

You will create a simple fantasy combat game. Your 'universe' contains Goblins, Barbarians, Reptile People, and Blue Men. Each will have characteristics for attack, defense, armor, and strength points.

Type	Attack	Defense	Armor	Strength Points
Goblin ⁴	2d6	1d6	3	8
Barbarian ¹	2d6	2d6	0	12
Reptile People ²	3d6	1d6	7	18
Blue Men ³	2d10	3d6	3	12

2d6 is rolling two 6-sided dice. 2d10 is rolling two 10-sided dice.

To resolve an attack you will need to generate 2 dice rolls. The attacker rolls the appropriate number and type of dice under Attack. The defender rolls the appropriate number and type of dice under Defense. You subtract the Defense roll from the Attack roll. That is the damage. Then to apply the damage you subtract the Armor value. The result is then subtracted from the Strength Points. That value becomes the new Strength Points for the next round. If Strength Points goes to 0 then the character is out of the combat.

You need to create a creature, or character class. Call it what you choose. Then you will have a subclass for each of these characters. Note that the parent class will be an abstract class. You will never instantiate one. For our purposes right now each subclass will vary only in the values in the table. Since each starts with the same values you will only need one constructor. It's part of your design task to determine what functions you will need. The only value that can change is the Strength Points.

You will need to design the necessary functions. Note that you will only need one mutator (set) function. But, if you decide that you need more, go ahead and make more.

At the beginning of the game a user is asked what character type they want to be. Corresponding class is instantiated. After that the user is asked against what character they want to fight. Finally a battle starts until one of the creatures runs out of strength points.

Remember: variable in the class can be private or protected (never make your variables public)