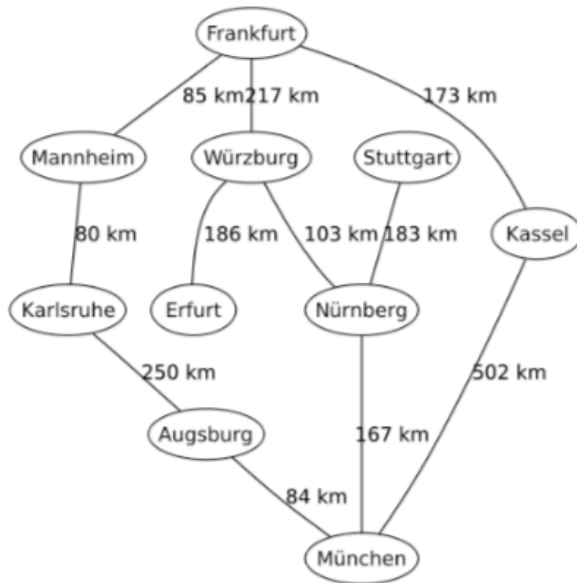


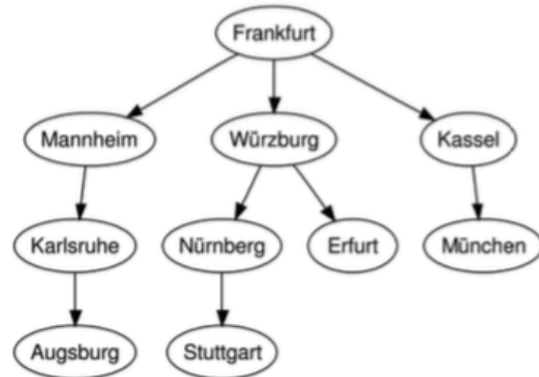
## ECS 32B: Winter 2019 Homework Assignment 6

**Due Date:** No later than Friday, March 15, 9:00pm. Submit your solutions via Canvas in one file named “hw6.py”.

1. (40 points) Programming Exercise 8 from Chapter 6 of your textbook. Think “heapsort”. Use the code given in the textbook as your foundation. Reminder: do not use outside sources, including the Internet, in deriving your solution to this problem or the next.
2. (40 points) Given the following graphs:



Graph A



Graph B

- 2a. Write the names of the vertices (cities) in the order you would visit them if you performed a breadth-first traversal of Graph A, starting with the vertex named Frankfurt.
- 2b. Write the names of the vertices (cities) in the order you would visit them if you performed a breadth-first traversal of Graph B, starting with the vertex named Frankfurt.
- 2c. Write the names of the vertices (cities) in the order you would visit them if you performed a depth-first traversal of Graph A, starting with the vertex named Frankfurt.
- 2d. Write the names of the vertices (cities) in the order you would visit them if you performed a depth-first traversal of Graph B, starting with the vertex named Frankfurt.

Note that Graph A is undirected and Graph B is directed. You may ignore any weights on edges. Submit your solutions to Problem 2 as comments in the “hw6.py” file that also contains your solution to Problem 1.