

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.

Entities

Primary keys

Attributes

Foreign keys

Composite key

Entity:

Animal

Primary key:

animal_id

Foreign keys

species_id

enclosure_id

Attributes:

name

date_of_birth

diet

description

number_of_animals_in_enclosure

start_date

end_date

Entity:

Enclosure

Primary key:

enclosure_id

Attributes:

habitat_type
size
main_feature

Entity:

Animal notes

Primary key:

note_id

Foreign keys

animal_id

Attributes:

note_description
date

Entity:

Species

Primary key:

species_id

Attributes:

name
description
habitat_type

Entity:

Species compatibility

Foreign keys

species_id

Composite key

compatibility (using 2 separate species_ids)

Attributes:

compatibility_rating
