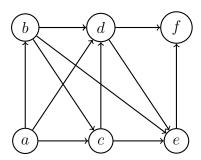
The following questions are related to the graph database system Neo4j [2], and the included Movie database [1].

- 1. Create three nodes in Cypher to represent three friends Jack, Jerry and John.
- 2. Create relationships showing that:
 - Jack follows Jerry on Twitter.
 - Jack follows John on Twitter.
 - John follows Jerry on Twitter.
- 3. Add some information about Jack, Jerry and John:
 - Jack joined Twitter in May 2010.
 - Jerry joined Twitter in June 2012.
 - John joined Twitter in January 2016.
- 4. Add some information about the following relationships:
 - Jack started following Jerry in July 2012.
 - Jack started following John in February 2016.
 - John started following Jerry on January 2016.
- 5. Create the following graph in Cypher:



- 6. The rest of the questions relate to the movie database included with Neo4j. Kevin Bacon is represented by a node in the database. Find the <id> of the node.
- 7. Find a list of the titles of all movies Kevin Bacon has acted in (that are contained in the database).
- 8. Find a list of the titles of all movies Kevin Bacon has acted in, sorted alphabetically.
- 9. Find a list of the titles of all movies Kevin Bacon has acted in, giving only the first five sorted alphabetically.

Problem Sheet: Graph Databases

- 10. Find a list of all the names of actors who have acted with Kevin Bacon in a movie, sorted alphabetically.
- 11. Find a list of all the names of actors who have acted with an actor who has acted with Kevin Bacon in a movie, sorted alphabetically.
- 12. Find the three nodes representing Kevin Bacon, Elvis Presley and Edward Asner.
- 13. Find all the titles movies that Kevin Bacon and Edward Asner have acted in together.
- 14. Find the titles of all movies that Elvis Presley and Edward Asner have acted in together.
- 15. Find the three nodes representing Kevin Bacon, Elvis Presley and Edward Asner, and all nodes representing any movies that at least two of them have acted in.
- 16. Show that Elvis Presley has a Bacon number of 2.
- 17. Find the names of all actors with a Bacon number of at most 3.
- 18. Find the names of all actors with a Bacon number of exactly 3.
- 19. **Extra credit:** Find a distinct list of the types of all the relationships between the *Person* Wes Craven and the *Movie* Scream.

References

- [1] neo4j open source graph database ».
- [2] Neo4j. Neo4j the world's leading graph database, 2012.