Programming Assignment Report Format

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Contents

1 Problem Statement 1

Write a Python program that can take a big string (with spaces) as input from the command line and count number of times a word occurs in the string and also print the top 3 words in terms of their frequency of count. Also print the next permutation of each word appearing in the string.

2 Implementation

2.1 Input: Description of the data

The input is taken from the user as a big string.

2.2 Logic

The input is taken from the user as a string.Using string function, the word is input whose frequency need to be found.Then the top 3 words are found with their frequencies printed with the next permutation.

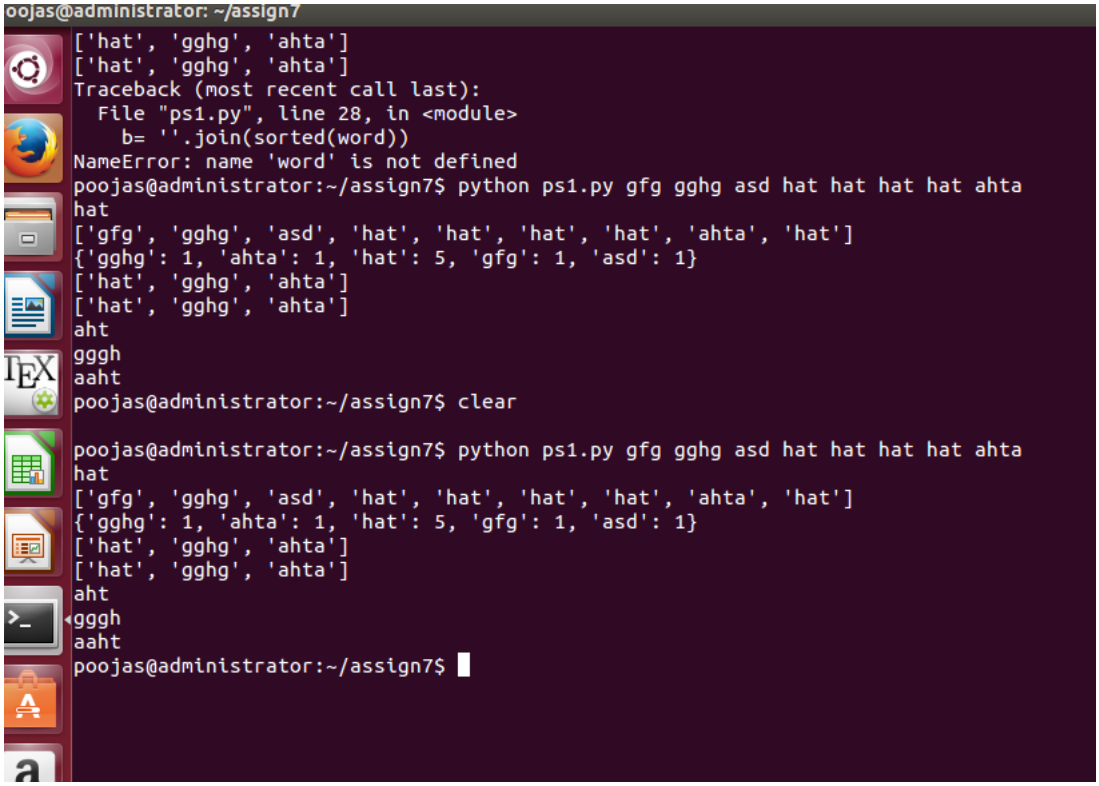
2.3 Output: Description of the information

The output gets displayed with the word and its frequenct with permutation.

2.4 Algorithm: How the subprogram accomplishes the task using

- Start
- Take the word from the user.
- Count he frequency of the word.
- Find the words with max frequency.
- Determine the permutations .
- Display the output.

3 Screenshots



4 Problem Statement 2

You are designing a Graphical user Interface (GUI) to depict the location of a mobile user in a square whose corner points are (1,1) (-1,1) (1,-1)(-1,-1). In real life, the users location would come from a database available with the MSC. For the moment, generate the user location using the random function generator function in Python to generate a number between [0,1).

Using following code generate points inside this 2D shape.(import random) (X,Y)=(random.random() 2- 1, random.random() 2-1)

Here, each point in above shape has an equal chance of being generated. Finally calculate number of points that lie inside unit radius circle in terms of percentage.

5 Implementation

5.1 logic

The code generate points inside this 2D shape and the users in unit radius are counted.

5.2 Output: Description of the information returned

Number of points that lie inside unit radius circle in terms of percentage are calculated.

5.3 Algorithm: How the subprogram accomplishes the task using

- Start
- Take the word from the user.
- Generate using the given function.
- Find the users in unit radius.
- Display the output.

6 Problem Statement 3

You have to design an addressing code for a shipping company that works all around India. The address given by the customer is split into fields of Name, House No/colony/landmark City District State/Union Territory Let's suppose at the intake the employer enters all the above data into the computer, now the coding machine has to build two codes out of the data.

First is machine readable like barcodes, in the form 1s and 0s as: IIT Roorkee = 001 Roorkee= 010 Uttarakhand = 100 Hence the generated gives the collection center no. CC NO = 100010001

Second is human readable, build by combination of first three letters of a place. For example : Prof. Ram Mishra D - 15, North Enclave IIT Roorkee, Roorkee Uttarakhand

Hence human readable code HCCNO = UTT ROO IIT 100010001

Create a database with some default addresses. The database should be editable(Add, delete, modify). Also notify any discrepancy in data to the employee if the address is invalid or do not exist in the database.

7 Implementation

7.1 logic

The database with some default addresses is created.It is checked if the input is correct.Dictionary is generated.The database can be modified and updated.

7.2 Output: Description of the information returned

The database with some default addresses has been created.

8 References

References

[1] http://http://www.learnpython.org

[2] http://www.tutorialspoint.com/python.htm

[3] https://www.youtube.com/watch?v=41qgdwd3zAg

[4] https://github.com

[5] https://www.sharelatex.com

9 Epilogue:

9.1 Learnings

We got the knowledge of python programming language ,Github and command line arguments.