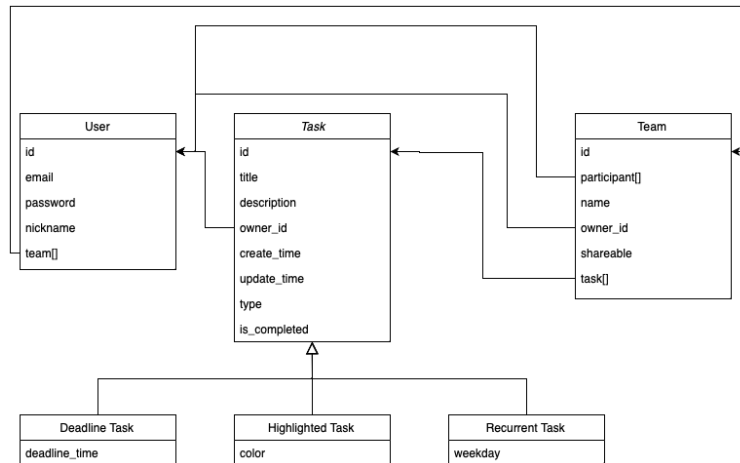## Application description:

The proposed functional requirements for this application encompass three key aspects: user authentication, CRUD (Create, Read, Update, Delete) operations for to-do list tasks, and enabling user collaboration through teams for shared tasks.

- User Authentication: user authentication is a fundamental feature to ensure the security and privacy of user data. It involves allowing users to register, log in, and securely manage their accounts. This process typically includes features like password hashing for data protection and password recovery mechanisms to assist users who forget their credentials.

- CRUD for To-Do-List Tasks: CRUD functionality is pivotal for managing tasks effectively. Users should be able to Create new tasks, Read existing ones, Update task details (such as due dates or descriptions), and Delete tasks when they are completed or no longer needed. Additionally, sorting and filtering options can enhance the user experience by helping users organize their tasks efficiently.

- User Collaboration via Teams: enabling collaboration through teams extends the application's functionality. Users can create or join teams, invite team members, and share tasks within these teams. Shared tasks should maintain visibility and accessibility to team members, allowing for seamless coordination on group projects or shared responsibilities. Additionally, features like task assignments, comments, and notifications can facilitate effective team collaboration.

ER diagram:

User interaction:

User signs up/logs in an account. Then he/she sees the folders with tasks (personal, team 1, ...). Then user clicks the folder and is redirected to the page with the to-do-list with all tasks. User can create, read, update, and delete tasks. Also it can collaborate with other users from the common team. There are 4 types of tasks:

- Regular: task with title and description. Can be completed by user by clicking the complete task button.

- With deadline: tasks with additional due date field. Task is marked as failed if it was not completed by the specified date.

- Highlighted: task with custom looks (different background color)

- Recurrent: task with the specified weekday. When marked as completed, the task will be automatically unmarked.