

Coding 101

菁英狙擊手

反應力與英打速度的培訓場

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團隊介紹

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特別感謝



楊尚霖同學
提供音效



鄧同學
提供美術指導

創作理念



英打速度、反應力、記憶力的試煉

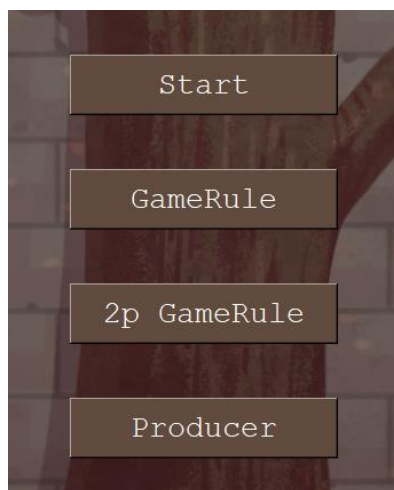
〈火線狙擊手〉是一個以第一人稱觀點視角為出發，訓練**短期記憶力**、**比對能力**以及**英打速度能力**的遊戲。

我們是〈楊尚霖工作室〉，發現在近一世紀中，玩家們在玩手遊、電動遊戲的時間越來越長，和朋友、家人之間的交流反而彌稀；玩家大多使用中文打字做遊戲體驗，缺少訓練英打能力的機會。因此我們想設計一款可以替代掉部分單人狙擊遊戲，兼具趣味、英打訓練和腦力訓練的遊戲，同時，他也具有記錄歷史最高分的功能，能讓玩家彼此討論、競爭。



成果說明

開始畫面

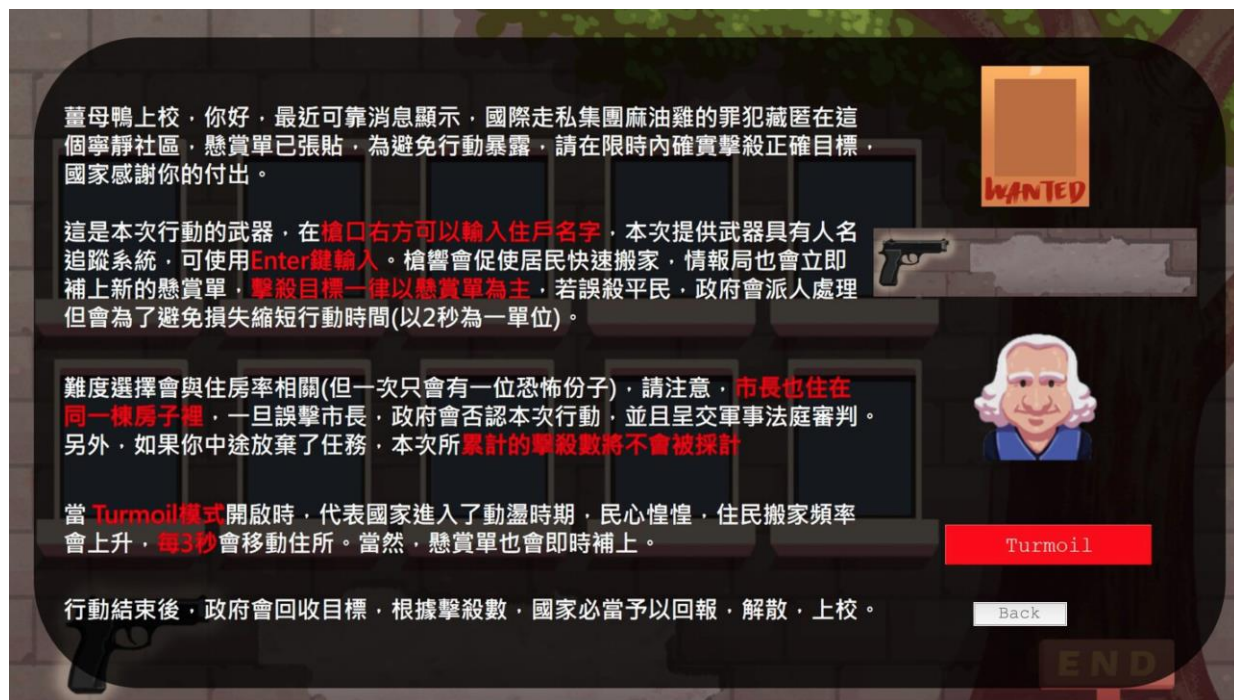


遊戲開始

遊戲規則

製作團隊

Game Rule



薑母鴨上校，你好，最近可靠消息顯示，國際走私集團麻油雞的罪犯藏匿在這個寧靜社區，懸賞單已張貼，為避免行動暴露，請在限時內確實擊殺正確目標，國家感謝你的付出。

這是本次行動的武器，在槍口右方可以輸入住戶名字，本次提供武器具有人名追蹤系統，可使用Enter鍵輸入。槍響會促使居民快速搬家，情報局也會立即補上新的懸賞單，擊殺目標一律以懸賞單為主，若誤殺平民，政府會派人處理但會為了避免損失縮短行動時間(以2秒為一單位)。

難度選擇會與住房率相關(但一次只會有一位恐怖份子)，請注意，市長也住在同一棟房子裡，一旦誤擊市長，政府會否認本次行動，並且呈交軍事法庭審判。另外，如果你中途放棄了任務，本次所累計的擊殺數將不會被採計

