**Dream Team**

**Smart Calendar**

**Written Requirements**

***Revision History***

|  |  |  |  |  |
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# Team Description

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# Terminology

The following table defined terms used within this document.

|  |  |
| --- | --- |
| **Term** | **Definition** |
| User | Person using the application. |
| Block | Segment of time represented on the Calendar. |
| Free time | The time where the user is available to schedule Tasks. |
| Task | A voluntary activity the user must complete. |
| ETC | Estimated Time to Completion. This is the amount of time the user inputs as an estimate to how long they’ll need on a Task. |
| Ripping the bandaid | Algorithm type; assigns Tasks in large, segments. |
| Slow and steady | Algorithm type; assigns Tasks in small, frequent segments. |

# Smart Calendar

## Overview

This application will:

* Allow the user to enter their free time on a weekly basis
* Allow the user to schedule Tasks to complete during their free time
* Sort the user’s Tasks based on an algorithm of their choice
* Remind the user of their upcoming Tasks’ deadlines

**3.2 Calendar Requirements**

**3.2.1 Create Task Requirement**

The system **shall** allow creation of new Tasks. **REQ-0001**

* Mandatory fields: Name, Due Date, ETC
* Optional fields: Description

**3.2.2 View Unassigned Tasks Requirement**

The system **shall** allow the user todisplay a list of unassigned Tasks.

The system **shall** allow a displayed Task within the list to be viewed and modified independently.

**3.2.3 Edit Tasks and Free Time Requirement**

The system **shall** allow the user to modify their Tasks and Free Time Blocks through the Calendar UI, and at least one block of free time and/or task is allotted.

**3.3 Free Time Requirements**

**3.3.1 Create Free Time Block Requirement**

The system **shall** allow the user to create new Free Time Blocks.

The system **shall** prompt the user to enter a Start Time and End Time for the new Free Time Block.

**3.3.2 Delete Free Time Block Requirement**

The system **shall** allow the user todelete a selected Free Time Block.

**3.3.3 Modify Start and End Times Requirement**

The system **shall** allow the user to modify the Start and End Times of a selected Free Time Block.

**3.3.4 Start and End Times Encapsulate Existing Free Time Block Requirement**

When the Start and End Times of a new Free Time Block are the same as an already existing Free Time Block, the system **shall** delete the older Free Time Block, and add the newer Free Time Block.

**3.3.5 Free Time Block Extension Requirement**

When the Start and End Times of a created or modified Free Time Block overlap another existing Free Time Block, the system **shall** merge/extend the existing Free Time Block with the new Free Time Block.

**3.3.6 Invalid Start and End Times Requirement**

The system **shall** prevent the user from creating or modifying a Free Time Block’s Start and End Time values such that any of the following becomes true:

* Start Time or End Time occupies the same space as an existing Task Block
* Start Time and End Time encapsulate a Task Block
* Start Time and End Time are encapsulated by an existing Free Time Block
* Start Time is later than the End Time
* Start Time is the exact same as the End Time

**3.4 Task Requirements**

**3.4.1 Assign Task to Calendar Requirement**

The system **shall** allow the user to assign Tasks to the Calendar from the “Unassigned Tasks” list when there are one or more task(s) in the queue.

**3.4.2 Invalid Assign Request Requirement**

The system **shall** prevent the user from assigning a Task to the Calendar if one of the following conditions are met:

* The Task is missing one or more mandatory parameters (Name, Due Date, ETC)
* The amount of free time between the time of the assign request and the Due Date is less than the Task’s ETC

**3.4.3 Unassign Currently Assigned Task Requirement**  
 The system **shall** allow users to unassign currently assigned Tasks from the Calendar.

**3.4.4 Modify Name Requirement**

The system **shall** allow users to modify the Name field of any individually viewed Task.

**3.4.5 Modify Description Requirement**

The system **shall** allow users to modify the Description field of any individually viewed Task.

**3.4.6 Modify Task Due Date Requirement**

The system **shall** allow users to modify the Due Date field of individually viewed Tasks from the “Unassigned Tasks” list.

**3.4.7 Modify Task ETC Requirement**

The system **shall** allow users to modify the ETC field of individually viewed Tasks from the “Unassigned Tasks” list.

**3.4.8 Delete Currently Unassigned Task Requirement**

The system **shall** allow users to delete Tasks from the “Unassigned Tasks” list.

**3.4.9 Delete Currently Assigned Task Requirement**

The system **shall** allow users to delete Tasks that are assigned to the Calendar.

**3.4.10 Remind User of Upcoming Task Due Date Requirement**

The system **shall** alert the user with a pop-up message when the task falls within a user defined interval of when they wish to be alerted, and the task has not been completed by the user.

**3.4.11 Alert User when the End of the Last Task Block is Reached Requirement**

Upon reaching the end of the last Task Block for a given Task, the system **shall** ask the user if they are done or close to being done with the Task.

If the user clicks “Yes”, the system **shall** delete the Task.

If the user clicks “No”, the system **shall** place the Task into the “Unassigned Tasks” list, and request the user to modify the Due Date and ETC values for rescheduling.