


國立高雄科技大學智慧商務系

111 學年度第 1 學期 程式設計(三) 期末專案報告

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期中專案名稱	貪吃蛇小遊戲		
期中專案介紹	一款貪吃蛇復古小遊戲		
期中專案說明	<p>◆ → 本專案利用 Python 的 tkinter/ random/ PIL 套件以及 PowerPoint 製作此貪吃蛇小遊戲。↵</p> <p>◆ → 遊戲使用字體：鋼方體 11 號↵</p> <p>◆ → 遊戲內容/規則：↵</p> <ol style="list-style-type: none"> 1. → WASD/ ↑ ↓ ← → 可操控蛇↵ 2. → 按[空白鍵]可暫停遊戲↵ 3. → 遊戲規則：↵ <ol style="list-style-type: none"> I. → 死亡：↵ <ol style="list-style-type: none"> i. → 吃到毒蘋果(紫色)↵ ii. → 撞到牆壁↵ iii. → 撞到自己身體↵ II. → 得分：↵ <ol style="list-style-type: none"> i. → 吃到紅蘋果→加 1 分↵ ii. → 吃到金蘋果→加 3 分↵ III. → 每吃到紅/金蘋果，刷新毒蘋果的位子(座標隨機) 4. → 右半邊遊戲介紹/計分規則區塊 (使用 PPT 製作)↵ 5. → 右下角記分板有本局分數/歷史最高分↵ 		
期中專案程式	 <pre> pg_C110156246.py U X 期中專案-貪吃蛇 > pg_C110156246.py > Snake > snake_record 1 import tkinter as tk 2 from tkinter.messagebox import showinfo 3 import random 4 from PIL import Image, ImageTk 5 ... 6 ~貪吃蛇小遊戲~ 7 ... </pre>		



```

8  class Snake():
9      def __init__(self):
10         # 遊戲參數設置
11         global body_len, FPS, bestScore
12         self.len      = 3      # 蛇身 初始長度
13         body_len      = self.len # 蛇身 當前長度
14         FPS           = 130    # 每幀 間隔 時間
15
16         self.row_cells = 20    # 寬 方格 數
17         self.col_cells = 20    # 高 方格 數
18         self.cell_size = 25    # 方格 大小
19
20         self.frame_x   = 15    # 左右 外框
21         self.frame_y   = 20    # 上下 外框
22         self.win_w_plus = 300  # 右半邊 寬度
23
24         # 顏色列表
25         self.color_dict = {0:'black', # 空白方格
26                             1:'#00FF00', # 蛇頭
27                             2:'#008000', # 蛇身
28                             3:'red',      # 紅蘋果
29                             4:'white',    # 牆
30                             5:'#FFC000', # 金蘋果
31                             6:'#8B00FF' # 毒蘋果
32                             }
33         self.canvas_bg = 'black'
34         bestScore = 0
35         self.run_game()

```

```

37     # 遊戲視窗置中
38     def window_center(self, window, w_size, h_size):
39         screenWidth = window.winfo_screenwidth() # 獲取 使用者螢幕 寬
40         screenHeight = window.winfo_screenheight() # 獲取 使用者螢幕 高
41         left = (screenWidth - w_size) // 2
42         top = (screenHeight - h_size) // 2
43         window.geometry("%dx%d+%d+%d" % (w_size, h_size, left, top))

```

```

45     # 創建遊戲座標系統 game_map[x][y]
46     def create_map(self):
47         global game_map
48         game_map = []
49         for i in range(0, self.col_cells):
50             game_map.append([])
51         for i in range(0, self.col_cells):
52             for j in range(0, self.row_cells):
53                 game_map[i].append(j)
54                 game_map[i][j] = 0 # 生成一個全是0的空數列

```

```

56         # 牆
57         def create_wall(self):
58             for i in range(0,self.row_cells-1):
59                 game_map[0][i] = 4
60                 game_map[self.col_cells-1][i] = 4
61
62             for i in range(0,self.col_cells-1):
63                 game_map[i][0] = 4
64                 game_map[i][self.row_cells-1] = 4
65             game_map[-1][-1] = 4

