

Lions Management Database For National Parks

a) Entities List

- Lions
- Parks
- Sponsors
- Rangers

b) Attributes List

- Lions
 - Lion Name
 - Lion ID
 - Gender
 - Age
 - Park Name
- Parks
 - Park Name
 - Park Location
 - Park Area in Km²
 - Lion ID
 - Sponsor Name
 - Sponsor ID
- Sponsors
 - Sponsor Type e.g., NGO, government or individual
 - Sponsor ID
 - Sponsor Name
 - Park Name
 - Lion ID
- Rangers
 - Ranger's Name
 - Ranger ID
 - Park Name

c) Relationships and Constraints

- Lions live in the national parks.
- Sponsors fund the national parks.
- Rangers work in the parks i.e., protecting the lions.
- Lions can migrate among the parks, therefore a 0 to many relationship (0..*).
- The area of the park constraints the number of lions that live there, hence (n)
- The amount of funding received by a park determines how well they are equipped to care for the lions.
- Parks can have a limited number of rangers due to funding, therefore (m..n)
- A park can 0 to many sponsors hence (0..*).
- A sponsor can sponsor parks up to a certain number hence (m..n).

- A ranger can work in only one park at a time hence (0..1)

d) UML Diagram

