Snake Xenzia

Python Project — Source Code

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import pygame, sys, random

pygame.init()
screen = pygame.display.set_mode((400, 400))
clock = pygame.time.Clock()
font = pygame.font.SysFont(None, 35)

snake = [(200, 200)]
direction = (20, 0)
food = (random.randrange(0, 400, 20), random.randrange(0, 400, 20))
score = 0
game_over = False
special_food = None
normal_food_count = 0
grow = 0

def reset_game():
global snake, direction, food, score, game_over, special_food, normal_food_count, grow
snake = [(200, 200)]
direction = (20, 0)
food = (random.randrange(0, 400, 20), random.randrange(0, 400, 20))
special_food = None
score = 0
game_over = False
normal_food_count = 0
grow = 0

def move_snake():
global snake, grow
head_x, head_y = snake[0]
dir_x, dir_y = direction
# Wrap around the screen
new_head_x = (head_x + dir_x) % 400
new_head_y = (head_y + dir_y) % 400
new_head = (new_head_x, new_head_y)
snake.insert(0, new_head)
if grow > 0:
grow -= 1
else:
snake.pop()

def check_collision():
global game_over
# Check for collision with itself
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if snake[0] in snake[1:]:
game_over = True
def main():
global direction, food, score, special_food, normal_food_count, grow, game_over
while True:
for event in pygame.event.get():
if event.type == pygame.QUIT:
sys.exit()
if event.type == pygame.KEYDOWN:
if not game_over:
# Prevent the snake from reversing on itself
if event.key == pygame.K_UP and direction != (0, 20):
direction = (0, -20)
if event.key == pygame.K_DOWN and direction != (0, -20):
direction = (0, 20)
if event.key == pygame.K_LEFT and direction != (20, 0):
direction = (-20, 0)
if event.key == pygame.K_RIGHT and direction != (-20, 0):
direction = (20, 0)
if game_over and event.key == pygame.K_r:
reset_game()
if not game_over:
move_snake()
if snake[0] == food:
grow += 1
score += 1
normal_food_count += 1
food = (random.randrange(0, 400, 20), random.randrange(0, 400, 20))
if normal_food_count % 3 == 0:
special_food = (random.randrange(0, 400, 20), random.randrange(0, 400, 20))
if special_food and snake[0] == special_food:
grow += 1
score += 5
special_food = None
check_collision()
screen.fill((0, 0, 0))
for i, segment in enumerate(snake):
color = (0, 200, 0) if i % 2 == 0 else (0, 255, 0)
pygame.draw.rect(screen, color, (*segment, 20, 20))
head_x, head_y = snake[0]
eye_color = (0, 0, 0)
if direction == (20, 0): # Right
pygame.draw.circle(screen, eye_color, (head_x + 15, head_y + 5), 3)
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pygame.draw.circle(screen, eye_color, (head_x + 15, head_y + 15), 3)
if direction == (-20, 0): # Left
pygame.draw.circle(screen, eye_color, (head_x + 5, head_y + 5), 3)
pygame.draw.circle(screen, eye_color, (head_x + 5, head_y + 15), 3)
if direction == (0, -20): # Up
pygame.draw.circle(screen, eye_color, (head_x + 5, head_y + 5), 3)
pygame.draw.circle(screen, eye_color, (head_x + 15, head_y + 5), 3)
if direction == (0, 20): # Down
pygame.draw.circle(screen, eye_color, (head_x + 5, head_y + 15), 3)
pygame.draw.circle(screen, eye_color, (head_x + 15, head_y + 15), 3)
pygame.draw.rect(screen, (255, 0, 0), (*food, 20, 20))
if special_food:
pygame.draw.rect(screen, (0, 0, 255), (*special_food, 20, 20))
score_text = font.render(f"Score: {score}", True, (255, 255, 255))
screen.blit(score_text, (10, 10))
if game_over:
over_text = font.render("Game Over! Press R to Restart", True, (255, 0, 0))
screen.blit(over_text, (20, 180))
pygame.display.flip()
clock.tick(10)
if __name__ == "__main__":
main()
```