c0a21084be readme History

1 contributor

17 lines (17 sloc) | 784 Bytes

# 第3回

## 迷路ゲーム：迷えるこうかとん(ex03/maze.py)

### ゲーム概要

- ex03/maze.pyを実行すると，1500x900のcanvasに迷路が描画され，迷路に沿ってこうかとんを移動させるゲーム
- 実行するたびに迷路の構造は変化する

### 操作方法

- 矢印キーでこうかとんを上下左右に移動する

### 追加機能

- スタート地点:スタート地点を左上に決定します。
- ゴール地点 : ゴール地点を右下に決定します。
- ゴールに着いたら判定します。"Success"を示します。
- ｒ押すととうかとんの画像を変わります。
- k押すと一瞬でゴールに到着

### ToDo

- 時間を表示します
- 　restart すること
- 自動ゴールまで動く

## 4限追加機能実装完了

Browse files

main

c0a21084be committed 29 minutes ago 1 parent 1514ff1 commit d7ec58933d6e368684a0cb5cd2c98c08b7d106ac

Showing **1 changed file** with **44 additions** and **13 deletions**.

Split Unified

57 ex03/maze.py

```
...  @@ -1,6 +1,10 @@
                                                  1  + from operator import is_
                                                  2  + from sre_constants import SUCCESS
                                                  3  + from textwrap import fill
1    import tkinter as tk                        4    import tkinter as tk
2  - import tkinter.messagebox as ttk            5  + import tkinter.messagebox as tkm
3    import random                               6    import random
                                                 7  + from turtle import color
4                                                8
5    def make_maze(yoko, tate):                  9    def make_maze(yoko, tate):
6        XP = [ 0, 1, 0, -1]                     10       XP = [ 0, 1, 0, -1]
25               maze_lst[y+YP[rnd]][x+XP[rnd]] = 1  29            maze_lst[y+YP[rnd]][x+XP[rnd]] = 1
26                                               30
27       return maze_lst                         31       return maze_lst
28 -                                             32 +
29   def show_maze(canvas, maze_lst):            33   def show_maze(canvas, maze_lst):
30       color = ["white", "gray"]               34       color = ["white", "gray"]
31       for y in range(len(maze_lst)):          35       for y in range(len(maze_lst)):
32           for x in range(len(maze_lst[y])):   36           for x in range(len(maze_lst[y])):
33               canvas.create_rectangle(x*100, y*100,  37               canvas.create_rectangle(x*100, y*100,
     x*100+100, y*100+100,                            x*100+100, y*100+100,
34                                               38
     fill=color[maze_lst[y][x]])                      fill=color[maze_lst[y][x]])
35                                               39
                                                 40 +
                                                 41 +
36   def key_down(event):                        42   def key_down(event):
37 -     global key                              43 +     global key, num,tori
38       key = event.keysym                      44       key = event.keysym
39 -     #print(f"[{key}]Clicked")               45 +     if key == "i":
                                                 46 +         num += 1
                                                 47 +         canvas.delete(kya)
                                                 48 +         tori =
                                                       tk.PhotoImage(file=f"fig/{str(num)}.png")
                                                 49 +         canvas.create_image(cx, cy, image= tori,
                                                       tag= "tori")
                                                 50 +         if num > 9:
                                                 51 +             num = 0
40                                               52
41   def key_up(event):                          53   def key_up(event):
42       global key                              54       global key
43       key = " "                               55       key = " "
```

```
44
45  def main_proc():
46-     global cx, cy, key, mx, my
47-     delta = {" ":[0,0],
48-              "Up":[0,-1],
49               "Down":[0,+1],
50               "Left":[-1,0],
51               "Right":[+1,0],
52
53      }
54-
55      try:
56          if maze_bg[my+delta[key][1]][mx+delta[key]
    [0]]==0:
57              my,mx = my+delta[key][1],mx+delta[key]
    [0]
60      #mx,my = mx + delta[key][0], my + delta[key][1]
61      cx = mx*100+50
62      cy = my*100+50
63-
64      canvas.coords("tori",cx,cy)
65-     root.after(100,main_proc)
66
67  if __name__ ==  '__main__':
68      root = tk.Tk()
69      root.title("迷宮")
70      canvas = tk.Canvas(root,
74                         )
75      canvas.pack()
76
77      maze_bg = make_maze(15,9)
78      # print(maze_bg)
79      show_maze(canvas, maze_bg)
80-     tori = tk.PhotoImage(file="fig/5.png")
81      mx = 1
82      my = 1
83      cx = mx*100+50
84      cy = my*100+50
85-     canvas.create_image(cx, cy, image=tori,
    tag="tori")
86-
```

```
56
57  def main_proc():
58+     global cx, cy, key, mx, my, is_goal
59+     delta = {" ":[0,0],
60+              "Up":[0,-1],
61               "Down":[0,+1],
62               "Left":[-1,0],
63               "Right":[+1,0],
64
65      }
66+
67      try:
68          if maze_bg[my+delta[key][1]][mx+delta[key]
    [0]]==0:
69              my,mx = my+delta[key][1],mx+delta[key]
    [0]
72      #mx,my = mx + delta[key][0], my + delta[key][1]
73      cx = mx*100+50
74      cy = my*100+50

75      canvas.coords("tori",cx,cy)
76+     if cx ==gcx and cy == gcy:
77+         is_goal = True
78+
    canvas.create_text(750,450,text="Success!!",font=
    ("Times New Roman",100))
79+
80+     if not is_goal:
81+         root.after(100,main_proc)
82+
83
84+
85  if __name__ ==  '__main__':
86+     num = 0
87      root = tk.Tk()
88      root.title("迷宮")
89      canvas = tk.Canvas(root,
93                         )
94      canvas.pack()
95
96+
97      maze_bg = make_maze(15,9)
98      # print(maze_bg)
99      show_maze(canvas, maze_bg)
100+     tori = tk.PhotoImage(file=f"fig/{str(num)}.png")
101+
102     mx = 1
103     my = 1
104     cx = mx*100+50
105     cy = my*100+50
106+
107+     canvas.create_rectangle(cx+50,cy+50,cx-50,cy-50,
    fill="Green")
108+     kya = canvas.create_image(cx, cy, image=tori,
    tag="tori")
109+
110+     goal = tk.PhotoImage(file="fig/6.png",)
111+     gmx,gmy = 13 , 7
```

```
                                                    gcx,gcy = gmx*100+50, gmy*100+50
                                                    canvas.create_image(gcx, gcy, image=goal,
                                                tag="goal")
                                                    is_goal = False
                                                
    key=" "                                         key=" "
    root.bind("<KeyPress>",key_down)                root.bind("<KeyPress>",key_down)
    root.bind("<KeyRelease>",key_up)                root.bind("<KeyRelease>",key_up)
                                                
                                                
    main_proc()                                     main_proc()
    root.mainloop()                                 root.mainloop()
```

0 comments on commit `d7ec589`

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16 Open 0 Closed

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  #14 opened 19 minutes ago by c0a21096
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  #13 opened 7 days ago by paomiansm
- **小数点が足りない**
  #12 opened 7 days ago by C0B21190
- **いい電卓ですね(^^)**
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- **戻り値抜き**
  #7 opened 14 days ago by paomiansm
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  #6 opened 14 days ago by paomiansm
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test issue

#4 opened 14 days ago by c0a21096

テスト

#3 opened 14 days ago by C0A21078

quiz01.py

#2 opened 14 days ago by C0A21078

hello 1

#1 opened 14 days ago by C0B21190

**ProTip!** Adding no:label will show everything without a label.