Chapter 3 Battle Programming Project

Complete this programming project using your notes, the text book, and any online or in-class sources you like. Your work must be your own; you may ask a friend to look over your work, or discuss procedural decomposition with you, but you must write all code on your own. Don’t forget to use your 4 commandments of scope and error-checking algorithm. To receive full credit on this lab, you must submit a structure diagram or pseudocode-plan for each question.

Recall how to use Scanner to get user input:

Scanner console = new Scanner([System.in](http://system.in));

System.out.print("Hello, what is your name? ");

String name = console.nextLine();

System.out.print("What is your age? ");

int age = console.nextInt();

console.close();

Exercise 1 - Introduction

*Write a method called* battleStart() *that introduces the battle, prompts the user to choose their first Pokemon to battle, and outputs the pairing.* battleStart()*should also return the name of the Pokemon chosen. Your output should look something like this:*

Another trainer is issuing a challenge!

Zebstrika appeared.

Which Pokemon do you choose? *Arcanine*

You chose Arcanine!

It’s a Pokemon battle between Arcanine and Zebstrika! Go!

*Call* battleStart() *from your* main() *method and store the name of the Pokemon in a variable.*

Exercise 2 - Battle

*Write a method called* damage() *that takes a Pokemon’s name as a parameter and returns the about of HP after damage has been done.* damage() *should prompt the user for their base stats in order to calculate damage. Use the following equations for calculating damage:*

*Damage =*

*Modifier = Same Type Attack Bonus (STAB) \* Random*

*Hint: The Pokemon game always selects a random number between 0.85 and 1.0.*

*Your output should look like this:*

Zebstrika used Thunderbolt!

Trainer, what are your Arcanine’s stats?

Level:

Attack:

Defense:

Base:

STAB:

HP:

Arcanine sustained 10 points damage.

HP, after damage, are now 70.

*Call* damage() *from your* main() *method with the Pokemon’s name from Exercise 1 and store the return value (HP) in a variable.*

Exercise 3 - Summary

*Write a method called* statsTable() *that accepts the user’s Pokemon name, stats and learned moves as parameters, and outputs something similar to this image:*

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*Sample output:*

Name Alakazam

Level 40

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HP 96

ATTACK 52

DEFENSE 51

SP. ATK 121

SP. DEF 81

SPEED 107

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Moves Learned: Thunder Wave, Hidden Power, Psycho Cut, Recover

*Call* statsTable() *from your* main() *method with the Pokemon’s name from Exercise 1 and the HP from Exercise 2 and any other values you’d like for the other parameters.*

Conclusion

In y*our completed project should include the following methods:*

* + battleStart()
  + damage()
  + statsTable()

*These methods should all be called in* main()*so that the player can experience the entire battle in one sitting. Also be sure to close your* Scanner *when finished.*

*Proper Java syntax and thorough comments are required.*