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Turn-Based Combat

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A turn-based combat game that pits two characters against each other. They each have hit points, hit chance, armor, and max damage. Rounds are random and continue until one of the character’s hit points are zero or less. The last character standing wins.

Character 1

Name: Hero

Hit Points: 20

Hit Chance: 60

Armor: 2

Max Damage: 5

Character 2

Name: Monster

Hit Points: 30

Hit Chance: 40

Armor: 0

Max Damage: 8

**tbc.py**

Character

Initialize character

Name

Hit points

Hit chance

Max damage

Armor

Property

Name(self)

Return self.\_\_name

name.setter

name(self, value)

self.\_\_name gets value

property

hitPoints(self)

return self.\_\_hitPoints

hitPoints.setter

hitPoints(self, value)

if hitPoints is an int

self.\_\_hitPoints gets value

else

self.\_\_hitPoints gets 1

property

chance(self)

return self.\_\_hitChance

chance.setter

chance(self, value, min = 0, max = 100, default = 0)

hitChance gets default

if hitChance is an integer

if hitChance is greater than or equal to min

if hitChance is less than or equal to max

hitChance gets value

else

“too high”

Else

“too low”

Else

“must be an integer”

Property

Damage(self)

Return self.\_\_maxDamage

Damage.setter

Damage(self, value)

If damage is an int

If damage is greater than 0

Self.\_\_damage gets value

Else

“Max damage must be a positive integer”

Self.\_\_damage gets 1

Else

“Max damage must be an integer”

Self.\_damage gets 1

Property

Armor(self)

Return self.\_\_armor

Armor.setter

Armor(self, value)

If armor is an int

If armor is greater than or equal to zero

Self.\_\_armor gets value

Else

“armor cannot be negative”

Self.\_\_armor gets 0

Else

“armor must be an integer”

Self.\_\_armor gets 0

printStats(self)

Print name

Print hitPoints

Print hitChance

Print armor

Print maxDamage

Hit(self)

attack gets a random number between 0 and 100

if attack is less than or equal to hitChance

“{character} hits {other character}…”

Damage gets random number from 1 to maxDamage

“for {damage} hit points”

Subtract armor from damage for totalDamage

“{character’s} armor absorbs {armor} points”

If totalDamage is less than 0

totalDamage is 0

Subtract totalDamage from hitPoints (new hitPoints value)

Else

Nothing happens

fight(player1, player2)

while keepGoing

player 1 tries to hit player 2

player 2 tries to hit player 1

if player1.hitPoints <= 0:

“{player1.name} is dead. {player2.name} wins!”

Loop ends

Elif player2.hitPoints <=0:

“{player2.name} is dead. {player1.name} wins!”

Loop ends

Else

“{player1.name}: {player1.hitPoints}”

“{player2.name}: {player2.hitPoints}”

“press enter for another round”

Loop continues

**combat.py**

main()

create two characters

print stats for each character

assign each character either player1 or player2

fight(player1, player2)