

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.

Zoo → Enclosures → Animals → Species → Zookeeper notes
→ Compatibility

Entities and attributes:

Enclosure (entity)

Attributes:

- Enclosure number (PK)
- Size
- Main feature
- Habitat Type
- Maximum capacity for each species

Animals (entity)

Attributes:

- Animal ID (PK)
- Enclosure number (FK)
- Species ID (FK)
- Name
- Date of birth
- Diet
- Description

Species (entity)

Attributes:

- Species ID (PK)
- Description
- Species name
- Habitat type

Zoo Keeper Notes (entity)

Attributes:

- Note ID (PK)
- Animal ID (FK)
- Note content
- Note date

Species Compatibility (entity)

Attributes:

- Compatibility rating
- speciesA (FK) (from Species ID)
- speciesB (FK) (from Species ID)