VAULTOFCODES

WEEK- 4 ASSIGNMENT - FINAL PROJECT

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TODO - LIST APPLICATION USING PYTHON

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INTRODUCTION

- Welcome to the **To-Do List** application, your new partner in navigating the hustle and bustle of everyday life. In our fast-paced world, juggling multiple responsibilities can feel overwhelming. That's where we come in! Our user-friendly and efficient software is designed to help you organize your tasks and enhance productivity, making life a little easier.
- With our to-do list, you can prioritize your most important tasks, you can easily add, edit, and check off your tasks, turning the process into a satisfying and rewarding experience. But we don't just stop at lists. Our app features handy reminders, deadlines, and categories, allowing you to customize your experience to fit your unique needs.

OBJECTIVES

- **Task organization:** This project provides a clear overview of all the tasks you need to accomplish, helping you stay organized and preventing things from slipping through the cracks.
- **Goal tracking:** To-do lists can be used to break down large goals into smaller, actionable tasks, making it easier to track progress and work towards achieving those goals.
- **Daily planning:** Creating a daily to-do list allows you to plan your day in advance, making sure we have a clear roadmap and minimizing wasted time.
- **Time Management:** We can allocate our time more efficiently throughout the day. This prevents overloading yourself with tasks and helps you plan your schedule.

TOOLS AND TECHNOLOGY USED

- **Python**: The primary programming language used for developing the application. It's simplicity and versatility make it an ideal choice for building robust applications.
- **Tkinter**: This standard GUI (Graphical User Interface) toolkit for Python was employed to create an intuitive and user-friendly interface.
- **Tkinter Message Box**: This module was used to display informational messages, warnings, and prompts within the application, enhancing user interaction and feedback.
- **Pickle**: The Pickle module was utilized for object serialization, enabling the application to save and load user data seamlessly.
- **Random**: The Random module was incorporated to introduce elements of unpredictability, such as shuffling tasks or selecting random reminders.

SYSTEM REQUIREMENTS

- **Operating System:** 64-bit Microsoft® Windows® 11, 10 or Apple macOS
- **RAM:** 4 GB
- **Processor:** 2,5 GHz
- **Disk Space:** 5 GB free (suggested SSD)
- **Display Resolution:** 1920 x 1080 with True Color or higher
- **Display Card:** 1 GB GPU with 29 GB/s Bandwidth and DirectX 11 compliant

WORKING DESCRIPTION

- **GUI Setup**

The application features a main window with a fixed size titled **To-Do List** , providing a clean workspace for users.

- **Add Task**

Users can enter a task description in the input field and select a category from a dropdown menu.

- **Delete Task**

Users can select a task from the listbox by clicking on it and remove the selected task with a single click, keeping the task list tidy.

- **Load Task**

By clicking the "Load Task" button, users can load previously saved tasks from a file named **tasks.json** and display them in the listbox for easy access.

WORKING DESCRIPTION

- **Save Task**

The "Save Task" allows users to save the current list of tasks in the listbox to **tasks.json**, ensuring that their progress is not lost between sessions.

- **Filter Tasks**

Users can filter tasks based on their priority level (High, Medium, Low), allowing them to focus on what matters most at any given time.

