

```
In [ ]: ! pip install pygame
import pygame
import time
import random

pygame.init()

# Set the width and height of the game window
width, height = 640, 480
window = pygame.display.set_mode((width, height))

# Set the title of the game window
pygame.display.set_caption("Snake Game")

# Define colors
black = pygame.Color(0, 0, 0)
white = pygame.Color(255, 255, 255)
red = pygame.Color(255, 0, 0)
green = pygame.Color(0, 255, 0)
blue = pygame.Color(0, 0, 255)

# Set the speed of the game
fps = pygame.time.Clock()

# Set the size of the snake's body part and the food
snake_block_size = 10
snake_speed = 15

# Define the font
font_style = pygame.font.SysFont(None, 30)
score_font = pygame.font.SysFont(None, 50)

# Define the function to display the score on the screen
def your_score(score):
    value = score_font.render("Your Score: " + str(score), True, white)
    window.blit(value, [0, 0])

# Define the snake function
def our_snake(snake_block_size, snake_list):
    for x in snake_list:
        pygame.draw.rect(window, green, [x[0], x[1], snake_block_size, snake_block_size])

# Define the game loop
def game_loop():
    game_over = False
    game_end = False

    # Coordinates of the snake
    x1 = width / 2
    y1 = height / 2

    # Initial velocity
    x1_change = 0
    y1_change = 0

    # Define the snake's body
    snake_List = []
    Length_of_snake = 1

    # Coordinates of the food
    foodx = round(random.randrange(0, width - snake_block_size) / 10.0) * 10.0
    foody = round(random.randrange(0, height - snake_block_size) / 10.0) * 10.0

    # Main game loop
    while not game_over:
        while game_end == True:
            # Display game over message
            window.fill(black)
            message = font_style.render("Game Over! Press Q-Quit or C-Play Again", True, white)
            window.blit(message, [width / 6, height / 3])
            your_score(Length_of_snake - 1)
            pygame.display.flip()

            # Wait for player to select an option
            for event in pygame.event.get():
                if event.type == pygame.KEYDOWN:
                    if event.key == pygame.K_q:
                        game_over = True
                        game_end = False
                    if event.key == pygame.K_c:
                        game_loop()

        # Capture player's input
        for event in pygame.event.get():
            if event.type == pygame.QUIT:
                game_over = True
            if event.type == pygame.KEYDOWN:
                if event.key == pygame.K_LEFT:
                    x1_change = -snake_block_size
                    y1_change = 0
                elif event.key == pygame.K_RIGHT:
                    x1_change = snake_block_size
                    y1_change = 0
                elif event.key == pygame.K_UP:
                    y1_change = -snake_block_size
                    x1_change = 0
                elif event.key == pygame.K_DOWN:
                    y1_change = snake_block_size
                    x1_change = 0

        # Check for boundary collision
        if x1 >= width or x1 < 0 or y1 >= height or y1 < 0:
            game_end = True

        # Update snake's position
        x1 += x1_change
        y1 += y1_change
        window.fill(black)
        pygame.draw.rect(window, blue, [foodx, foody, snake_block_size, snake_block_size])
        snake_Head = []
        snake_Head.append(x1)
        snake_Head.append(y1)
        snake_List.append(snake_Head)
        if len(snake_List) > Length_of_snake:
            del snake_List[0]

        # Check for snake's self-collision
        for x in snake_List[:-1]:
            if x == snake_Head:
                game_end = True

        # Draw the snake on the game window
        our_snake(snake_block_size, snake_List)
        your_score(Length_of_snake - 1)

        # Refresh the game window
        pygame.display.update()

        # Check if the snake has eaten the food
        if x1 == foodx and y1 == foody:
            foodx = round(random.randrange(0, width - snake_block_size) / 10.0) * 10.0
            foody = round(random.randrange(0, height - snake_block_size) / 10.0) * 10.0
            Length_of_snake += 1

        # Set the game speed
        fps.tick(snake_speed)

    # Quit Pygame
    pygame.quit()
    quit()

# Start the game loop
game_loop()
```

In []: