




Dungeon report

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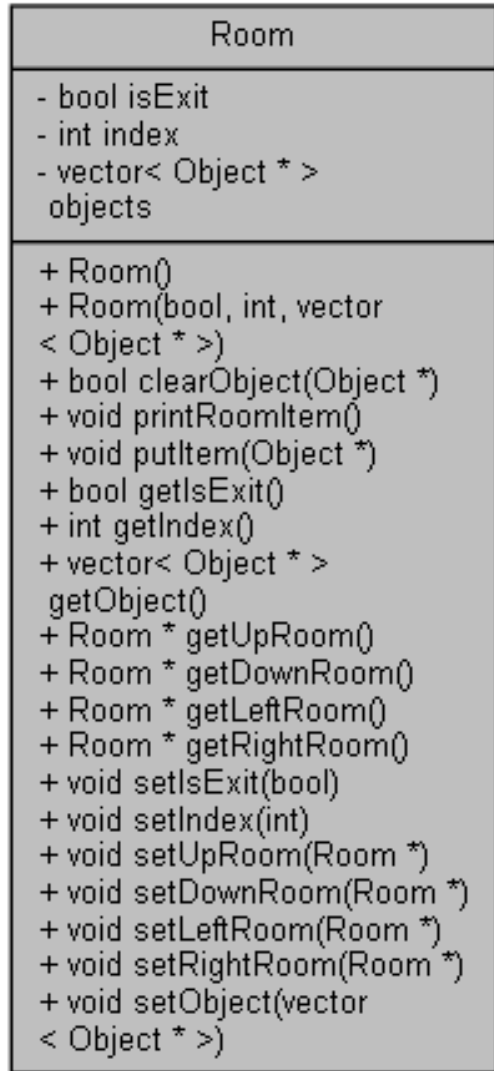
Introduce

- ◎ My dungeon is a game which has something to do with the anime “Attack on Titan”.
- ◎ I made some elements in my dungeon connect with that anime like npc, item and monster.