當 Turmoil 模式開啟時，代表國家進入了動盪時期，民心惶惶，住民搬家頻率會上升，每3秒會移動住所。當然，懸賞單也會即時補上。

行動結束後，政府會回收目標，根據擊殺數，國家必當予以回報，解散，上校。

成果說明

Game Mode



兩平民模式

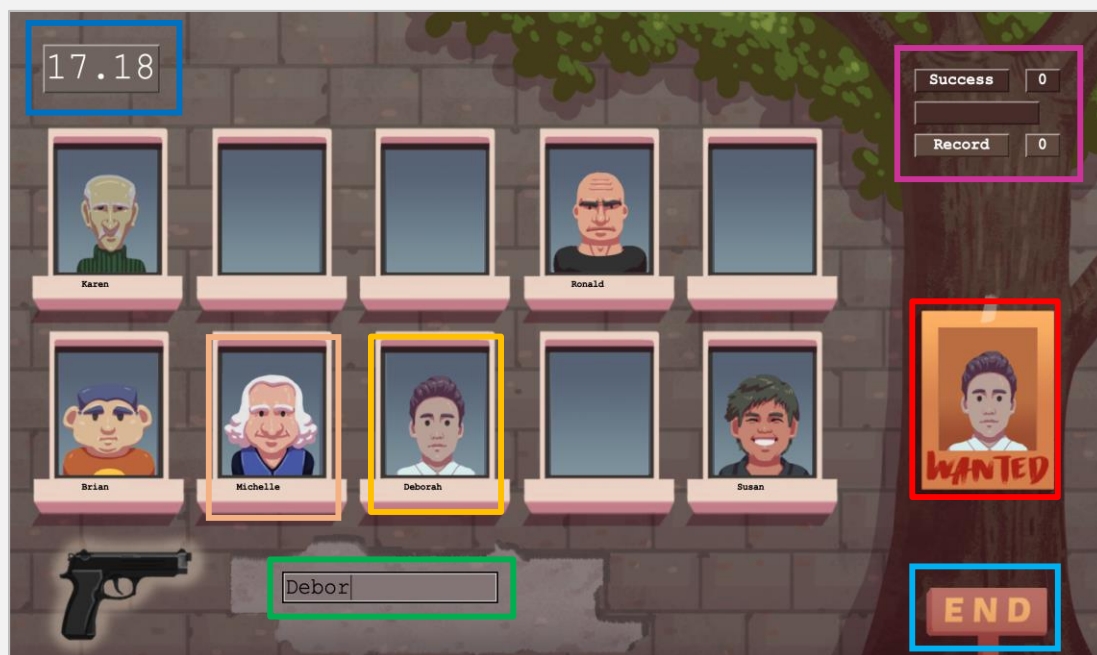
四平民模式

六平民模式

三秒換位置

回到主畫面

以Hard Mode為圖示



計時器

市長頭像

輸入區

恐怖份子頭像(應輸入之英文字)

遊戲資訊

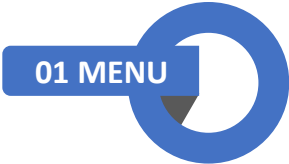
懸賞單

END回到Menu

程式架構說明

MENU CLASS

GAME RULE
GAME MODE
PRODUCER



GAMER CLASS

CreateWidgets()
判斷game mode

MISSION COMPLETE

EndWidgets()
BackToMenu()



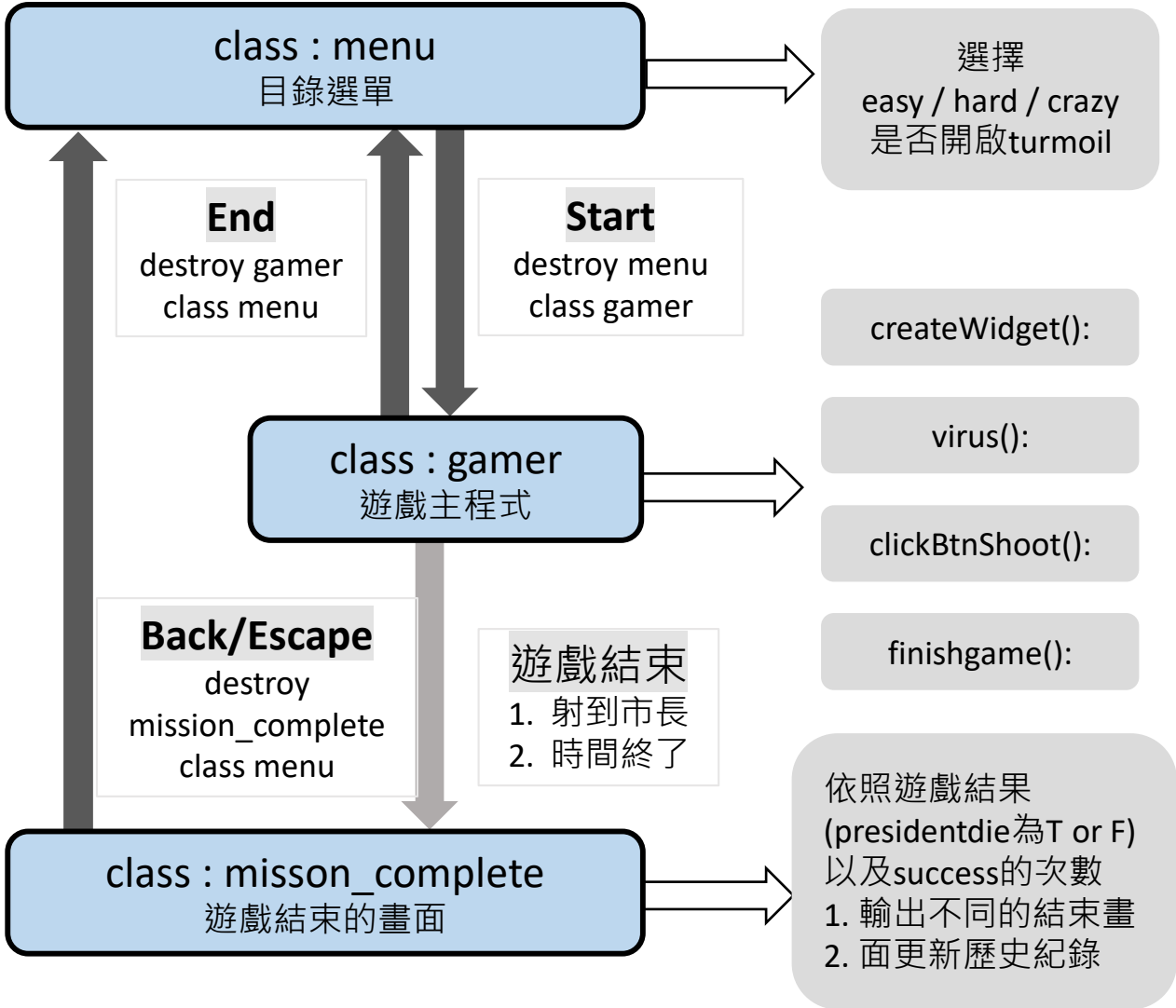
SETTIMER

不同射擊次數
對應不同扣秒數



CLICK BTN SHOOT

判斷玩家答案
顯示答題狀態



程式架構說明

createWidget():

生成一個list稱作"unit"，每個unit一開始都是底圖(窗戶顏色)
設定unit[0]為恐怖分子(任選一市民)圖片、unit[1]為市長圖片、unit[x]放優良市民(市民)圖片，其中x取決於難易度生成2/4/6個市民。
市民圖片每次自圖庫中隨機挑選。

生成窗戶(使用label)，自unit中挑選符合難易度的圖片數量，隨機分配任意窗戶中，另外生成label於窗戶底下作為人物名字(typecode)

