

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 and Attributes

1. **Enclosure**
 - **Attributes:**
 - Enclosure_Number (Primary Key)
 - Habitat_Type (e.g., forest, tundra)
 - Size (in square meters)
 - Main_Feature (e.g., stream, cave)
 - **Primary Key:** Enclosure_Number
2. **Animal**
 - **Attributes:**
 - Animal_ID (Primary Key)
 - Name (of the animal)
 - Date_Of_Birth
 - Diet
 - Description
 - **Primary Key:** Animal_ID
3. **Enclosure Assignment**
 - **Attributes:**
 - Animal_ID (Foreign Key referencing Animal)
 - Enclosure_Number (Foreign Key referencing Enclosure)
 - Start_Date
 - End_Date (nullable if still in the enclosure)
 - **Primary Key:** Composite of Animal_ID and Enclosure_Number
4. **Keeper Notes**
 - **Attributes:**
 - Animal_ID (Foreign Key referencing Animal)
 - Note (e.g., "not eating well today")
 - Date (date of note)
 - **Primary Key:** Composite of Animal_ID and Date
5. **Species**
 - **Attributes:**

- Species_Name (Primary Key)
 - Description
 - Habitat_Type (where the species can be found)
- **Primary Key:** Species_Name
- 6. **Species Compatibility**
 - **Attributes:**
 - SpeciesA (Foreign Key referencing Species)
 - SpeciesB (Foreign Key referencing Species)
 - Compatibility_Rating (5 for happy neighbours to 1 for bitter enemies)
 - **Primary Key:** Composite of SpeciesA and SpeciesB
- 7. **Enclosure Species Limit**
 - **Attributes:**
 - Species_Name (Foreign Key referencing Species)
 - Enclosure_Number (Foreign Key referencing Enclosure)
 - Max_Animals (maximum number of animals of this species allowed in the enclosure)
 - **Primary Key:** Composite of Species_Name and Enclosure_Number