

# TEST ASSIGNMENT

## Problem Description

Following animals live in zoo:

Animals			
Dog - Name: "Dog one"; - Dog type: Hunting dog. - Favorite food: "Meat";	Parrot - Cannot speak. - Name: "Parrot one"; - Favorite food: "Grain"; - Wingspan: 0,25;	Chicken - Wingspan: 0,75; - Is broiler. - Favorite food: "Corn"; - Name: "Chicken one";	Dog - Favorite food: "Fresh meat"; - Dog type: Assistance dog. - Name: "Dog two";
Parrot - Wingspan: 0,5; - Name: "Parrot two"; - Favorite food: "Corn"; - Can speak.	Dog - Dog type: Racing dog. - Favorite food: "Pedigree"; - Name: "Dog three";	Chicken - Favorite food: "Corn"; - Name: "Chicken two"; - Is not broiler. - Wingspan: 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 one animal (if it is not already friend of all other animals). If A is friend of B then B is friend of A. At the beginning nobody has friends.

## Task Description

Write console or simple GUI application, which provides following options:

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.

Write short design document describing most important aspects of your design. Use Java programming language to implement the application.

Using relevant coding conventions will give you additional points. Object oriented design and high quality code will be deciding factors.

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