Exercise 10b

Additional tasks

For this exercise sheet, please use the prepared SQL script
`DB-Exercise10-KH-Test.sql` from the Community.

Task 1: Recursion

a) The test script contains the relation eats. Create output showing which animal eats what. For example, a monkey eats frogs and a frog eats flies. So a monkey also (indirectly) eats flies. Use recursion to complete the task.

b) Expand the test data by adding the entry "fly eats wolf". Then recognise this circle in the previously implemented recursion and stop the recursion at the appropriate point.

c) Expand the recursion so that it is clear whether the animal eats something directly or indirectly. For example, the fly eats sugar water directly, but the monkey only eats flies indirectly by eating frogs.

d) Expand the recursion so that it is clear which animal needs to eat which other animal in order to eat something specific. For example, the monkey could eat frogs, and then it would have the chance to consume flies as part of its diet without having to eat them directly.