

Computer Science 22:Object Oriented Programming

Lecture 10: Encapsulation II

Cheat Sheet: Access Modifiers

	Class	Package	Subclass	World
private	Y	N	N	N
<i>none</i> , package-default	Y	Y	N	N
protected	Y	Y	Y	N
public	Y	Y	Y	Y

Pokemon World: Game Logic

- The number of pokemons increases when a pokemon is created

Pokemon World: Game Logic

- When a pokemon is created, it is given its name, its type, and its classification
- Once given, a pokemon can no longer change its name, type, and classification

Pokemon World: Abstraction

- All pokemons start with an experience of 0
- A pokemon can only gain experience (+1) upon defeating another pokemon in a battle

Pokemon World: Abstraction

- All pokemons start at Level 1
- A pokemon levels up (+1) depending on its experience (see the table below)

Experience	Level
0-9	1
10-19	2
20-29	3
.	.
.	.
.	.
90-99	10

Pokemon World: Abstraction

- All pokemons have a starting hp of 40
- A pokemon increases its hp (+5) if and only if it levels up

Pokemon World: Abstraction

- All pokemons have a starting damage of 10
- A pokemon increases its damage (+3) if and only if it levels up

Pokemon World: Abstraction

- Important Note: We can conclude that a pokemon can only level up after winning a battle because it's only then that it can gain experience
- Important Note: Leveling up means a pokemon increasing its hp, level, and damage

Pokemon World: Abstraction

- A pokemon can consume food
- A food has a name and can restore the health of the pokemon who consumes it

Programming Assignment

- Capture our abstraction of the Pokemon World. (In other words, 'represent Pokemon World using Java')

Programming Assignment

- Email to: mightybulacs@gmail.com
- Subject: CMSC22-Y-PA01-<last name>
- Attachment: Java files representing the Pokemon World (basically *.java you wrote for this programming assignment)
- Due Date: **09 Aug 2011, Tue**