```

```

67         # 創建畫布
68         def create_canvas(self):
69             global canvas
70             canvas_h = self.cell_size * self.col_cells + self.frame_y*2
71             canvas_w = self.cell_size * self.row_cells + self.frame_x*2
72             canvas = tk.Canvas(window,
73                                 bg = self.canvas_bg,
74                                 height = canvas_h,
75                                 width = canvas_w,
76                                 highlightthickness = 0)
77             canvas.place(x=0,y=0)

```

```

79         # 創建單位格
80         def create_cells(self):
81             for y in range(0,self.col_cells):
82                 for x in range(0,self.row_cells):
83                     a = self.frame_x + self.cell_size*x
84                     b = self.frame_y + self.cell_size*y
85                     c = self.frame_x + self.cell_size*(x+1)
86                     d = self.frame_y + self.cell_size*(y+1)
87                     e = self.canvas_bg
88                     g = self.color_dict[game_map[y][x]]
89                     canvas.itemconfig(canvas.create_rectangle(a,b,c,d, outline=e, width=0, fill=g),fill=g)

```

```

98     # 創建 紅蘋果
99     def create_red_apple(self):
100         global apple_red_xy
101         apple_red_xy = [0,0]
102         apple_red_xy[1] = random.randint(1, self.row_cells-2)
103         apple_red_xy[0] = random.randint(1, self.col_cells-2)
104
105         while game_map[apple_red_xy[0]][apple_red_xy[1]] != 0:
106             apple_red_xy[0] = random.randint(1,self.row_cells-2)
107             apple_red_xy[1] = random.randint(1,self.col_cells-2)
108
109         game_map[apple_red_xy[0]][apple_red_xy[1]] = 3
110
111     # 創建 金蘋果
112     def create_gold_apple(self):
113         global apple_gold_xy
114         apple_gold_xy = [0,0]
115         apple_gold_xy[1] = random.randint(1, self.row_cells-2)
116         apple_gold_xy[0] = random.randint(1, self.col_cells-2)
117
118         while game_map[apple_gold_xy[0]][apple_gold_xy[1]] != 0:
119             apple_gold_xy[0] = random.randint(1,self.row_cells-2)
120             apple_gold_xy[1] = random.randint(1,self.col_cells-2)
121
122         game_map[apple_gold_xy[0]][apple_gold_xy[1]] = 5
123
124     # 創建 毒蘋果
125     def create_bad_apple(self):
126         global apple_bad_xy
127         apple_bad_xy = [0,0]
128         apple_bad_xy[1] = random.randint(1, self.row_cells-2)
129         apple_bad_xy[0] = random.randint(1, self.col_cells-2)
130
131         while game_map[apple_bad_xy[0]][apple_bad_xy[1]] != 0:
132             apple_bad_xy[0] = random.randint(1,self.row_cells-2)
133             apple_bad_xy[1] = random.randint(1,self.col_cells-2)
134
135         game_map[apple_bad_xy[0]][apple_bad_xy[1]] = 6

```

```

137     # 獲取蛇頭坐標
138     def snake_xy(self):
139         global head_x, head_y
140         xy = []
141         for i in range(0,self.col_cells):
142             # 查找數值為1的坐標，沒有就返回0。為防止在0列，先加上1，最後再減去。
143             try:
144                 x = game_map[i].index(1) + 1
145             except:
146                 x = 0
147             xy.append(x)
148         head_x = max(xy)
149         head_y = xy.index(head_x)
150         head_x = head_x - 1 #之前加1，現在減回

```

```

152 # 蛇 移動
153 def move_snake(self,event):
154     def move_key(a,b,c,d): # 記錄按鍵的方向，1上 2下 3左 4右
155         direction = event.keysym
156         if head_x != snake_body[-1][1]:
157             if(direction == a):
158                 dd[0] = 1
159             if(direction == b):
160                 dd[0] = 2
161         else:
162             if(direction == c):
163                 dd[0] = 3
164             if(direction == d):
165                 dd[0] = 4
166
167         if head_y != snake_body[-1][0]:
168             if(direction == c):
169                 dd[0] = 3
170             if(direction == d):
171                 dd[0] = 4
172         else:
173             if(direction == a):
174                 dd[0] = 1
175             if(direction == b):
176                 dd[0] = 2
177
178 # 暫停
179 def pause_key(key):
180     global loop
181     direction = event.keysym
182     if(direction == key):
183         loop = 0
184         showinfo('暫停','按確定鍵繼續')
185         loop = 1
186         window.after(FPS, self.game_loop)
187
188 # 鍵盤按鍵
189 move_key('w','s','a','d')
190 move_key('W','S','A','D')
191 move_key('Up','Down','Left','Right')
192 pause_key('space')

