

Ω **ProTip!** Updated in the last three days: updated:>2022-12-10.

```
MomonoKawabata / ProjExD Public

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      MomonoKawabata 訂正 #8 #7
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  Aয় 1 contributor
  130 lines (107 sloc) | 4.07 KB
        import pygame as pg
    2
        import random
    3
        import sys
    4
        import time
    5
    6
        def check_bound(obj_rct, scr_rct):
    7
            yoko, tate = +1, +1
            if obj_rct.left < scr_rct.left or scr_rct.right < obj_rct.right:</pre>
    8
   10
            if obj_rct.top < scr_rct.top or scr_rct.bottom < obj_rct.bottom:</pre>
   11
               tate = -1
   12
            return yoko, tate
   13
   14
   15
        def main():
            clock =pg.time.Clock()
   16
   17
            # 練習1
   18
            pg.display.set_caption("逃げろ!こうかとん")
   19
            scrn_sfc = pg.display.set_mode((1600, 900))
            scrn_rct = scrn_sfc.get_rect()
   20
   21
            pgbg_sfc = pg.image.load("fig/pg_bg.jpg")
   22
            pgbg_rct = pgbg_sfc.get_rect()
   23
            # 練習3
   24
   25
            tori_sfc = pg.image.load("fig/6.png")
   26
            tori_sfc = pg.transform.rotozoom(tori_sfc, 0, 2.0)
   27
            tori_rct = tori_sfc.get_rect()
   28
            tori_rct.center = 900, 400
            # scrn_sfcにtori_rctに従って、tori_sfcを貼り付ける
   29
            scrn_sfc.blit(tori_sfc, tori_rct)
   30
   31
   32
   33
            # 練習5
   34
   35
            bomb_sfc = pg.Surface((20, 20)) # 正方形の空のSurface
   36
            bomb_sfc.set_colorkey((0, 0, 0))
   37
            pg.draw.circle(bomb_sfc, (255, 0, 0), (10, 10), 10)
   38
            bomb_rct = bomb_sfc.get_rect()
   39
            bomb_rct.centerx = random.randint(0, scrn_rct.width)
            bomb_rct.centery = random.randint(0, scrn_rct.height)
   40
   41
            scrn_sfc.blit(bomb_sfc, bomb_rct)
   42
            vx, vy = +1, +1
   43
   44
            bomb_sfc2 = pg.Surface((20, 20)) # 2つめの爆弾
   45
            bomb_sfc2.set_colorkey((0, 0, 0))
   46
            pg.draw.circle(bomb_sfc2, (0, 0, 255), (10, 10), 10)
   47
            bomb_rct2 = bomb_sfc2.get_rect()
   48
            bomb_rct2.centerx = random.randint(0, scrn_rct.width)
   49
            bomb_rct2.centery = random.randint(0, scrn_rct.height)
   50
            scrn sfc.blit(bomb sfc2, bomb rct2)
            ax, ay = -5, -5
   51
   52
   53
   54
```

```
# 練習2
 55
         while True:
 56
57
             scrn_sfc.blit(pgbg_sfc, pgbg_rct)
58
59
             for event in pg.event.get():
60
61
                 if event.type == pg.QUIT:
62
                     return
63
             # 練習4
64
 65
             key_dct = pg.key.get_pressed()
66
             if key_dct[pg.K_UP]:
67
                 if tori_rct.colliderect(bomb_rct) or tori_rct.colliderect(bomb_rct2): #爆弾に当たったら
                     tori_rct.centery -= 0 #こうかとんが動かない
68
 69
                 else:
70
                     tori_rct.centery -= 1
             if key_dct[pg.K_DOWN]:
 71
                 if tori_rct.colliderect(bomb_rct) or tori_rct.colliderect(bomb_rct2): #爆弾に当たったら
 72
 73
                     tori_rct.centery += 0 #こうかとんが動かない
74
                 else:
75
                     tori rct.centery += 1
             if key_dct[pg.K_LEFT]:
76
 77
                 if tori_rct.colliderect(bomb_rct) or tori_rct.colliderect(bomb_rct2): #爆弾に当たったら
78
                     tori_rct.centerx -= 0 #こうかとんが動かない
79
                 else:
80
                     tori_rct.centerx -= 1
 81
             if key_dct[pg.K_RIGHT]:
 82
                 if tori_rct.colliderect(bomb_rct) or tori_rct.colliderect(bomb_rct2): #爆弾に当たったら
                     tori_rct.centerx += 0 #こうかとんが動かない
83
84
                 else:
 85
                     tori_rct.centerx += 1
86
             if check_bound(tori_rct, scrn_rct) != (+1, +1):
                 # どこかしらはみ出ていたら
87
                 if key_dct[pg.K_UP]:
88
89
                     tori_rct.centery += 1
90
                 if key_dct[pg.K_DOWN]:
91
                     tori_rct.centery -= 1
                 if key_dct[pg.K_LEFT]:
92
93
                     tori_rct.centerx += 1
94
                 if key_dct[pg.K_RIGHT]:
95
                     tori_rct.centerx -= 1
96
             scrn_sfc.blit(tori_sfc, tori_rct)
97
98
             # 練習6
99
             bomb_rct.move_ip(vx, vy)
             scrn_sfc.blit(bomb_sfc, bomb_rct)
100
101
             yoko, tate = check_bound(bomb_rct, scrn_rct)
102
             vx *= yoko
103
             vy *= tate
104
105
             bomb rct2.move ip(ax, ay) #2つ目の爆弾の動き
106
             scrn_sfc.blit(bomb_sfc2, bomb_rct2)
107
             yoko, tate = check_bound(bomb_rct2, scrn_rct)
             ax *= yoko
108
             ay *= tate
109
110
111
112
             # 練習8
113
             if tori_rct.colliderect(bomb_rct) :
114
                 vx *= 0 #赤い爆弾の動きとめる
                 vy *= 0
115
             if tori_rct.colliderect(bomb_rct2) :
116
                 ax *= 0 #青い爆弾の動きとめる
117
                 ay *= 0
118
119
120
121
122
             pg.display.update()
123
             clock.tick(1000)
124
125
126
     if __name__ == "__main__":
127
         pg.init()
128
```

129 pg.quit() 130 sys.exit()



https://github.com/MomonoKawabata/ProjExD/blob/main/ex04/README.md

メモ

□ 着弾するまでの時間を測る