowelAndy(): #13. Count Words not having any vowel and y

c=0

for word in s:

for ch in word:

if ch in 'AEIOUaeiouy':

break

else:

c+=1

print("Words not having any vowel and y are :",c)

def CheckPALINDROME(s): #Checking for PALINDROME words

i=0

j=len(s)-1

while i<j:

if s[i]!=s[j]:

return False

i+=1

j-=1

else:

return True

def DisplayPALINDROMEwords(): #14. Display PALINDROME Words

for line in s:

word=line.strip()

if CheckPALINDROME(word):

print(word)

def CountPALINDROMEwords(): #15. Count PALINDROME Words

c=0

for line in s:

word=line.strip()

if CheckPALINDROME(word):

c+=1

print("No. of PALINDROME Words are :",c)

def DisplayABECEDARIANwords(): #16. Function to Display ABECEDARIAN Words

for line in s:

word=line.strip()

c=0

index=0

while index!=(len(word)-1):

i=(word[index])

j=(word[index+1])

index=index+1

if ord(j)>=ord(i):

c=c+1

if c==(len(word)-1):

print(word)

def CountABECEDARIANwords(): #17. Function to Count ABECEDARIAN Words

count=0

for line in s:

word=line.strip()

c=0

index=0

while index!=(len(word)-1):

i=(word[index])

j=(word[index+1])

index=index+1

if ord(j)>=ord(i):

c=c+1

if c==(len(word)-1):

count=count+1

print("No. of ABECEDARIAN Words are :",count)

def DisplayLongestLengthWord(): #Function for choice 18

L1=0

L2=[]

for item in s: #searching for the maximum length

if len(item)>L1:

L1=len(item)

for item in s: #adding the words, which have maximum lenth

if len(item)==L1:

L2.append(item)

print("Maximum length of word =",L1) #printing the maximum lenght

print("And Maximum length word are :")

for item in range(len(L2)):

print(L2[item]) #printing the words of maximum lenght

def SearchWord(): #19. Function to Check whether entered word is present or not

ip=input("Enter the Word you want to search :")

print('Scanning Completed!')

if ip in s:

print("Yes, Word is present in the file!")

else:

print("Sorry, No such word found!")

def AlphaWordRepeatition(): #20. Function to Display all words formed using some alphabets entered, allowing repetition

l=[]

ip=input("Enter some alphabets :")

if ip.isalpha():

c=0

for word in s:

word=word.strip()

for alpha in word:

if alpha not in ip:

break

else:

c=1

l.append(word)

if l==[]:

print("No such word found formed using (",ip,")alphabets and allowing repetition")

else:

print("All words formed using",ip,"alphabets, allowing repetition are :")

for i in l:

print(i)

else:

print('You have entered someting other than alphabet')

input('''CBSE CS PROJECT IDEA: PYTHON TEXT FILE HANDLING

Program name:WORD PLAY

Made by:

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Batch: 2020-2021

School: St. Paul's School

Under the guidence of Er. Shalabh Agarwal Sir

Press ENTER key to start the Program''') #Intro of Group

repeat='y'

while repeat=='y' or repeat=='Y':

print("""

Main Menu

1. Print entire file

2. Print words beginning with particular alphabet

3. Count number of words beginning with particular alphabet

4. Count total number of words beginning with any vowel

5. Count total number of words

6. Print Words of particular length

7. Count Words of particular length

8. Display Words not having particular alphabet

9. Count Words not having particular alphabet

10. Display Words not having any vowel

11. Count Words not having any vowel

12. Display Words not having any vowel and y

13. Count Words not having any vowel and y

14. Display PALINDROME Words

15. Count PALINDROME Words

16. Display ABECEDARIAN Words

17. Count ABECEDARIAN Words

18. Display Longest length word

19. Check whether entered word is present or not

20. Display all words formed using some alphabets entered, allowing repetition

""")

try:

choice=int(input("Enter your Choice :")) #asking user's choice

if choice==1: #1. Print entire file

print(r)

elif choice==2: #2. Print words beginning with particular alphabet

PrintWordsBeginningWithParticularAlphabet()

elif choice==3: #3. Count number of words beginning with particular alphabet

CountWordsBeginningWithParticularAlphabet()

elif choice==4: #4. Count total number of words beginning with any vowel

CountWordsBeginningWithAnyVowel()

elif choice==5: #5. Count total number of words

print("Total number of words in a file are :",len(s))

elif choice==6: #6. Print Words of particular length

PrintWordsOfParticularLength()

elif choice==7: #7. Count Words of particular length

CountWordsOfParticularLength()

elif choice==8: #8. Display Words not having particular alphabet

DisplayWordsNotHavingParticularAlphabet()

elif choice==9: #9. Count Words not having particular alphabet

CountWordsNotHavingParticularAlphabet()

elif choice==10: #10. Display Words not having any vowel

DisplayWordsNotHavingAnyVowel()

elif choice==11: #11. Count Words not having any vowel

CountWordsNotHavingAnyVowel()

elif choice==12: #12. Display Words not having any vowel and y

DisplayWordsNotHavingAnyVowelAndy()

elif choice==13: #13. Count Words not having any vowel and y

CountWordsNotHavingAnyVowelAndy()

elif choice==14: #14. Display PALINDROME Words

DisplayPALINDROMEwords()

elif choice==15: #15. Count PALINDROME Words

CountPALINDROMEwords()

elif choice==16: #16. Display ABECEDARIAN Words

DisplayABECEDARIANwords()

elif choice==17: #17. Count ABECEDARIAN Words

CountABECEDARIANwords()

elif choice==18: #18. Display Longest length word

DisplayLongestLengthWord()

elif choice==19: #19. Check whether entered word is present or not

SearchWord()

elif choice==20: #20. Display all words formed using some alphabets entered, allowing repetition

AlphaWordRepeatition()

else:

print("Invalid Choice!!") #If the user has entered any invalid item

except ValueError:

print("You have not entered a proper choice (number)")

repeat=input("""\n\nWould you like to re-run the program

If yes press y,

Else press any other key to close this program:""") #asking for re-running the program

else:

print("\n\nThank you for using me\nHave a Nice Day ") #Ending Prog. and printing Thank You Message

f.close() #txt file closing

#input() #this line can be used ONLY if the user is directly running (in black background) the prog. instead of running in "Edit in python(IDLE)", to show the Prog. Closing Message to the user