生成畫面物件:

success(成功次數)

count(總成功次數)

wanted(指定unit[0] 為恐怖分子)

top(歷史最高紀錄)、

txt(文字輸入格)

result(顯示當輪結果)

highscore(最高紀錄)

Endbutton

virus

按下turmoil
參數 virus = True

未達結束條件
則重新執行
createWidget

輸入，按下enter

virus():

每2秒執行一次
隨機換一次位置、typecode。

clickBtnshoot():

進行答案判定：

(1) fail： 射到市長 → 直接進入finishgame

(2) wrong： 射到優良平民

(3) empty： 輸入錯誤字串，開空槍

(4) success： 打到恐怖份子

給予不同音效

圖形變換(破窗、墓碑、關窗等等)

扣除時間(打錯人的懲罰)

顯示此輪結果

計分增加

→ 結束當輪

時間終了

fail：射到市長

finishgame():

presidentdie = False

presidentdie = True

程式碼說明

初始設定

```
import time
import tkinter as tk
import tkinter.font as tkFont
from PIL import ImageTk
import random
import pygame

easyname = ["a","b","c","d","e","f","g","h","i","j","k","l","m","n","o","p","q","r","s","t","u","v","w","x","y","z"]
hardname = []
citizen_filename = ["citizens01.png","citizens02.png","citizens03.png","citizens04.png","citizens05.png","citizens06.png","citizens07.png","citizens08.png","citizens09.png","citizens10.png"]
citizen_name = []

file1 = open("EnglishName.txt", "r")
for i in file1:
    word = i.strip()
    hardname.append(word)
file1.close()

storerecord = []
top = 0
originmax = 0

typecode = []
location = [[71,205],[282,205],[496,205],[709,205],[921,205], [71,455], [282,455]]
random.shuffle(location)
random.shuffle(easyname)
random.shuffle(hardname)
random.shuffle(citizen_filename)

gamemode_hard = False
gamemode_crazy = False
number = 0
t = 10
virus = False
stopvirus = False
presidentdie = False
```

- easyname:** 儲存單一字母，用於easy mode。
- hardname:** 從英文名字的文件讀取名字，用於hard mode。
- citizen_filename:** 儲存市民圖片的檔案。
- top / highscore:** 存取本次遊戲中的表現以及歷史最高分。
- typecode:** 儲存人物名字
- location:** 定位各個角色可能出現的位置。

對於location、easyname、hardname、citizen_filename進行隨機重排，讓每次重新開始遊戲時的初始條件(人物位置、人物名字等)是不同且隨機的。

遊戲初始條件(特別參數都是False)，number紀錄答對次數，t儲存遊戲時間。

程式碼說明

Menu()

```
class menu(tk.Frame):# 遊戲開始頁面

    def __init__(self):
        global gamemode_hard, gamemode_crazy
        gamemode_hard = False
        gamemode_crazy = False
        self.has_played_menu_music = False
        tk.Frame.__init__(self)
        typecode = []
        self.grid()
        self.place()
        self.menu_pic = ImageTk.PhotoImage(file = "menu1.png")
        self.gamerule_pic = ImageTk.PhotoImage(file = "gamerule.png")
        self.producer_pic = ImageTk.PhotoImage(file = "producer.png")

        self.createMenuWidget()

        self.stop = mission_sound.stop()
        self.stop2 = thunder_sound.stop()
        self.play = thunder_sound.play()

        self.stop3 = gamer_sound.stop()
        self.stop4 = mission_sound.stop()
        self.stop5 = mission_fail.stop()

def createMenuWidget(self): # 初始選單

    global virus, storerecord

    if self.has_played_menu_music == False:
        self.play = thunder_sound.play()

    file2 = open("max.txt", "r")
    storerecord = []
    for i in file2:
        record = i.strip()
        record = int(record)
        storerecord.append(record)
    file2.close()
    f2 = tkFont.Font(size = 20, family = "Courier New")

    self.menu_image = tk.Label(self, image = self.menu_pic, compound)
    self.menu_image.grid(row, column, columnspan, rowspan)
    self.StartBtn = tk.Button( command =creatGamemodeWidget)
    self.StartBtn.place(x = 1150, y = 300)
    self.Gamerule = tk.Button(self, command = self.createGameruleWidget)
    self.Gamerule.place(x = 1150, y = 400)
    self.Producer = tk.Button(self, command = self.createProducerWidget)
    self.Producer.place(x = 1150, y = 500)
    virus = False
```

gamerule :	點選 → 出現遊戲規則畫面
start :	點選 → 出現遊戲難易度選項
easy(單一英文字母)	hard(一般英文名字)
crazy(英文亂碼)	back(回到menu)
turmoil(程式中稱為virus · 其規則及程式碼在後續說明)	

程式碼說明

Menu()-- gamemode選擇

```
def createGamemodeWidget(self): # 遊戲模式選單
    f2 = tkFont.Font(size = 20, family = "Courier New")
    self.play = reload_sound.play()
    self.menu_image = tk.Label(self, image = self.menu_pic, compound = tk.CENTER)
    self.menu_image.grid(row = 0, column = 0, columnspan = 10, rowspan = 10)
    self.EasyBtn = tk.Button(self, text = "Easy", height = 1, width = 16, font = f2, activef
    self.EasyBtn.place(x = 1150, y = 200)
    self.HardBtn = tk.Button(self, text = "Hard", height = 1, width = 16, font = f2, active
    self.HardBtn.place(x = 1150, y = 300)
    self.CrazyBtn = tk.Button(self, text = "Crazy", height = 1, width = 16, font = f2, acti
    self.CrazyBtn.place(x = 1150, y = 400)
    self.VirusBtn = tk.Button(self, text = "Turmoil", height = 1, width = 16, font = f2, ac
    self.VirusBtn.place(x = 1150, y = 500)
    self.Back = tk.Button(self, text = "Back", height = 1, width = 16, font = f2, activefor
    self.Back.place(x = 1150, y = 600)

def back(self):
    self.has_played_menu_music = True
    self.createMenuWidget()
```

```
def easygame(self): # 簡單模式初始設定
    global easyname, typecode, t, storerecord, top, originmax
    typecode = []
    t = 10
    top = storerecord[0]
    originmax = storerecord[0]
    for i in range(len(easyname)):
        typecode.append(easyname[i])
    self.play = reload_sound.play()
    self.stop = thunder_sound.stop()
    self.after(1400, menu.destroy(self))
    gamer()
```

```
def virusmode(self): # 增加病毒模式
    global virus

    if virus == False:
        self.VirusBtn.configure(bg = "Red")
        virus = True
    else:
        self.VirusBtn.configure(bg = '#614a3e')
        virus = False

    self.play = reload_sound.play()
```

easygame :	將剛剛設立於easyname中的英文字母append到typecode中。
typecode :	儲存角色名字的字串。
t=10 :	遊戲時間。
top :	easygame的最高紀錄(每輪更新)
originmax :	easygame的最高紀錄

點擊後等待1.4秒，destroy class menu，進入主遊戲並開啟class gamer
hardgame / carzygame類推。

virusmode在點選turmoil後，將virus參數改成true(再次點擊則改回False)。

程式碼說明

Gamer()-- init/timer

```
class gamer(tk.Frame):# 遊戲主程式/主畫面

    def __init__(self):

        tk.Frame.__init__(self)
        self.grid()
        self.settimer()
        self.bg_pic = ImageTk.PhotoImage(file = "background.png")
        self.tomb_pic = ImageTk.PhotoImage(file = "tomb_window.png")
        self.crack_pic = ImageTk.PhotoImage(file = "shattered_window.png")
        self.closedwindow_pic = ImageTk.PhotoImage(file = "dark_window.png")
        self.has_shooted = False
        self.createWidgets()

holdup = True

def settimer(self):
    global t

    f3 = tkFont.Font(size = 48, family = "Courier New")
    self.lbNum = tk.Label(self)
    self.lbNum.place(x = 50, y = 50)
    if t > 0.00:
        self.lbNum.configure(text = "%0.2f" % t)
        # 根據射擊次數調整時間快慢(可能每台電腦要調的t的參數會不太一樣)
        if number < 2:
            t -= 0.01
            if t < 0.00:
                t = 0.00
        elif number < 4:
            t -= 0.015
            if t < 0:
                t = 0.00
        else:
            t -= 0.03
            if t < 0.00:
                t = 0.00
    t = round(t,2)
    if self.holdup == True:
        self.after(7, self.settimer)
    else:
        self.after(3200, self.settimer)
        self.holdup = True

    else:
        self.after(500, self.finishgame)
```

class gamer :	遊戲主程式。
settimer :	為遊戲的倒數計時。
holdup :	為讓計時器暫停的參數。

程式碼說明

Gamer()-- createWidgets

```
def createWidgets(self):

    global virus, t # 前面有settimer那裡有time = t, 注意error
    f2 = tkFont.Font(size = 28, family = "Courier New")
    f4 = tkFont.Font(size = 20, family = "Courier New", weight = "bold")
    type_font = tkFont.Font(size = 12, family = "Courier New", weight = "bold")

    if self.has_shooted == False:
        self.play = gamer_sound.play(5)

    random.shuffle(location)
    random.shuffle(typecode)
    random.shuffle(citizen_filename)

    self.terrorist_pic = ImageTk.PhotoImage(file = citizen_filename[9])
    self.wanted_pic = ImageTk.PhotoImage(file = "1-"+str(citizen_filename[9]))
    self.president_pic = ImageTk.PhotoImage(file = "mayor.png")
    self.citizen2_pic = ImageTk.PhotoImage(file = citizen_filename[0])
    self.citizen3_pic = ImageTk.PhotoImage(file = citizen_filename[1])
    self.closedwindow_pic = ImageTk.PhotoImage(file = "dark_window.png")
    self.bg_image = tk.Label(self, image = self.bg_pic, compound = tk.CENTER)
    self.bg_image.grid(row = 0, column = 0, columnspan = 10, rowspan = 10)

    self.unit=[0,0,0,0,0,0,0,0,0,0]# 窗戶編號和對應的代碼

    for i in range(10):
        self.unit[i] = tk.Label(self, image = self.closedwindow_pic, compound = tk.CENTER, highlightthickness = 0, borderwidth = 0, bg = "
        self.unit[i].place(x = location[i][0], y = location[i][1])

    self.unit[0].configure(image = self.president_pic)
    self.unit[1].configure(image = self.terrorist_pic)
    self.unit[2].configure(image = self.citizen2_pic)
    self.unit[3].configure(image = self.citizen3_pic)

    self.president_type = tk.Label(self, text = typecode[0], height = 1, width = 12, font = type_font, bg = "#ecd3c4")
    self.president_type.place(x = location[0][0]+2, y = location[0][1]+157)
    self.president_name = typecode[0]

    self.terrorist_type = tk.Label(self, text = typecode[1], height = 1, width = 12, font = type_font, bg = "#ecd3c4")
    self.terrorist_type.place(x = location[1][0]+2, y = location[1][1]+157)
    self.terrorist_name = typecode[1]

    self.citizen_name = []

    self.citizen2_type = tk.Label(self, text = typecode[2], height = 1, width = 12, font = type_font, bg = "#ecd3c4")
    self.citizen2_type.place(x = location[2][0]+2, y = location[2][1]+157)

    self.citizen3_type = tk.Label(self, text = typecode[3], height = 1, width = 12, font = type_font, bg = "#ecd3c4")
    self.citizen3_type.place(x = location[3][0]+2, y = location[3][1]+157)

    self.citizen_name.append(typecode[2])
    self.citizen_name.append(typecode[3])
    self.people = 4

    if gamemode_hard == True:

        self.citizen4_pic = ImageTk.PhotoImage(file = citizen_filename[2])
        self.citizen5_pic = ImageTk.PhotoImage(file = citizen_filename[3])

        self.unit[4].configure(image = self.citizen4_pic)
        self.unit[5].configure(image = self.citizen5_pic)

        self.citizen4_type = tk.Label(self, text = typecode[4], height = 1, width = 12, font = type_font, bg = "#ecd3c4")
        self.citizen4_type.place(x = location[4][0]+2, y = location[4][1]+157)
```

