

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)

- Unique Enclosure Number (Primary Key)
- Habitat Type
- Size
- Main Feature

Animal

- Unique Animal ID (Primary Key)
- Name
- Date of Birth
- Diet
- Description

Species Compatibility (Entity)

- Compatibility ID (Primary Key)
- Species A (Foreign Key)
- Species B (Foreign Key)
- Compatibility rating

Species

- Name (Primary Key)
- Description
- Habitat Type

Zoo Keepers Note

- Note ID (Primary Key)
- Date Recorded
- Note/Message
- Unique Animal ID (Foreign Key)

Animal in enclosure

- Animal in Enclosure Record ID (Primary Key)

Enclosure Start Date
Unique Enclosure Number (Foreign Key)
Enclosure End Date
Unique Animal ID (Foreign Key)

Species in enclosure

Species in Enclosure ID (Primary Key)
Species Name (Foreign Key)
Maximum Number of Animals - of a Particular Species
Unique Enclosure ID (Foreign Key)