1. What is the object of the Kevin Bacon Game?

Answer = The point of the game is to link two movie actors to each other by using movies where they costarred.

1. How many actors were listed on the Internet Movie Database (April 28, 2013)?

Answer = 1,605,485

1. What percentage of those actors have a Bacon number of 7 or higher?

Answer = 0.0002%

1. What does an average Bacon number is 2.994 mean?

Answer = This means that most actors in the internet database are able to be matched together in 2-3 links.

1. What traditional graph theory problem does the Kevin Bacon Game correspond to?

Answer = Finding the shortest path between two vertices

1. Why is Breadth First Search a better fit for this problem than the Dijkstra’s

algorithm?

Answer = Dijkstra’s algorithm is more than necessary because it has additional steps for larger problems. Breadth First Search is more direct which simplifies this problem.

1. For what situations is the Dijkstra’s algorithm best suited?

Answer = Dijkstra’s algorithm is best used in problems where each link has a length or weight and the goal is to find the path that minimizes the total length.

1. Give a real-world example where the Dijkstra’s algorithm would be a good fit.

Answer = When using telephone lines and networks.

1. What do the rankings at the list of 1000 best centers of the Hollywood universe represent?

Answer = This is a list of 1000 actors with the lowest bacon score, meaning they can be connected with many other actors in as few links as possible.

1. Query the path between a pair of actors and submit screenshots of two different results for the same query (notice there is a “Find a different link” button at the right top).

Answer = A screenshot of a cell phone

Description automatically generatedA screenshot of a cell phone

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