☐ suzukikoushi / ProjExD (Public)

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```
3限基本機能
                                                                                   Browse files
 ٢° main
 🔐 suzukikoushi committed 3 hours ago
 1 parent b7ef068
                   commit fdd69227348fc8e348503eda30bb886e2b64b810
Showing 3 changed files with 117 additions and 35 deletions.
                                                                                   Split
                                                                                          Unified
   ✓ 0 ■■■■ ex05/README.me
 Empty file.
   @@ -1,65 +1,144 @@
  . . .
   1
         import pygame as pg
                                                    1
                                                          import pygame as pg
   2
                                                    2
         import sys
                                                          import sys
   3
         import random
                                                    3
                                                          import random
                                                    4
                                                    5
                                                    6
                                                        + class Screen: #スクリーンクラス(第4回の問
                                                          題1)
                                                    7
                                                          def __init__(self,title,wh,image):
                                                    8
                                                                 pg.display.set_caption(title)
                                                    9
                                                                 self.sfc =
                                                          pg.display.set_mode(wh) # Surface
                                                   10
                                                                 self.rct = self.sfc.get_rect()
                                                          # Rect
                                                   11
                                                                 self.bgi sfc =
                                                                                   # Surface
                                                          pg.image.load(image)
                                                   12
                                                                 self.bgi_rct =
                                                          self.bgi_sfc.get_rect()
                                                                                 # Rect
                                                   13
                                                   14
                                                              def blit(self):
                                                   15
                                                                  self.sfc.blit(self.bgi_sfc,
                                                          self.bgi rct)
                                                   16
                                                   17
                                                        + class Bird:
                                                   18
                                                              def
                                                           _init__(self,image:str,size:float,xy):
                                                   19
                                                                 self.sfc = pg.image.load(image)
```

```
# Surface
20
               self.sfc =
       pg.transform.rotozoom(self.sfc, 0, size)
21
               self.rct = self.sfc.get_rect()
       # Rect
22
               self.rct.center = xy
23
24
           def blit(self,scr:Screen):
25
               #screen_sfc.blit(self.sfc,
       self.rct)
26
               scr.sfc.blit(self.sfc,self.rct)
27
28
           def update(self,scr:Screen):
29
               key_states =
       pg.key.get_pressed() # 辞書
30
               if key_states[pg.K_UP]
31
                   self.rct.centery -= 1
32
               if key_states[pg.K_DOWN] :
33
                   self.rct.centery += 1
34
               if key_states[pg.K_LEFT] :
35
                   self.rct.centerx -= 1
36
               if key_states[pg.K_RIGHT]:
37
                   self.rct.centerx += 1
               # 練習7
38
39
               if check_bound(self.rct,
       scr.rct) != (1, 1): # 領域外だったら
                   if key_states[pg.K_UP]
40
41
                       self.rct.centery += 1
                   if key_states[pg.K_DOWN] :
42
43
                       self.rct.centery -= 1
44
                   if key_states[pg.K_LEFT] :
45
                       self.rct.centerx += 1
46
                   if key_states[pg.K_RIGHT] :
47
                       self.rct.centerx -= 1
               self.blit(scr)
48
49
50
51
     + class Bomb:
52
           def
       __init__(self,color,size,vxy,scr:Screen)
53
               self.sfc =
       pg.Surface((size*2,size*2)) # Surface
54
               self.sfc.set_colorkey((0, 0, 0))
55
               pg.draw.circle(self.sfc,
       (color), (size,size),size)
56
               self.rct = self.sfc.get rect() #
       Rect
```

