Finsbury Happy Zoo - Homework

1. Entity: Enclosure
- **Attributes:**
  - **Enclosure ID** (Primary Key) – unique identifier for each enclosure.
  - **Habitat Type** – type of habitat (e.g., forest, tundra).
  - **Size** – size of the enclosure in square meters.
  - **Main Feature** – main feature of the enclosure (e.g., stream, cave).
- **Key:**
  - Primary Key: **Enclosure ID**

2. Entity: Animal
- **Attributes:**
  - **Animal ID** (Primary Key) – unique identifier for each animal.
  - **Name** – name of the animal.
  - **Date of Birth** – date the animal was born.
  - **Diet** – dietary requirements of the animal.
  - **Description** – additional details about the animal.
- **Key:**
  - Primary Key: **Animal ID**

3. Entity: Animal_Enclosure (Associative Entity)
- **Attributes:**
  - **Animal ID** (Foreign Key) – references the animal in the enclosure.
  - **Enclosure ID** (Foreign Key) – references the enclosure where the animal is kept.
  - **Start Date** – date the animal was placed in the enclosure.
  - **End Date** – date the animal was transferred to another enclosure (nullable).
- **Key:**
  - Composite Key: **(Animal ID, Enclosure ID)**
  - Foreign Keys: **Animal ID, Enclosure ID**

4. Entity: Zookeeper_Note
- **Attributes:**
  - **Note ID** (Primary Key) – unique identifier for each note.
  - **Animal ID** (Foreign Key) – references the animal the note is about.
  - **Note** – content of the note (e.g., "not eating well today").
  - **Date** – date the note was recorded.
- **Key:**
  - Primary Key: **Note ID**
  - Foreign Key: **Animal ID**

5. Entity: Species
- **Attributes:**
  - **Species Name** (Primary Key) – unique identifier for each species.
  - **Description** – description of the species.
  - **Habitat Type** – habitat type where the species is typically found.
- **Key:**
  - Primary Key: **Species Name**

6. Entity: Compatibility
- **Attributes:**
    - **Species A** (Foreign Key) – references the first species in the compatibility pair.
    - **Species B** (Foreign Key) – references the second species in the compatibility pair.
    - **Compatibility Rating** – rating of compatibility between the two species (5 to 1).
- **Key:**
    - Composite Key: **(Species A, Species B)**
    - Foreign Keys: **Species A, Species B**

7. Entity: Enclosure_Species
- **Attributes:**
    - **Enclosure ID** (Foreign Key) – references the enclosure where the species can be housed.
    - **Species Name** (Foreign Key) – references the species that can be housed in the enclosure.
    - **Max Number of Animals** – maximum number of animals of that species allowed in the enclosure.
- **Key:**
    - Composite Key: **(Enclosure ID, Species Name)**
    - Foreign Keys: **Enclosure ID, Species Name**