如前面流程表所示，createWidget中生成所有物件，並讓角色位置、名字、圖片依照規則隨機出現。

easygame 生成4人 / hardgame 再加2人共6人 / crazygame 再加兩人共8人

程式碼說明

Gamer()-- createWidgets

```
# 懸賞單
self.wanted = tk.Label(self, image = self.wanted_pic,height = 120, width = 120)
self.wanted.place(x = 1212, y = 425)

self.txt_ans = tk.Text(self, height = 1, width = 16, font = f2, bg = "#827575")
self.txt_ans.place(x = 360, y = 700)
self.txt_ans.focus() #讓游標直接放在textbox裡 不用按一下就可以直接輸入
self.txt_ans.bind("<Return>", self.clickBtnShoot)

self.Success = tk.Label(self, height = 1, width = 9, text = "Success",font = f4, bg = "#482d29", fg = "White", relief = "raised")
self.Success.place(x = 1180, y = 80)

self.count = tk.Label(self, height = 1, width = 3, text = number ,font = f4,bg = "#482d29", fg = "White", relief = "raised")
self.count.place(x = 1324, y = 80)

self.result = tk.Label(self,height = 1, width = 12, text = "",font = f4,bg = "#482d29", fg = "White", relief = "raised")
self.result.place(x = 1180, y = 120)

self.highscore = tk.Label(self, height = 1, width = 9, text = "Record",font = f4,bg = "#614a3e", fg = "White", relief = "raised")
self.highscore.place(x = 1180, y = 160)

self.top = tk.Label(self, height = 1, width = 3, text = top,font = f4, bg = "#614a3e", fg = "White", relief = "raised")
self.top.place(x = 1324, y = 160)

self.EndBtn_pic = ImageTk.PhotoImage(file='endbtn.png')
self.EndBtn = tk.Button(self, image = self.EndBtn_pic , padx = 0, pady = 0,highlightthickness = 0, compound = tk.CENTER, borderwidth
self.EndBtn.place(x = 1200, y = 720)
```

畫面物件：success(成功次數)、wanted()、txt(textbox)、result、highscore、top、Endbutton
若virus為True(先前按了turmoil使參數virus=True) 則進入virus函數。

Gamer()-- virus

```
def virus(self):
    global stopvirus, virus, typecode, location

    random.shuffle(location)
    random.shuffle(typecode)
    self.citizen_name.clear()

    if stopvirus == True:
        stopvirus = False
        return

    for i in range(10):
        self.unit[i].place(x = location[i][0], y = location[i][1])

    self.unit[0].place(x = location[0][0], y = location[0][1]) #原為12/26
    self.president_type.configure(text = typecode[0])
    self.president_type.place(x = location[0][0]+2, y = location[0][1]+157)
    self.president_name = typecode[0]

    self.unit[1].place(x = location[1][0], y = location[1][1])
    self.terrorist_type.configure(text = typecode[1])
    self.terrorist_type.place(x = location[1][0]+2, y = location[1][1]+157)
    self.terrorist_name = typecode[1]

    if virus == True and stopvirus == False:
        self.after(2000, self.virus)
    elif stopvirus == True:
        stopvirus = False
```

virus的程式核心和createWidget非常像，唯一的差別在於一旦進入virus模式，每2秒會重跑一次virus程式，以達到更換人物位置、名字，但是人物圖片不變的效果。

程式碼說明

Gamer()-- clickBtnShoot

```
def clickBtnShoot(self,event=None):# 射擊答案判定

    global number, stopvirus, ctn_name, ptt_name, trst_name, t, top

    self.has_shooted = True
    stopvirus = True
    ans = str(self.txt_ans.get("1.0", tk.END)).strip()

    if ans == self.president_name:
        self.play = yell_sound.play()
        self.play2 = glass_sound.play()
        self.shoot_result = "Fail"
        self.result.configure(text = "Fail!")

    elif ans == self.terrorist_name:
        self.play3 = yell_sound.play()
        self.shoot_result = "Success"
        self.result.configure(text = "Success!")

    elif ans in self.citizen_name:
        self.play4 = yell_sound.play()
        self.shoot_result = "Wrong"
        self.wrong_index = self.citizen_name.index(ans)
        self.result.configure(text = "Wrong!")

    else:
        self.play2 = glass_sound.play()
        self.shoot_result="Empty"
        self.result.configure(text = "Miss Fire!")
```

