

Bagel-To-Do

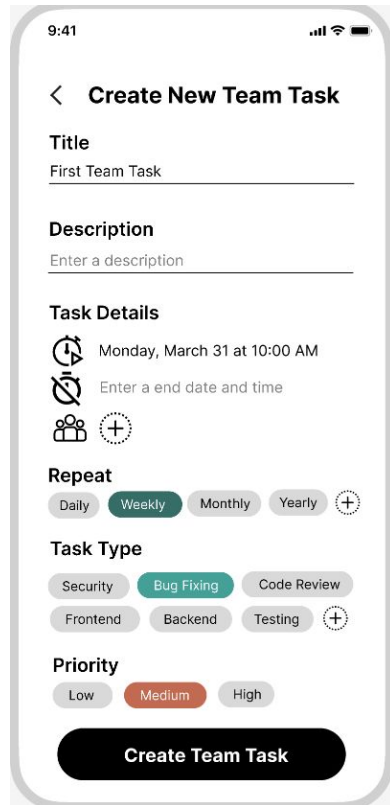
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The Problem

- Software engineers often face problems in staying organized, focused, and aligned with project goals and team members
- Unorganized and overwhelming task management
- Lack of prioritization
- Team management and communication issues regarding tasks to complete
- Less efficient workflows due to lack of organization

Our Solution: Bagel To-Do

- Allows for simple organization of tasks
- Gives many options for specifics of tasks such as:
 - Description
 - Recurrence
 - Custom tags for filtering
 - Priority level
- Allows for tasks to be created for teams, giving shared access to tasks



9:41

< **Create New Team Task**

Title
First Team Task

Description
Enter a description

Task Details

Monday, March 31 at 10:00 AM

Enter an end date and time

Repeat

Daily Weekly Monthly Yearly

Task Type

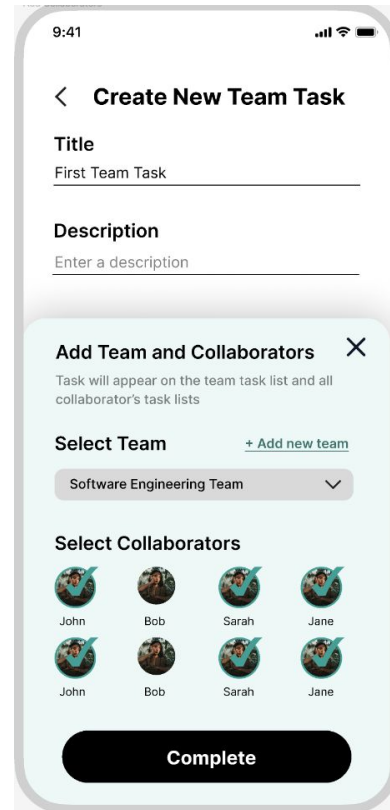
Security Bug Fixing Code Review

Frontend Backend Testing

Priority

Low Medium High

Create Team Task



9:41

< **Create New Team Task**

Title
First Team Task

Description
Enter a description

Add Team and Collaborators ✕

Task will appear on the team task list and all collaborator's task lists

Select Team [+ Add new team](#)

Software Engineering Team ▼

Select Collaborators

John Bob Sarah Jane

John Bob Sarah Jane

Complete

Use Case 1: Mark and View Tasks As Completed

1 Preconditions

The user must have logged into the Bagel-To-Do application.
The user has added a task.

2 Main Flow

User shall navigate to the task list and mark the appropriate task as completed [S1]. System updates the task status as completed and removes the task from the list [S2]. System displays the task in the “Completed Tasks” section of the application [S3].

3 Subflows

[S1] User shall navigate to the task list and marks the task as completed using the appropriate button.

[S2] System receives the request to mark the task as completed. System updates the status of the selected task to "Completed." System removes the task from the task list.

[S3] User navigates to the "Completed Tasks" section. System retrieves the list of tasks marked as completed from the database. System displays the list of completed tasks to the user.

4 Alternative Flows

[E1] After marking the task as completed, the user realizes it was done by mistake. User clicks on an "Undo" button associated with the completed task. System reverts the task status back to "Incomplete" and adds it back to the task list. User sees the task reappear in the list of incomplete tasks.

Postconditions

The selected task is marked as completed in the Bagel-To-Do application.
The task is now visible in the “Completed Tasks” section for future reference.

Use Case 2: Set Up Recurring Tasks

1 Preconditions

The user must have logged into the Bagel-To-Do application.

2 Main Flow

User shall navigate to the “Add Task” button and create a task [S1]. User shall make the task recurring using the “Recurrence” option [S2]. User shall submit the task and the system shall save the settings to automatically generate the tasks [S3].

3 Subflows

[S1] User shall click on the "Add Task" button and enter in task details such as title, description, priority, due date, etc.

[S2] User shall locate the "Recurrence" section when creating the task. User shall set the recurrence pattern (e.g., daily, weekly, monthly, yearly). User shall set the start and end dates for the recurring task.

[S3] User shall submit the task and the system shall save the recurring task settings. The system shall generate the recurring tasks in the task list based on the specified recurrence pattern.