```

```

193     # 死掉
194     def game_over(self):
195         def over():
196             global body_len
197             showinfo('Game Over','再來一局')
198             body_len = self.len
199
200             self.game_start()
201
202         # 頭撞到身體 = 死
203         if [head_y,head_x] in snake_body[0:-2]:
204             over()
205         # 撞到牆壁 = 死
206         if head_x == self.row_cells - 1 or head_x == 0:
207             over()
208         if head_y == self.col_cells - 1 or head_y == 0:
209             over()
210         # 吃到毒蘋果 = 死
211         if [head_y,head_x] == apple_bad_xy:
212             over()
213
214     # 蛇身
215     def snake_record(self):
216         # 記錄蛇頭運行軌跡，生成蛇身
217         global body_len, snake_body, score, bestScore, apple_bad_xy
218         temp = []
219         temp.append(head_y)
220         temp.append(head_x)
221         snake_body.append(temp)
222         if snake_body[-1] == snake_body[-2]:
223             del snake_body[-1]
224
225         # 碰到蘋果身體加長(毒蘋果反之)，並再隨機生成一個蘋果
226         # 紅蘋果 1 分
227         if [head_y,head_x] == apple_red_xy:
228             body_len = body_len + 1
229             score = score + 1
230             if score >= bestScore:
231                 bestScore = score
232
233                 self.create_red_apple()
234                 game_map[apple_bad_xy[0]][apple_bad_xy[1]] = 0
235                 self.create_bad_apple()
236
237         # 金蘋果 3 分
238         if [head_y,head_x] == apple_gold_xy:
239             body_len = body_len + 3
240             score = score + 3
241             if score >= bestScore:
242                 bestScore = score
243                 self.create_gold_apple()
244                 game_map[apple_bad_xy[0]][apple_bad_xy[1]] = 0
245                 self.create_bad_apple()
246
247         # 限制蛇身長度的，不超過設定值
248         elif len(snake_body) > body_len:
249             game_map[snake_body[0][0]][snake_body[0][1]] = 0
250             del snake_body[0]

```

```

252 # 計分牌
253 def scoring(self):
254     global scoring_lable
255     scoring_lable = tk.Label(window,
256                               text="",
257                               font=('俚方體11號', 15, 'bold'),
258                               fg='#00FF00',
259                               bg='black',
260                               anchor="ne",
261                               justify="left")
262     scoring_lable.place(x= self.cell_size * self.col_cells +15,
263                        y = self.col_cells * self.cell_size - 35)
264
265 # 計分更新
266 def scoring_loop(self):
267     global scoring_lable, score
268     scoring_lable['text'] = "本局分數 : " + str(score) + \
269                            "\n最好成績 : " + str(bestScore)
270
271 # 自動前進
272 def auto_move(self):
273     def move(d,x,y):
274         if dd[0] == d: # 根據方向值來決定走向
275             game_map[head_y + x][head_x + y] = 1
276             game_map[head_y + 0][head_x + 0] = 2
277
278     move( 1, -1, 0 )
279     move( 2, 1, 0 )
280     move( 3, 0, -1 )
281     move( 4, 0, 1 )

```

```

271 # 自動前進
272 def auto_move(self):
273     def move(d,x,y):
274         if dd[0] == d: # 根據方向值來決定走向
275             game_map[head_y + x][head_x + y] = 1
276             game_map[head_y + 0][head_x + 0] = 2
277
278     move( 1, -1, 0 )
279     move( 2, 1, 0 )
280     move( 3, 0, -1 )
281     move( 4, 0, 1 )

```

```


283     # 遊戲 循環刷新
284     def game_loop(self):
285         global loop_id
286         self.snake_record()
287         self.auto_move()
288         self.snake_xy()
289         canvas.delete('all') # 清除 Canvas
290         self.create_cells()
291         self.scoring_loop()
292         self.game_over()
293         if loop == 1:
294             loop_id = window.after(FPS, self.game_loop)