結束遊戲
/墓碑/破窗

顯示字樣 /
計時器做對應反應

判斷該狀態的懲
罰/獎勵

判斷輸入屬於
何種狀態

輸入字串、按下Enter後
判定輸入結果
四種不同結果，將對應不同特效

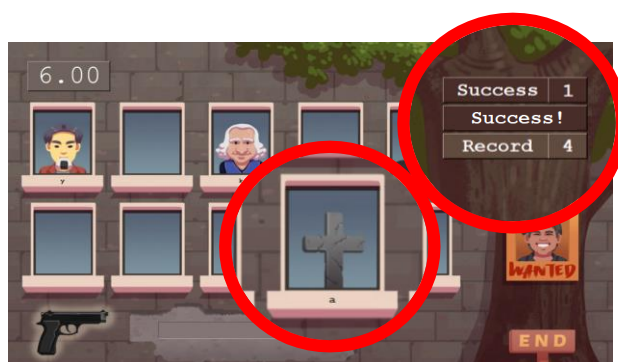
成果說明

Gamer()-- clickBtnShoot

Success

打到恐怖份子

- 恐怖分子陣亡
- 成功次數 + 1



Empty

輸入錯誤字串/空字串

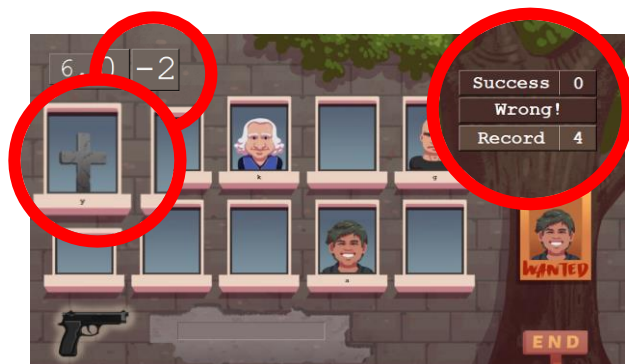
- 空窗破裂
代表射錯窗戶
- 時間 - 2



Wrong

射到平民

- 平民陣亡
- 時間 - 2



Fail

射到市長

- 市長與所有平民陣亡，
空窗破裂
- 恐怖分子存活勝利
- 遊戲結束



程式碼說明

Misson_complete()

```
class mission_complete(tk.Frame):# 遊戲結算頁面

    def __init__(self):
        tk.Frame.__init__(self)
        self.grid()
        self.end_pic = ImageTk.PhotoImage(file = "end.png")
        self.fail_pic = ImageTk.PhotoImage(file = "jail_resized.jpg")
        self.createEndWidget()

        self.stop = gamer_sound.stop()

    def createEndWidget(self):
        global presidentdie

        file2 = open("max.txt", "w") # 把新的歷史紀錄寫入檔案
        file2.truncate()
        if gamemode_crazy is True:
            file2.write(str(storerecord[0])+"\n")
            file2.write(str(storerecord[1])+"\n")
            file2.write(str(top)+"\n")
        elif gamemode_hard is True:
            file2.write(str(storerecord[0])+"\n")
            file2.write(str(top)+"\n")
            file2.write(str(storerecord[2])+"\n")
        else:
            file2.write(str(top)+"\n")
            file2.write(str(storerecord[1])+"\n")
            file2.write(str(storerecord[2])+"\n")
        file2.close()

        if presidentdie == True:
            self.play = mission_fail.play()
            f1 = tkFont.Font(size = 30, family = "Courier New", weight = "bold")
            self.end_image = tk.Label(self, image = self.fail_pic, compound = tk.CENTER)
            self.end_image.grid(row = 0, column = 0, columnspan = 10, rowspan = 10)
            self.EndBtn_pic = ImageTk.PhotoImage(file='endbtn.png')
            self.Back = tk.Button(self, text = "Escape" , height = 1, width = 16, font = f1,
            self.Back.place(x = 610 , y = 700)

            if number > originmax: #破紀錄顯示
                self.show = tk.Label(self, text = "New Record! But does it mean anything?", fg
                self.show.place(x = 325, y = 100)

            if number <= 1: # 標示你成功次數
                self.show = tk.Label(self, text = "You succeeded %d time, but tou killed the n
                self.show.place(x = 178, y = 175)
            else:
                self.show = tk.Label(self, text = "You succeeded %d times, but tou killed the
                self.show.place(x = 178, y = 175)
        else:
            self.play2 = mission_sound.play()
            f1 = tkFont.Font(size = 30, family = "Courier New")
            self.end_image = tk.Label(self, image = self.end_pic, compound = tk.CENTER)
            self.end_image.grid(row = 0, column = 0, columnspan = 10, rowspan = 10)
```

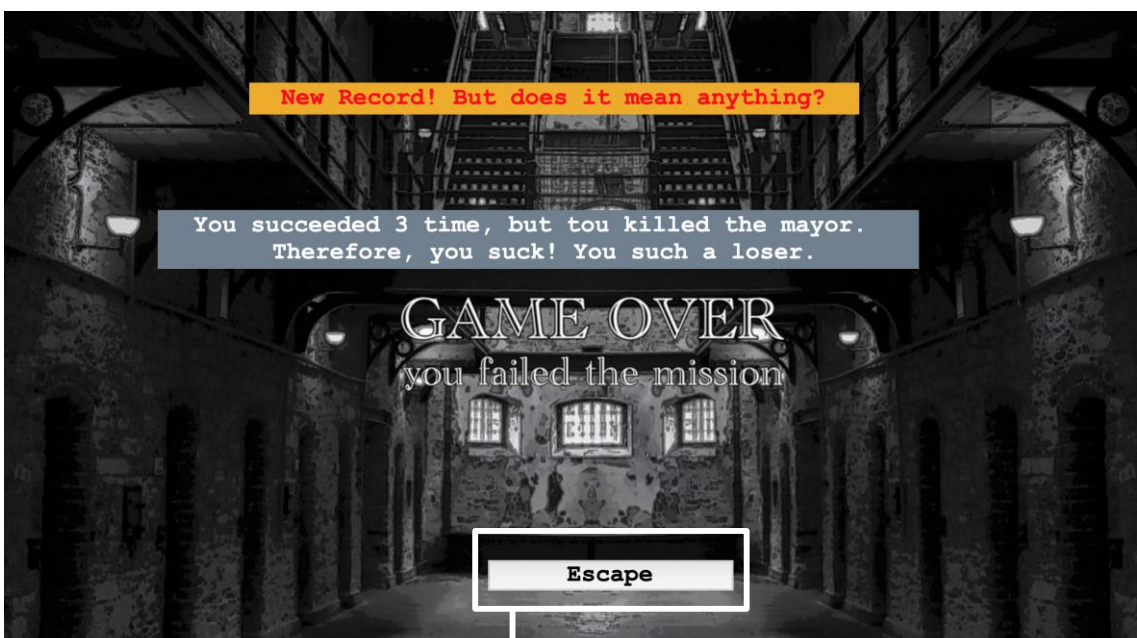
依照不同遊戲結果決定
結束畫面

成果說明

Success



Fail(射到市長)



Escape : 回到Menu

新作：雙人遊戲

遊戲規則

一個鍵盤，兩軍對峙!雙人遊戲的玩法在於輸入敵方士兵的名字進行擊殺，自己也會多生成一個士兵，此長彼消!但是小心不可輸入其他字母符號，否則胡亂開槍也會受到遊戲懲罰的(隨機死亡一名己方士兵並增加一名敵方士兵)。

遊戲的勝利條件為殲滅所有敵方的士兵!

雙人遊戲考驗鍵盤輸入的速度與爆發力，唯有專注度和反應力才能帶領自己的部隊邁向勝利!

薑母鴨上校與麻油雞首領，兩位好，自古以來，雞鴨不兩立，勢必得有一方統一這分裂的勢力，天下才得以太平。今天，兩支部隊的根據地，剛好都遷移到了這個寧靜的社區，當敵人在你隔壁時，不必猶豫，以正面對決來為自己的民族爭取榮耀與和平吧！

每支部隊在己方根據地都有四民士兵，依據顏色來區分陣營，每名士兵都有自己的編號，兩位可直接按下對方士兵的編號將其俘虜，收編於自己的部隊之下，被俘虜者可再被俘虜回去原先部隊，來回次數無上限。注意每被俘虜一次，士兵就會被賦予新的編號，編號一律以螢幕顯示的最新編號為主，若是按到了沒有對應士兵的空編號，己方將會有一名士兵被反噬，成為敵方俘虜。當turmoil模式開啟時，動盪的氣氛會使士兵更加警戒，每3秒更換一次隊型和編號。

這是一場沒有時間限制的戰爭
直至其中一方將全部8名士兵納入己方麾下
即可獲得勝利。

麻油雞士兵的編號庫 薑母鴨士兵的編號庫

Tab	Q	W	E	R	T	Y	U	I	O	P	{	}	
Caps Lock (A)	A	S	D	F	G	H	J	K	L	:	"	Enter	
Shift (A)	Z	X	C	V	B	N	M	<	>	?	/	Shift (A)	

