Generate a classification report based on this taxonomy.

Karthik

December 27, 2018

Contents

1 Definition of taxonomy

A taxonomy consists of a set of terms organized in a hierarchical manner. Here we are dealing with a taxonomy of alphabets that are organized as shown in Figure 1.

2 List of reads classified into taxonomy levels

We have a list of terms and a number of "reads" classified into each term. This will be used as the input file in our task.

Classification of 1000 reads.

Taxonomy level	Number of reads
G	100
L	50
N	50
Y	300
Z	250
V	250

3 Task

Write a program to generate a classification report given an input file with taxonomy level and number of reads separated by a tab.

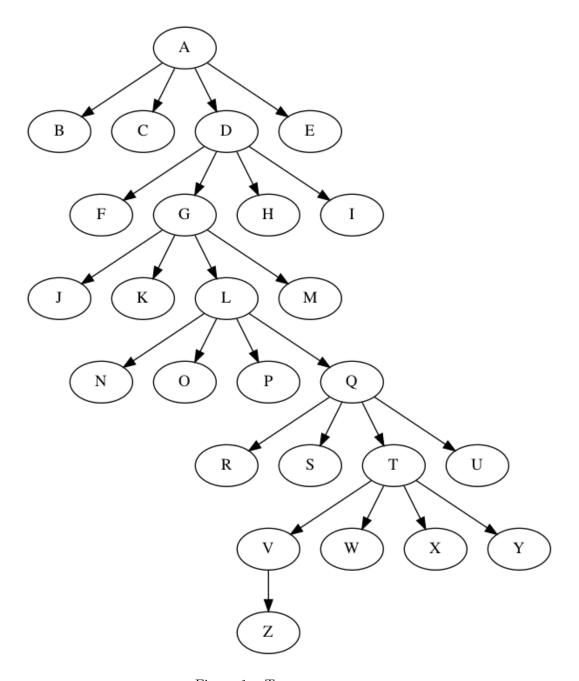


Figure 1: Taxonomy

The classification report will show the total number of "reads" that fall under a certain term in the taxonomy. The number of "reads" under a terms has to be greater than 1 to be shown in the output. The terms must be ordered in the same order as the depth in the taxonomy.

3.1 Example input file

- Z 100
- V 100
- X 200

3.2 Example output

- A 400
- D 400
- G 400
- L 400
- Q 400
- T 400
- X 200
- V 200
- Z 100