c0a22017 シールド完成 4ba6d0d · 12 minutes ago History

133 lines (108 loc) · 3.51 KB

Code Blame Raw

```python
import pygame
from pygame import mixer
import random
import math

pygame.init()

screen = pygame.display.set_mode((800, 600))
# screen.fill((150, 150, 150))
pygame.display.set_caption('Invaders Game')

# Player
playerImg = pygame.image.load('ex05/player.png')
playerX, playerY = 370, 480
playerX_change = 0

# Enemy
enemyImg = pygame.image.load('ex05/enemy.png')
enemyX = random.randint(0, 736)
```

Symbols

Find definitions and references for functions and other symbols in this file by clicking a symbol below or in the code.

Filter symbols r

const screen
const playerImg
const playerX_change
const enemyImg
const enemyX
const enemyY
const bulletImg
const bullet_state
const shield_radius

```
21      enemyX_change, enemyY_change = 4, 40
22
23      # Bullet
24      bulletImg = pygame.image.load('ex05/bullet.png')
25      bulletX, bulletY = 0, 480
26      bulletX_change, bulletY_change = 0, 3
27      bullet_state = 'ready'
28
29      #ここ
30      # Shield
31      shield_radius = 80
32      shield_color = (218, 12, 95)  # Blue color for the shield
33      shield_state = 'ready'
34
35      # Score
36      score_value = 0
37
38      def player(x, y):
39          screen.blit(playerImg, (x, y))
40
41      def enemy(x, y):
42          screen.blit(enemyImg, (x, y))
43
44      def fire_bullet(x, y):
45          global bullet_state
46          bullet_state = 'fire'
47          screen.blit(bulletImg, (x + 16, y + 10))
48
49      #ここ
50      def draw_shield(x, y):
51          pygame.draw.circle(screen, shield_color, (x + 33, y), shield_radius)
52
53      def isCollision(obj1X, obj1Y, obj2X, obj2Y, obj1_radius, obj2_radius):
54          distance = math.sqrt(math.pow(obj1X - obj2X, 2) + math.pow(obj1Y - obj2Y, 2))
55          if distance < (obj1_radius + obj2_radius):
56              return True
```

const shield_color
const shield_state
const score_value
func player
func enemy
func fire_bullet

```
        else:
            return False

    running = True
    while running:
        screen.fill((0, 0, 0))

        for event in pygame.event.get():
            if event.type == pygame.QUIT:
                running = False

            if event.type == pygame.KEYDOWN:
                if event.key == pygame.K_LEFT:
                    playerX_change = -1.5
                if event.key == pygame.K_RIGHT:
                    playerX_change = 1.5
                if event.key == pygame.K_SPACE:
                    if bullet_state is 'ready':
                        bulletX = playerX
                        fire_bullet(bulletX, bulletY)
                #ここ
                if event.key == pygame.K_s:  # Press 'S' to activate shield
                    if shield_state == 'ready':
                        shieldX, shieldY = playerX, playerY
                        shield_state = 'active'

            if event.type == pygame.KEYUP:
                if event.key == pygame.K_LEFT or event.key == pygame.K_RIGHT:
                    playerX_change = 0
        # Player
        playerX += playerX_change
        if playerX <= 0:
            playerX = 0
        elif playerX >= 736:
            playerX = 736

```

```
        #ここ
        # Shield
        if shield_state == 'active':
            draw_shield(playerX, playerY)


        # Enemy
        if enemyY > 440:
            break
        enemyX += enemyX_change
        if enemyX <= 0: #左端に来たら
            enemyX_change = 4
            enemyY += enemyY_change
        elif enemyX >=736: #右端に来たら
            enemyX_change = -4
            enemyY += enemyY_change

        #ここ
        if shield_state == 'active' and isCollision(enemyX, enemyY, playerX, playerY, shield_
            shield_state = 'ready'
            enemyX = random.randint(0, 736)
            enemyY = random.randint(50, 150)

        # Bullet Movement
        if bulletY <=0:
            bulletY = 480
            bullet_state = 'ready'

        if bullet_state is 'fire':
            fire_bullet(bulletX, bulletY)
            bulletY -= bulletY_change

        # Score
        font = pygame.font.SysFont(None, 32) # フォントの作成　Noneはデフォルトのfreesansbold.tt
        score = font.render(f"Score : {str(score_value)}", True, (255,255,255)) # テキストを描
        screen.blit(score, (20,50))
```

```
129
130         player(playerX, playerY)
131         enemy(enemyX, enemyY)
132
133         pygame.display.update()
```