The Zoo Assignment

(mooo woof roar cockledoodledoo meow hisssss)

Your task:

Your task is to design, implement, describe and present the class hierarchy and organizational structure of a `python` model of a zoo.

The model should have classes representing all the different types of objects that can be found in a zoo. Many types of animals, many types of people, different enclosures, cages, buildings, and areas of the zoo.

We are leaving this as open ended as possible, so please get as **creative** as possible in thinking of possible methods and attributes of different classes. Some ideas for methods to include might be `make_noise()` on an animal, which prints the sound it makes, or `take_photo(animal)` for a visitor, which will add the given animal to the visitors list of photographs

You should use inheritance in the design of your class structure to group similar behaviors together.

Steps:

1. As a group, come up with a design, including a diagram, for your representation of a zoo. This design should include inheritance relationships, attributes, and methods of all classes.
This is the most important part of the project.
Do NOT start working on steps 2, 3, or 4 until this design is complete.

2. Once the design is complete, the class structure should be partially implemented in `python`.

   For each class in your design, the following aspects must be coded:
   - The `class` declaration, including any inheritance
   - The **complete** `__init__` method
   - *Stubs* for the rest of the methods (simply the name)

   Here is an example of what would need to be coded for a Player class with two additional methods, `add_score` and `get_injured`:

```python
class Player(Person):

    def __init__(self,name,age,team):
        Person.__init__(self,name,age)
        self.team = team

    def add_score(self,score):
        pass

    def get_injured(self,injury_location):
        pass
```

   Of course, please feel free to code more, add `__str__` methods, et cetera, but the above is the bare minimum that you must produce

3. Prepare a comprehensive document describing the design of your class structure and **why** your team made the choices that it did, and **why** they are better than any alternatives

4. Prepare a 1 - 2 minute elevator pitch that one or more team members will give to the class that gives an overview of your class structure and highlights interesting, clever, or creative aspects of your implementation.

Stuff:

- We will be using Github to collect and grade this assignment.

- **One** team member should **fork** the `aiti-ghana-2012/zoo-assignment` repository. To work with team members, this person can add **collaborators** to give other people the ability to clone and push to the repository. This will allow people to work on multiple sections on different computers, but still push to the same repository. If you are having trouble adding collaborators, or figuring this out call over Jovana or Louis

- There **must** be a file, team.txt in the git repository that lists the names and github usernames of the members of the team, as well as one sentence describing how they contributed to the project.

- All work must stop at **4:35** – any work not in the team's git repository at this time will not be looked at. Presentations start at 4:40.

- Your team will receive grades and feedback tomorrow on your design document, implementation, and feedback.

NOTE: YOU ALL MUST WORK TOGETHER ON THE DESIGN, BUT YOU ARE ENCOURAGED TO SPLIT UP WORK FOR STEPS 2, 3, AND 4. IT IS UNLIKELY THAT YOU WILL FINISH ON TIME UNLESS YOU DO.