Digital Health Project 1—UMLS

Find circles in the UMLS.

A circle is defined as a one-directional (has only PAR or CHD relations) path that starts and ends with the same node, or CUI. You only need to find circles with at least 3 and less than 40 different nodes, and output the first 3 circles found using the following format for a circle from Node1 to Node2 ……to Noden to Node1:

CUI1,CUI2,…,CUIn,CUI1

where CUIi ≠CUIj if i≠j.

**Programming language**: ***Python***, ***Java***, or ***C++*** are preferred. Other languages are also acceptable.

**What to submit**: A text file that include the following items:

1. The 3 circles found in text format. One circle per line with strictly the format highlighted above. (Grading: 60% total, 20% per circle)
2. A GitHub link to your source code. If dependencies are required, please also include or indicate. (30%)
3. Program usage description. (10%)