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# Import the modules
import grcode
from PIL import ImageTk, Image
import tkinter as tk
from tkinter import ttk, filedialog, messagebox
# Define Functions
def createQR(*args):
    data = text entry.get()
    if data and data != "Enter Here...": # Check if data is not the
placeholder text
        img = qrcode.make(data) # generate QR code
        res img = img.resize((280, 250)) # resize QR Code Size
        # Convert to PhotoImage
        tkimage = ImageTk.PhotoImage(res img)
        qr canvas.delete('all')
        qr canvas.create image(0, 0, anchor=tk.NW, image=tkimage)
        qr canvas.image = tkimage
    else:
        messagebox.showwarning("Warning", 'Enter Data in Entry First')
def saveQR(*args):
    data = text entry.get()
    if data and data != "Enter Here...": # Check if data is not the
placeholder text
        img = qrcode.make(data) # generate QR code
        res img = img.resize((280, 250)) # resize QR Code Size
        path = filedialog.asksaveasfilename(defaultextension=".png")
        if path:
            res img.save(path)
            messagebox.showinfo("Success", "QR Code is Saved")
    else:
        messagebox.showwarning("Warning", 'Enter Data in Entry First')
# Function to handle focus event to clear the placeholder text
def on focus in (event):
    if text entry.get() == "Enter Here...":
        text entry.delete(0, tk.END) # Delete the placeholder text when
the user clicks in the box
        text entry.config(foreground="#000000") # Change text color to
black when user starts typing
# Function to handle focus out event to reinsert placeholder text if the
entry is empty
def on focus out(event):
    if text entry.get() == "":
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text entry.insert(0, "Enter Here...") # Insert the placeholder
text back
        text entry.config(foreground="#888888") # Change text color to
gray for placeholder
# GUI Code
root = tk.Tk()
root.title("QR Code Generator")
root.geometry("300x380") # wxh
root.config(bg="white")
root.resizable(0, 0)
# Frames
frame1 = tk.Frame(root, bd=1, relief=tk.RAISED)
frame1.place(x=10, y=0, width=280, height=250)
frame2 = tk.Frame(root, bd=2, relief=tk.SUNKEN)
frame2.place(x=10, y=260, width=280, height=100)
# Cover Image Placeholder
cover img = tk.PhotoImage(file="QR Code.png")
qr_canvas = tk.Canvas(frame1)
qr_canvas.create_image(0, 0, anchor=tk.NW, image=cover img)
qr canvas.image = cover img
qr canvas.bind("<Double-1>", saveQR)
qr canvas.pack(fill=tk.BOTH)
# Entry Box with Placeholder
text entry = ttk.Entry(frame2, width=26, font=("Sitka Small", 11),
justify=tk.CENTER)
text entry.insert(0, "Enter Here...") # Insert placeholder text
text entry.config(foreground="#888888") # Set text color for placeholder
text entry.bind("<Return>", createQR)
text entry.bind("<FocusIn>", on focus in) # Bind focus-in event to clear
placeholder
text entry.bind("<FocusOut>", on focus out) # Bind focus-out event to
reinsert placeholder if needed
text entry.place(x=5, y=5)
# Buttons
btn 1 = ttk.Button(frame2, text="Create", width=10, command=createQR)
btn 1.place(x=25, y=50)
btn 2 = ttk.Button(frame2, text="Save", width=10, command=saveQR)
btn 2.place(x=100, y=50)
btn 3 = ttk.Button(frame2, text="Exit", width=10, command=root.quit)
btn 3.place(x=175, y=50)
# Run the GUI main loop
root.mainloop()
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