

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; species A, species B, 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.

Notes:

- **Entities:** Represents a real-world concept. It can be anything that's unique & has significance in a given field.
- **Attributes:** Characteristic or properties of the entity

Types of keys:

- **Primary key:** Ensures that every row in a table has a unique identifier.
 - **Candidate key:** Are attributes that uniquely identify a record
 - **Foreign key:** A field that links two tables together by using the primary key
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1. Enclosures

Entity: Enclosures

Attributes:

- Habitat types
- Size
- Main features

Primary Key: Enclosure's unique number

2. Animal

Entity: Animal

Attributes:

- Name
- Date of Birth
- Diet
- Description

Primary Key: Unique animal ID

3. Animal in Enclosure

Entity: Enclosed animals

Attributes:

- Start date
- End date

Primary Key: Unique animal ID & Enclosure's unique number

4. Species

Entity: Species

Attributes:

- Description
- Habitat type

Primary Key: Species Name

5. Species compatibility

Entity: Species compatibility

Attributes:

- Compatibility rating (1-5)

Primary Key: Species name (Species A, Species B)

6. Species in enclosure

Entity: Enclosed species

Attributes:

- Max Animals

Primary Key: Enclosure's unique number & Species name

7. Animal Notes

Entity: Animal Notes

Attributes:

- Date
- Note text

Primary Key: Note ID & Animal ID