```

```

296     # 開始遊戲
297     def game_start(self):
298         global window, backup_map, dd, loop, score
299         score = 0
300         loop = 1 # 暫停標記，1為開啟，0為暫停
301         dd = [0] # 記錄按鍵方向
302         self.create_map()
303         self.create_wall()
304         self.create_snake()
305         self.create_red_apple()
306         self.create_gold_apple()
307         self.create_bad_apple()
308         window.bind('<Key>', self.move_snake)
309         self.snake_xy()
310         self.scoring()
311         self.game_loop()
312
313         def close_w():
314             global loop
315             loop = 0
316             window.after_cancel(loop_id)
317             window.destroy()
318
319         window.protocol('WM_DELETE_WINDOW', close_w)
320         window.mainloop()

```


	<pre> 322 # 遊戲畫布設置 323 def run_game(self): 324 global window 325 window = tk.Tk() 326 window.focus_force() 327 window.title('貪吃蛇遊戲') 328 win_w_size = self.row_cells * self.cell_size + self.frame_x*2 + self.win_w_plus 329 win_h_size = self.col_cells * self.cell_size + self.frame_y*2 330 self.window_center(window,win_w_size,win_h_size) 331 # 右半邊遊戲規則 332 img = Image.open('期中專案-貪吃蛇\遊戲介紹.png') 333 tk_img = ImageTk.PhotoImage(img) 334 img_label = tk.Label(window, image=tk_img, 335 width=self.win_w_plus+20, 336 height=self.col_cells * self.cell_size + self.frame_y*2-2, 337 anchor='nw') 338 img_label.place(x= self.cell_size * self.col_cells + self.cell_size*1-5, 339 y = -2) 340 341 self.create_canvas() 342 self.game_start() 343 344 if __name__ == '__main__': 345 Snake() </pre>
<p>期中專案 Youtube 連結</p>	<p>程式設計期中專案-貪吃蛇遊戲介紹 Python - YouTube</p>
<p>期中專案 執行畫面</p>	



