## Graph Theory: exercise

## Due: 3 May 2017

Problem: Bangkok train network

1. 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\'s_algorithm)


