

# Task: Develop a Simulation System for a Zoo

## Background:

You are tasked with developing an object-oriented system to simulate a zoo. The system should manage different types of animals and their interactions within the park. The goal is to create a dynamic environment where animals can eat, sleep, and interact with each other and the park's visitors.

## Specifications:

### 1. Basic Objects:

- **Animal:** The base class for all types of animals. Common attributes may include name, age, and energy level. Basic methods might be to eat, sleep, and make sounds.
- **Herbivores and Carnivores:** Subclasses that inherit from Animal, with specific characteristics and behaviors.
- **Visitors:** A class to represent the visitors in the park, with attributes like name and age.

### 2. Features:

- Create specific animal species such as lions, elephants, and giraffes, with unique characteristics and behaviors.
- Implement interactions between animals, like hunting or playing.
- Allow visitors to "feed" certain animal species, affecting their energy levels.
- Simulate a day in the zoo, where animals follow their natural routines and interact with visitors.

### 3. Challenges:

- Managing the energy levels of animals and ensuring they eat and rest regularly.
- Modeling predator-prey relationships in a way that is balanced and doesn't lead to any species quickly being "eradicated" from the simulation.
- Creating an engaging and interactive experience for the visitor through the interface.