

How to store data...

Class Equipements

<u>Variable/Method</u>	<u>Output</u>	<u>Input</u>	<u>Note</u>
isEquippedSword	boolean	None	Variable
isEquippedShield	boolean	None	Variable
EquippedSword	void	RPGCharacter	Method
EquippeddShield	void	RPGCharacter	Method
UnequippedSword	void	RPGCharacter	Method
UnequippedShield	void	RPGCharacter	Method
isEquippedSword	boolean	None	Method
isEquippedShield	boolean	None	Method
damage	void	int, RPGCharacter	Method

Class RPGCharacter

<u>Variable/Method</u>	<u>Output</u>	<u>Input</u>	<u>Note</u>
level	int	None	Variable
maxHP	int	None	Variable
mana	int	None	Variable
runspeed	double	None	Variable
equip	Equipments	None	Variable
RPGCharacter	None	int	Constructor
levelup	void	None	Method
useSword	void	RPGCharacter	Method
getLevel	int	getLevel	Method
getMaxHP	int	getMaxHP	Method
getMana	int	getMana	Method
getRunSpeed	double	getRunspeed	Method
setEquip	void	Equipments	Method

getEquip	Equipments	None	Method
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RPGCharater Class:

1.We keep user data in RPGCharacter which is

level	:	stores character's level.
MaxHP	:	store maximum Health Point of user.
Mana	:	store character's mana.
RunSpeed	:	store character's run speed.
equip	:	store the equipment status of the character.

2.The operation that needed in this class are

levelUp	:	to up level of character which will affect user skills.
useSword	:	to attack the enemy by using sword.
getLevel	:	to return character's level.
GetMaxHP	:	to return character's maximum Health Point.
GetMana	:	to return character's mana.
getRunSpeed	:	to return character's run speed.
setEquip	:	to set the equipment for the character.
getEquip	:	to return user's equipment.

3.How and where to compute information?

levelup	:	computes and updates the character's attributes based on the level. (e.g., maxHP, mana, runSpeed)
useSword	:	computes damage and applies to a target character.

Equipments Class

1. We keep user data in Equipments which is

isEquippedSword : stores the state of sword.

isEquippedShield : stores the state of shield.

2. The operation that needed in this class are

EquippedSword : adjust character's run speed when holding sword.

EquippedShield : adjust character's run speed when holding shield.

UnequippedSword : adjust character's run speed when not holding sword.

UnequippedShield : adjust character's run speed when not holding shield.

isEquippedSword : to indicate that character equipped sword or not.

isEquippedShield : to indicate that character equipped with a shield or not.

damage : to calculate and apply damage to a target character.

3. How and where to compute information?

EquippedSword : EquippedShield : UnequippedSword :

UnequippedShield : damage

The computation involves adjusting the runSpeed of an RPGCharacter based on the equipment state and dealing damage to a target character.