import tkinter as tk

from tkinter import messagebox

class TodoApp:

def \_\_init\_\_(self, root):

self.root = root

self.root.title("Simple To-Do List App")

self.tasks = []

# Create UI components

self.task\_entry = tk.Entry(root, width=30)

self.task\_entry.pack(pady=10)

self.add\_button = tk.Button(root, text="Add Task", command=self.add\_task)

self.add\_button.pack()

self.task\_listbox = tk.Listbox(root, selectmode=tk.SINGLE, width=30)

self.task\_listbox.pack(pady=10)

self.edit\_button = tk.Button(root, text="Edit Task", command=self.edit\_task)

self.edit\_button.pack()

self.complete\_button = tk.Button(root, text="Mark as Completed", command=self.mark\_completed)

self.complete\_button.pack()

self.delete\_button = tk.Button(root, text="Delete Task", command=self.delete\_task)

self.delete\_button.pack()

# Bind double click event on listbox

self.task\_listbox.bind("<Double-Button-1>", self.edit\_task)

def add\_task(self):

task = self.task\_entry.get()

if task:

self.tasks.append(task)

self.update\_task\_list()

self.task\_entry.delete(0, tk.END)

else:

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

def edit\_task(self, event=None):

selected\_task\_index = self.task\_listbox.curselection()

if selected\_task\_index:

task\_index = selected\_task\_index[0]

current\_task = self.tasks[task\_index]

new\_task = simple\_input\_dialog(self.root, "Edit Task", "Edit Task:", current\_task)

if new\_task is not None:

self.tasks[task\_index] = new\_task

self.update\_task\_list()

def update\_task\_list(self):

self.task\_listbox.delete(0, tk.END)

for task in self.tasks:

self.task\_listbox.insert(tk.END, task)

def mark\_completed(self):

selected\_task\_index = self.task\_listbox.curselection()

if selected\_task\_index:

task\_index = selected\_task\_index[0]

completed\_task = self.tasks.pop(task\_index)

messagebox.showinfo("Task Completed", f"Task '{completed\_task}' marked as completed.")

self.update\_task\_list()

def delete\_task(self):

selected\_task\_index = self.task\_listbox.curselection()

if selected\_task\_index:

task\_index = selected\_task\_index[0]

deleted\_task = self.tasks.pop(task\_index)

messagebox.showinfo("Task Deleted", f"Task '{deleted\_task}' deleted.")

self.update\_task\_list()

def simple\_input\_dialog(parent, title, prompt, default=''):

response = tk.simpledialog.askstring(title, prompt, initialvalue=default, parent=parent)

return response

if \_\_name\_\_ == "\_\_main\_\_":

root = tk.Tk()

app = TodoApp(root)

root.mainloop()