Turn Based Damage

Purpose

To test the ability to generate and manipulate instances (objects) from a class.

Directions

Your task is to write a class called Player for a turn-based Role Play Game (RPG) game. The Player class is defined by the following UML diagram.

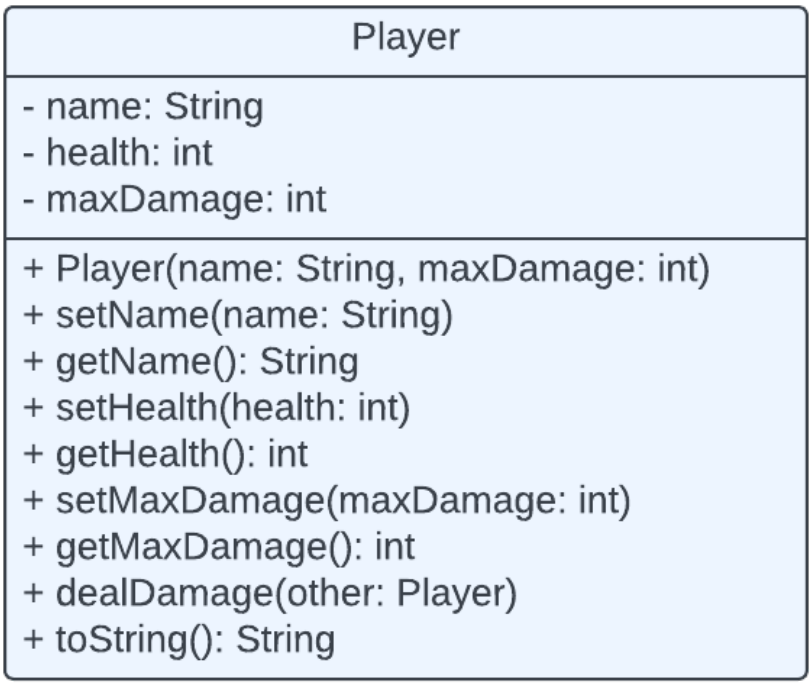

Figure 1: UML Diagram for Player Class

Player instances (objects) start with 100 health. The name and max damage should be set when an instance (object) is created. Prompting the user is optional.

The Player class's `dealDamage` method should apply damage to the Player object based on a random number between `0` and the `maxDamage` from the other Player object.

The Player class's `toString` method should `Override` the default `toString` method to create a `String` that contains the Player object's name and current Health Points (HP).

- Example `String`: `One Punch Man: HP 78`

Write a main method in a separate class that creates two Player instances (objects) and repeatedly prints the name and health of each object. Each Player will damage the other Player for a random amount of damage (up to the max damage that the Player can output). The name and HP of the surviving Player should be output in victory!

Examples

One Player instance has name "One Punch Man", initial health of 100, and can give a maximum damage of 20 points.

Other Player instance has name "Alien", initial health of 100, and can give a maximum damage of 5 points.

```
One Punch Man: HP 100   Alien: HP 100
One Punch Man: HP 96    Alien: HP 98
One Punch Man: HP 94    Alien: HP 86
One Punch Man: HP 90    Alien: HP 70
One Punch Man: HP 87    Alien: HP 54
One Punch Man: HP 83    Alien: HP 44
One Punch Man: HP 80    Alien: HP 40
One Punch Man: HP 80    Alien: HP 25
One Punch Man: HP 78    Alien: HP 24
One Punch Man: HP 78    Alien: HP 18
One Punch Man: HP 78    Alien: HP 16
One Punch Man: HP 78    Alien: HP 6
Winner is One Punch Man: HP 76
```