由薑母鴨上校使用來俘虜敵方 由麻油雞首領使用來俘虜敵方

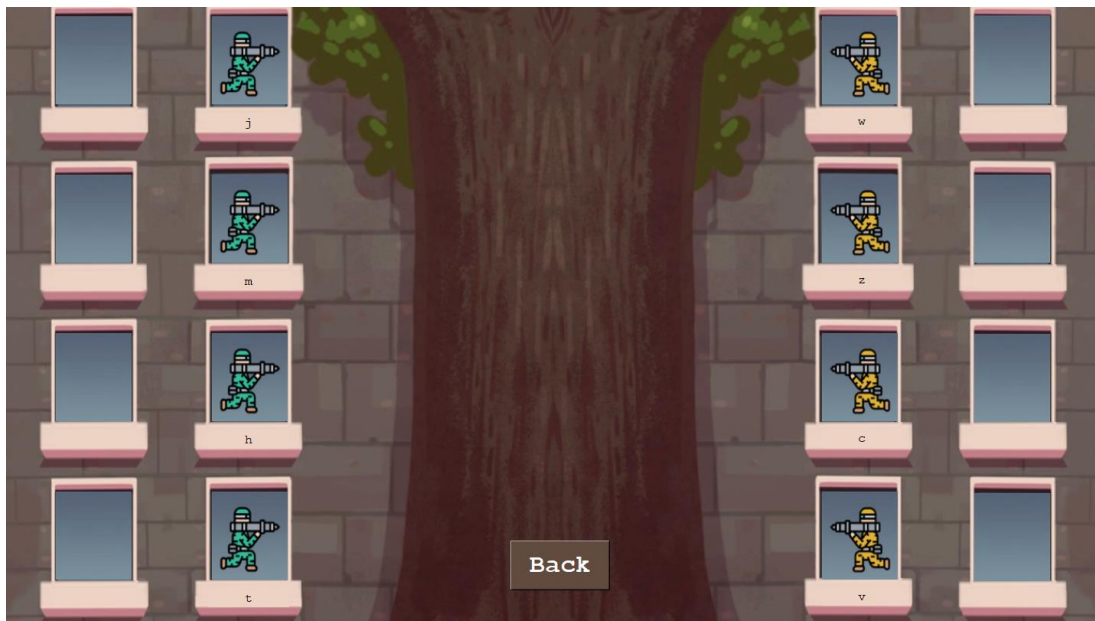
薑母鴨士兵 n 麻油雞士兵 e

上校按下"e"

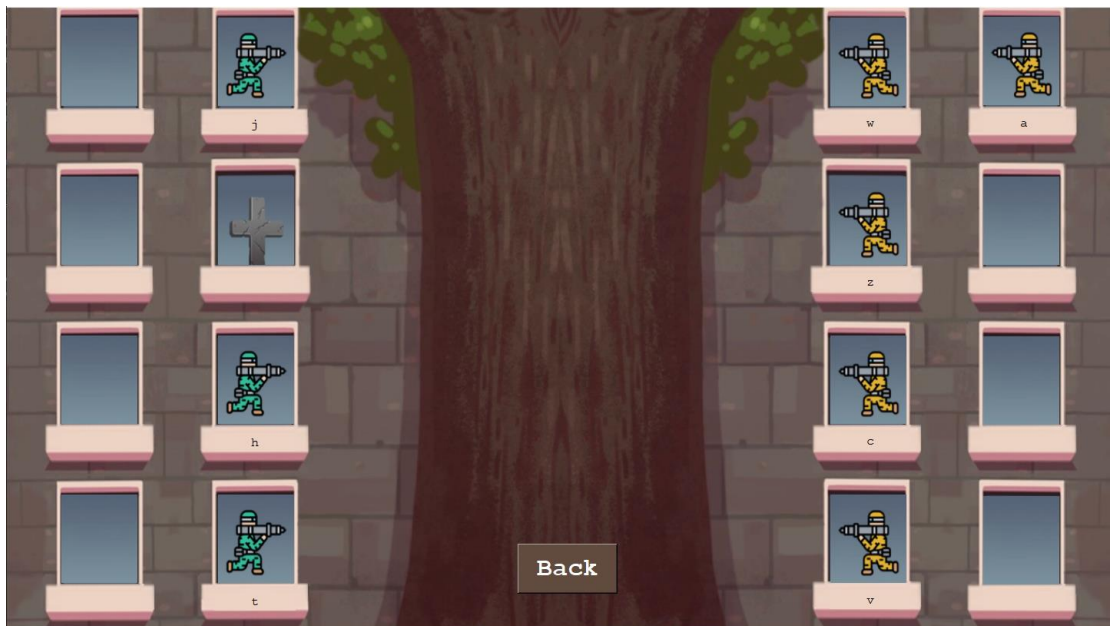
俘虜該名士兵 新編號"t"

新作：雙人遊戲

遊戲畫面



輸入m(綠色士兵)



綠色少一人，黃色多一人

新作：雙人遊戲

程式碼說明

初始條件

```
57
58 # 雙人遊戲設定
59 t1_code = ["t", "g", "b", "y", "h", "n", "u", "j", "m", "i", "k", "o"]
60 t2_code = ["q", "a", "z", "w", "s", "x", "e", "d", "c", "r", "f", "v"]
61 in_t1 = []
62 in_t2 = []
63 empty = ""
64 t1_people = 4
65 t2_people = 4
66 random.shuffle(t1_code)
67 random.shuffle(t2_code)
68
```

t1_code : 左方士兵會出現的名字

t2_code : 右方士兵會出現的名字

class : two_player()

```
709 def __init__(self):
710
711     tk.Frame.__init__(self)
712     self.grid()
713     self.place()
714     self.pack()
715     self.menu_pic = ImageTk.PhotoImage(file = "white.png")
716     self.team1_pic = ImageTk.PhotoImage(file = "soldier.png")
717     self.team2_pic = ImageTk.PhotoImage(file = "soldier-brown.png")
718     self.empty_pic = ImageTk.PhotoImage(file = "empty.png")
719     self.tomb_pic = ImageTk.PhotoImage(file = "tomb.png")
720
721     self.createWidget()
722
723
724 def createWidget(self):
725
726     global t1_people, t2_people, t1_code, t2_code, in_t1, in_t2, t1man_pic, t2man_pic
727
728     t1_people = 4
729     t2_people = 4
730     self.t1 = [[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]]
731     self.t2 = [[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]]
732
733     self.menu = tk.Label(self, image = self.menu_pic, compound = tk.CENTER, highlightthickness = 0, borderwidth = 0)
734     self.menu.grid(row = 0, column = 0, columnspan = 10, rowspan = 10)
735     f1 = tkFont.Font(size = 10, family = "Courier New")
```

