import pygame

import random

from os import path

WIDTH,HEIGHT = 480,600

#BLUE = (255,0,0)

BLOCK = (0,0,0)

class Player(pygame.sprite.Sprite):

def \_\_init\_\_(self):

pygame.sprite.Sprite.\_\_init\_\_(self)

self.image = pygame.transform.flip(player\_img,False,True)

self.image = pygame.transform.scale(player\_img,(80,80))

#self.image.fill(GREEN)

self.image.set\_colorkey(BLOCK)

self.rect = self.image.get\_rect()

self.radius = 40

#self.direction = 1

self.rect.centerx = WIDTH/2

self.rect.bottom = HEIGHT

def update(self):

keystate = pygame.key.get\_pressed()

if keystate[pygame.K\_LEFT]:

self.rect.x-=5

if keystate[pygame.K\_RIGHT]:

self.rect.x+=5

if keystate[pygame.K\_UP]:

self.rect.y-=5

if keystate[pygame.K\_DOWN]:

self.rect.y+=5

if self.rect.right>=WIDTH:

self.rect.right = WIDTH

if self.rect.left<=0:

self.rect.left = 0

if self.rect.bottom>=HEIGHT:

self.rect.bottom = HEIGHT

if self.rect.top<=0:

self.rect.top = 0

#self.rect.x+=self.direction\*5

#if self.rect.right>=WIDTH:

# self.direction = -1

#if self.rect.left <= 0

# self.direction = 1

def shoot(self):

bullet = Bullet(self.rect.centerx,self.rect.centery)

bullets.add(bullet)

class Enemy(pygame.sprite.Sprite):

def \_\_init\_\_(self):

pygame.sprite.Sprite.\_\_init\_\_(self)

self.image = pygame.transform.scale(enemy\_img,(60,60))

self.image.set\_colorkey(BLOCK)

#self.image.fill(BLUE)

self.rect = self.image.get\_rect()

self.radius = 30

#pygame.draw.circle(self.image,(255,0,0),self.rect.center,self.radius)

#self.direction = 1

self.rect.centerx = random.randint(0,WIDTH)

self.rect.top = 0

self.vx = random.randint(-2,2)

self.vy = random.randint(2,10)

def update(self):

self.rect.x += self.vx

self.rect.y += self.vy

class Bullet(pygame.sprite.Sprite):

def \_\_init\_\_(self,x,y):

pygame.sprite.Sprite.\_\_init\_\_(self)

self.image = pygame.transform.scale(bullet\_img,(30,30))

self.image.set\_colorkey(BLOCK)

#self.image.fill(BLOCK)

self.rect = self.image.get\_rect()

self.rect.centerx = x

self.rect.centery = y

def update(self):

self.rect.y -= 10

class Explosion(pygame.sprite.Sprite):

def \_\_init\_\_(self,center):

pygame.sprite.Sprite.\_\_init\_\_(self)

self.image = explosion\_animation[0]

self.image = pygame.transform.scale(explosion\_img,(40,40))

self.image.set\_colorkey(BLOCK)

self.rect = self.image.get\_rect()

self.rect.center = center

self.frame = 0

self.last\_time = pygame.time.get\_ticks()

def updata(self):

#now = pygame.time.get\_ticks()

#if now - self.last\_time > 30:

if self.frame < len(explosion\_animation):

self.image = explosion\_animation[self.frame]

#self.image =pygame.transform.scale(explosion\_img,(40,40))

#self.image.set\_colorkey(BLOCK)

self.frame += 1

# self.last\_time = now

else:

self.kill()

//这里的图片可以依次向后播放，但是只会定格在最后一张，前面的总个效果看不出来，最后播放完了也不会消失，只会定格在最后一张图片上。

pygame.init()

screen = pygame.display.set\_mode((WIDTH,HEIGHT))

pygame.display.set\_caption("My Game")

clock = pygame.time.Clock()

img\_dir = path.join(path.dirname(\_\_file\_\_),'img')

background\_dir = path.join(img\_dir,'background.png')

background = pygame.image.load(background\_dir).convert()

background\_rect = background.get\_rect()

player\_dir = path.join(img\_dir,'spaceShips\_002.png')

player\_img = pygame.image.load(player\_dir).convert()

enemy\_dir = path.join(img\_dir,'spaceMeteors\_002.png')

enemy\_img = pygame.image.load(enemy\_dir).convert()

bullet\_dir = path.join(img\_dir,'spaceMissiles\_007.png')

bullet\_img = pygame.image.load(bullet\_dir).convert()

explosion\_animation = []

for i in range(9):

explosion\_dir = path.join(img\_dir,'regularExplosion{}.png'.format(i))

explosion\_img = pygame.image.load(explosion\_dir).convert()

explosion\_animation.append(explosion\_img)

player = Player()

enemys = pygame.sprite.Group()

for i in range(10):

enemy = Enemy()

enemys.add(enemy)

bullets = pygame.sprite.Group()

explosions = pygame.sprite.Group()

game\_over = False

while not game\_over:

clock.tick(60)

event\_list = pygame.event.get()

for event in event\_list:

if event.type == pygame.QUIT:

game\_over = True

if event.type == pygame.KEYDOWN:

if event.key == pygame.K\_ESCAPE:

game\_over = True

if event.key == pygame.K\_SPACE:

player.shoot()

mouse\_x,mouse\_y = pygame.mouse.get\_pos()

print(mouse\_x,mouse\_y)

#hits = pygame.sprite.spritecollide(player,enemys,False,pygame.sprite.collide\_rect\_ratio(0.7))

hits = pygame.sprite.spritecollide(player,enemys,False,pygame.sprite.collide\_circle)

if hits:

game\_over = True

hits = pygame.sprite.groupcollide(enemys,bullets,True,True)

for hit in hits:

explosion = Explosion(hit.rect.center)

explosions.add(explosion)

player.update()

enemys.update()

bullets.update()

explosions.update()

screen.blit(background,background\_rect)

screen.blit(player.image,player.rect)

enemys.draw(screen)

bullets.draw(screen)

explosions.draw(screen)

pygame.display.flip()

