Finsbury Happy Zoo

Scenario

The animals are enclosed in their natural habitats, such as forests or tundra. Enclosures have a unique number, respective size (m²) and a main feature like a stream or a cave. Each animal is assigned a unique ID with their recorded name, date_of_birth, diet and description. The start and end dates of their enclosure placements are recorded. Observations about the animals are also recorded. A compatibility table records speciesA, speciesB and their compatibility rating from 1 (bitter enemies) to 5 (happy neighbours). The species name, description and habitat type are recorded. Maximum animal capacity in each enclosure is also recorded.

Example entities and attributes

```
Enclosure (Entity)
       Enclosure number – 54 (primary key)
       Habitat type – Forest
       Size -100 \text{ m}^2
       Main feature – Stream
       Species name – Lion (foreign key)
       Maximum number of animals – 5
Animal (Entity)
       Animal ID – 73290 (primary key)
       Name – Rocco
       Date of birth -23/09/2020
       Diet – Carnivorous
       Description – Muscular build, tufted tail, mane
       Enclosure number – 54 (foreign key)
       Start date – 01/10/2022
Species (Entity)
       Species name – Lion (primary key)
       Description – Muscular build, tufted tail, mane
       Habitat type – Forest
Compatibility (Entity)
       SpeciesA – Lion
       SpeciesB – Zebra
       Compatibility rating – 1
Transferring Animal to Enclosure (event entity, candidate key not determined)
       Animal ID – 73290 (foreign key)
       Enclosure number – 54 (foreign key)
       Start date – 01/10/2022 (foreign key)
       End date - 02/10/2024
```

Action – Animal transferred Observation notes – Not interested in his food

Example queries

- 1. How many animals are currently housed in enclosure number 54?
- 2. How many animals have been transferred to a new enclosure?
- 3. Which animals have a carnivorous diet?
- 4. What is the compatibility rating between Lions and Zebras?
- 5. How many animals were born in 2020?