```
57
                                                                  self.rct.centerx =
                                                          random.randint(0, scr.rct.width)
                                                   58
                                                                  self.rct.centery =
                                                          random.randint(0, scr.rct.height)
                                                   59
                                                                  self.vx, self.vy = vxy # 練習6
                                                   60
                                                   61
                                                              def blit(self,scr:Screen):
                                                                  scr.sfc.blit(self.sfc,self.rct)
                                                   62
                                                   63
                                                   64
                                                              def update(self,scr:Screen):
                                                   65
                                                                  # 練習6
                                                   66
                                                                  self.rct.move_ip(self.vx,
                                                          self.vy)
                                                   67
                                                                  # 練習7
                                                                  yoko, tate =
                                                   68
                                                          check_bound(self.rct, scr.rct)
                                                                  self.vx *= yoko
                                                   69
                                                   70
                                                                  self.vy *= tate
                                                   71
                                                                  # 練習5
                                                   72
                                                                  scr.sfc.blit(self.sfc, self.rct)
                                                   73
                                                                  self.blit(scr)
                                                   74
                                                   75
                                                          def main():
 5
       def main():
                                                   76
                                                              clock = pg.time.Clock()
 6
          clock = pg.time.Clock()
                                                   77
7
                                                   78
8
          # 練習1:スクリーンと背景画像
                                                   79
                                                              # 練習1:スクリーンと背景画像
9
                                                   80
          pg.display.set_caption("逃げろ!こう
                                                              #pg.display.set_caption("逃げろ!こう
       かとん")
                                                          かとん")
10
           screen sfc =
                                                   81
                                                              #screen sfc =
       pg.display.set_mode((1600, 900)) #
                                                          pg.display.set_mode((1600, 900)) #
       Surface
                                                          Surface
11
           screen rct = screen sfc.get rect()
                                                   82
                                                              #screen rct = screen sfc.get rect()
       # Rect
                                                          # Rect
12
          bgimg_sfc =
                                                   83
                                                              #bgimg_sfc =
       pg.image.load("fig/pg_bg.jpg")
                                                          pg.image.load("fig/pg bg.jpg")
       Surface
                                                          Surface
13
                                                   84
          bgimg rct = bgimg sfc.get rect()
                                                              #bgimg rct = bgimg sfc.get rect()
       # Rect
                                                          # Rect
14
          screen sfc.blit(bgimg sfc,
                                                   85
                                                              #screen sfc.blit(bgimg sfc,
       bgimg rct)
                                                          bgimg rct)
                                                              scr = Screen("逃げろ!こうかとん!?",
                                                   86
                                                          (1600,900), "fig/pg_bg.jpg")
15
                                                   87
           # 練習3:こうかとん
                                                              # 練習3:こうかとん
16
                                                   88
17
           kkimg sfc =
                                                   89
                                                              #kkimg sfc =
       pg.image.load("fig/6.png")
                                                          pg.image.load("fig/6.png")
                                    # Surface
                                                                                        # Surface
18
                                                   90
           kkimg sfc =
                                                              #kkimg sfc =
       pg.transform.rotozoom(kkimg sfc, 0, 2.0)
                                                          pg.transform.rotozoom(kkimg sfc, 0, 2.0)
```

```
# Surface
                                                           # Surface
19
           kkimg rct = kkimg sfc.get rect()
                                                    91
                                                               #kkimg rct = kkimg sfc.get rect()
                                                           # Rect
       # Rect
20
           kkimg rct.center = 900, 400
                                                    92
                                                               #kkimg rct.center = 900, 400
                                                    93
                                                               kkt=Bird("fig/6.png", 2.0, (900, 400))
21
                                                    94
22
           # 練習5:爆弾
                                                    95
                                                               # 練習5:爆弾
23
           bmimg_sfc = pg.Surface((20, 20)) #
                                                    96
                                                               #bmimg_sfc = pg.Surface((20, 20)) #
       Surface
                                                           Surface
24
           bmimg_sfc.set_colorkey((0, 0, 0))
                                                    97
                                                               #bmimg_sfc.set_colorkey((0, 0, 0))
25
                                                    98
           pg.draw.circle(bmimg_sfc, (255, 0,
                                                               #pg.draw.circle(bmimg_sfc, (255, 0,
       0), (10, 10), 10)
                                                           0), (10, 10), 10)
           bmimg_rct = bmimg_sfc.get_rect() #
26
                                                    99
                                                               #bmimg_rct = bmimg_sfc.get_rect() #
       Rect
                                                           Rect
27
           bmimg_rct.centerx =
                                                   100
                                                               #bmimg_rct.centerx =
       random.randint(0, screen_rct.width)
                                                           random.randint(0, screen_rct.width)
                                                   101
28
           bmimg_rct.centery =
                                                               #bmimg_rct.centery =
       random.randint(0, screen_rct.height)
                                                           random.randint(0, screen_rct.height)
29
           vx, vy = +1, +1 # 練習6
                                                   102
                                                               #vx, vy = +1, +1 # 練習6
                                                   103
                                                               bkb = Bomb((255,0,0),10,(+1,+1),scr)
30
                                                   104
31
          while True:
                                                   105
                                                               while True:
32
               screen_sfc.blit(bgimg_sfc,
                                                   106
                                                                   scr.blit()
       bgimg_rct)
                                                   107
                                                                   #screen sfc.blit(bgimg sfc,
                                                           bgimg_rct)
33
                                                   108
                                                                   # 練習2
34
               # 練習2
                                                   109
35
               for event in pg.event.get():
                                                   110
                                                                   for event in pg.event.get():
36
                   if event.type == pg.QUIT:
                                                   111
                                                                       if event.type == pg.QUIT:
       return
                                                           return
37
                                                   112
38
               # 練習4
                                                   113
                                                                   # 練習4
39
               key states =
                                                   114
                                                                   #key_states =
       pg.key.get_pressed() # 辞書
                                                           pg.key.get_pressed() # 辞書
40
               if key states[pg.K UP]
                                                   115
                                                                   #if key states[pg.K UP]
       True: kkimg_rct.centery -= 1
                                                           True: kkimg_rct.centery -= 1
41
                                                   116
               if key states[pg.K DOWN] ==
                                                                   #if key states[pg.K DOWN] ==
       True: kkimg_rct.centery += 1
                                                           True: kkimg_rct.centery += 1
42
               if key states[pg.K LEFT] ==
                                                   117
                                                                   #if key_states[pg.K_LEFT] ==
       True: kkimg rct.centerx -= 1
                                                           True: kkimg rct.centerx -= 1
43
                                                   118
               if key_states[pg.K_RIGHT] ==
                                                                   #if key_states[pg.K_RIGHT] ==
       True: kkimg rct.centerx += 1
                                                           True: kkimg rct.centerx += 1
               # 練習7
                                                   119
                                                                   # 練習7
44
45
               if check bound(kkimg rct,
                                                   120
                                                                   #if check bound(kkimg rct,
       screen_rct) != (1, 1): # 領域外だったら
                                                           screen_rct) != (1, 1): # 領域外だったら
46
                   if key states[pg.K UP]
                                                   121
                                                                        if key states[pg.K UP]
                                                                   #
       True: kkimg_rct.centery += 1
                                                           == True: kkimg_rct.centery += 1
47
                   if key states[pg.K DOWN] ==
                                                   122
                                                                        if key states[pg.K DOWN]
```

