PRACTICAL TASK

You are to implement code that simulates a zoo. A zoo contains animals. The animals in the zoo are of 3 different species: monkeys, giraffes and bears. Each animal has a health value, represented by points in the range from 0 to 100.

There should be a method to simulate feeding top 90% (using floor rounding) of the animals sorted by health points in ascending order. When this method is called, for each such animal a random value between 10 and 25 is generated and used to increase that animal's health.

There should be a method to simulate the animals getting hungry. Hunger reduces the health of animals. When this method is called, for each of the three species a random value between 15 and 35 is generated. Then the health of each animal in the zoo is decreased by the value generated for its species.

Every species has a specific death condition. A monkey dies, when its health points drop below 40. A bear dies, when its health points drop below 65. A giraffe cannot move its neck, while it has less than 60 health points. When a giraffe's health has to be reduced (no matter how much) and it cannot move its neck, then it dies.

There should be a method that returns the number of animals still alive in the zoo.

There should be a method that for a given species returns the minimal health of all alive animals with this species in the zoo.

The zoo starts with 10 animals for each species. Each animal starts with 100 health points.