

I have created a battle simulator between 3 different classes. The user gets to pick two of the following: A knight, a Wizard, and an Archer to fight each other. All of them are inheriting all of their methods and variables from the overarching character class, which is abstract as to not be able to have a character in the game with no defined statistics. The constructor of the three different types of fighters assigns all unassigned variables from their parent class such as: health, strength, name, and class. The Knight has the highest health and lowest strength, the archer has average health and strength and the wizard has the highest strength and lowest health. The attack method is what takes these stats into account basing the damage done off of the strength multiplier assigned to each character. The hit method takes away from the health however much damage the other character did. The print stats method prints the name and health each round of the fight and the toString method is used to show all info of the character when it is selected. I've used arraylists to store the players, I do not think this is necessary but it helped me organize the whole project. The program continues fighting the two fighters until one is no longer alive (health <= 0). Then displays a winner. All in all this project is very simple and did not take too long to put together. If I were spending more time on the project I would go further into player balance as from my testing it seems as though the archer is the most powerful.

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<terminated> Main [Java Application] /Library/Java/JavaVirtualMachines/jdk-14.0.2.jdk/Contents/Home/bin/java (Feb 14, 2021, 5:19:21 PM - 5:19:24 PM)
Welcome to battle simulator!
pick your two fighters.
1. Wizard
2. Knight
3. Archer
1
2
You have selected a Wizard named harry potter With a strength of 3 with 60 health.
You have selected a Knight named Edward the Black Prince With a strength of 1 with 100 health.
harry potter did 8 damage
Edward the Black Prince did 11 damage
harry potter has 49 health left
Edward the Black Prince has 92 health left
harry potter did 1 damage
Edward the Black Prince did 8 damage
harry potter has 41 health left
Edward the Black Prince has 91 health left
harry potter did 13 damage
Edward the Black Prince did 12 damage
harry potter has 29 health left
Edward the Black Prince has 78 health left
harry potter did 14 damage
Edward the Black Prince did 3 damage
harry potter has 26 health left
Edward the Black Prince has 64 health left
harry potter did 3 damage
Edward the Black Prince did 5 damage
harry potter has 21 health left
Edward the Black Prince has 61 health left
harry potter did 9 damage
Edward the Black Prince did 5 damage
harry potter has 16 health left
Edward the Black Prince has 52 health left
harry potter did 5 damage
Edward the Black Prince did 7 damage
harry potter has 9 health left
Edward the Black Prince has 47 health left
harry potter did 19 damage
Edward the Black Prince did 1 damage
harry potter has 8 health left
Edward the Black Prince has 28 health left
harry potter did 19 damage
Edward the Black Prince did 13 damage
harry potter has -5 health left
Edward the Black Prince has 9 health left
harry potter has lost
```

Problems Javadoc Declaration Console X

<terminated> Main [Java Application] /Library/Java/JavaVirtualMachines/jdk-14.0.2.jdk/Contents/Home/bin/java (Feb 14, 2021, 5:19:44 PM - 5:19:44 PM)

Welcome to battle simulator!  
pick your two fighters.  
1. Wizard  
2. Knight  
3. Archer

1  
3

You have selected a Wizard named harry potter With a strength of 3 with 60 health.  
You have selected a Archer named Legolas With a strength of 2 with 80 health.  
harry potter did 19 damage  
Legolas did 7 damage  
harry potter has 53 health left  
Legolas has 61 health left  
harry potter did 13 damage  
Legolas did 18 damage  
harry potter has 35 health left  
Legolas has 48 health left  
harry potter did 15 damage  
Legolas did 8 damage  
harry potter has 27 health left  
Legolas has 33 health left  
harry potter did 5 damage  
Legolas did 15 damage  
harry potter has 12 health left  
Legolas has 28 health left  
harry potter did 17 damage  
Legolas did 15 damage  
harry potter has -3 health left  
Legolas has 11 health left  
harry potter has lost

<terminated> Main [Java Application] /Library/Java/JavaVirtualMachines/jdk-14.0.2.jdk/Contents/Home/bin/java (Feb 14, 2021, 5:20:01 PM – 5:20:03 PM)

Welcome to battle simulator!

pick your two fighters.

1. Wizard
2. Knight
3. Archer

2

3

You have selected a Knight named Edward the Black Prince With a strength of 1 with 100 health.

You have selected a Archer named Legolas With a strength of 2 with 80 health.

Edward the Black Prince did 7 damage

Legolas did 4 damage

Edward the Black Prince has 96 health left

Legolas has 73 health left

Edward the Black Prince did 8 damage

Legolas did 15 damage

Edward the Black Prince has 81 health left

Legolas has 65 health left

Edward the Black Prince did 8 damage

Legolas did 7 damage

Edward the Black Prince has 74 health left

Legolas has 57 health left

Edward the Black Prince did 9 damage

Legolas did 4 damage

Edward the Black Prince has 70 health left

Legolas has 48 health left

Edward the Black Prince did 14 damage

Legolas did 12 damage

Edward the Black Prince has 58 health left

Legolas has 34 health left

Edward the Black Prince did 8 damage

Legolas did 15 damage

Edward the Black Prince has 43 health left

Legolas has 26 health left

Edward the Black Prince did 10 damage

Legolas did 11 damage

Edward the Black Prince has 32 health left

Legolas has 16 health left

Edward the Black Prince did 11 damage

Legolas did 17 damage

Edward the Black Prince has 15 health left

Legolas has 5 health left

Edward the Black Prince did 9 damage

Legolas did 11 damage

Edward the Black Prince has 4 health left

Legolas has -4 health left

Legolas has lost