import tkinter as tk

from tkinter import messagebox

import json

# Function to load tasks from JSON file

def load\_tasks():

try:

with open('tasks.json', 'r') as file:

return json.load(file)

except FileNotFoundError:

return []

# Function to save tasks to JSON file

def save\_tasks(tasks):

with open('tasks.json', 'w') as file:

json.dump(tasks, file, indent=4)

# Function to add a new task

def add\_task():

task\_text = entry\_task.get()

if task\_text:

tasks.append({'task': task\_text, 'completed': False})

save\_tasks(tasks)

list\_tasks.insert(tk.END, task\_text)

entry\_task.delete(0, tk.END)

else:

messagebox.showwarning("Warning", "Please enter a task.")

# Function to delete a task

def delete\_task():

try:

index = list\_tasks.curselection()[0]

list\_tasks.delete(index)

del tasks[index]

save\_tasks(tasks)

except IndexError:

messagebox.showwarning("Warning", "Please select a task to delete.")

# Function to mark a task as complete

def complete\_task():

try:

index = list\_tasks.curselection()[0]

tasks[index]['completed'] = True

save\_tasks(tasks)

list\_tasks.itemconfig(index, {'bg': 'light green'})

except IndexError:

messagebox.showwarning("Warning", "Please select a task to mark as complete.")

# Function to display tasks

def display\_tasks():

for task in tasks:

list\_tasks.insert(tk.END, task['task'])

if task['completed']:

index = tasks.index(task)

list\_tasks.itemconfig(index, {'bg': 'light green'})

# Main window

root = tk.Tk()

root.title("To-Do List")

# Load tasks

tasks = load\_tasks()

# Task Entry

entry\_task = tk.Entry(root, width=50)

entry\_task.pack(pady=10)

# Buttons

frame\_buttons = tk.Frame(root)

frame\_buttons.pack()

button\_add = tk.Button(frame\_buttons, text="Add Task", command=add\_task)

button\_add.grid(row=0, column=0, padx=5)

button\_delete = tk.Button(frame\_buttons, text="Delete Task", command=delete\_task)

button\_delete.grid(row=0, column=1, padx=5)

button\_complete = tk.Button(frame\_buttons, text="Mark Complete", command=complete\_task)

button\_complete.grid(row=0, column=2, padx=5)

# Task List

list\_tasks = tk.Listbox(root, width=50, height=10, selectmode=tk.SINGLE)

list\_tasks.pack()

# Display tasks

display\_tasks()

root.mainloop()