

Forum:[Hack Forums](#)

Thread: [I have 2 problems with snake game in python](#)

CrazyLinuxHacker - January 15, 2019, 7:09 am

Hello everyone. I'm making the snake game with python but i have 2 major problems:

Firstly, snake length does not change even i eat the apple(actually i have to pass over the apple many times to increase length) and secondly, snake crosses the boundaries without game over.(I've programmed the boundaries). Also how can i make sprite borders? Thank you.

Code #libraries

```
import pygame
```

```
import random
```

```
pygame.init()
```

```
white = (255,255,255)
```

```
black = (0,0,0)
```

```
red = (255,0,0)
```

```
green = (0,155,0)
```

```
display_width = 800
```

```
display_height = 600
```

```
gameDisplay = pygame.display.set_mode((display_width,display_height))
```

```
pygame.display.set_caption("Snake(alpha edition)")
```

```
block_size = 10
```

```
FPS = 30
```

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

```
font = pygame.font.SysFont(None, 25)
```

```
def snake(block_size, snakelist):
```

```
    for xny in snakelist:
```

```
        pygame.draw.rect(gameDisplay, green, [xny[0], xny[1], block_size, block_size])
```

```
def gameover_msg(msg,color):
```

```
    screen_text = font.render(msg, True, color)
```

```
    gameDisplay.blit(screen_text, [display_width/2, display_height/2])
```

```
def gameLoop():
```

```
    gameExit = False
```

```
gameOver = False
pos_x = display_width/2
pos_y = display_height/2
pos_x_change = 0
pos_y_change = 0
randAppleX = round(random.randrange(0, display_width-block_size)/10.0)*10.0
randAppleY = round(random.randrange(0, display_height-block_size)/10.0)*10.0
snakelist = []
snakelength = 1
```

```
while not gameExit:
```

```
    while gameOver == True:
        gameDisplay.fill(white)
        gameover_msg("Game over, press R to play again or Q to quit", red)
        pygame.display.update()
```

```
    for event in pygame.event.get():
        if event.type == pygame.KEYDOWN:
            if event.key == pygame.K_q:
                gameExit = True
                gameOver = False
            if event.key == pygame.K_r:
                gameLoop()
```

```
    for event in pygame.event.get():
        if event.type == pygame.QUIT:
            gameExit = True
        if event.type == pygame.KEYDOWN:
            if event.key == pygame.K_LEFT:
                pos_x_change = -block_size
                pos_y_change = 0
            elif event.key == pygame.K_RIGHT:
                pos_x_change = block_size
                pos_y_change = 0
            elif event.key == pygame.K_UP:
                pos_y_change = -block_size
                pos_x_change = 0
            elif event.key == pygame.K_DOWN:
                pos_y_change = block_size
                pos_x_change = 0
```

```
    if pos_x >= display_width or pos_x < 0 or pos_y >= display_height or pos_y < 0:
        gameOver = True
```

```
    if pos_x == randAppleX and pos_y == randAppleY:
        randAppleX = round(random.randrange(0, display_width-block_size)/10.0)*10.0
        randAppleY = round(random.randrange(0, display_height-block_size)/10.0)*10.0
        snakelength += 1
```

```
pos_x += pos_x_change
pos_y += pos_y_change
```

```
gameDisplay.fill(white)
pygame.draw.rect(gameDisplay, red, [randAppleX, randAppleY, block_size, block_size])
```

```
snakehead = []
snakehead.append(pos_x)
snakehead.append(pos_y)
snakelist.append(snakehead)
```

```
if len(snakelist) > snakelength:
    del snakelist[0]
```

```
if snakehead in snakelist[:-1]:
    if not snakehead == snakelist[0]:
        continue
    gameOver = True
```

```
snake(block_size, snakelist)
```

```
pygame.display.update()
```

```
clock.tick(FPS)
```

```
pygame.quit()
quit()
```

gameLoop()ps: I apologise for my english. I am greek. ?

BoldFaceStew_314 - March 9, 2019, 2:14 pm

when the script checks the collision of the snake against the apple the script looks at the exact coordinates of the snake and the apple, instead of looking to see if your x or y is any where inside of the apple. To do this you will need to do something like this.

```
if pos_x+block_size+1 >= randAppleX+1 and pos_x+1 <= randAppleX+block_size+1 and
pos_y+block_size+1 >= randAppleY+1 and pos_y+1 <= randAppleY+block_size+1:
    randAppleX = round(random.randint(0, display_width-block_size)/10.0)*10.0
    randAppleY = round(random.randint(0, display_height-block_size)/10.0)*10.0
    snakelength += 1
```

Also you are running this collision within a for loop instead of your games main while loop, that's why it takes a couple of passes of the apple to actually eat the apple

