

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.

#### Entity 1 - Enclosure

**Primary key:** enclosure\_number

**Attributes:** habitat\_type, size, main\_feature, max\_animals

#### Entity 2 – Animal

**Primary key:** animal\_id

**Attributes:** name, DOB, diet, description, date\_of\_admission, date\_of\_transfer, note, date\_note

#### Entity 3 – Animal Species

**Primary key:** species\_name

**Foreign key:** animal\_id

**Attributes:** description, habitat\_type, number\_of\_animals

#### Entity 4 – Animal Compatibility

**Primary key:** speciesA JOIN speciesB

**Attributes:** compatibility\_rating