**Dream Team**

**Smart Calendar**

**Use Case Report**

***Revision History***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Authors** | **Description of Change** | **Sections** | **Rev** | **Date** |
| Michael Perez | Initial use-case document creation |  | O | 2/18/2018 |
| Michael Perez | Updated use-case diagram and use-cases |  | 1 | 2/27/2018 |

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# Team Description

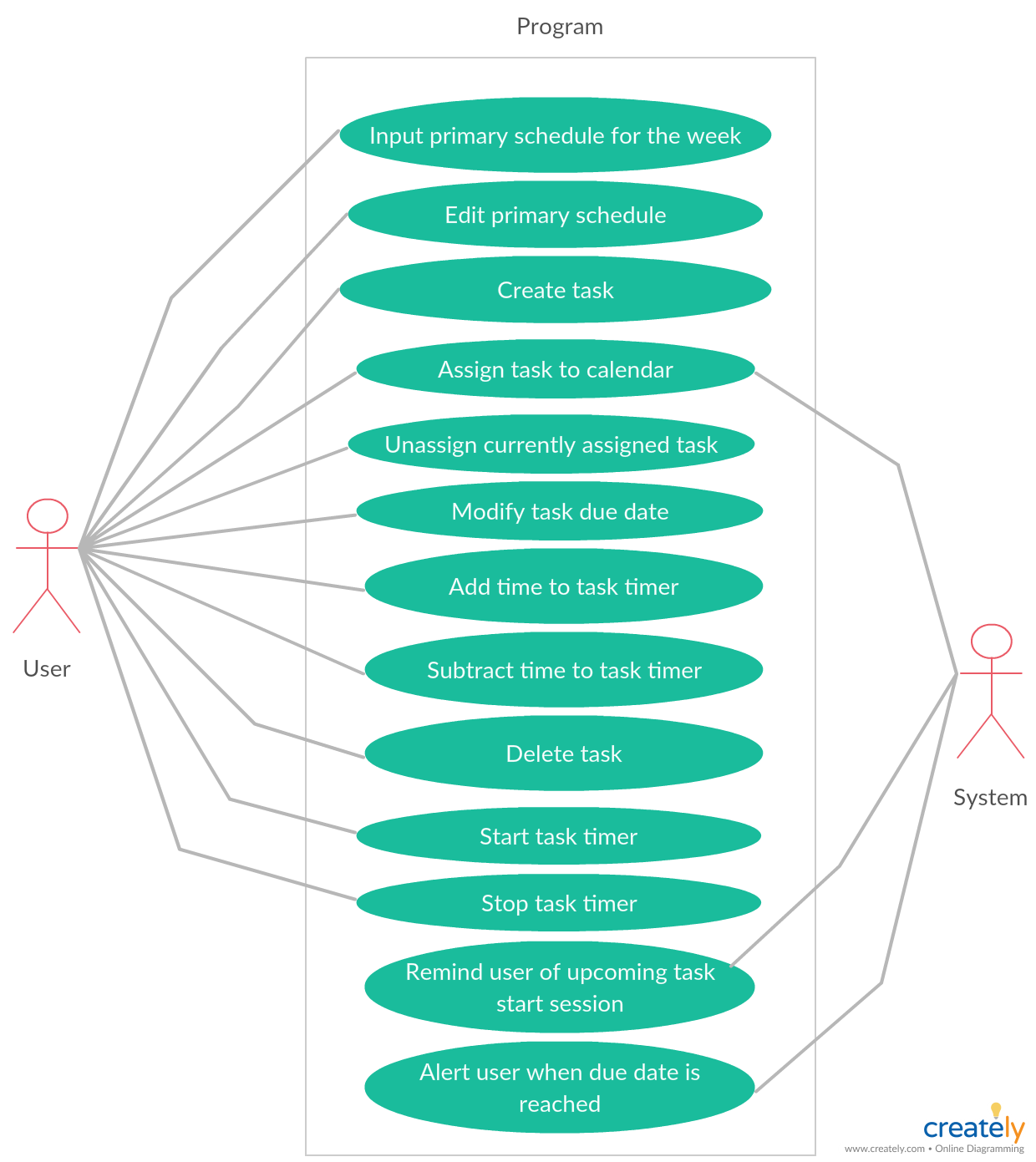
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# Project Description

Statement of Purpose: To make it convenient for users to schedule and keep track of their progress on activities.

Detailed Description: This application will allow the user to input their “primary schedule” for the week. The primary schedule is the user’s list of activities that represent the times they are unavailable to perform tasks. The activities are represented as “blocks” on the calendar’s UI. After inputting their primary schedule, the user can create “tasks” to be scheduled: activities that the user needs to complete. Tasks have a name, description, due date, list of start sessions, and estimated amount of time it takes. When a task is created, it is put into the “unassigned task” list. All tasks can have the system sort them into the freetime on the user’s calendar. Two algorithm types will be available: “Slow and steady”, which will cut the task into small segments and spread the segments out evenly, and “Ripping the bandaid”, which will assign the tasks in large segments. Users will be reminded an hour before each task start session that it is approaching. Users are able to add or subtract the time it takes to complete a task, as well as delete a task entirely.

