TELECOM SOFTWARE LAB

ELP 718

Assignment No.6 Report

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1 Introduction:

python

Python is a general-purpose interpreted, interactive, object-oriented, and high-level programming language. It was created by Guido van Rossum during 1985- 1990. Like Perl, Python source code is also available under the GNU General Public License(GPL).

Using python you can :

- Easy-to-learn: Python has few keywords, simple structure, and a clearly defined syntax. This allows the student to pick up the language quickly.
- Easy-to-read: Python code is more clearly defined and visible to the eyes.
- Easy-to-maintain: Python's source code is fairly easy-to-maintain.
- Databases: Python provides interfaces to all major commercial databases.
- Portable: Python can run on a wide variety of hardware platforms and has the same interface on all platforms.

- Extract bits and pieces of data for processing
- Sort data
- Extend the language with functions written in C or C++
- Perform simple network communications

2 Problem Statement

2.1 Problem Statement 1

In this problem we have to 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 we have to print the next permutations of the each of the word appearing in the string.

- ***INPUT TO BE GIVEN***
  Command line inputs is to be given for the string
- ***REQUIRED OUTPUT*** output format be like :-
  output should come in such a manner that it
  will display the number of count of each of the word and also the top 3 occuring words.

2.2 Problem statement 2

In this problem we have to generate 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). Here we have to generate the user location using the random function generatorfunction in Python to generate a number between [0,1]

- ***INPUT TO BE GIVEN***

the input should be given through the command line argument

- ***REQUIRED OUTPUT***

Design GUI

2.3 Problem statement 3

In this question we have to generate a code that will create a postal address for the users ,
both in the form of the machine readable and the human readble .

3 Assumptions

3.1 *Assumption for Problem statement 1*

following constraints are used
1.no assumption has been used.

3.2 *Assumption for Problem statement 2*

No assumption has been taken.

3.3 *Assumption for Problem statement 3*

No assumption has been taken.

4 Implementation

4.1 Problem 1

Algorithm

- provde a string through commandline argument
- now this will be stored in a list
- now take each word from it
- now count this word and the counted number in other variable
- do the same thing for all the words present in the list
- now print the word associated with its frequency

4.2 Problem 2

Algorithm

- provde a string through commandline argument
- now this will be stored in a list
- now take each word from it
- now count this word and the counted number in other variable
- do the same thing for all the words present in the list
- now print the word associated with its frequency

4.3 Problem 3

sub program 1: human readable code
In this problem we 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
  sub program 2:machine readable code
  this should print the address in the the form of
- IIT Roorkee = 001
- Roorkee= 010
- Uttarakhand = 100

Algorithm

- provde a string through commandline argument
- now this will be stored in a list
- now take each word from it
- now count this word and the counted number in other variable
- do the same thing for all the words present in the list
- now print the word associated with its frequency

5 Test Description and Results

- **Input**
- **Output**

The results obtained can be seen from the screenshots taken.

6 Screenshots

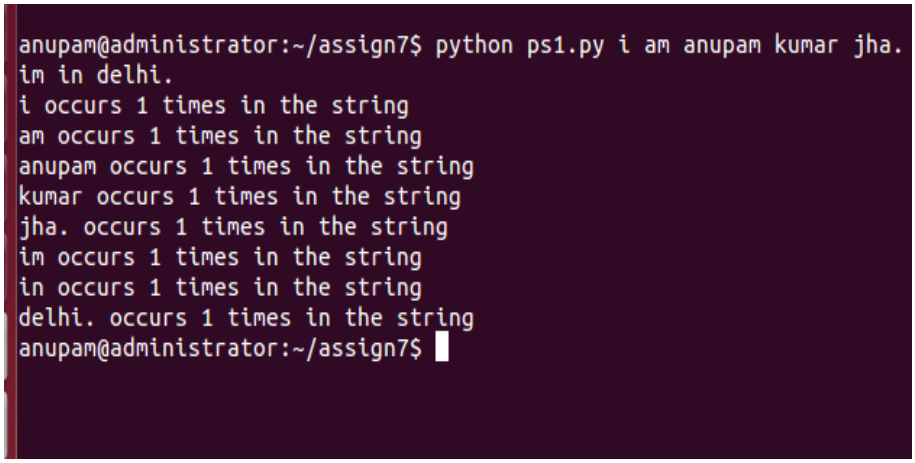

Figure 1: Screenshot of Problem Statement 1

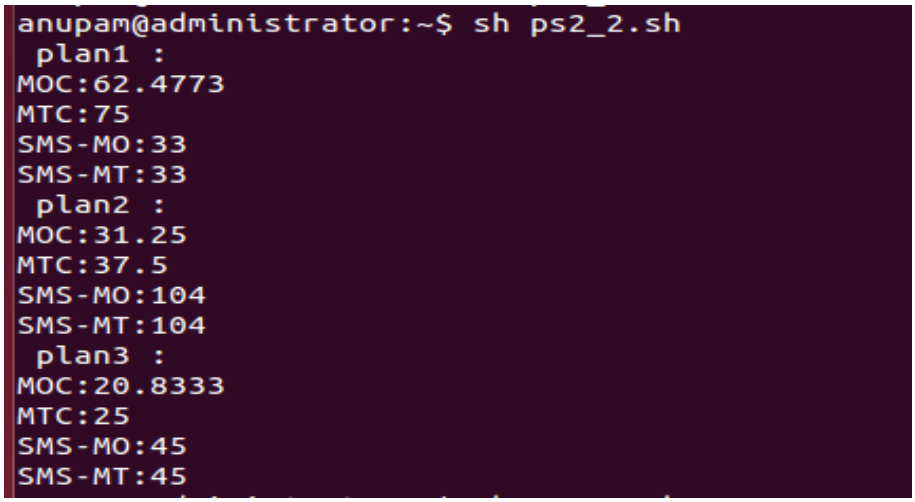

Figure 2: Screenshot of Problem Statement 2,

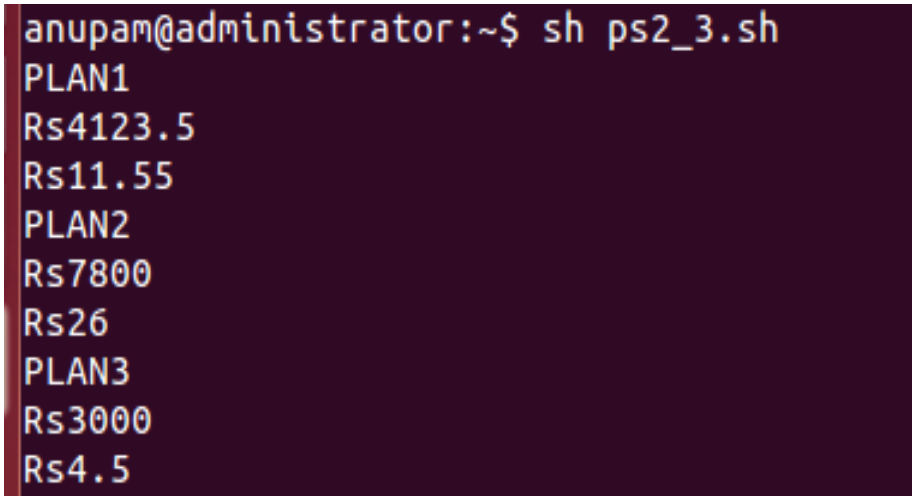

Figure 3: Screenshot of Problem Statement 3

References

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7 Epilogue