

Technical test - Senior Backend Engineer (Singular Cover)

Problem Description

We want to build a zoo with the following animals living in it:

Animals			
Dog - Name: "Killian" - Dog type: Hunting dog - Favorite food: "Meat"	Parrot - Can not speak. - Name: "Parrot one" - Favorite food: "Grain" - Length of wings: 0,25	Chicken - Length of wings: 0,75; - Broiler. - Favorite food: "Corn" - Name: "Chicken one"	Dog - Favorite food: "Fresh meat" - Dog type: Working dog - Name: "Rocky"
Parrot - Length of wings: 0,5; - Name: "Parrot two"; - Favorite food: "Corn" - Can speak.	Dog - Dog type: Sport dog - Favorite food: "Pedigree" - Name: "Peter"	Chicken - Favorite food: "Corn" - Name: "Rocky" - Not a broiler. - Length of wings: 0,75	

Each animal can have several friends among other animals from the zoo.

Every day each animal loses randomly one friend (if there are any) and establishes friendship randomly with another animal. If A is friend with B then B is friend of A. In the beginning no animal has friends, such is life.

NOTE: Properties values are just for reference, make up your own values if you wish.

Task Description

Write an application in Java or Kotlin, providing the following features:

1. List all animals with their properties and friends' names.
2. Live one day. (When this option is chosen each animal attempts to break/establish friendship as described above. Print all changes to console. For example "Dog one has lost friendship with Chicken one; Dog one has established friendship with Parrot two.")
3. Exit.

We are looking for clean, easy to read and self-commented code. Providing unit tests along your solution is a big plus.

If you think any part of this exercise is unclear, don't worry. Decide for yourself what would be a logical or fun thing to do, and explain in few lines in your design document why you did what you did.