

Graph Visualizer

Python Version: 3+

Python filename:

`graph_visualizer.py`

Input to the python program is given from command line in form of a text file.

Text file format:

Line1: Type of infection spread (adjacent/speed)

Line2: List of nodes(cities)

Line3: List of edges. E.g. (city1, city2)

Line4: Dictionary of edges as keys and weights as values. E.g. (city1, city2): 123

Line5: Infection starter city

Line6: Infection spread speed

A sample input file(`input.txt`) is given below, make sure to use the exact syntax and style.

```
1 'speed'
2 ['Atlanta', 'Boston', 'Boulder', 'Cheyenne', 'Chicago',
  'Cleveland', 'Disneyland', 'Key West', 'Miami', 'New Orleans',
  'New York', 'Portland', 'San Francisco', 'Seattle', 'Yakima']
3 [(('Atlanta', 'Miami'), ('Atlanta', 'New Orleans'), ('Boston',
  'Chicago'), ('Boston', 'Cleveland'), ('Boston', 'New York'),
  ('Boulder', 'Chicago'), ('Cheyenne', 'Portland'), ('Cheyenne',
  'Yakima'), ('Chicago', 'Cleveland'), ('Disneyland', 'Portland'),
  ('Disneyland', 'San Francisco'), ('Key West', 'Miami'), ('Miami',
  'New Orleans'), ('Portland', 'San Francisco'), ('Portland',
  'Seattle'), ('Portland', 'Yakima'), ('Seattle', 'Yakima'))]
4 {(('Atlanta', 'Miami'): 663, ('Atlanta', 'New Orleans'): 487,
  ('Boston', 'Chicago'): 982, ('Boston', 'Cleveland'): 640,
  ('Boston', 'New York'): 215, ('Boulder', 'Chicago'): 1130,
  ('Cheyenne', 'Portland'): 1162, ('Cheyenne', 'Yakima'): 1095,
  ('Chicago', 'Cleveland'): 344, ('Disneyland', 'Portland'): 989,
  ('Disneyland', 'San Francisco'): 408, ('Key West', 'Miami'): 159,
  ('Miami', 'New Orleans'): 864, ('Portland', 'San Francisco'):
  635, ('Portland', 'Seattle'): 173, ('Portland', 'Yakima'): 185,
  ('Seattle', 'Yakima'): 142}
5 'Seattle'
6 500
```

Use the following command to run the visualizer,

```
Python3 graph_visualizer.py input.txt
```

If you are using command line to run this program, you need to close the graph visualizer to see the next time step.