期末專案名稱	KKBOX 歌單系統
期末專案介紹	此網站可以查詢各大音樂榜單 新增 C/ 讀取 R/ 更新 U/ 刪除 D 操作 模糊搜尋歌名和歌手
期末專案說明	本專案取 KKBOX API 之資料，利用 MySQL 建資料庫 並使用 python MySQLdb 套件自動化 INSERT 龐大資料 最後利用 MySQLdb 連接資料庫 使用 Flask 框架架設 crud 網頁
期 中 專 案 Youtube 連結	(1) 程式設計期末專案-KKBOX 榜單歌單系統 Python-Flask/MySQL CRUD - YouTube
期末專案程式	 <pre> CREATE Table.py 1 import MySQLdb 2 3 conn=MySQLdb.connect(host="127.0.0.1",user="root",passwd="",db='web_kkbox',charset='utf8') 4 cursor=conn.cursor() #傳回cursor物件 5 6 SQL = "CREATE TABLE IF NOT EXISTS jappan_list(ID VARCHAR(30) PRIMARY KEY,\ 7 rank INT(10),\ 8 song VARCHAR(100),\ 9 artist VARCHAR(50),\ 10 url VARCHAR(300),\ 11 image VARCHAR(300))" 12 13 print('SQL:',cursor.execute(SQL)) 14 15 conn.commit() 16 cursor.close() 17 conn.close() INSERT INTO.py 1 import MySQLdb 2 import charts 3 4 conn = MySQLdb.connect(host="127.0.0.1",user='root',passwd='',db='web_kkbox') 5 cursor = conn.cursor() 6 7 with conn.cursor() as cursor: 8 command = "INSERT INTO jappan_list(rank, ID, song, artist, url, image)VALUES(%s,%s,%s,%s,%s,%s)" 9 charts = charts.get_charts_tracks("OpIfQ3l2-a0Gwkn00q") 10 j = 1 11 for chart in charts: 12 cursor.execute(13 command,(14 j, 15 chart["id"], 16 chart["name"], 17 chart["album"]["artist"]["name"], 18 chart["url"], 19 chart["album"]["images"][1]["url"] 20) 21) 22 j = j + 1 23 conn.commit() 24 25 print(cursor.fetchall()) 26 cursor.close() 27 conn.close() </pre>

```
1 import MySQLdb
2 from flask import Flask, render_template, request, url_for, redirect, flash
3 app = Flask(__name__)
4 conn = MySQLdb.connect(
5     host="127.0.0.1",
6     user='root',
7     passwd='',
8     db='web_kkbox')
9 cursor = conn.cursor()
10 global table
11 table = 'chinese_list'
12
13 def dataList():
14     global result, img_list, id_list, song_list, artist_list, url_list, len_list
15     img_list = []
16     song_list = []
17     artist_list = []
18     id_list = []
19     url_list = []
20     for i in range(0, len(result)):
21         img_list.append(result[i][5])
22     for i in range(0, len(result)):
23         song_list.append(result[i][2])
24     for i in range(0, len(result)):
25         artist_list.append(result[i][3])
26     for i in range(0, len(result)):
27         id_list.append(result[i][0])
28     for i in range(0, len(result)):
29         url_list.append(result[i][4])
30     len_list = len(img_list)
31
32 # ShowAll
33 def ShowAll():
34     global result
35     with conn.cursor() as cursor:
36         command = "SELECT * FROM %s ORDER BY rank"
37         cursor.execute(command%(table))
38         result = cursor.fetchall()
39     dataList()
```

```
42 @app.route('/home')
43 def HomePage():
44     ShowAll()
45     return render_template('Home.html',
46                             id_list=id_list,
47                             img_list=img_list,
48                             song_list=song_list,
49                             artist_list=artist_list,
50                             len_list=len_list,
51                             url_list=url_list)
52
53 # chinese_list
54 @app.route('/chinese_list', methods=['POST', 'GET'])
55 def chinese_list():
56     global table
57     table = "chinese_list"
58     ShowAll()
59     return render_template('Home.html',
60                             id_list=id_list,
61                             img_list=img_list,
62                             song_list=song_list,
63                             artist_list=artist_list,
64                             len_list=len_list,
65                             url_list=url_list)
66
67 # japan_list
68 @app.route('/japan_list', methods=['POST', 'GET'])
69 > def japan_list(): ...
70
71 # hiphop_list
72 @app.route('/hiphop_list', methods=['POST', 'GET'])
73 > def hiphop_list(): ...
74
75 # rmb_list
76 @app.route('/rmb_list', methods=['POST', 'GET'])
77 > def rmb_list(): ...
78
79 # edm_list
80 @app.route('/edm_list', methods=['POST', 'GET'])
81 > def edm_list(): ...
82
83 # american_list
84 @app.route('/american_list', methods=['POST', 'GET'])
85 > def american_list(): ...
```

```

137 # SELECT
138 @app.route('/select', methods=['POST', 'GET'])
139 def select():
140     global result
141     if request.method == 'POST':
142         inp_song = str(request.form['song'])
143         with conn.cursor() as cursor:
144             command = "SELECT * FROM %s WHERE song LIKE '%s' OR artist LIKE '%s' ORDER BY rank"
145             cursor.execute(command%(table, "%"+inp_song+"%", "%"+inp_song+"%"))
146             result = cursor.fetchall()
147             dataList()
148             return render_template('Home.html',
149                                     id_list=id_list,
150                                     img_list=img_list,
151                                     song_list=song_list,
152                                     artist_list=artist_list,
153                                     len_list=len_list,
154                                     url_list=url_list,
155                                     inp_song=inp_song)
156
157 # DELETE
158 @app.route('/delPage', methods=['POST', 'GET'])
159 def butDel():
160     if request.method == 'POST':
161         delID = str(request.form['theDelID'])
162         return redirect(url_for('Del', delID=delID, action="POST"))
163 @app.route('/Del/<action>/<delID>')
164 def Del(delID, action):
165     cursor = conn.cursor()
166     command = "DELETE FROM %s WHERE `ID` = '%s'"
167     cursor.execute(command%(table, delID))
168     conn.commit()
169     return redirect(url_for('HomePage'))
170
171 # UPDATE
172 @app.route('/updPage', methods=['POST', 'GET'])
173 def updPage():
174     if request.method == 'POST':
175         updID = str(request.form['theUpdID'])
176         cursor = conn.cursor()
177         command = "SELECT * FROM %s WHERE `ID` = '%s'"
178         cursor.execute(command%(table, updID))
179         conn.commit()
180         result = cursor.fetchall()
181         return render_template('updPage.html', result=result)
182 @app.route('/DoUpd', methods=['POST', 'GET'])
183 def DoUpd():
184     if request.method == 'POST':
185         updID = str(request.form['theUpdID'])
186         new_song = str(request.form['new_song'])
187         new_artist = str(request.form['new_artist'])
188         cursor = conn.cursor()
189         command = "UPDATE %s SET song='%s', artist='%s' WHERE `ID`='%s'"
190         cursor.execute(command%(table, new_song, new_artist, updID))
191         conn.commit()
192         ShowAll()
193         len_list = len(img_list)
194         return render_template('Home.html',
195                                 id_list=id_list,
196                                 img_list=img_list,
197                                 song_list=song_list,
198                                 artist_list=artist_list,
199                                 len_list=len_list,
200                                 url_list=url_list)

