Graph Theory: exercise

Due: 3 May 2017

Problem: Bangkok train network

- Can you draw a graph representative of currently available Bangkok's train network? The graph shoud include only terminal station and the interconection station (Only sky and subway, no regional train)
- 2. How many vertices (station) that have a degree > 2?
- 3. Path to Phloen Chit station from Lad Phrao station
 - 1. List three possible paths.
 - 2. Use any approximation on distance (or time) between relevant stations.
 - 3. Find the shortest distance (or time) path.
 - 4. Find the shortest distance (or time) path.
 - 5. [Challenge] Estimate the cost between stations based on the actual rate.
 - 6. [Challenge] Find the path with the minimum cost.
 - 7. [Challenge] Find the optimum path between cost vs distance (time).

Instruction

- Try to do it on the given paper first, then let do these exercises in Python.
- You may try inventing your own algorithm first.
- After that, compare you algorithm with **Dijkstra's Algorithm**. (https://en.wikipedia.org/wiki/Dijkstra%27s_algorithm)

