

Human-Machine Interaction

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Study Helper

Stage 2: User and Task Analysis



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Problem Description

Oftentimes students suffer from a lack of organization and methodology on their studies. Study Helpers' main focus is to increase these students' productivity and motivation by making their time management easier.

It will help planning study schedules and routines as students will be allowed to create tasks and divide them over specific periods of time. Also, they'll be able to create a calendar with the important dates and will be notified on unfinished tasks, upcoming exams and presentations. Lastly, they won't ever be caught off-guard with deadlines and with regular feedback on their performance over time, there won't be any risk on falling behind schedule throughout the coursework.

User Analysis

The target user population for our app is quite straight forward – students. More precisely, middle-school, high-school and college students, both male and female. The ages will mostly be ranging from 12 to 25, although slightly older people would also be able to use it and it won't differentiate them in terms of user experience of the overall product.

The educational background will naturally depend on each user's level of schooling, but all of them are expected to have basic computer knowledge.

Different kinds of people may have slightly different motivations for using the application. However, for the most part, it will essentially be a *means to an end*: improved productivity and organization of their daily school life.

Tasks Analysis

In this section of the report, we'll go through and analyse a few high-level tasks that will be allowed by our system. In other words, you'll be presented with an in-depth walkthrough of some of our application's features.

Task 1

Goal: Adding a task to a specific day.

Pre-Conditions: None. **Time Constraints:** None.

Frequency of Use: High (daily or close to it).

- **0.** Adding a task to a specific day:
 - 1. Click on the calendar icon in the sidebar.
 - **2.** Select the desired day.
 - **2.1.** Locate the day and month in the calendar.
 - **2.1.1.** Navigate through the months, if necessary.
 - **2.2.** Click inside the calendar cell of the desired day.
 - **2.2.1.** Notice how a new section with that day's tasks opens up.
 - 3. Click on the 'New Task' button.
 - **3.1.** Notice how a modal window appears.
 - 4. Define the task's name.
 - **4.1.** Click inside the name field.
 - **4.2**. Type the name of the task.
 - **5.** (Optional) Define the task's label.
 - **5.1.** Click on the 'labels' drop-down list too see the available labels.
 - **5.2.** Pick a label by clicking on it.
 - **6.** (Optional) Define the task's estimated duration.
 - **6.1.** Click inside the duration field.
 - **6.2.** Pick an estimated duration from the timer picker.
 - **7.** (Optional) Attach a file or folder to the task.
 - **7.1.** Click on the attachment icon.
 - **7.2.** Notice how a file/folder picker opens up.
 - 7.3. Choose a file or folder and click 'Ok'.
 - 8. Click on the 'Add' button.

Post-Conditions: A new task is added to the specified day.

Exceptions: None.

Task 2

Goal: Register a new grade. **Pre-Conditions:** None. **Time Constraints:** None.

Frequency of Use: Medium-Low (a few times on each semester).

- 0. Register a grade.
 - 1. Click on the grades icon in the sidebar.
 - 2. Click on the 'Add' button.
 - **2.1.** Notice how a modal shows up.
 - 3. Type the subject's name.
 - **3.1.** Click inside the 'Subject Name' field.
 - **3.2.** Write the subject's name.
 - **4.** Type the grade.
 - 4.1. Click inside the 'Grade' field.
 - **4.2.** Write the grade.
 - **5.** Double check for correctness.
 - 6. Save the new grade.
 - 6.1. Click on the 'Ok' button.

Post-Conditions: A new grade is registered into the system.

Exceptions: None.

Task 3

Goal: Add a new task.

Pre-Conditions: The end date is equal to or greater than the start date.

Frequency of Use: High (daily or close to it).

- **0.** Add a new task.
 - 1. In the main window, click on the 'Add task' button.
 - 2. Introduce task details.
 - **2.1.** Write the name of the task in the name field.
 - **2.2.** Click on the date field to see a calendar.
 - **2.3**. Select the day you want the task to start by clicking in that day.
 - **2.4.** Select the day you want the task to end by clicking in that day.
- **2.5.** (Optional) Write the estimated time for the task to be completed in the 'Estimated Time' field.
 - **2.6.** (Optional) Click on the 'Add Category' button to associate a category to the task.
 - **2.7.** (Optional) Write a brief description or some notes about the task in the notes field.
 - 3. Confirm new submission.
 - **3.1.** Now you have two options:
 - a) Click on the 'Confirm' button if you don't want to add more tasks.
 - b) Otherwise, click on the 'Add More' button and repeat the process from step 2.

Post-Conditions: A new task is registered into the system.

Exceptions: None.

Task 4

Goal: Create a new category.

Pre-Conditions: The new category does not exist. **Frequency of Use:** Medium-Low (every semester).

- **0.** Add a new category.
 - 1. Click on the new category item in the sidebar.
 - 2. Introduce category details.
 - **2.1.** Write the category name in the name field.
 - **2.2.** Click on the 'Add Picture' button to associate a picture to the task.
- **2.3.** When a new window shows up, select a picture from the pictures list by clicking in it.
 - **2.4.** Click on the 'Confirm' button to update the category image.
 - **3.** Confirm submission.
 - **3.1.** Click on 'Confirm' the confirm button to save the new category.

Post-Conditions: A new category is registered into the system.

Exceptions: Category already exists.

Task 5

Goal: Check users' performance.

Pre-Conditions: Have completed at least one task.

Frequency of Use: Medium (sometimes on each semester)..

- **0.** Click on the Performance Overview.
 - **1.** Choose one of the following tabs:
 - **1.1.** 'Over the past day'.
 - 1.2. 'Over the past week'.
 - 1.3. 'Over the past month'.
 - **2.** Auto-Evaluate your performance.

Post-Conditions: None.

Exceptions: None.

Task Scenarios

Here we'll showcase a few usage scenarios that will serve as guides during the testing sessions. Each of these scenarios explores different combinations of tasks, and should give a nice overview of our product's possibilities and use cases.

Scenario 1

Johnny was surfing the web when he thought to himself "I should be more productive today...". He stopped for a while and tried to think about the main tasks that he should complete for the day, coming up with the following two:

"I need to study one hour for the upcoming Geography exam."

"I also need to email over my Physics report."

He started the first task, paying close attention to the time elapsed. Because of how focused he was, he got all his studying done in much less time, and so happily proceeded to check off the task.

With all the excitement, he did the mistake of checking-off his second task as well...! What a bummer!

Shaking his head, he went to the all-time task history and recovered the task.

Scenario 2

After a long, annoying day, Anna wasn't in a particularly good mood. She just wanted to relax a bit and be at peace without being disturbed. With this in mind, she proceeded to turn off the notifications for the task reminders. Whilst at it, she felt like playing around with the colour theme, and ended up picking a random one.

Scenario 3

After his afternoon math class, Josh was super happy because he had received an A in the maths exam. So, he decided it should be a good idea to update his grades cheat with his latest math grade.

While on the bus, Josh decided to check his performance throughout the last month and realised how much his math grade had increased his overall performance.

Scenario 4

At lunch time, Jane reminded John of the upcoming physics exam next month. John decided to add to his calendar the physics exam on the 15th of November to make sure he won't forget this important date.