

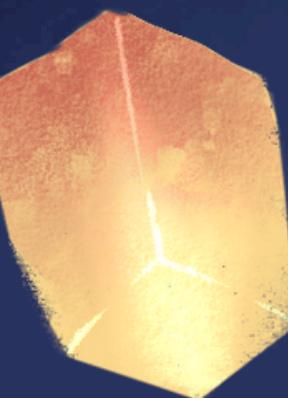


Decoders presents



Decoders[E1]

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Problem Statement :

To-Do List Application

Introduction

The To-Do List Application is a simple command-line tool designed to help users manage their tasks efficiently. This application enables users to add tasks, view their current list of tasks, and delete completed or unnecessary tasks.

Packages used in this program :

- sys : used for handling basic program exit functionality
(via break in loop)
- Core features: Input/Output, string manipulation, and basic list operations

Program Code :

```
import os  
  
# File to store tasks  
TASK_FILE = "tasks.txt"
```



```
def load_tasks():

    """Load tasks from a file."""

    tasks = []

    if os.path.exists(TASK_FILE):

        with open(TASK_FILE, "r") as file:

            tasks = [line.strip() for line in file.readlines()]

    return tasks
```

```
def save_tasks(tasks):  
    """Save tasks to a file."""  
    with open(TASK_FILE, "w") as file:  
        for task in tasks:  
            file.write(f'{task}\n')
```

```
def add_task(tasks):  
    """Add a new task to the list."""  
    task = input("Enter the task description: ")  
    tasks.append(task)  
    print(f"Task '{task}' added.")
```

```
def view_tasks(tasks):
    """Display all tasks with their statuses."""
    if not tasks:
        print("No tasks available.")
    else:
        for index, task in enumerate(tasks, start=1):
            print(f'{index}. {task}')
```

```
def mark_task_complete(tasks):
    """Mark a task as completed."""
    view_tasks(tasks)
    try:
        task_number = int(input("Enter the task number to mark as complete: "))
        tasks[task_number - 1] = "[Completed] " + tasks[task_number - 1]
        print(f"Task {task_number} marked as complete.")
    except (ValueError, IndexError):
        print("Invalid task number.")
```

```
def delete_task(tasks):
    """Delete a task from the list."""
    view_tasks(tasks)
    try:
        task_number = int(input("Enter the task number to delete: "))
        task = tasks.pop(task_number - 1)
        print(f"Task '{task}' deleted.")
    except (ValueError, IndexError):
        print("Invalid task number.")
```

```
def main():
```

```
    """Main function to run the To-Do List app."""
```

```
    tasks = load_tasks()
```

```
while True:  
  
    print("\nTo-Do List App")  
    print("1. View Tasks")  
    print("2. Add Task")  
    print("3. Mark Task as Completed")  
    print("4. Delete Task")  
    print("5. Exit")  
  
    choice = input("Choose an option (1-5): ")
```

```
if choice == "1":  
    view_tasks(tasks)  
elif choice == "2":  
    add_task(tasks)  
    save_tasks(tasks)  
elif choice == "3":  
    mark_task_complete(tasks)  
    save_tasks(tasks)  
elif choice == "4":  
    delete_task(tasks)  
    save_tasks(tasks)  
elif choice == "5":  
    print("Exiting the app. Goodbye!")  
    break  
else:  
    print("Invalid choice. Please try again.")
```

```
if __name__ == "__main__":  
    main()
```





Program output :

- Viewing Tasks

```
To-Do List App
1. View Tasks
2. Add Task
3. Mark Task as Completed
4. Delete Task
5. Exit
Choose an option (1-5): 1
1. Gaming
```

• Adding Tasks

```
To-Do List App
→ 1. View Tasks
  2. Add Task
  3. Mark Task as Completed
  4. Delete Task
  5. Exit
Choose an option (1-5): 2
Enter the task description: Gaming
Task 'Gaming ' added.
```

• Marking tasks as completed :

```
● To-Do List App
    1. View Tasks
    2. Add Task
    3. Mark Task as Completed
    4. Delete Task
    5. Exit
Choose an option (1-5): 3
    1. Gaming
Enter the task number to mark as complete: 1
Task 1 marked as complete.
```

- Deleting Tasks



To-Do List App



1. View Tasks
2. Add Task
3. Mark Task as Completed
4. Delete Task

5. Exit

Choose an option (1-5): 4

1. [Completed] Gaming

Enter the task number to delete: 1

Task '[Completed] Gaming' deleted.



- Exiting Tasks

```
→ To-Do List App
  1. View Tasks
  2. Add Task
  3. Mark Task as Completed
  4. Delete Task
  5. Exit
Choose an option (1-5): 5
Exiting the app. Goodbye!
```

- viewing task after deleted



```
To-Do List App
1. View Tasks
2. Add Task
3. Mark Task as Completed
4. Delete Task
5. Exit
Choose an option (1-5): 1
No tasks available.
```



Conclusion

The To-Do List Application is a simple yet effective tool for managing daily tasks. Through its intuitive command-line interface, users can easily add, view, and delete tasks, making it a practical solution for staying organized and productive.



A man in a blue jacket stands in a traditional Chinese landscape at night. He is looking towards a bright orange hexagonal lantern floating in the sky. The background features stylized blue clouds, several white birds in flight, and the outlines of traditional Chinese buildings with curved roofs. The overall atmosphere is serene and contemplative.

Thank You.

