

## DinoEncyclopedia Enum class

There are a lot of values that we need to keep track of for dinosaur Actors, such as: number of turns till the pregnant dinosaur lays an egg, number of turns till a baby dinosaur reaches adulthood, initial food level etc.

These values never need to be changed and belong to their corresponding dinosaur classes, not to a specific object of it. In order to have **a standardized set of values** necessary for initialization or any other usage, they will be stored in the DinoEncyclopedia class.

Note that the following code snippet is only an illustrative example, not all enum keys or other values to keep track of are included:

```
public enum DinoEncyclopedia {
    STEGOSAUR('S', "Stegosaur", 50, 100, 90, 30);

    // field declaration here

DinoEncyclopedia(char displayChar, String name, int initialHitPoints, int maxHitPoints, int
matureWhen, int pregnancyPeriod) {
    this.displayChar = displayChar;
    this.name = name;
    this.initialHitPoints = initialHitPoints;
    this.maxHitPoints = maxHitPoints;
    this.matureWhen = matureWhen;
    this.pregnancyPeriod = pregnancyPeriod;
}

    // necessary getters here
}
```

A private static final field, say *DINO\_TYPE* will be declared and initialized to their corresponding Enum values for Stegosaur, Brachiosaur and Allosaur classes. Whenever a new object of the class is created, the dinosaur Actor's constructor simply needs to access the appropriate values for initializing instance variables.

The motivation behind this:

- Cleaner code in Stegosaur, Brachiosaur and Allosaur due to less fields needed to store values needed for initialization
- Standardized values, can be utilized in other classes apart from dinosaur Actors too
- Separation of concerns, whenever we need to change an initialization value we can change it here
- Hence, easier maintenance

## Dinosaurs growing up

The dinosaur actors shall be represented in the console with the first letter of their names, whereby the lowercase form represents a baby dinosaur and the uppercase form represents a grown up dinosaur, eg: 'a' - baby Allosaur, 'B' - adult Brachiosaur, 'S' - adult Stegosaur. Dinosaurs added to the map at the beginning of the game are adult dinosaurs. Dinosaurs that hatch from eggs are baby dinosaurs.

Required instance variable for DinoActor:

- age - integer that represents the age of the dinosaur

To simulate the process of baby dinosaurs growing up:

- In the *playTurn* method for dinoActor base class, have a method that increments *age*, and check if *age* has reached target for maturity for that dinosaur, if matured, change the display character of to its uppercase form to indicate adulthood

Note that maturity age is an example of what can be stored in *DinoEncyclopedia* class.