# import required modules

import turtle

import time

import random

delay = 0.1

score = 0

high\_score = 0

# Creating a window screen

wn = turtle.Screen()

wn.title("Snake Game")

wn.bgcolor("blue")

# the width and height can be put as user's choice

wn.setup(width=600, height=600)

wn.tracer(0)

# head of the snake

head = turtle.Turtle()

head.shape("square")

head.color("white")

head.penup()

head.goto(0, 0)

head.direction = "Stop"

# food in the game

food = turtle.Turtle()

colors = random.choice(['red', 'green', 'black'])

shapes = random.choice(['square', 'triangle', 'circle'])

food.speed(0)

food.shape(shapes)

food.color(colors)

food.penup()

food.goto(0, 100)

pen = turtle.Turtle()

pen.speed(0)

pen.shape("square")

pen.color("white")

pen.penup()

pen.hideturtle()

pen.goto(0, 250)

pen.write("Score : 0 High Score : 0", align="center",

font=("candara", 24, "bold"))

# assigning key directions

def group():

if head.direction != "down":

head.direction = "up"

def godown():

if head.direction != "up":

head.direction = "down"

def goleft():

if head.direction != "right":

head.direction = "left"

def goright():

if head.direction != "left":

head.direction = "right"

def move():

if head.direction == "up":

y = head.ycor()

head.sety(y+20)

if head.direction == "down":

y = head.ycor()

head.sety(y-20)

if head.direction == "left":

x = head.xcor()

head.setx(x-20)

if head.direction == "right":

x = head.xcor()

head.setx(x+20)

wn.listen()

wn.onkeypress(group, "w")

wn.onkeypress(godown, "s")

wn.onkeypress(goleft, "a")

wn.onkeypress(goright, "d")

segments = []

# Main Gameplay

while True:

wn.update()

if head.xcor() > 290 or head.xcor() < -290 or head.ycor() > 290 or head.ycor() < -290:

time.sleep(1)

head.goto(0, 0)

head.direction = "Stop"

colors = random.choice(['red', 'blue', 'green'])

shapes = random.choice(['square', 'circle'])

for segment in segments:

segment.goto(1000, 1000)

segments.clear()

score = 0

delay = 0.1

pen.clear()

pen.write("Score : {} High Score : {} ".format(

score, high\_score), align="center", font=("candara", 24, "bold"))

if head.distance(food) < 20:

x = random.randint(-270, 270)

y = random.randint(-270, 270)

food.goto(x, y)

# Adding segment

new\_segment = turtle.Turtle()

new\_segment.speed(0)

new\_segment.shape("square")

new\_segment.color("orange") # tail colour

new\_segment.penup()

segments.append(new\_segment)

delay -= 0.001

score += 10

if score > high\_score:

high\_score = score

pen.clear()

pen.write("Score : {} High Score : {} ".format(

score, high\_score), align="center", font=("candara", 24, "bold"))

# Checking for head collisions with body segments

for index in range(len(segments)-1, 0, -1):

x = segments[index-1].xcor()

y = segments[index-1].ycor()

segments[index].goto(x, y)

if len(segments) > 0:

x = head.xcor()

y = head.ycor()

segments[0].goto(x, y)

move()

for segment in segments:

if segment.distance(head) < 20:

time.sleep(1)

head.goto(0, 0)

head.direction = "stop"

colors = random.choice(['red', 'blue', 'green'])

shapes = random.choice(['square', 'circle'])

for segment in segments:

segment.goto(1000, 1000)

segments.clear()

score = 0

delay = 0.1

pen.clear()

pen.write("Score : {} High Score : {} ".format(

score, high\_score), align="center", font=("candara", 24, "bold"))

time.sleep(delay)

wn.mainloop()