

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.

Answer:

#### Entity - Enclosure

- Primary Key - Enclosure Number
- Habitat
- Size
- Main Feature

#### Entity - Animal

- Primary Key- Animal ID
- Foreign Key - Species Name
- Name
- Date of Birth
- Diet
- Animal Description

#### Entity - Species (Entity)

- Primary Key - Species Name
- Species Description
- Habitat

#### Entity - Animal-Enclosure

- Primary Key - Transfer ID
- Foreign Key - Animal ID
- Foreign Key - Enclosure Number
- Start Date
- End Date

#### Entity - Note

- Primary Key - Note ID
- Foreign Key - Animal ID
- Note
- Date

Entity – Compatibility

Composite Primary Key - Species A  
Composite Primary Key - Species B  
Compatibility Rating

Entity - Species-Enclosure

Composite Primary Key - Species Name  
Composite Primary Key - Enclosure Number  
Maximum Number