import tkinter as tk

import time

import math

# Create the main window

root = tk.Tk()

root.title("Rolex-Inspired Analog Clock")

root.geometry("400x400")

root.resizable(False, False)

# Set up the canvas (drawing area)

canvas = tk.Canvas(root, width=400, height=400, bg="black")

canvas.pack()

# Draw the clock face

def draw\_clock\_face():

canvas.create\_oval(50, 50, 350, 350, outline="gold", width=4) # Outer ring

canvas.create\_oval(90, 90, 310, 310, outline="darkgreen", width=2) # Inner ring

# Draw hour markers

for i in range(12):

angle = math.radians(i \* 30) # 360 degrees / 12 hours = 30 degrees per hour

x\_outer = 200 + 140 \* math.cos(angle - math.pi / 2)

y\_outer = 200 + 140 \* math.sin(angle - math.pi / 2)

x\_inner = 200 + 120 \* math.cos(angle - math.pi / 2)

y\_inner = 200 + 120 \* math.sin(angle - math.pi / 2)

canvas.create\_line(x\_outer, y\_outer, x\_inner, y\_inner, fill="gold", width=3)

# Draw the clock hands

def update\_clock\_hands():

# Get the current time

current\_time = time.localtime()

hours = current\_time.tm\_hour % 12

minutes = current\_time.tm\_min

seconds = current\_time.tm\_sec

# Calculate angles for each hand

hour\_angle = math.radians((hours + minutes / 60) \* 30) # 30 degrees per hour

minute\_angle = math.radians(minutes \* 6) # 6 degrees per minute

second\_angle = math.radians(seconds \* 6) # 6 degrees per second

# Clear previous hands

canvas.delete("hands")

# Draw hour hand

hour\_x = 200 + 60 \* math.cos(hour\_angle - math.pi / 2)

hour\_y = 200 + 60 \* math.sin(hour\_angle - math.pi / 2)

canvas.create\_line(200, 200, hour\_x, hour\_y, fill="white", width=6, tags="hands")

# Draw minute hand

minute\_x = 200 + 90 \* math.cos(minute\_angle - math.pi / 2)

minute\_y = 200 + 90 \* math.sin(minute\_angle - math.pi / 2)

canvas.create\_line(200, 200, minute\_x, minute\_y, fill="white", width=4, tags="hands")

# Draw second hand

second\_x = 200 + 110 \* math.cos(second\_angle - math.pi / 2)

second\_y = 200 + 110 \* math.sin(second\_angle - math.pi / 2)

canvas.create\_line(200, 200, second\_x, second\_y, fill="red", width=2, tags="hands")

# Schedule update

root.after(1000, update\_clock\_hands)

# Draw everything

draw\_clock\_face()

update\_clock\_hands()

# Run the main loop

root.mainloop()