Basic use cases

Actors: user, system

*Date and time refers to specific date and time that the user wish to complete the task

Create

1. Users input their tasks in a text box
2. (Optional) Users can choose date and time, and tag for the new task.
3. They can either press ‘Enter’ or click a submit bottom to create the task

    2a. If the text box is empty, prompt user to input valid task with a sound/ error message. Re-direct them to the create page.

    2b. If the text is too long, prompt user to input shorter task and suggest them to use the description function. Re-direct them to the create page.

4. Add the newly created task, the date and time, and tag to the database. All tasks will be add to the ‘unfinished’ table.

    4a. If there is no date and time, add them to a table called “no_date”. If there is date and time, add user input date to date column, time to the time column, and user input task to task column.

    4b. Same for tag

Read

5. Display the new task relevant information on a calendar on the webpage to show that they have created the task successfully.
6. Users can click on the tag to see tasks that share the same tag. This will be shown at the side bar on the webpage, together with a vertical timeline showing the date of each task under the same tag. Those without time will be displayed after those with time.
7. Users can also choose to view task under ‘category mode’ which will display the all the tags and tasks under these tags.
8. Users can view completed tasks.

(Hopefully, the above can be done using database)

Update

8. Users can indicate that they have completed a task by clicking a complete bottom. The task will be remove from ‘unfinished’ table to ‘finished’ table in the database.
9. Users can update the task by clicking the edit bottom. The system will change corresponding parameters in the database.
10. Users can edit the tag. The system will move the task from one table to another.
11. Same for the date.

Delete

12. Users can delete a task by clicking the delete bottom. The task is removed from the database completely.

Execution plan

1. Build the website using ruby on rails and postresql database.
2. Use react components to enable the frontend interactive features.
3. Modify existing template to improve the aesthetic.