```

```

102 # INSERT INTO
103 @app.route('/addPage', methods=['POST', 'GET'])
104 def addPage():
105     if request.method == 'POST':
106         return render_template('addPage.html')
107
108 @app.route('/DoAdd', methods=['POST', 'GET'])
109 def DoAdd():
110     if request.method == 'POST':
111         addID = str(request.form['new_id'])
112         new_song = str(request.form['new_song'])
113         new_artist = str(request.form['new_artist'])
114         cursor = conn.cursor()
115         command = "SELECT COUNT(*) count FROM %s WHERE ID = '%s'"
116         cursor.execute(command%(table, addID))
117         result = cursor.fetchall()
118         count = str(result[0][0])
119         # ID判斷
120         if count == "0" and addID != "":
121             cursor = conn.cursor()
122             command = "INSERT INTO %s(ID, song, artist, image)VALUES('%s','%s','%s','https://
123             cursor.execute(command%(table, addID, new_song, new_artist))
124             conn.commit()
125             ShowAll()
126             return render_template('Home.html',
127                                     id_list=id_list,
128                                     img_list=img_list,
129                                     song_list=song_list,
130                                     artist_list=artist_list,
131                                     len_list=len_list,
132                                     url_list=url_list)
133         else:
134             flash("* ID不可為空白或ID已存在，請輸入新的ID!")
135             return render_template('addPage.html', new_song=new_song, new_artist=new_artist)
136
137 if __name__ == '__main__':
138     app.secret_key = "1234"
139     app.run(debug=True)

```

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```

1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta http-equiv="X-UA-Compatible" content="IE=edge">
6      <meta name="viewport" content="width=device-width, initial-scale=1.0">
7      <title>KKBOX歌單系統-Home</title>
8  >
176 </style>
177 </head>
178 <body>
179 <section id="about">
180 <div>123</div>
181 </section>
182 <div class="TopBox">
183 
185 <input class="TopBigBut" id="TopBigBut_1" type="submit" value="新增歌曲頁面"/>
186 </form>
187 <form action="/chinese_list" method="post">
188 <input class="TopBigBut" id="TopBigBut_2" type="submit" value="錢櫃國語點播榜"/>
189 </form>
190 <form action="/japan_list" method="post">
191 <input class="TopBigBut" id="TopBigBut_3" type="submit" value="日語單曲日榜"/>
192 </form>
193 <form action="/hiphop_list" method="post">
194 <input class="TopBigBut" id="TopBigBut_4" type="submit" value="嘻哈單曲週榜"/>
195 </form>
196 <form action="/rmb_list" method="post">
197 <input class="TopBigBut" id="TopBigBut_5" type="submit" value="R&B單曲週榜"/>
198 </form>
199 <form action="/edm_list" method="post">
200 <input class="TopBigBut" id="TopBigBut_6" type="submit" value="電子單曲週榜"/>
201 </form>
202 <form action="/american_list" method="post">
203 <input class="TopBigBut" id="TopBigBut_7" type="submit" value="英美金曲榜"/>
204 </form>
205 <div class="SelectBox">
206 <form action="/select" method="post">
207 搜尋歌名或歌手:
208 <input type="text" name="song" value="{{inp_song}}" class="textbox">
209 <input type="submit" class="button" value="搜尋"/>
210 </form>
211 </div>
212 </div>

```

