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1  #Notepad
2  #Icon http://www.doublejdesign.co.uk
3  import tkinter
4  from PIL import ImageTk, Image
5  from tkinter import StringVar, IntVar, scrolledtext, END, messagebox, filedialog
6
7  #Define window
8  root = tkinter.Tk()
9  root.title('Notepad')
10 root.iconbitmap('pad.ico')
11 root.geometry('600x600')
12 root.resizable(0,0)
13
14 #Define fonts and colors
15 text_color = "#ffffcd"
16 menu_color = "#dbd9db"
17 root_color = "#6c809a"
18 root.config(bg=root_color)
19
20 #Define functions
21 def change_font(event):
22     """Change the given font based off dropbox options."""
23     if font_option.get() == 'none':
24         my_font = (font_family.get(), font_size.get())
25     else:
26         my_font = (font_family.get(), font_size.get(), font_option.get())
27
28     #Change the font style
29     input_text.config(font=my_font)
30
31
32 def new_note():
33     """Create a new Note which essentially clears the screen."""
34     #Use a messagebox to ask for a new note
35     question = messagebox.askyesno("New Note", "Are you sure you want to start a new note?")
36     if question == 1:
37         #ScrolledText widgets starting index is 1.0 not 0.
38         input_text.delete("1.0", END)
39
40
41 def close_note():
42     """Closes the note which essentially quits the program."""
43     #Use a messagebox to ask to close
44     question = messagebox.askyesno("Close Note", "Are you sure you want to close your note?")
45     if question == 1:
46         root.destroy()
47
48
49 def save_note():
50     """Save the given note. First three lines are saved as font family, font size, and font option."""
51     #Use filedialog to get location and name of where/what to save the file as.
52     save_name = filedialog.asksaveasfilename(initialdir=".", title="Save Note", filetypes=(("Text Files", "*.txt"), ("All Files", "*.*")))
53     with open(save_name, 'w') as f:
54         #First three lines of save file are font_family, font_size, and font_options.
55         #Font_size must be a string not int.
56         f.write(font_family.get() + "\n")
57         f.write(str(font_size.get()) + "\n")
58         f.write(font_option.get() + "\n")
59
60     #write remaining text in field to the file
61     f.write(input_text.get("1.0", END))
62

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63 def open_note():
64     """Open a previously saved note. First three lines of note are font family, font
        size, and font option. First set the font, then load the text."""
65     #Use filedialog to get location and directory of note file
66     open_name = filedialog.askopenfilename(initialdir=".", title='Open Note',
        filetypes=(("Text Files", "*.txt"), ("All Files", "*.*")))
67     with open(open_name, 'r') as f:
68         #Clear the current text
69         input_text.delete("1.0", END)
70
71         #First three lines are font_faimly, font_size, and font_option...You must strip
        the new line char at the end of each line!
72         font_family.set(f.readline().strip())
73         font_size.set(int(f.readline().strip()))
74         font_option.set(f.readline().strip())
75
76         #Call the change font for these .set() and pass an arbitrary value
77         change_font(1)
78
79         #Read the rest of the file and insert it into the text field
80         text = f.read()
81         input_text.insert("1.0", text)
82
83
84     #Define Layout
85     #Define frames
86     menu_frame = tkinter.Frame(root, bg=menu_color)
87     text_frame = tkinter.Frame(root, bg=text_color)
88     menu_frame.pack(padx=5, pady=5)
89     text_frame.pack(padx=5, pady=5)
90
91     #Layout for menu frame
92     #Create the menu: new, open, save, close, font family, font size, font option
93     new_image = ImageTk.PhotoImage(Image.open('new.png'))
94     new_button = tkinter.Button(menu_frame, image=new_image, command=new_note)
95     new_button.grid(row=0, column=0, padx=5, pady=5)
96
97     open_image = ImageTk.PhotoImage(Image.open('open.png'))
98     open_button = tkinter.Button(menu_frame, image=open_image, command=open_note)
99     open_button.grid(row=0, column=1, padx=5, pady=5)
100
101     save_image = ImageTk.PhotoImage(Image.open('save.png'))
102     save_button = tkinter.Button(menu_frame, image=save_image, command=save_note)
103     save_button.grid(row=0, column=2, padx=5, pady=5)
104
105     close_image = ImageTk.PhotoImage(Image.open('close.png'))
106     close_button = tkinter.Button(menu_frame, image=close_image, command=close_note)
107     close_button.grid(row=0, column=3, padx=5, pady=5)
108
109     #Create a list of fonts to use
110     families = ['Terminal', 'Modern', 'Script', 'Courier', 'Arial', 'Calibri', 'Cambria',
        'Georgia', 'MS Gothic', 'SimSun', 'Tahoma', 'Times New Roman', 'Verdana', 'Wingdings']
111     font_family = StringVar()
112     font_family_drop = tkinter.OptionMenu(menu_frame, font_family, *families,
        command=change_font)
113     font_family.set('Terminal')
114     #Set the width so it will fit "times new roman" and remain constant
115     font_family_drop.config(width=16)
116     font_family_drop.grid(row=0, column=4, padx=5, pady=5)
117
118     sizes = [8, 10, 12, 14, 16, 20, 24, 32, 48, 64, 72, 96]
119     font_size = IntVar()
120     font_size_drop = tkinter.OptionMenu(menu_frame, font_size, *sizes, command=change_font)
121     font_size.set(12)
122     #Set width to be constant even if its 8.
123     font_size_drop.config(width=2)
124     font_size_drop.grid(row=0, column=5, padx=5, pady=5)

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125
126 options = ['none', 'bold', 'italic']
127 font_option = StringVar()
128 font_option_drop = tkinter.OptionMenu(menu_frame, font_option, *options,
129                                     command=change_font)
130 font_option.set('none')
131 #Set the width to be constant
132 font_option_drop.config(width=5)
133 font_option_drop.grid(row=0, column=6, padx=5, pady=5)
134
135 #Layout for the text frame
136 my_font = (font_family.get(), font_size.get())
137
138 #Create input_text as a scrolltext so you can scroll through the text field.
139 #Set default width and height to be more than the window size so that on the smallest
140 #text size, the text field size is constant.
141 input_text = tkinter.scrolledtext.ScrolledText(text_frame, width=1000, height=100,
142                                             bg=text_color, font=my_font)
143 input_text.pack()
144
145 #Run the root window's main loop
146 root.mainloop()
```