

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 m²
- Main feature – Stream

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

Enclosure capacity

- Enclosure number – 54 (foreign key)
- Species name – Lion (foreign key)
- Maximum number of animals – 5

Compatibility (Entity)

- SpeciesA – Lion
- SpeciesB – Zebra
- Compatibility rating – 1

Transferring Animal to Enclosure (event key, 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?