TO-DO-LIST

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import json
import os

def add_task(tasks, task_description):
    """Adds a new task to the list."""
    if not task_description:
        print("Task description cannot be empty.")
        return
    tasks.append({"task": task_description, "completed": False})

def view_tasks(tasks):
    """Displays the tasks with their status."""
    if not tasks:
        print("No tasks found.")
        return
    for index, task in enumerate(tasks):
        status = "[X]" if task["completed"] else "[ ]"
        print(f"{index + 1}. {status} {task['task']}")

def mark_completed(tasks, task_index):
    """Marks a task as completed."""
    if 1 <= task_index <= len(tasks):
        tasks[task_index - 1]["completed"] = True
    else:
        print("Invalid task index.")

def delete_task(tasks, task_index):
    """Deletes a task from the list."""
    if 1 <= task_index <= len(tasks):
        del tasks[task_index - 1]
    else:
        print("Invalid task index.")

def save_tasks(tasks, filename="tasks.json"):
    """Saves tasks to a file."""
    try:
        with open(filename, "w") as f:
            json.dump(tasks, f, indent=4)
        print(f"Tasks saved to {filename}")
    except IOError:
        print(f"Could not save tasks to {filename}")

def load_tasks(filename="tasks.json"):
    """Loads tasks from a file."""
    try:
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        if os.path.exists(filename):
            with open(filename, "r") as f:
                return json.load(f)
        else:
            return []
    except (FileNotFoundError, json.JSONDecodeError, IOError):
        print(f"Could not load tasks from {filename}. Starting with an empty list.")
        return []

def get_user_input(prompt):
    """Gets user input."""
    return input(prompt)

def get_integer_input(prompt):
    """Gets integer input."""
    while True:
        user_input = get_user_input(prompt)
        if user_input.isdigit():
            return int(user_input)
        else:
            print("Please enter a valid integer.")

def main():
    """Main function to run the application."""
    tasks = load_tasks()

    while True:
        print("\nTo-Do List Application")
        print("1. Add Task")
        print("2. View Tasks")
        print("3. Mark Task as Completed")
        print("4. Delete Task")
        print("5. Save and Exit")
        print("6. Exit without saving")

        choice = get_integer_input("Enter your choice: ")

        if choice == 1:
            task_description = get_user_input("Enter task description: ")
            add_task(tasks, task_description)
        elif choice == 2:
            view_tasks(tasks)
        elif choice == 3:
            view_tasks(tasks)
            task_index = get_integer_input("Enter task index to mark as completed: ")
            mark_completed(tasks, task_index)
        elif choice == 4:
            view_tasks(tasks)
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            task_index = get_integer_input("Enter task index to delete: ")
            delete_task(tasks, task_index)
        elif choice == 5:
            save_tasks(tasks)
            break
        elif choice == 6:
            break
        else:
            print("Invalid choice. Please try again.")

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