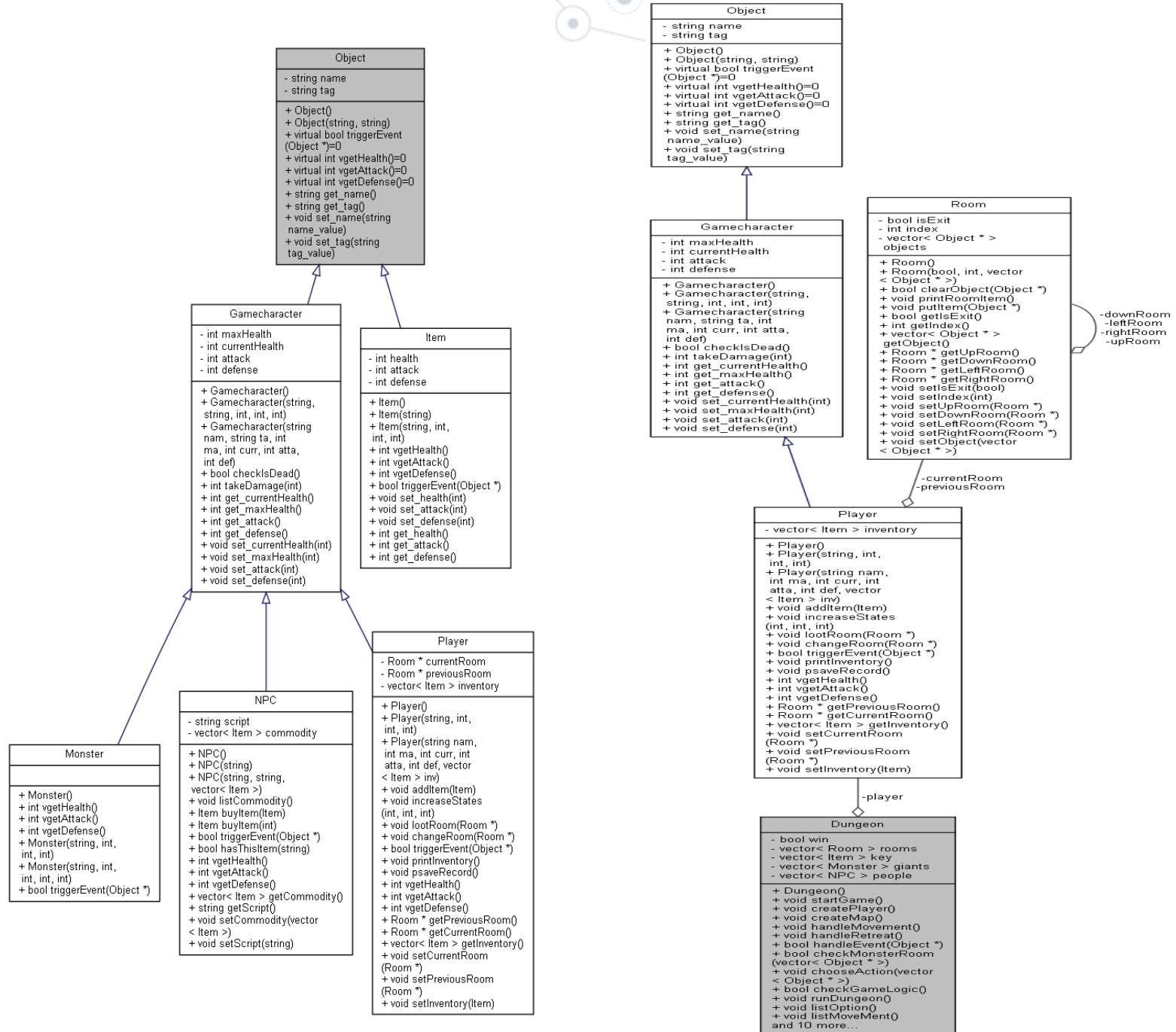
Implementation detailed

- © There are eight classes in my project. I will explain my implementation by introducing these eight classes.

UML



-downRoom
-leftRoom
-rightRoom
-upRoom



Object

- ◎ An abstract class.
- ◎ It will be inherited by some class like player, npc etc.
- ◎ Virtual function `triggerEvent` is used to deal with the interaction between different objects.
- ◎ Apart from `triggerEvent`, I add three virtual function which is only used in saving file.

Gamecharacter

- ◎ An abstract class too.
- ◎ It is used to be a parent class which let player, npc and monster inherit.

Item

- ◎ A type of object which is only placed in my room and let player take.
- ◎ If player take an item, he can get a buff which will increase his health, his attack and his defense.
- ◎ There is only one item will appear in the game. That is “key”.
- ◎ It has connection with “Attack on Titan”

Npc

- ◎ Constantly stays in the same room and player can get item from them.
- ◎ The items from npcs can increase people's status too
- ◎ Npcs are three characters in “Attack on Titan”
- ◎ Their commodity is an item which has something to do to themselves.
- ◎ Ex. Mikasa's commodity is “scarf”.

Player

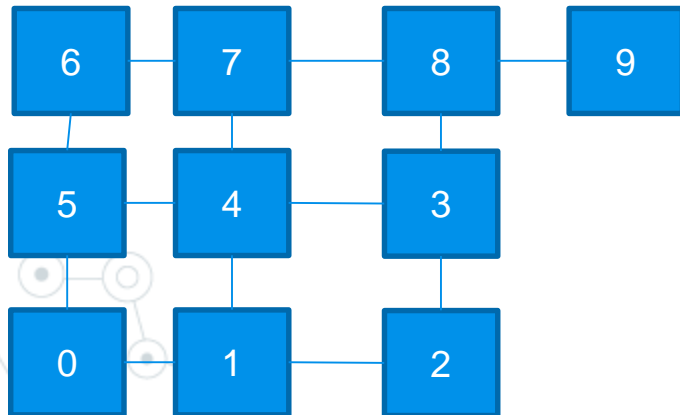
- ◎ Player's name is Alan, who is the main actor in "Attack on Titan", and it is unchangeable.
- ◎ This game will only create one player and that is the player itself.
- ◎ Player can pick up items in the room, talk to the npc to buy item and battle to monster.
- ◎ These three functions are written in the function `triggerEvent()` in the item, npc, and monster.
- ◎ `triggerEvent()` in the player can show player's status.