## Use Case Diagram

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## Use Case List

|  |  |  |
| --- | --- | --- |
| **Use Case** | | |
| **Sequence Number** | **Actor** | **Goal** |
| 1 | User | Input primary schedule |
| 2 | User | Edit primary schedule |
| 3 | User | Create task |
| 4 | User | Assign task to calendar |
| 5 | User | Unassign currently assigned task |
| 6 | User | Modify task due date |
| 7 | User | Add time |
| 8 | User | Subtract time |
| 9 | User | Delete task |
| 10 | User | Start task timer |
| 11 | User | Stop task timer |
| 12 | System | Remind user of upcoming task start session |
| 13 | System | Alert user when due date is reached |

### Use Case 1: Input primary schedule

Primary Actor: User

Secondary Actor(s): None

Goal in Context: To define what the user’s primary schedule for the week is

Preconditions: None

Additional Description: Users define primary schedules for either the present week or any future week. Inputting a schedule will be done through a UI. The user creates a block on the calendar UI of when they are not available. Blocks are created in increments of 15 minutes.

### Use Case 2: Edit primary schedule

Primary Actor: User

Secondary Actor(s): None

Goal in Context: To edit blocks on the user’s current primary schedule

Preconditions: Primary schedule has already been entered

Additional Description: Blocks can be added or deleted. Already existing blocks can have their start and end points shifted 15 minutes forward or backwards.

#### 2.2.2.1 Scenario 1: Shifting block start/end point into an already existing block

Application alerts the user that there is a scheduling conflict, and prevents the action.

**2.2.3 Use Case 3: Create task**

Primary Actor: User

Secondary Actor(s): None

Goal in Context: To create a task to add to the calendar

Preconditions: None

Additional Description: The user will be prompted to enter a name, description, due date, time needed to complete the task, and the algorithm to be used when the system designates where in the user’s free time it’ll place the task. The created task will then be placed into the “unassigned tasks” list.

**2.2.4 Use Case 4: Assign task to calendar**

Primary Actor: User

Secondary Actor(s): System

Goal in Context: To assign created task to free time slots on the calendar depending on which algorithm the task uses

Preconditions: Task has been created

Additional Description: Users can view specific unassigned tasks and press a button to have the system place the task somewhere within their free time. The “Slow and Steady” algorithm splits up the task into smaller segments throughout the week, while the “Rip the Bandaid” algorithm tries to keep the task in large segments.

**2.2.5 Use Case 5: Unassign currently assigned task**

Primary Actor: User

Secondary Actor(s): System

Goal in Context: To unassign a task that is currently assigned to some free time slots in the calendar

Preconditions: Task is currently assigned in the calendar

Additional Description: Specific assigned tasks can be viewed and sent back to the “unassigned tasks” list. They retain all of their information, including the amount of time remaining and their due date.

**2.2.6 Use Case 6: Modify task due date**

Primary Actor: User

Secondary Actor(s): None

Goal in Context: Change the due date of a specific task

Preconditions: Task has been created

Additional Description: Users can change the due date of tasks in the “unassigned tasks” list. The due date of currently assigned tasks cannot be changed; users must first unassign the tasks.

**2.2.7 Use Case 7: Add time**

Primary Actor: User

Secondary Actor(s): None

Goal in Context: Adds time to a specific task

Preconditions: Task has been created

Additional Description: Time added is done through increments of 15 minutes

2.2.7.1 Scenario 1: Trying to add time that will overlap with the primary schedule or another task

Application prevents user from adding the time, alerting them that the primary schedule or another task is occupying the space on the calendar.

2.2.7.2 Scenario 2: Trying to add time that produces a total amount of time left on the task that surpasses the due date

Application prevents user from adding the time, requesting that the user must extend the due date in order to perform the action.

**2.2.8 Use Case 8: Subtract time**

Primary Actor: User

Secondary Actor(s): None

Goal in Context: Subtracts time from a specific task

Preconditions: Task has been created

Additional Description: Time subtracted is done through decrements of 15 minutes

2.2.8.1 Scenario 1: Trying to subtract time that will produce a less than or equal to zero amount of time left

Application prevents user from subtracting the time, alerting them that values less than or equal to zero are invalid.

**2.2.9 Use Case 9: Delete task**

Primary Actor: User

Secondary Actor(s): None

Goal in Context: Deletes a task

Preconditions: Task has been created

Additional Description: When viewing a specific task, a button can be pressed to delete the task. It’ll ask the user if they’re sure they want to delete it, and upon clicking yes, the task will be deleted.

**2.2.10 Use Case 10: Start task timer**

Primary Actor: User

Secondary Actor: None

Goal in Context: To start the timer on the selected task

Preconditions: Task has been placed in the user’s calendar

Additional Description: When viewing a task, a button can be pressed to make the timer start counting down. The button can be pressed anytime before the actual start date of the task (incase the user wants to get a head start), and automatically starts counting down when the start session occurs.

**2.2.11 Use Case 11: Stop task timer**

Primary Actor: User

Secondary Actor: None

Goal in Context: Stop the timer on the selected task

Preconditions: Timer is currently running

Additional Description: When viewing a task, a button can be pressed to make the timer stop counting down.

**2.2.12 Use Case 12: Remind user of upcoming task start session**

Primary Actor: System

Secondary Actor: None

Goal in Context: System reminds the user one hour before the scheduled task’s start session that they need to start on it in an hour

Preconditions: The calendar is populated with at least one task

Additional Description: System gives the user a reminder to start a task that has been scheduled.

**2.2.13 Use Case 13: Alert user when due date is reached**

Primary Actor: System

Secondary Actor: None

Goal in Context: System alerts the user when the due date for a specific task occurs

Preconditions: Task exists in calendar

Additional Description: When the due date for a task hits, the user is asked if they have completed the task. If “yes”, the task is deleted. If “no”, the user is asked if they’d like to add more time. (“Yes” prompts them to give the task a new due date and to add more time, “no” deletes the task)