

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. Zookeepers 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.

Structure:

Entity

Primary Key (PK) – (example)
Attribute – (example)
Foreign key (if present) - example

Enclosure (Entity)

Attributes: Enclosure_ID – 478395 (PK)
Habitat_type - jungle
Size - 45m²
Main_feature – cave
Max_number - 8
Animal_ID (FK) – 87878, 23232, 17162

Animal (Entity)

Attributes: Animal_ID – 64287(PK)
Name – Reticulated Python
Date_of_birth – 12/09/2021
Diet – Mice and Birds
Description – Serpentine with thick scales

Animal Enclosure (Entity)

Attributes:
Animal_EnclosureID
Animal_ID - 64287
Enclosure_ID -478395
Start_Date -11/03/2022
End_Date(if transferred) – 15/09/2022

Animal_Note(Entity)

Attribute: Note_ID (PK) – 324
Note_text – not well toda
Note_date – 11/03/2022
Zookeeper_ID(FK)
AnimalID(FK)

Zookeeper(Entity)

Zookeeper_ID – 1234567

ZooKeeperNAme

Species(Entity)

Attributes: SpeciesID(PK)

SpeciedName – Reticulated Python

Description – Serpentine with thick scales

Habitat type - jungle

Compatibility(Entity)

SpeciesA_(FK) + SpeciesB – (FK) <- composite key

Compatibility_Rating - 3