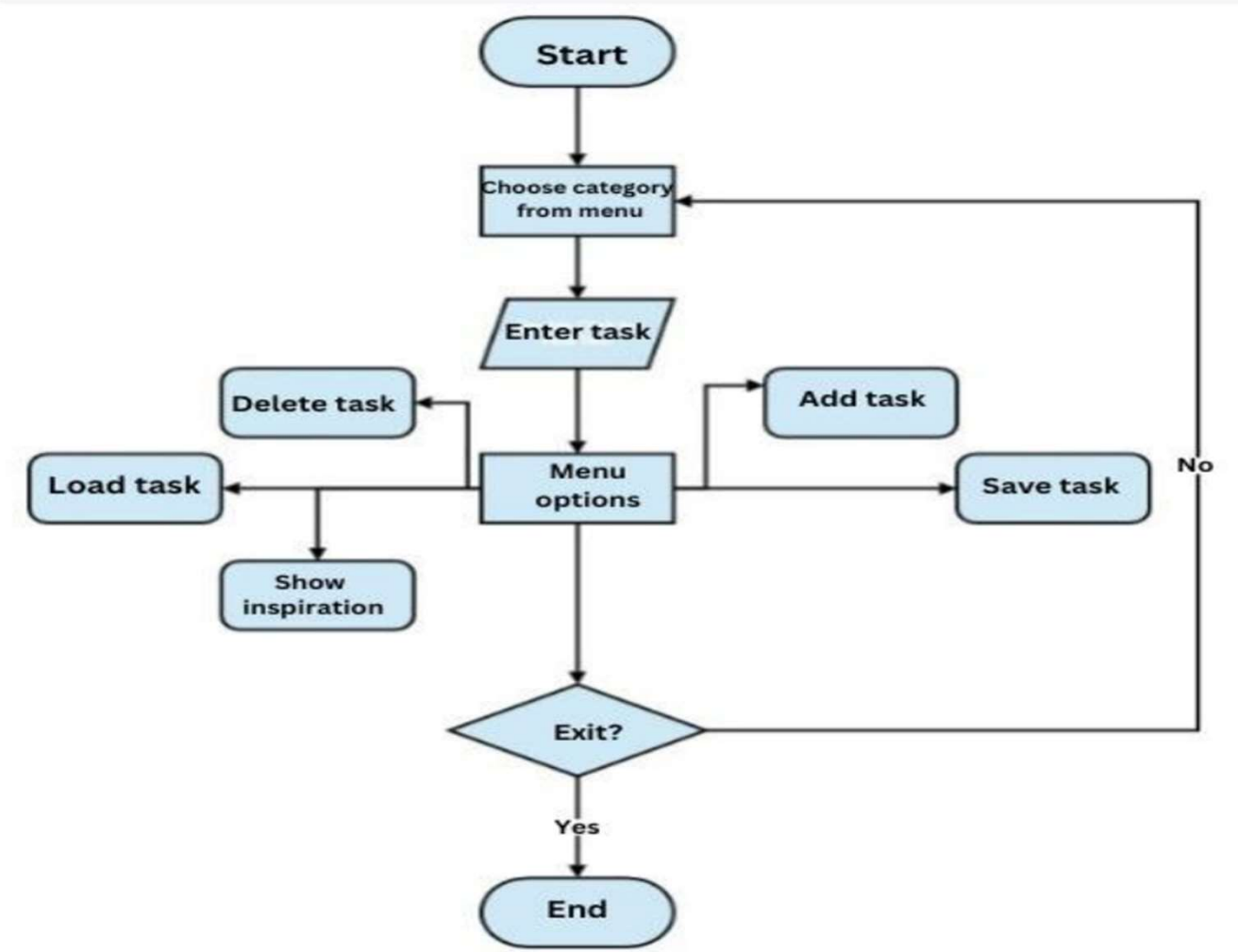
- **Mark Task as Completed**

Users can mark tasks as completed by selecting them and clicking a dedicated "Complete" button. Completed tasks can be visually distinguished in the listbox.

