

For the scenario below identify the entities, their attributes and appropriate keys

Finsbury Happy Zoo

Finsbury Happy Zoo's concept is to show animals together in their habitats. They have a number of **enclosures** of different **habitat types** (such as forest or tundra), different **sizes** (square metres), each having a **main feature** (such as a stream or a cave). **Animals of different species share the same enclosure**. Each enclosure has a **unique number** and there can be several enclosures with the same **habitat but with a different main feature or of a different size**. Each **animal** has a **unique ID**, and their **name**, **date_of_birth**, **diet** and **description** are stored. When an **animal** is put in an **enclosure**, the **start date** is recorded, and if they are transferred to another enclosure the **end date** is recorded. Zoo keepers may need to make a **note** about a particular **animal**, for example "not eating well today" and this is recorded along with the **date**. To make sure the animals don't eat each other a **species compatibility table** is maintained which has the following information; **speciesA**, **speciesB**, **compatibility_rating** (5 for happy neighbours to 1 for bitter enemies). **Species** are identified by their **name**, and a **description** of the species and their **habitat type** are recorded. Species are matched against enclosures by Zoo staff, and if suitable the **maximum number of animals** of a particular **species** for a particular **enclosure** is recorded to prevent overcrowding.

Enclosure (Entity)

- enclosureID – 1 (PK)
- enclosureHabitatType – Forest
- enclosureSize – 100 sq.m.
- enclosureMainFeature – Stream

Animal (Entity)

- animalID – 101 (PK)
- animalName – Leo
- animalDateOfBirth – 15.03.2018
- animalDiet – Carnivore
- animalDescription – A healthy lion with a golden mane

Species (Entity)

- speciesName – Lion (PK)
- speciesDescription – Large carnivorous feline
- speciesHabitatType – Savannah

Animal_Enclosure (Event)

- animalID – 101 (FK)
- enclosureID – 1 (FK)
- startDate – 01.04.2021
- endDate – NULL

Species_Compatibility (Table)

- speciesIDA – Lion (FK)
- speciesIDB – Zebra (FK)
- compatibilityRating – 1

Enclosure_Species (Table)

- enclosureID – 1 (FK)
- speciesName – Lion (FK)

maxAnimalCount – 2

Animal_Note (Event)

noteID – 1 (PK)

animalID – 101 (FK)

noteDate – 05.10.2024

noteDescription – "Leo is not eating well today"