Monster

- ◎ There are nine kinds of monster in my game, which coorespond the nine giants in “Attack on Titan”
- ◎ When the game starts, it will random create a giant from nine giants in the room 9, which is the last room in the dungeon.
- ◎ If player entered this room, he can only chose to battle with it or retreat to the previous room.
- ◎ If player didn't get any buff from the items in rooms or the commodities in npcs, he would lose to the monster.
However, if he had got some items or commodities, beating the monster is very easy.

Room

- ◎ Room is a unit of the map.
- ◎ Everytime the player enters a room. It will indicate the items, npcs and the monster in the room.
- ◎ It will also indicate the room index to player
- ◎ This is my map



Dungeon

- ◎ The main part of this game.
- ◎ Some functions initialize this game like `createMap()` `createPlayer()` ,etc.
- ◎ Some functions runs the game like `rundungeon()` `checkGamelogic()` ,etc.
- ◎ Some functions save game record like `isaveRecord(save item)`,`msaveRecord(save monster)`,etc.
- ◎ The function which saves player's record is written in the player's member functions

Results

I will show some pictures of my game to exhibit my result.

Action Menu

```
=====
You have these options.

(A)Attack the monster.
(P)Pick up the item.
(T)Talk to the NPC.
(I)Indicate our status.
(M)Move to next room.
(E)Exit and save the file
=====

Please enter your option.
|
```

This is my action menu. Player can choose an action by enter the corresponding character.

Movement

You have these options.

(A)Attack the monster.
(P)Pick up the item.
(T)Talk to the NPC.
(I)Indicate our status.
(M)Move to next room.
(E)Exit and save the file

=====

Please enter your option.

m

Choose your next direction.

U:up

R:right

=====

Please enter your option:

u

This is my movement menu. Player can choose a direction to go by entering corresponding character

Showing Status

```
=====
You have these options.

(A)Attack the monster.
(P)Pick up the item.
(T)Talk to the NPC.
(I)Indicate our status.
(M)Move to next room.
(E)Exit and save the file
=====

Please enter your option.
i

Your status:

health: 210

attack: 160

defense: 160

Your bag has:

key gold_hair
=====
```

When player enter character i or I, the game will show the player's status which includes current health, attack, defense and the items in the player's bag.

Pick up Items

```
=====
You have these options.
(A)Attack the monster.
(P)Pick up the item.
(T)Talk to the NPC.
(I)Indicate our status.
(M)Move to next room.
(E)Exit and save the file
=====

Please enter your option.
p

Which item do you want?
key

You get the 100 100 100 buff.
=====
```

When there are items in the room, if the player choose to pick up the item, then player will get the item and the buff.

Fighting System

```
=====
You have these options.

(A)Attack the monster.
(P)Pick up the item.
(T)Talk to the NPC.
(I)Indicate our status.
(M)Move to next room.
(E)Exit and save the file
=====

Please enter your option.
a

You encounter a giant. Please choose an action.

(A)attack
(B)retreat
b

You want to retreat? Ok

But you can only retreat to the previous room
=====
Room8 This room has:
Item:
key
```

If there are monsters in the room, player can choose to attack the monster. If the player choose that, fighting system will let the player to choose attack or retreat. If the player chooses to retreat, then he will go back to his previous room.

Fighting System

```
=====
You have these options.

(A)Attack the monster.
(P)Pick up the item.
(T)Talk to the NPC.
(I)Indicate our status.
(M)Move to next room.
(E)Exit and save the file
=====

Please enter your option.
a

You encounter a giant. Please choose an action.

(A)attack

(B)retreat
a

You cause 120 point harm to hammer_giant

hammer_giant cause 0 point harm to you

Your health is 210

hammer_giant's health is 380
=====
```

If the player chooses to attack, then he will attack the monster once and the monster will attack him once too. The game will show their left blood after this round.