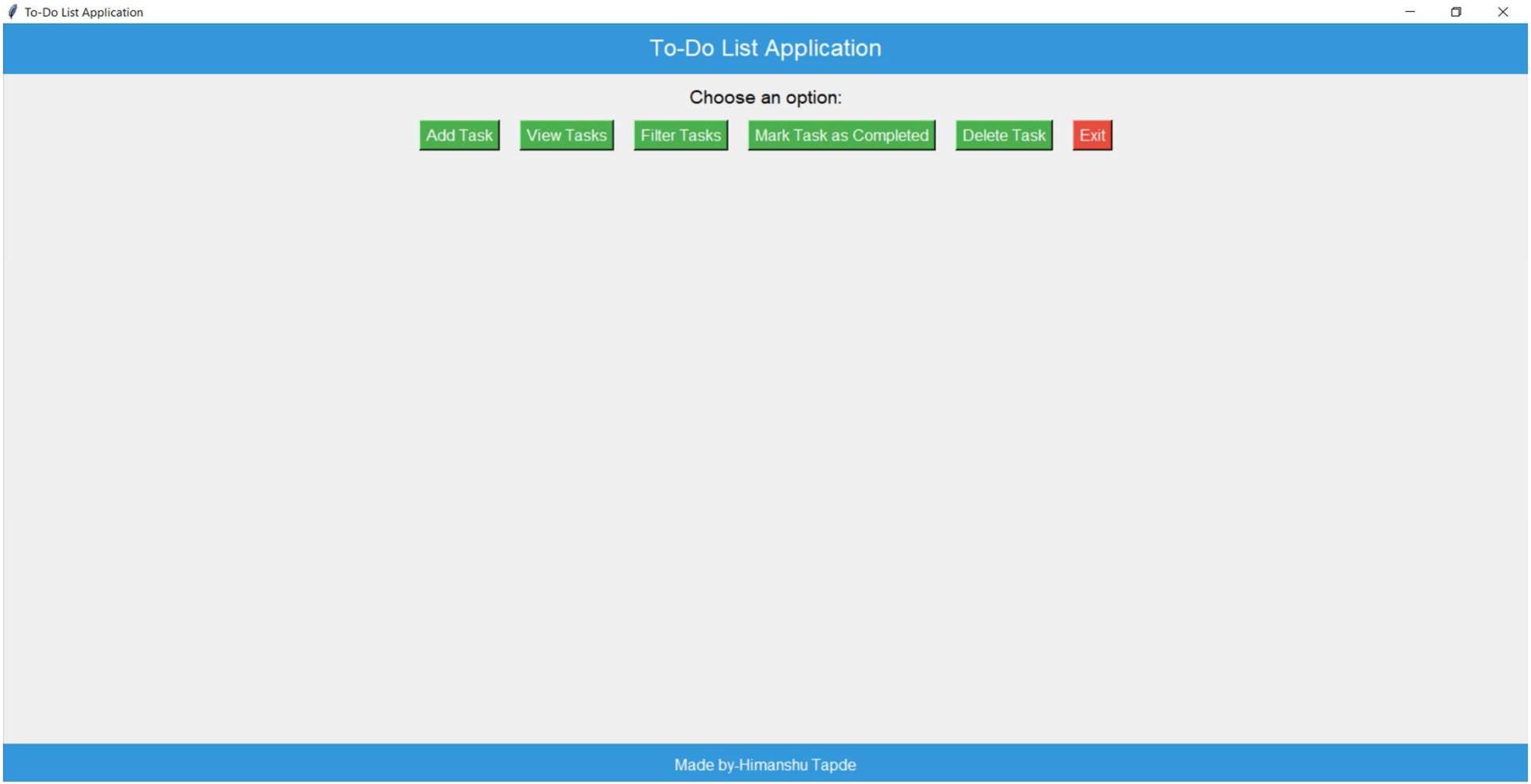
- **File Structure**

The main application logic is implemented in **task.py**, while the user interface and interactions are managed in **todo.py**. Task data is stored in **tasks.json**, creating a structured approach for data management and easier maintenance.

FLOW OF EXECUTION



SCREENSHOTS OF OUTPUT



CONCLUSION

- In summary, the **To-Do List** app helps you stay organised by managing your tasks With its easy-to-use interface, you can add, delete, and prioritise tasks. Plus, it gives you a motivational boost with random inspirational quotes. It's a helpful tool to improve your productivity and keep everything in order.
- We learned about **Tkinter**, an important GUI library in **Python**, and various widgets that it offers to manipulate and get the desired tasks done through this python to-do list project. We also learned about the basics of python programming and in this way we have been successful in building our very own To-do list app.

REFERENCES

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THANKYOU