

TO DO LIST

PYTHON + TKINTER



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**Abstract**

This project presents a To-Do List Application developed using Python's Tkinter library. It provides users with a graphical interface to add, edit, and remove tasks efficiently. The application features persistent task storage, interactive task management, and a user-friendly design focused on enhancing productivity.

**Introduction**

Task management applications are essential tools for personal and professional organization. This To-Do List project implements a desktop application that allows users to keep track of their daily activities through an intuitive and visually appealing interface built with Python Tkinter.

**Problem Statement**

Manual task tracking is prone to errors and inefficiencies, especially when dealing with multiple or recurring tasks. There is a need for a structured digital solution to manage tasks effectively with features like editing, deletion, and task persistence to improve reliability and user experience**.**

**Scope of the Project**

The project scope is focused on developing a basic yet functional To-Do List Application with capabilities for task addition, removal, and editing. The tasks are saved locally to ensure persistence across sessions. It does not currently incorporate online synchronization or multi-user collaboration features.

**Methodology**

* User Interface: Constructed using Tkinter to create the main application window, listbox for tasks, entry fields, buttons, and context menus.
* Task Management: Includes functionalities for adding new tasks, selecting and editing existing tasks, and removing tasks with confirmation prompts.
* Data Persistence: Implements local storage by reading from and writing to a text file to maintain task lists between application uses**.**

**System Requirements**

* Software Requirements:
  + Python 3.x
  + Tkinter library (usually included with Python)
* Hardware Requirements:
  + Any device capable of running Python applications.

**Implementation**

The application integrates multiple Tkinter widgets such as Listbox, Entry, Buttons, and Scrollbar. It employs event bindings for task selection, editing, and removal actions, accompanied by dialogs for user input and alerts. The task list state is managed in memory and synchronized with a local file for persistence.

**Conclusion**

The To-Do List Application effectively demonstrates a simple yet functional productivity tool that can assist users in managing their daily tasks efficiently. It provides a foundation that can be expanded with additional features like cloud sync and reminders in future iterations.

**References**

1. Python Official Documentation
2. Tkinter Library Reference
3. Source Code of To-Do List Application