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# ----- TKINTER PAINT APP 1 -----

from tkinter import *
import tkinter.font

# Create main window
root = Tk()
root.geometry("800x600")

class PaintApp:
    text_font = StringVar()
    text_size = IntVar()
    bold_text = IntVar()
    italic_text = IntVar()
    # Stores current tool we are using
    drawing_tool = StringVar()

    # Tracks whether left mouse is down
    left_but = "up"

    # x and y positions for drawing with pencil
    x_pos, y_pos = None, None

    # Tracks x & y when the mouse is clicked and released
    x1_line_pt, y1_line_pt, x2_line_pt, y2_line_pt = None, None, None, None

    # Quits the Tkinter app when called
    @staticmethod
    def quit_app():
        root.quit()

    def make_menu_bar(self):
        # Create the menu object
        the_menu = Menu(root)

        # ---- FILE MENU ----
        # Create a pull down menu that can't be removed
        file_menu = Menu(the_menu, tearoff=0)

        # Add items to the menu that show when clicked
        # compound allows you to add an image
        file_menu.add_command(label="Open")
        file_menu.add_command(label="Save")

        # Add a horizontal bar to group similar commands
        file_menu.add_separator()

        # Call for the function to execute when clicked
        file_menu.add_command(label="Quit", command=self.quit_app)

        # Add the pull down menu to the menu bar
        the_menu.add_cascade(label="File", menu=file_menu)

        # ---- FONT MENU ----

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font_menu = Menu(the_menu, tearoff=0)
font_type_submenu = Menu(font_menu)
font_type_submenu.add_radiobutton(label="Times",
                                   variable=self.text_font)
font_type_submenu.add_radiobutton(label="Courier",
                                   variable=self.text_font)
font_type_submenu.add_radiobutton(label="Ariel",
                                   variable=self.text_font)
font_menu.add_cascade(label="Font Type",
                      menu=font_type_submenu)

font_size_submenu = Menu(font_menu)
font_size_submenu.add_radiobutton(label="10",
                                   variable=self.text_size,
                                   value=10)
font_size_submenu.add_radiobutton(label="15",
                                   variable=self.text_size,
                                   value=15)
font_size_submenu.add_radiobutton(label="20",
                                   variable=self.text_size,
                                   value=20)
font_size_submenu.add_radiobutton(label="25",
                                   variable=self.text_size,
                                   value=25)
font_menu.add_cascade(label="Font Size",
                      menu=font_size_submenu)
font_menu.add_checkbutton(label="Bold",
                           variable=self.bold_text,
                           onvalue=1,
                           offvalue=0)
font_menu.add_checkbutton(label="Italic",
                           variable=self.italic_text,
                           onvalue=1,
                           offvalue=0)
the_menu.add_cascade(label="Font", menu=font_menu)

# ---- TOOL MENU ----
tool_menu = Menu(the_menu, tearoff=0)
tool_menu.add_radiobutton(label="Pencil",
                           variable=self.drawing_tool,
                           value="pencil")
tool_menu.add_radiobutton(label="Line",
                           variable=self.drawing_tool,
                           value="line")
tool_menu.add_radiobutton(label="Arc",
                           variable=self.drawing_tool,
                           value="arc")
tool_menu.add_radiobutton(label="Oval",
                           variable=self.drawing_tool,
                           value="oval")
tool_menu.add_radiobutton(label="Rectangle",
                           variable=self.drawing_tool,
                           value="rectangle")
tool_menu.add_radiobutton(label="Text",

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        variable=self.drawing_tool,  
        value="text")  
the_menu.add_cascade(label="Tool", menu=tool_menu)  
  
# Display the menu bar  
root.config(menu=the_menu)  
  
def __init__(self, root):  
    drawing_area = Canvas(root)  
    drawing_area.pack()  
  
    self.text_font.set("Times")  
    self.text_size.set(20)  
    self.bold_text.set(0)  
    self.italic_text.set(0)  
    self.drawing_tool.set("line")  
  
    self.make_menu_bar()  
  
paint_app = PaintApp(root)  
root.mainloop()
```