#Project Description

The game is made by a 2-dimension malloc less than 1000*1000. The target is to kill all the monster on the map. There is a villige on the map,
you can buy somethings to help you to fight monsters. There are also have some mines randomly setuped on the map. You will be hurt if you touch them.

There are four kinds of monsters, which is differentiate from colors.(STR=strengh,ATK=attack)

White monster	STR=4	ATK=5
Blue monter	STR=8	ATK=6
Yellow monster	STR=10	ATK=7
Red monster	STR=15	ATK=8

If you want to defeat the monster, your ATK must be bigger than STR, or you will get hurt by monster.Still, monsters have prabability to dodge
your attack, and fight back.

Try to collect the gun which randomly merge on the map, it can increase your ATK.

Now introducing the village:

[1]:weapon_shop: you can buy weapon to increase your ATK.

[2]:special_item_shop:

1.totem_of_undying :
if you get this item, you will get another life when your HP reach to 0.

2.mine_detector:
if you buy this thing, you can see the mines on the map from then on. '-' means mines.

[3]:lotion_shop: you can buy some lotion to recover yourself.

#Playing Method

[1]create map:

1. input the size of map. (row column)
2. input the location of village.(row column)
3. input the start location.(row column)

[2]move on the map:

use 1,2,3,5 to go left , down , right , up .

[3]interaction with the objects on the map:

just move to target's location.

[4]about the map:

the left top is (0,0)

#Function Description

<creat_a_map>:

creat a (map_row*map_column) map.

<setup_village>:

setup a village on map[row][column]

<setup_monster>:

setup monsters randomly on the map. There are (map_row*map_column)/4 monsters in total.

<setup_player>:

setup the location to start.

<setup_mines>:

setup mines randonly on the map. There are (map_row*map_column)/8 mines in total.

<print_map>:

print the whole map.

'.'=space

'P'=player

'V'=village

'm'=monsters(four colors)

'G'=gun

'-'=mines(if you get mine_detector)

<print_state>:

print the HP, ATK, Coin of the player

<creat_a_whole_map>:

mix creat_a_map, setup_village, setup_player, setup_mines, setup_gun.

<go_up>:

Let player move up.

<go_down>:

Let player move down.

<go_right>:
Let player move right.

<go_left>:
Let player move left.

<move>:
mix go_up,go_down,go_right,go_left to control the action.
Also determine what will happen on the location.

<village_npc>:
ask you whether want to go to weapon_shop, special_item_shop, or lotion_shop.

<weapon_shop>:
ask you whether want to go to weapon_shop.

<special_item_shop>:
ask you whether want to go to special_item_shop.

<lotion_shop>:
ask you whether want to go to lotion_shop.

<setup_gun>:
randomly setup a gun on the map.

<objects_interaction>:
determine the interaction with the objects on the map.

<check_die_or_win>:
determine whether you win or not.

<check_boundary>:
check whether the input is out of boundary or not.

<check_occupied>:

check whether the input location is ouccpied or not.

<dodge_probability>:
determine the monster id dodge the attack or not.

<randon_number>:
return a number randomly from initial to end.

#Variable Description
int **map:
declare a 2-dimension malloc.

int map_row, map_column:
the size of map.

int player_blood,player_strengh, player_money:
store the value of player's HP and strength.

int player_current_row, player_current_column:
store the player's current location.

bool gun_exist
determine whether there is a gun on the map.

bool can_go:
determine whether the player can go toward or not.
bool play:
determine whether the player want to fight continue.

bool knife , sword, Excalibar, totem_of_undying, mine_detector:
determine whether you buy these things before.

int total_monster:
record the current monster number.

#Version History
<0.1-Initial Release>