

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

Attributes

EnclosureNum - Primary Key - Unique identifier for each enclosure

SizeOfEnclosure - Size of enclosure in square meters

HabitatType - Habitat of animal

EnclosureFeature - Main feature (e.g., stream or cave)

Animal - Entity

Attributes

AnimalNum - Primary Key - Identifier for each animal

AnimalName

AnimalDOB -

AnimalDiet -

AnimalDesc -

AnimalEnclosure - Entity

Attributes

AnimalID (Foreign key) - Identifier for animal

EnclosureNum (Foreign key) - Identifier of what enclosure animal is in

DateEntered - Date when animal entered enclosure

DateTransferred - Date when animal left enclosure

KeeperNote - Entity

Attributes

NoteNum - Primary Key
AnimalNum - Foreign Key - Used to assign note to correct animal
NoteDescription
DateOfNote

Species - Entity

Attributes

SpeciesName - Primary Key - Unique identifier for each species
SpeciesDescription
HabitatType

CompatibilityOfSpecies

Attributes

SpeciesA - Name of first species
Species B - Name of second species
Comp_Rating - Compatibility rating between 1 and 5

EnclosureSpec - Entity

Attributes

SpeciesName - Foreign Key
EnclosureNum - Foreign Key - Used to locate animals once they are in an enclosure
MaxEnclosureCapacity - Used to identify the maximum capacity an enclosure can reach