Task Manager System - Diagrams Overview

1. Use Case Diagram:

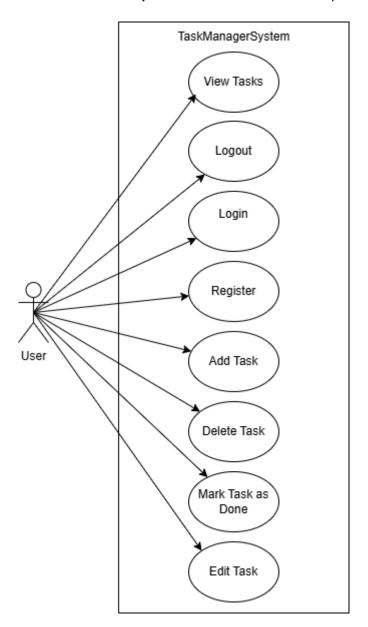
The **Use Case Diagram** illustrates the interaction between the **User** and the system. The purpose of this diagram is to show how users interact with the Task Manager system. Key use cases include **User Registration**, **Task Creation**, and **Task Completion**. The user can perform multiple actions such as adding, editing, or removing tasks.

Actors:

o **User**: The person interacting with the system to manage tasks.

• Use Cases:

- Register: Allows the user to create an account.
- o **Login**: The user logs into the system after registering.
- o Add Task: The user can add a new task to the system.
- o **Update Task**: The user can update an existing task.
- o **Delete Task**: The user can delete a task from the list.
- o Complete Task: Marks a task as complete.



2. UML Class Diagram:

The **UML Class Diagram** represents the structure of the system by defining the **classes** involved, their **attributes**, and their **methods**. This diagram helps in understanding the internal structure of the system. It includes the following classes:

• User Class:

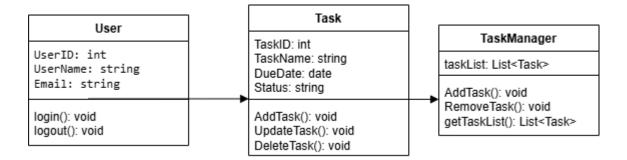
o Attributes: username, password
o Methods: register(), login()

Task Class:

o Attributes: taskName, dueDate, status

o Methods: addTask(), editTask(), deleteTask(), completeTask()

These classes and their methods define the core functionality of the Task Manager system.



3. Activity Diagram:

The **Activity Diagram** shows the workflow of the system, particularly the flow of tasks when a user interacts with the system. It outlines the sequence of actions that the system follows for **task creation**, **updating**, and **deletion**. The diagram starts with the user logging in and ends with a task being either completed or deleted.

Key activities include:

- **User Login**: The system verifies user credentials.
- Add Task: The user adds a new task.
- Update Task: The user updates an existing task.
- **Delete Task**: The user deletes a task.
- **Complete Task**: The user marks a task as complete.

The flow of these actions is captured to show the sequence and decision-making process.

