Python To-Do List Program - Explanation

# 1. Introduction

This program is a simple Command-Line Interface (CLI) To-Do List manager built in Python. It allows the user to add tasks, view tasks, remove tasks, and mark tasks as done. The tasks are stored in a text file so that they remain saved even after the program is closed.

# 2. Code Explanation

## a) File Handling

The program uses a file named 'tasks.txt' to save and load tasks.  
- load\_tasks(): Reads the tasks from the file if it exists.  
- save\_tasks(): Writes the list of tasks to the file.

## b) Adding Tasks

When the user selects 'add', they can type a new task. The task is then stored in the list and saved into 'tasks.txt'.

## c) Viewing Tasks

When 'view' is chosen, the program displays all current tasks. If there are no tasks, it informs the user that the list is empty.

## d) Removing Tasks

When 'remove' is chosen, the program shows all tasks with numbers. The user can select a task number to remove it from the list. After removal, the updated list is saved back to the file.

## e) Marking Tasks as Done

When 'done' is chosen, the program lets the user select a task number. The selected task is then marked with [DONE] to indicate completion.

## f) Exiting

When 'exit' is typed, the program ends and shows the final list of tasks before closing.

# 3. Program Flow

The program displays options for the user:  
- add → Add a new task  
- view → View all tasks  
- remove → Remove a task by number  
- done → Mark a task as completed  
- exit → Exit the program

# 4. Possible Improvements

Some improvements that can be made:  
1. Use JSON instead of plain text to store tasks with structured data.  
2. Show task status using symbols (✅ for done, ❌ for not done).  
3. Use colors in the terminal with the 'colorama' library for better visibility.  
4. Print the menu after each action to remind users of available commands.  
5. Add deadlines or categories to tasks.

# 5. Conclusion

This program demonstrates how to create a simple and effective To-Do List application using Python. It covers file handling, loops, user input, and basic list management. With some improvements, it can be turned into a more advanced task manager.