Program Design (I)

Personal Final Project

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● Project Description

This is an adventure game. Player can make the size of map yourself which the player like it. There are two-choice that player can choose to set up the location of village, monsters, gun and player which are random and custom. Player can attack monster. If player's blood become 0, you are game over.

I add some new functions

dodge()

setup_gun()

setup_trap()

randomFunc()

choice_for_auto()

These functions I will explain their useful on function descriptions

● Playing Method

Introduction of this game

This is an adventure game. There are some things that player must mention that.

1. Map: You need to input the size of the map and the largest of the map is (1000*1000)
2. Village (v): You can set up the location of village. In village, you can drink beer to increase your blood value. You also can buy a sword per time to increase your strength.
3. Monster (m): number of monster is built on the formula ((row * col)/10) + (row % 4); and their blood will be their number+1
   eg

Monster's number	Monster's blood
0	1
1	2

4. Gun (g): If you find a gun on the map ,you can increase 1 strength .
   Number of the gun = *gun = (*row * *col)/10;

5. Trap: There is only a trap on the map and it is random and it is hide on the map, if you met the trap you will minus 5 blood.
6. Player(p): There is a player only.
7. Random or CUSTOM: You can choice to random or customize yourself the location of village, monsters, guns and player.
8. Blood and Strength: The player will be given 10 blood and 2 strength.
9. Move for player: [1] go up [2] go down [3] go right [4] go left [5] exit. You can choose the number to move the player
10. Create new map: If you dissatisfied the map, you can make a new one.

Rules

1. You need set up the size of map and the location of village, monsters, guns.
2. If you dissatisfied the map, you can make a new one else you can start your adventure
3. You can move the player to search the guns or village either you can search monsters and fight with them.
4. If your strength bigger than the monster's blood. You will win and increase 1 strength. If your strength smaller than the monster's blood. You will list and decrease the blood value which that monster had. If your strength is same to the monster's blood. You will draw and the blood and strength value will not change.
5. If your blood become 0 or lower than 0 , The game is over.

●Functions Description

There are 18 functions

Below is the introduction of the functions

Functions	Useful
create_map()	Creating your map
print_map()	Print the map
setup_village()	Set up the location of village
setup_monster()	Set up the location of monsters
check_boundary()	Check the location of thing is outside or inside the map.
check_availability()	Check the location of thing is occupied or unoccupied on the map.
setup_player()	Set up the location of player
setup_gun()	Set up the location of gun
setup_trap()	Set up the location of trap
go_up()	Player move to upwards
go_down()	Player move to downwards
go_right()	Player move to right hand side
go_left()	Player move to left hand side
check_move()	Check player location when he move
swap()	Swap the location of player to other things
randomFunc()	Use for the probability the monster dodge the attack.

dodge()	The monsters are dodge or endure the attack
choice_for_auto()	Giving choice to random or do the map yourself.

●Variables Description

The variables in main function:

int row & int col : store the column and the row of map

int row_input & int col_input: store the column and the row of gun, village, player, trap and   monster

int num_monster: the number of monsters

int gun:save the number of guns

int a = 0： //only a variable for loop

int size=64: //use for x_axis[] and y_axis[]

int x_axis[size]: use for find the id of monster

int y_axis[size] : use for find the id of monster

int choice_1 : use for create or new map or start adventure

int choice_2 : player move

int blood = 10： store the value of player's blood

int strength = 2： store the value of player's strength

int x : use for trap to hide it.

int y : use for trap to hide it.

int go : buy thing in village

int go_to_village: choice for want or not want go to village

char **map: save the map

The variables in check_move()

Int sword: only use it to prevent buy the sword again.

The variables in swap(char *a,char *b)

char*a , char *b, int temp : only use for help to do the swap for every move.

The variables in randomFunc(int *prob, int range)

*prob: probability

range: a variable to help another function.

The variables in dodge(){

int temp: store value of randomFunc(&temp, 4)

The variables in choice_for_auto()

int choice_custom : choose for random and custom

● Version History

○ <0.1 - Initial Release>

1.410410067_QS4

2.410410067_QS5

3.410410067_QS7

4.410410067_QS8