To-do List Application - 2

Project: Advanced To-Do List Application with Priority, Deadlines, and Suggestions

Objective:

Create a comprehensive to-do list application that allows users to add, remove, view, prioritize tasks, and set deadlines. Additionally, implement a feature to suggest tasks based on priority and approaching deadlines using basic AI logic.

Features:

1. **Add Task:** Allows the user to add a new task with a specified priority and deadline.

2. **Remove Task:** Allows the user to remove a task from the list.

3. **View Tasks:** Displays all tasks, sorted by priority and deadline.

4. **Suggest Tasks:** Suggests tasks based on priority and approaching deadlines.

5. **Exit:** Ends the program.

Implementation Steps:

1. **Initialize an empty list** to store the tasks as dictionaries containing the task description, priority, and deadline.

2. **Create functions** for adding, removing, viewing, and suggesting tasks.

3. **Implement priority and deadline handling** so tasks are displayed based on their urgency.

4. **Create a suggestion feature** that uses basic AI logic to recommend tasks based on priority and deadline.

Sample Demo:

1. Starting the Application:

```
Advanced To-Do List Application
1. Add Task
2. Remove Task
3. View Tasks
4. Suggest Tasks
5. Exit
Enter your choice: 1
```

2. Adding a Task:

```
Enter the task: Buy groceries
Enter the priority (high, medium, low): high
Enter the deadline (YYYY-MM-DD): 2024-06-10
'Buy groceries' with priority 'high' and deadline '2024-06-1
0' has been added to the list.

Advanced To-Do List Application
1. Add Task
2. Remove Task
3. View Tasks
4. Suggest Tasks
5. Exit
Enter your choice: 1
Enter the task: Finish homework
Enter the priority (high, medium, low): medium
Enter the deadline (YYYY-MM-DD): 2024-06-15
'Finish homework' with priority 'medium' and deadline '2024-0
6-15' has been added to the list.
```

3. Viewing Tasks:

```
Advanced To-Do List Application
1. Add Task
2. Remove Task
3. View Tasks
```

```
4. Suggest Tasks
5. Exit
Enter your choice: 3

To-Do List:
1. Buy groceries - high - 2024-06-10
2. Finish homework - medium - 2024-06-15
```

4. Suggesting Tasks:

```
Advanced To-Do List Application
1. Add Task
2. Remove Task
3. View Tasks
4. Suggest Tasks
5. Exit
Enter your choice: 4

Good afternoon! Here are some tasks you might want to work o
n:
Buy groceries - high - 2024-06-10
Finish homework - medium - 2024-06-15
```

5. Removing a Task:

```
Advanced To-Do List Application
1. Add Task
2. Remove Task
3. View Tasks
4. Suggest Tasks
5. Exit
Enter your choice: 2
Enter the task to remove: Buy groceries
'Buy groceries' has been removed from the list.

Advanced To-Do List Application
```

```
1. Add Task
2. Remove Task
3. View Tasks
4. Suggest Tasks
5. Exit
Enter your choice: 3

To-Do List:
1. Finish homework - medium - 2024-06-15
```

6. Exiting the Application:

```
Advanced To-Do List Application
1. Add Task
2. Remove Task
3. View Tasks
4. Suggest Tasks
5. Exit
Enter your choice: 5
Exiting the application. Goodbye!
```

Tips:

- Make sure to handle invalid inputs and edge cases, such as entering an incorrect date format or trying to remove a task that doesn't exist.

- You can further expand this project by adding features like marking tasks as complete, setting reminders, or saving the list to a file for persistence.