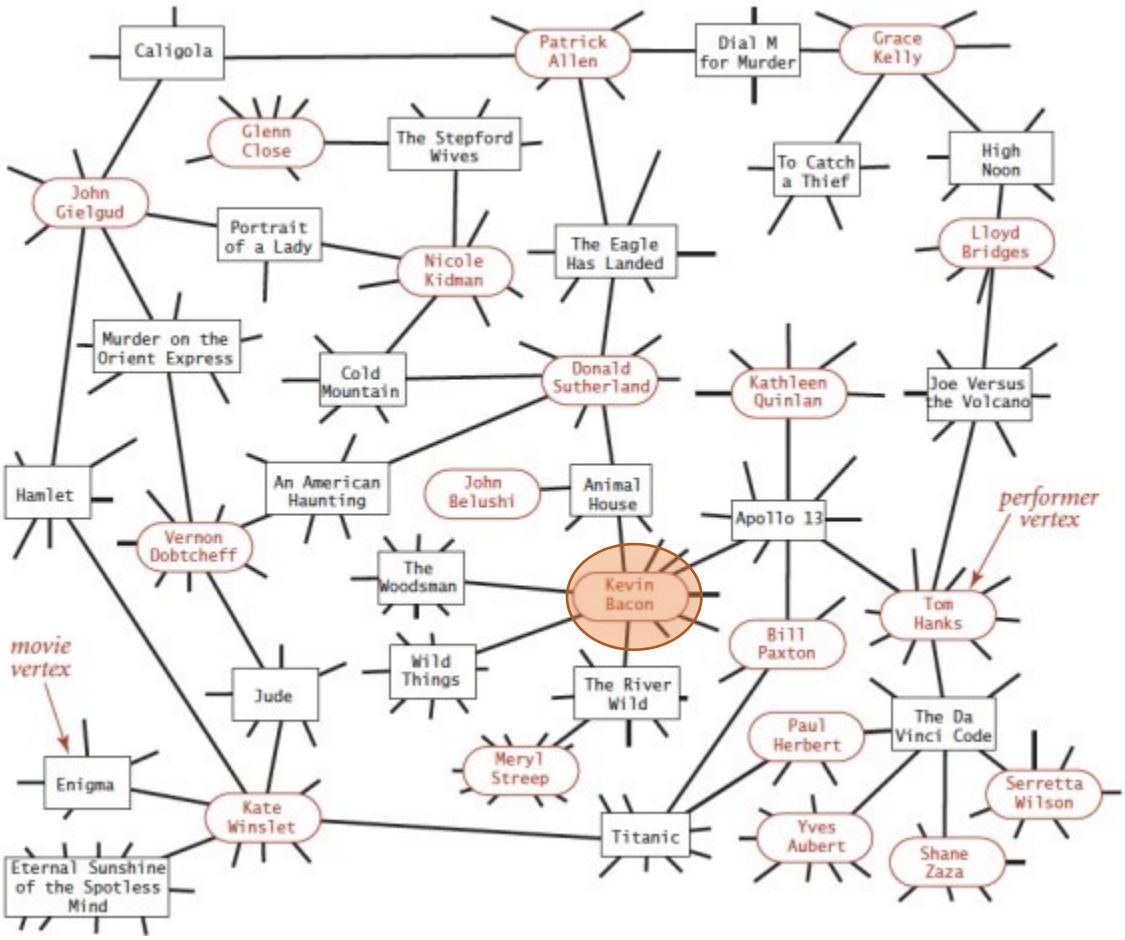
Project 3: Application of shortest path algorithm in Graphs

The object of the *Kevin Bacon Game* is to link a movie actor to Kevin Bacon via shared movie roles. The minimum number of links is an actor's *Bacon number.* For instance, Tom Hanks has a Bacon number of 1; he was in *Apollo 13* with Kevin Bacon. Sally Field has a Bacon number of 2, because she was in *Forrest Gump* with Tom Hanks, who was in *Apollo 13* with Kevin Bacon. Almost all well-known actors have a Bacon number of 1 or 2. Assume that you have a comprehensive list of actors, with roles, and do the following:



Using your 'shortest path' implementation from lab 6, construct your graph to contain nodes of actors' names, and edges to represent movies where the two actors on both ends of the edge worked together:

a. Write a method to find an actor's Bacon number.
b. Write a method to find the actor with the highest Bacon number.
c. Write a method to find the minimum number of links between two arbitrary actors