NPC

```
Room0 This room has:
Item:

NPC:
Armin

Monster:

=====
You have these options.

(A)Attack the monster.
(P)Pick up the item.
(T)Talk to the NPC.
(I)Indicate our status.
(M)Move to next room.
(E)Exit and save the file

=====
Please enter your option.
t

Which npc do you want to talk?
armin

Which item do you want?
gold_hair

You get a (10,10,10) buff.
=====
```

If there are npcs in the room, player can choose to talk to the npc that he wants to talk. Every npc in the game has its own commodity, player can take them and get a buff.

Game Logic(win)

```
=====
You have these options.

(A)Attack the monster.
(P)Pick up the item.
(T)Talk to the NPC.
(I)Indicate our status.
(M)Move to next room.
(E)Exit and save the file
=====

Please enter your option.
a

You encounter a giant. Please choose an action.

(A)attack
(B)retreat
a

You cause 210 point harm to hammer_giant
hammer_giant cause 0 point harm to you

Your health is 300
hammer_giant's health is -130

You win!Thanks for playing.

C:\Users\Un\Desktop\mydungeon (main -> origin)
$ |
```

If player fight with the monster and the monster die (which means that its blood less than zero), then the game will end and show that the player wins.

Game Logic(lose)

```
=====
You have these options.

(A)Attack the monster.
(P)Pick up the item.
(T)Talk to the NPC.
(I)Indicate our status.
(M)Move to next room.
(E)Exit and save the file
=====

Please enter your option.
a

You encounter a giant. Please choose an action.

(A)attack
(B)retreat
a

This is the situation when
giant[makes its blood less

You cause 10 point harm to big_giant
big_giant cause 50 point harm to you

Your health is 0
big_giant's health is 480

Discussion-

You lose.Don't be depressive and play one more time.XD those which
I create-

C:\Users\Ur\Desktop\mydungeon (main -> origin)
$ |
```

If the player die, then the game will end and show that the player lose.

Record System

```
Please choose an option.  
(A)start a new game  
(B)Reload your previous game  
b  
Initialize map file...  
  
Initialize player file...  
  
Hello Alan,welcome to my Dungeon!  
  
Please enjoy your trip.
```

```
=====  
Room9 This room has:  
Item:
```

```
NPC:
```

```
Monster:  
hammer_giant  
=====
```

```
=====  
You have these options.
```

```
(A)Attack the monster.  
(P)Pick up the item.  
(T)Talk to the NPC.  
(I)Indicate our status.  
(M)Move to next room.  
(E)Exit and save the file  
=====
```

```
Please enter your option.  
|
```

```
Please choose an option.  
(A)start a new game  
(B)Reload your previous game  
a  
Initialize map file...  
  
Initialize player file...  
  
Hello Alan,welcome to my Dungeon!  
  
Please enjoy your trip.
```

```
=====  
Room0 This room has:  
Item:
```

```
NPC:
```

```
Monster:
```

```
=====  
You have these options.
```

```
(A)Attack the monster.  
(P)Pick up the item.  
(T)Talk to the NPC.  
(I)Indicate our status.  
(M)Move to next room.  
(E)Exit and save the file  
=====
```

```
Please enter your option.  
|
```

Every time when the game start, it will ask you to choose to start a new game or reload your previous game.

Exception Handle

```
=====
Room0 This room has:
Item:
NPC:
Monster:

=====
You have these options.

(A)Attack the monster.
(P)Pick up the item.
(T)Talk to the NPC.
(I)Indicate our status.
(M)Move to next room.
(E)Exit and save the file
=====

Please enter your option.
p

This room has no item.Please choose again.
=====
```

If player chooses a unavailable option, then the game will exhibit an error message.

Discussion

I say something about the problem which I encountered in this project here.

- ◎ My concept in oop is not very good, so I often confused on the inheritance relationship between class and class, which made my code generate bugs frequently.
- ◎ Time is a problem too. I think the time I start too late to do this project, which cause that I couldn't make my project more comprehensive.

Conclusion

- ◎ I think this project help me a lot.
- ◎ This is the first time I writing a large project and it had me realize that the concept of oop is very important.
- ◎ I had thought about giving up in the process.
- ◎ Keeping asking my friends and keeping debugging, I still success to finish this project.
- ◎ Hoping I can do a better job in my next project in the cs department.