

pythonでゲームプログラミング その2

② 下記プログラム書き込み

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```
import pygame
```

```
WIDTH = 640 } スクリーン領域
```

```
HEIGHT = 480
```

```
BLACK = (0,0,0)
```

```
WHITE = (255,255,255)
```

```
RED = (255,0,0)
```

```
GREEN = (0,255,0)
```

```
BLUE = (0,0,255)
```

色の定義

仮想画面設定

```
pygame.init()
```

```
screen = pygame.display.set_mode((WIDTH,HEIGHT))
```

```
myfont = pygame.font.Font(None,32)
```

```
myclock = pygame.time.Clock()
```

```
image1 = pygame.image.load("ushi2.png").convert()
```

フォント設定

ファイル読込

```
screen.fill(BLUE)
```

```
screen.blit(image1,(0,0))
```

描画

```
for i in range(9):
```

```
    angle = i*45
```

```
    pos = (i*64,80)
```

```
    image2 = pygame.transform.rotate(image1,angle)
```

```
    screen.blit(image2,pos)
```

```
    pos = (i*64,140)
```

```
    image2.set_colorkey(BLACK)
```

```
    screen.blit(image2,pos)
```

```
    imagetext=myfont.render(str(angle),True,WHITE)
```

```
    postext = (i*64,190)
```

```
    screen.blit(imagetext,postext)
```

回転角と座標

透明色設定

角度を文字で描く設定

```
pygame.display.flip()
```

```
endflag = 0
```

```
while endflag == 0:
```

```
    for event in pygame.event.get():
```

```
        if event.type == pygame.QUIT: endflag = 1
```

```
        myclock.tick(60)
```

```
pygame.quit()
```

1秒間に60回メインループを実行



① 予め、paint等で上図のような絵を描いておく(32×32ピクセル)



実行結果



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```
import pygame
import random

WIDTH = 640
HEIGHT = 480
BLACK = (0,0,0)
WHITE = (255,255,255)
RED = (255,0,0)
GREEN = (0,255,0)
BLUE = (0,0,255)

class Spclass(pygame.sprite.Sprite):
    def __init__(self):
        pygame.sprite.Sprite.__init__(self)
        self.image = ¥
        pygame.image.load("ushi2.png").convert()
        colorkey = self.image.get_at((0,0))
        self.image.set_colorkey(colorkey)
        self.rect =self.image.get_rect()
        self.rect = self.image.get_rect()
        self.rect.centerx = random.randrange(WIDTH)
        self.rect.centery = random.randrange(HEIGHT)
        self.x1 = random.randrange(-3,3)
        self.y1 = random.randrange(-3,3)

    def update(self):
        self.rect.centerx += self.x1
        self.rect.centery += self.y1
        if self.rect.centerx >= WIDTH ¥
        or self.rect.centerx < 0:
            self.x1 *= -1
        if self.rect.centery >= HEIGHT ¥
        or self.rect.centery < 0:
            self.y1 *= -1

pygame.init()
screen = pygame.display.set_mode((WIDTH,HEIGHT))
myclock = pygame.time.Clock()
allgroup = pygame.sprite.Group()
for i in range(100):
    allgroup.add(Spclass())

endflag = 0

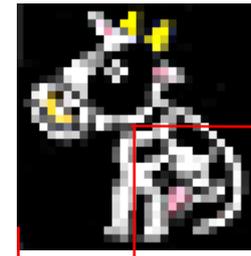
while endflag == 0:
    for event in pygame.event.get():
        if event.type == pygame.QUIT: endflag = 1
    screen.fill(BLUE)
    rect = (0,HEIGHT/2,WIDTH,HEIGHT/2)
    pygame.draw.rect(screen,GREEN,rect)
    allgroup.update()
    allgroup.draw(screen)
    myclock.tick(60)
    pygame.display.flip()
pygame.quit()
```

座標変更

速度変更

Group登録

Groupに追加



rect.y

rect.centery

rect.centerx

rect.x

実行結果

