

Program Description: Player VS Enemy

In this assignment you will be creating two different classes, **Player** and **Enemy**. Both of these classes will be expanded upon and utilized in a later assignment.

Player

Your Player class will need to consist of the following:

Fields

- name
- health (HP)
- damage
- defense

For each the aforementioned fields, be sure to assign an appropriate data type and name. Each field should also be set to private.

Methods/Constructors

- Player() (*Default Constructor*)
 - Player() (*must take at least one parameter*)
 - Set & Get accessor methods for EACH field (i.e. – setName(), getName(), etc)
 - characterCreate() – prompts the user to input values for each of your attributes and displays chosen values back to user
-

Enemy

Enemy will inherit (extend) from your Player class. You will need to add/modify the following:

Fields (new)

- type

Methods/Constructors (Override)

- Enemy() (*Default Constructor*)
- Enemy() (*must take at least one parameter*)
- characterCreate() – prompts the user to input values for each of your attributes

The Enemy class should add an extra field called type and will be required to override the `characterCreate()` method from Player to allow a user to select between *three* (3) enemy types of your choosing. Based upon the user's choice the other attributes should be automatically set according to the type of enemy chosen. Constructors will also need to be overridden to account for the new attribute.

For example:

Possible enemy types are Minion, Brawler, and Elite.

When selected:

- Minion stats are automatically set to Health 10, Damage 2, and Defense 1.
- Brawler stats are automatically set to Health 30, Damage 10, and Defense 5.
- Elite stats are automatically set to Health 100, Damage 20, and Defense 20.

(Note you are not required to choose these specific types/values and may create any enemy types you like... be creative!)

Driver

Along with your prior two classes, you will also be required to create a **Driver** class. This class will contain your **main() method** and will contain all object instances and method execution.

You will need to create an instance for both a **Player** object, as well as an **Enemy** object, and call upon the **characterCreate() method** for each. However, the instantiation of these objects and method calls **MUST** be done using **Polymorphic** principles.

i.e.- Both Player and Enemy should be created using the parent object (Player), but assigned as the inherited objects as needed (Enemy).

NOTE 1– You may utilize either constructor and set whatever values you'd like during testing.

Example Output:

Player VS Enemy!

Please enter your player's name:

>Phoenix

Please enter your player's health:

>100

Please enter your player's damage:

>50

Please enter your player's defense:

>20

Your Player has been saved with the following information:

Name: Phoenix

Health: 100

Damage: 50

Defense: 20

Please enter your enemy's name:

>Ragnarok

Please enter your enemy's type:

>Elite

Your Enemy has been saved with the following information:

Name: Ragnarok

Health: 100

Damage: 20

Defense: 20

Type: Elite

Constraints:

- a) Make sure you use the following comment at the beginning of your program:

```
/******  
Homework 6:   Player VS Enemy  
Program By:   YOUR NAME  
File Name:    Player.java or Enemy.java or Driver.java  
Function:     This program creates player and enemy combatants  
*****/
```

- b) Code should be separated into **THREE (3)** separate files, One for each class
- c) **ATTACH** your completed .java files to the *submission link*. Do not cut and paste your code into the message section.