# 你只需要，安装 Pygame 库

# 打开终端（命令提示符/PowerShell）执行以下命令：

# pip install pygame

# 如果遇到权限问题，可以尝试：

# pip install --user pygame # 当前用户安装

# 然后你就可以在pygame内运行玩；或者点击在pygame生成的....py文件也可以直接玩

import pygame  
import random  
  
# 初始化 pygame  
pygame.init()  
  
# 设置窗口大小  
WIDTH, HEIGHT = 600, 400  
BLOCK\_SIZE = 20 # 代表蛇和食物的大小  
screen = pygame.display.set\_mode((WIDTH, HEIGHT))  
pygame.display.set\_caption("贪吃蛇")  
  
# 定义颜色  
WHITE = (255, 255, 255)  
GREEN = (0, 255, 0)  
RED = (255, 0, 0)  
BLACK = (0, 0, 0)  
  
# 设置游戏时钟  
clock = pygame.time.Clock()  
  
# 定义字体  
font = pygame.font.SysFont("Arial", 24)  
  
def draw\_snake(snake):  
 for block in snake:  
 pygame.draw.rect(screen, GREEN, (block[0], block[1], BLOCK\_SIZE, BLOCK\_SIZE))  
  
def draw\_food(food):  
 pygame.draw.rect(screen, RED, (food[0], food[1], BLOCK\_SIZE, BLOCK\_SIZE))  
  
  
def game\_loop():  
 # 初始方向（右）  
 direction = "RIGHT"  
 change\_to = direction  
  
 # 初始蛇的位置和身体  
 snake = [[100, 100], [80, 100], [60, 100]] # 蛇身，每个元素是 [x, y] 坐标  
 food = [random.randrange(0, WIDTH, BLOCK\_SIZE), random.randrange(0, HEIGHT, BLOCK\_SIZE)]  
  
 score = 0 # 计分  
  
 running = True  
 while running:  
 # 监听键盘事件  
 for event in pygame.event.get():  
 if event.type == pygame.QUIT:  
 running = False  
 elif event.type == pygame.KEYDOWN:  
 if event.key == pygame.K\_UP and direction != "DOWN":  
 change\_to = "UP"  
 elif event.key == pygame.K\_DOWN and direction != "UP":  
 change\_to = "DOWN"  
 elif event.key == pygame.K\_LEFT and direction != "RIGHT":  
 change\_to = "LEFT"  
 elif event.key == pygame.K\_RIGHT and direction != "LEFT":  
 change\_to = "RIGHT"  
  
 # 更新方向  
 direction = change\_to  
  
 # 移动蛇头  
 head = snake[0][:]  
 if direction == "UP":  
 head[1] -= BLOCK\_SIZE  
 elif direction == "DOWN":  
 head[1] += BLOCK\_SIZE  
 elif direction == "LEFT":  
 head[0] -= BLOCK\_SIZE  
 elif direction == "RIGHT":  
 head[0] += BLOCK\_SIZE  
  
 # 检查撞墙  
 if head[0] < 0 or head[0] >= WIDTH or head[1] < 0 or head[1] >= HEIGHT:  
 print("Game Over: Hit the Wall!")  
 running = False  
  
 # 检查是否撞到自己  
 if head in snake:  
 print("Game Over: Hit Yourself!")  
 running = False  
  
 # 吃食物  
 if head == food:  
 food = [random.randrange(0, WIDTH, BLOCK\_SIZE), random.randrange(0, HEIGHT, BLOCK\_SIZE)]  
 score += 10  
 else:  
 snake.pop() # 没吃到食物就删除尾巴，保持长度  
  
 # 更新蛇头位置  
 snake.insert(0, head)  
  
 # 绘制背景  
 screen.fill(BLACK)  
  
 # 绘制蛇和食物  
 draw\_snake(snake)  
 draw\_food(food)  
  
 # 显示分数  
 score\_text = font.render(f"Score: {score}", True, WHITE)  
 screen.blit(score\_text, (10, 10))  
  
 # 刷新屏幕  
 pygame.display.flip()  
  
 # 控制游戏速度  
 clock.tick(7)  
  
 pygame.quit()  
  
if \_\_name\_\_ == "\_\_main\_\_":  
 game\_loop()