```
True: kkimg_rct.centery -= 1
                                                            == True: kkimg_rct.centery -= 1
48
                   if key states[pg.K LEFT] ==
                                                    123
                                                                         if key states[pg.K LEFT]
       True: kkimg_rct.centerx += 1
                                                            == True: kkimg_rct.centerx += 1
                   if key states[pg.K RIGHT] ==
                                                                         if key states[pg.K RIGHT]
49
                                                    124
       True: kkimg_rct.centerx -= 1
                                                            == True: kkimg_rct.centerx -= 1
50
               screen_sfc.blit(kkimg_sfc,
                                                    125
                                                                    #screen sfc.blit(kkimg sfc,
       kkimg rct)
                                                            kkimg rct)
                                                                    kkt.update(scr)
                                                    126
51
                                                    127
               # 練習6
52
                                                    128
                                                                    # 練習6
53
               bmimg_rct.move_ip(vx, vy)
                                                    129
                                                                    #bmimg_rct.move_ip(vx, vy)
                                                                    # 練習5
54
               # 練習5
                                                    130
               screen_sfc.blit(bmimg_sfc,
55
                                                    131
                                                                    #screen_sfc.blit(bmimg_sfc,
       bmimg_rct)
                                                            bmimg_rct)
56
               # 練習7
                                                    132
                                                                    # 練習7
57
               yoko, tate =
                                                    133
                                                                    #yoko, tate =
       check_bound(bmimg_rct, screen_rct)
                                                            check_bound(bmimg_rct, screen_rct)
58
               vx *= yoko
                                                    134
                                                                    #vx *= yoko
59
                                                    135
               vy *= tate
                                                                    #vy *= tate
                                                                    bkb.update(scr)#爆弾の位置
                                                    136
60
                                                    137
61
               # 練習8
                                                    138
                                                                    # 練習8
                                                    139
62
               if
                                                                    #if
       kkimg_rct.colliderect(bmimg_rct): return
                                                            kkimg_rct.colliderect(bmimg_rct): return
                                                                    if kkt.rct.colliderect(bkb.rct):
                                                    140
                                                    141
                                                                         return
63
                                                    142
                                                    143
64
                                                                    pg.display.update()
               pg.display.update()
                                                    144
65
               clock.tick(1000)
                                                                    clock.tick(1000)
```

0 comments on commit fdd6922