Saad S Khan

Professor Mehlhase

February 9th, 2023

SER316

Black Box

Analysis:

Method: dealDamage(Character character)

Equivalence Partitions:

character health > 0

character health = 0

Boundary Value Analysis:

character health = 1, expected damage = character damage

character health = 9, expected damage = character damage

character health = 10, expected damage = 2 \* character damage

character health = -1, expected damage = 0

Method: takeDamage(Character character, int blowDamage)

Equivalence Partitions:

blowDamage > character protection

blowDamage = character protection

blowDamage < character protection

Boundary Value Analysis:

character health = 1, blowDamage = 1, expected damage taken = 1

character health = 10, blowDamage = 5, protection = 2, expected damage taken = 3

character health = 10, blowDamage = 2, protection = 5, expected damage taken = 0

character health = -1, blowDamage = 1, expected damage taken = 1

character health = 1, blowDamage = 0, expected damage taken = 0

character health = 10, blowDamage = 10, protection = 5, expected damage taken = 5

character health = 10, blowDamage = 0, protection = 0, expected damage taken = 0

Method: attack(Character character, Character opponent)

Equivalence Partitions:

Both character and opponent have health > 0

Either character or opponent has health = 0

Boundary Value Analysis:

Both have health = 1, one blow kills both

Both have health = 10, 1 blow takes away 10 health

Both have health = 10, protection = 5, 1 blow takes away 5 health

Character has health = 10, opponent has health = 1, 1 blow kills opponent

Character has health = 1, opponent has health = 10, 1 blow kills character

Character has health = 0, opponent has health = 10, no damage dealt

Character has health = 10, opponent has health = 0, no damage dealt

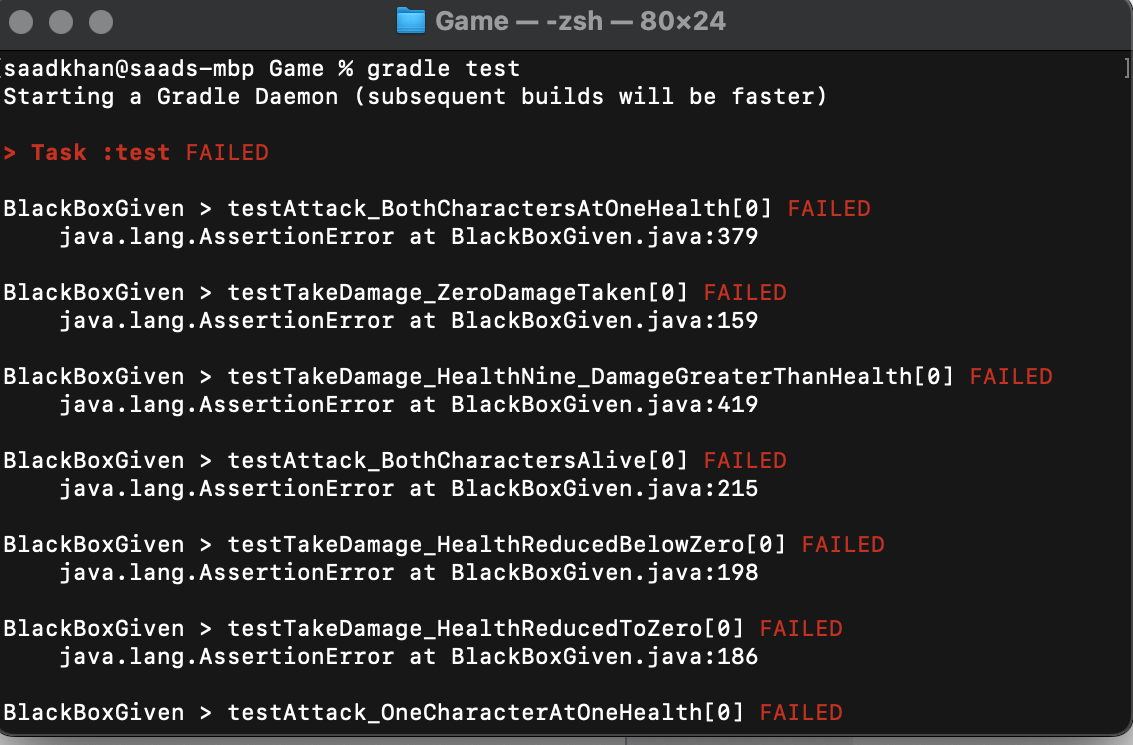
Which GamePlay implementation adheres to the specification best? Is there one that passed all your test? If so which one is it?

In my opinion, gameplay2 adheres to the specifications the most. With the tests I did, it had the least number of errors. There isn’t one that passed all the tests.

List in detail which errors you found and tell me which test case(s) helped your

find it (eg. implementation X gives double the experience points - found in test

case Y).



Graphical user interface

Description automatically generated with low confidence