Assignment

# Time to complete the assignment: 2 days

# Question [Java]

An Ontology Tree is specified as a pair of parent child relation in a list/tuple as follows:

Each element inside the list is a parent-child relation depicted as Parent#Child.

 Sample Input:

my\_tuple = ('Elemental#Nitrogen','Entry#Substance','Substance#Elemental','Substance#Compound','Compound#Phosphate','Compound#Pigments','Substance#Unclassified','Pigments#Chlorophyll')

Coding Tasks

Write a program in **Java** to find the following:

1) Root of the Ontology Tree

2) Longest Path(s) from the Root to a leaf node

3) Shortest Path(s) from the Root to a leaf node

Expected Output:

**Root** : Entry

**Longest Path** : 'Entry ->Substance->Compound->Pigments->Chlorophyll

**Shorted Path** : 'Entry ->Substance->Unclassified

**Please Note**

\* Please let us know if you have any questions/clarifications regarding the problem statement; we would be happy to answer you queries.

\* Good code formatting will be given preference.

\* Writing test case must.