4 Alternative Flows

[E1] After setting up a recurring task, the user decides to remove the recurrence. User accesses the task settings and navigates to the "Recurrence" section. User unselects a button indicating the recurrence.

[E2] After setting up a recurring task, the user decides to adjust the recurrence pattern. User accesses the task settings and navigates to the "Recurrence" section. User modifies the recurrence pattern. System updates the recurring task settings accordingly.

Future instances of the recurring task are adjusted based on the new recurrence pattern.

Post Conditions

The recurring task is successfully created and saved in the Bagel-To-Do application.

Recurring tasks are automatically generated and added to the task list according to the specified recurrence pattern.

The system has stored the recurrence settings specified by the user for the task.

The start and end dates for the recurring task are recorded and implemented by the system.

The user has the option to edit or delete the recurring task settings if needed.

Use Case 3: Creating Team Tasks

1 Preconditions

The user must have logged into the Bagel-To-Do application.

The user has created a team with other users.

2 Main Flow

User shall navigate to the “Team” section of the application and click on the “Add Team Task” button to create a task [S1]. User shall assign team members to the task [S2]. User shall submit their task and the system shall display the task on the task lists of the assigned team members task list and a team task list [S4].

3 Subflows

[S1] User shall navigate to the “Teams” section of the application and click on the "Add Task" button and enter in task details such as title, description, priority, due date, etc.

[S2] User shall locate the "Users" section when creating the task. User shall select a team and mark team members to be assigned to the task.

[S3] User shall submit the task. System shall display the task on the task list of all the assigned members. System shall display the task on the appropriate team task list in the “Teams” section, the task labeled with the team members icons.

4 Alternative Flows

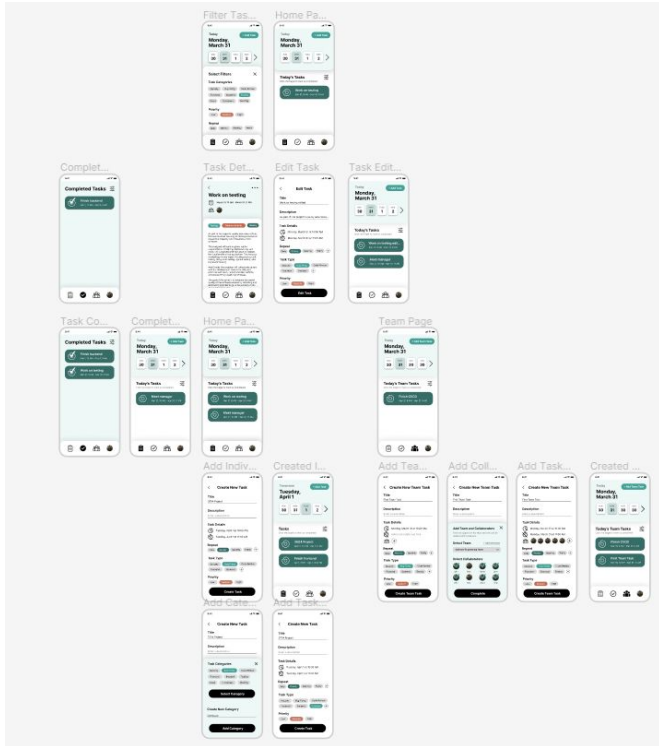
[E1] User accesses the task details of the specific task in the “Team” section of the application. User locates the "Users" option associated with the task. User modifies the team member assignments. System updates the individual and team task lists appropriately.

Post Conditions

Team tasks that are assigned to individual or multiple team members are successfully created and saved in the Bagel-To-Do application.

Assigned tasks are visible to the designated team members in their task list and on the team task list.

Figma Demo



<https://www.figma.com/proto/OC1XcNCKS2qxqFmWrU0sNh/Bagel-Devs---To-Do-List-Prototype?type=design&node-id=115-576&t=BXpg57ilCLrudjq8-0&scaling=min-zoom&page-id=0%3A1&starting-point-node-id=115%3A576>

Related Work

Research article: Enabling team collaboration with task management tools

<https://doi.org/10.1145/2957792.2957799>

- Emphasizes the benefits of task management systems
- Tested the use of task management tools in group settings
 - Found that these tools offered new possibilities for collaborations
 - Emphasizes the need for organizations to use tools effectively to drive productivity

Related Concepts

Prototyping Development Model

- Made it easy to change or discard certain aspects and functionality
- Having a tangible prototype allowed for improved communication between developers in terms of expectations

Creational Design Pattern

- Allowed for more flexibility in the process of task creation
- Allowed for more efficient reusing of code
- Fit well with the creation and editing of tasks

UI Design

- Main goal of ensuring that the interface was easy to understand, learn, and use
- Maintaining consistency in design and functionality across the entire application

Future Work

Additional Features:

- AI-task summarizer for standup meetings
- AI ordering of tasks for priority
- AI suggestions for tasks likely needed based on calendar
- Integration with social media apps to share accomplished tasks with friends
- More customizable user interface tailored to the needs of each user
- Greater depth of accessibility features such as voice over
- Pomodoro mode for focusing on tasks effectively