self.t1 : 存放左方士兵的圖片、姓名

self.t2 : 存放右方士兵的圖片、姓名

新作：雙人遊戲

程式碼說明

class : two_player()

```
738     for i in range(4):
739
740         self.t1[i][0] = tk.Label(self, image = self.empty_pic, compound = tk.CENTER, highlightthickness = 0, borderwi
741         self.t1[i][1] = tk.Label(self, text = empty, font = f1, width = 10)
742         self.t1[i][0].place(x = 0 , y = i*200)
743         self.t1[i][1].place(x = 25 , y = i*200+150)
744
745         self.t1[i+4][0] = tk.Label(self, image = self.team1_pic, compound = tk.CENTER, highlightthickness = 0, border
746         self.t1[i+4][1] = tk.Label(self, text = empty, font = f1, width = 10)
747         self.t1[i+4][0].place(x = 200 , y = i*200)
748         self.t1[i+4][1].place(x = 225 , y = i*200+150)
749
750     for j in range(4):
751
752         self.t2[j][0] = tk.Label(self, image = self.team2_pic, compound = tk.CENTER, highlightthickness = 0, borderwi
753         self.t2[j][1] = tk.Label(self, text = empty, font = f1, width = 10)
754         self.t2[j][0].place(x = 1000 , y = j*200)
755         self.t2[j][1].place(x = 1025 , y = j*200+150)
756
757         self.t2[j+4][0] = tk.Label(self, image = self.empty_pic, compound = tk.CENTER, highlightthickness = 0, border
758         self.t2[j+4][1] = tk.Label(self, text = empty, font = f1, width = 10)
759         self.t2[j+4][0].place(x = 1200 , y = j*200)
760         self.t2[j+4][1].place(x = 1225 , y = j*200+150)
761
762     t1man_pic = self.t1[4][0].cget("image")
763     t2man_pic = self.t2[0][0].cget("image")
764     self.t1[0][0].focus_set()
765     self.t1[0][0].bind("<Key>", self.keys)
766
767     #set team1 code
768     j = 0
769     random.shuffle(t1_code)
770     for i in range(8):
771         if self.t1[i][0].cget("image") == t1man_pic:
772             self.t1[i][1].configure(text = t1_code[j])
773             in_t1.append(t1_code[j])
774             j += 1
775         else:
776             self.t1[i][1].configure(text = empty)
777
778     #set team2 code
779     j = 0
780     random.shuffle(t2_code)
781     for i in range(8):
782         if self.t2[i][0].cget("image") == t2man_pic:
783             self.t2[i][1].configure(text = t2_code[j])
784             in_t2.append(t2_code[j])
785             j += 1
786         else:
787             self.t2[i][1].configure(text = empty)
788
789     print(in_t1)
790     print(in_t2)
791
792     def keys(self,event):|
```

設定角色的位置並隨機自t1_code、t2_code選擇名字

新作：雙人遊戲

程式碼說明

class : two_player()

```
795
796 def keys(self,event):
797     global t1_people, t2_people, t1_code, t2_code, in_t1, in_t2
798     self.play = shoot_sound2.play()
799     print(event.char)
800
801     # t1 get shot
802     find_empty_space = 0
803     j = 0
804
805     if event.char in t1_code:
806         if event.char in in_t1:
807             for i in range(8):
808                 if self.t1[i][1].cget("text") == event.char:
809                     self.play1 = yell_sound2.play()
810                     self.t1[i][0].configure(image = self.tomb_pic) # team1 dead
811                     t1_people -= 1
812                     in_t1.remove(event.char) # clear dead player code
813                     self.t1[i][1].configure(text = empty)
814
815                     while find_empty_space == 0:
816
817                         if self.t2[j][0].cget("image") != t2man_pic:
818                             self.t2[j][0].configure(image = self.team2_pic) # add extra player to t2
819                             t2_people += 1
820                             find_empty_space = 1
821
822                         random.shuffle(t2_code)
823                         for code in t2_code:
824                             if code not in in_t2:
825                                 self.t2[j][1].configure(text = code) #add
826                                 in_t2.append(code)
827                                 break
828
829                             j += 1
830                             break
831
832         elif event.char not in in_t1:
833             #print("hi")
834             for i in range(8):
835                 #print("yo")
836                 if self.t2[i][0].cget("image") == t2man_pic:
837                     self.play1 = yell_sound2.play()
838                     self.t2[i][0].configure(image = self.tomb_pic) # team2 dead
839                     t2_people -= 1
840                     in_t2.remove(self.t2[i][1].cget("text")) # clear dead player code
841                     self.t2[i][1].configure(text = empty)
842                     while find_empty_space == 0:
843                         if self.t1[j][0].cget("image") != t1man_pic:
844                             self.t1[j][0].configure(image = self.team1_pic) # add extra player to t1
845                             t1_people += 1
846                             find_empty_space = 1
847                             random.shuffle(t1_code)
848
849                         for code in t1_code:
850                             if code not in in_t1:
851                                 self.t1[j][1].configure(text = code) #add
852                                 in_t1.append(code)
853                                 break
854
855                             j += 1
856                             break
857
858             break
859
860
861
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```

輸入判定：

1. 若輸入的字母為敵方其中一人的名字
則敵軍陣亡，己方增加一人。
2. 若輸入的字母不在當中
則己方陣亡一人，敵方增加一人，作為懲罰。

新作：雙人遊戲

程式碼說明

class : two_player_end()

```
910         if t1_people == 8 or t2_people == 8:
911             two_player.destroy(self)
912             two_player_end()
913
914
915 class two_player_end(tk.Frame):
916
917     def __init__(self):
918
919         tk.Frame.__init__(self)
920         self.grid()
921         self.place()
922         self.pack()
923         self.menu_pic = ImageTk.PhotoImage(file = "white.png")
924         self.createWidget()
925
926
927     def createWidget(self):
928         f2 = tkFont.Font(size = 30, family = "Courier New", weight = "bold")
929         self.menu = tk.Label(self, image = self.menu_pic, compound = tk.CENTER, highlightthickness = 0, borderwidth = 0, bg =
930         self.menu.grid(row = 0, column = 0, columnspan = 10, rowspan = 10)
931         self.Back = tk.Button(self, text = "Back", height = 1, width = 16, font = f2, activeforeground = "White", activebackg
932         self.Back.place(x = 515, y = 600)
933
934         #f2 = tkFont.Font(size = 30, family = "Courier New", weight = "bold")
935         self.play3 = mission_sound2.play()
936
937         if t1_people == 8:
938             self.show = tk.Label(self, text = "Team1 win", fg = "red", bg = "DarkGoldenrod2", height = 1, width = 40, font = f2
939             self.show.place(x = 315, y = 100)
940
941         if t2_people == 8:
942             self.show = tk.Label(self, text = "Team2 win", fg = "red", bg = "DarkGoldenrod2", height = 1, width = 40, font = f2
```

遊戲結束的條件為其中一方達到8個人
依照哪一方勝利顯示不同結果。

謝謝閱讀

菁英狙擊手

Coding 101

楊尚霖小隊