Shared To-Do List

CSE 5324-002

Coffee_Code - Group 6
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ShareList - Since the start of the pandemic, many workplaces have switched to working from home (working online). This can cause problems in collaboration within the teams as many places are switching to working online for the first time. There already exist many different apps which cater to only large organizations, have a steep learning curve, or are not available/accessible to everyone. We would like to create a mobile app which is intuitive to use and accessible by everyone. An app where a user can create a group of tasks, and decide which users will work on it. This app can be used whether the group follows the SCRUM model, waterfall model, Agile, or no model at all.

This to-do app is designed to allow users to create, delegate, and track tasks that are shared amongst users in a group. The app needs the internet to connect with the server so all users can stay synchronized. The main purpose of the app is to allow group members in a virtual environment to have better collaboration. The app can be used by anyone wishing to create/delegate tasks with others and not just for industry use. Whether you are a group of students working on a semester project, or a family managing the chores, or an organization managing their work on the go, this app is an efficient, fast, user-friendly and smooth task-management tool for you!

Admin: Any user that has created a group is the admin of that group. The admin can add users to the group, assign who works on what tasks, promote users to admin status, and add/remove/edit tasks.

User: Anyone who is part of a group, but is not admin. Can be assigned to tasks by the admin. A user can mark a task as completed.

Task: Tasks can only be created by the admins. All tasks in a group are visible to all members within that group. Each task has users assigned to it. For tasks with multiple users assigned to it, ALL users must mark the task completed in order for it to be considered fully completed. Each task has properties such as:

- Start time- creation date/time of task.
- Completion time- when the task has been marked completed by all those assigned to it.
- Due Date - the date the admin expects the task to be done by.
- Time spent - the time from the start time to completion time.
- Title, description, users assigned

Group: "Groups" are collections of tasks that belong to the members of that group. Groups can be created by any user of ShareList. When a user creates a group, they have admin status. Members of the group include admins and users. Admins can control who is added/removed from the group. Tasks can be added by the admin only. The whole concept of groups is to have a specific goal that all tasks within that group are working towards. Think of a group as a "project" where the members of the group work towards a certain goal, accomplishing tasks along the way.

Functions -

- Login/Profile: Create/edit login credentials, manage sessions, etc.
- Add/Remove/Edit/Assign Tasks: Admins adds or removes tasks from the group. Admins edit who the task is assigned to, what the task contains, due date, start date, etc.
- Search tasks/groups/users: Search by keyword.

- Mark Completed: Allows for users to mark a task as completed. All assigned users must mark a task completed for it to be fully complete.
- Create/Edit Group: Allows a user to create a group of unique users. The creator is initially set as the admin. Admin can add additional admins.
- Delete Group: Allows any admin of a group to delete the group. Deleting the group will permanently delete the group and the related records.
- Group Summary: Calculates and reports to the user a summary of the group, which includes:
    - Tasks completed - number and total time of completed tasks.
    - In-progress tasks - number of in-progress tasks.
    - Tasks not completed by due date - number/total-time/total-time-past-due.
- Update: Updates the UI, checks for changes/updates within the tasks. Syncs current tasks with the database.

Utilized Resources -

- Database: Used for storing information related to tasks, groups, users.
- Wireless: Used for syncing between each user's device and the database.

Android Experience per Team Member -

Hannan Khan - No prior experience with Android. I have implemented/developed simple apps in Java when I had started out programming. In terms of app development, I mainly focus on apps in Python, which I consider myself to be strong in. These apps consisted of both frontend and backend work.

Yanzhi Wang - I do not have a lot of Android experience and I have not worked on any Android project during the previous semester. The project will take the whole semester, so we will have plenty of time to learn. I hope everyone in the team will learn something about Android, UML, and the agile process by working together on the project.

Yu Zhao - Do not have any experience with Android development. I have some small full-stack applications experience, and familiar with programming languages like Java, Python, and JavaScript. I can work on both the frontend and backend.

Mohammed Furkhan Shaikh - Does not have prior experience with Android application development. I have experience with programming languages like Java, C, Python. I'm familiar with object-oriented concepts. I can work on the backend and implement functions for the app. No experience with the formal design process.

Anum Farrukkh Khan - No prior experience with Android development. I am familiar with python, java and javascript and have developed various applications using these languages. I have developed a mobile application in react native as part of an academic project.