```

213 <center>
214     {% if id_list != undefined %}
215     <table style="font-size:18px">
216         <tr>
217             <th>專輯封面</th>
218             <th>歌名</th>
219             <th>藝人</th>
220             <th>刪除</th>
221             <th>修改</th>
222         </tr>
223         {% for i in range(0, len_list) %}
224         <tr>
225             <td></td>
226             <td style="width:350px"><a href="{{url_list[i]}}">{{song_list[i]}}</a></td>
227             <td style="width:250px">{{artist_list[i]}}</td>
228             <td>
229                 <form action="/updPage" method="post">
230                     <input type="hidden" name="theUpdID" value="{{id_list[i]}}">
231                     <input class="updBut" type="submit" value="改"/>
232                 </form>
233             </td>
234             <td>
235                 <form action="/delPage" method="post">
236                     <input type="hidden" name="theDelID" value="{{id_list[i]}}">
237                     <input class="delBut" type="submit" value="刪"/>
238                 </form>
239             </td>
240         </tr>
241         {% endfor %}
242     </table>
243     {% endif %}
244 </center>
245 <div class="div_goTop">
246     <a href="#about" id="goTop">回到頂部</a>
247 </div>
248 </body>
249 </html>

```

```

dj updPage.html U    dj addPage.html U X
二年級 > 上學期 > 期末專案-KKBOX > templates > dj addPage.html
73 <body>
74 <center>
75 <h1>-----新增歌曲-----</h1>
76 <br><br>
77 <div class="InsertBox">
78     <form action="/DoAdd" method="post">
79         輸入 ID : <input class="textbox" type="text" name="new_id" value=""><br><br>
80         輸入歌名 : <input class="textbox" type="text" name="new_song" value="{{new_song}}"/><br>
81         輸入藝人 : <input class="textbox" type="text" name="new_artist" value="{{new_artist}}"/>
82         <input class="OKBut" type="submit" value="新增"/>
83     </form>
84     <div class="flashMessage">
85         {% with messages = get_flashed_messages() %}
86         {% if messages %}
87             <ul class="flashes">
88                 {% for message in messages %}
89                     {{ message }}
90                 {% endfor %}
91             </ul>
92         {% endif %}
93         {% endwith %}
94     </div>
95 </div>
96 </center>
97 </body>
98 </html>

```


	 <pre> 64 <body> 65 <center> 66 <h1>-----修改歌曲資訊-----</h1> 67

 68 ----- 69 {% if result != undefined %} 70 <div class="UpdateBox"> 71 <form action="/DoUpd" method="post">
 72 歌名：<input class="textbox" type="text" name="new_song" value="{{result[0][2]}}"/><b 73 藝人：<input class="textbox" type="text" name="new_artist" value="{{result[0][3]}}"/> 74 <input class="textbox" type="hidden" name="theUpdID" value="{{result[0][0]}}"> 75 <input class="OKBut" type="submit" value="儲存"/> 76 </form> 77 </div> 78 {% endif %} 79 </center> 80 </body> 81 </html> </pre>
<p>修課心得感想 (200 字)</p>	<p>在這學期的程式設計，很感謝老師這麼用心準備課程，也很有耐心的解決我們每一個人的疑難雜症。</p> <p>期中考以前我們學的是 canvas，利用 canvas 我寫出了自己的第一支小遊戲貪吃蛇，雖然花了很多時間，但是做出來的成果還不錯，很有成就感。</p> <p>後面我們學的是 flask，flash 可以用來架設網站，利用它我寫出一個小系統，這個系統可以連結資料庫 database，做出新增/查詢/修改/刪除等功能，雖然在製作的過程中，我遇到了很多困難，還有很多解不開的 bug，但是在整個元旦假期的努力之下，最後還是把這個小系統完成了，看起來相當不錯，非常的開心。</p> <p>總之很感謝這學期老師的教導，也很感謝老師幫我解決很多電腦上的問題。</p>