

RPG Character Design Document

We have 3 classes use in this program. Consist of:

1. **character class** = main class of character which has ability to attack the others.

Instance variables

(private) int level = level of character

(public) String name = name of character (can change)

(private) double hp,mana,atk,def,spd = basic status of character

(private) static double swordweight, shieldweight = use to decrease speed from sword&shield

(private) boolean swordok,shieldok = use to check that does character have sword/shield or not?

(private) (class sword) sword sw = use to store sword which equip

(private) (class shield) shields sh = use to store shield which equip

Constuctor have only one case, all character set to same basic status at level 1

Instance methods

public void checkStatus() = use to check status of each character (+when sword/shield equipped atk+,def+,spd- will change)

public void swordAdd(sword) = use to equip/change sword to the character

public void shieldAdd(shields) = use to equip/change shield to the character

public void swordDrop() = use to unequip sword

public void shieldDrop() = use to unequip shield

public void upCharacterOneLv() = use to up basic status (in character only) into 1 level

public void attack(character) = tell this character to attack the opponent and calculate damage

private void receiveDmg(double) = put damage in this method to decrease opponent's hp until die

2. **sword class** = class of sword which has ability about level of sword.

Instance variables

private String name = name of sword

private int level = level of sword

private double atk = attack of sword

Constructor have 2 cases, custom case and common case (when not put name in the sword)

Instance methods

public void upSwordOneLv() = up stat one level of sword

Class Methods

public static void checkSwordStatus(sword) = check status of each sword

public static String showSwordName(sword) = return sword's name to character class

public static double showSwordAtk(sword) = return sword's atk to character class

public static int showSwordLv(sword) = return sword's level to character class

3. **shields class** = class of shield which has ability about level of shield.

Instance variables

private String name = name of shield

private int level = level of shield

private double def= defense of shield

Constructor have 2 cases, custom case and common case (when not put name in the shield)

Instance methods

public void upShieldOneLv() = up stat one level of shield

Class Methods

public static void checkShieldStatus(shields) = check status of each shield

public static String showShieldName(shields) = return shield's name to character class

public static double showShieldDef(shields) = return shield's def to character class

public static int showShieldLv(shields) = return shield's level to character class