**Dream Team**

**Smart Calendar**

**Analysis Class Report**

***Revision History***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Authors** | **Description of Change** | **Sections** | **Rev** | **Date** |
| Henry Y | Initial Document |  | O | 2/28/18 |
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# Team Description

|  |  |
| --- | --- |
| **Team Member Name** | **Email Address** |
| Eric Guzman | eg70889@csu.fullerton.edu |
| Adam Weesner | klaviam@gmail.com |
| Jesus Rodriguez | jrjssrdgz@csu.fullerton.edu |
| Michael Perez | mperez980089@yahoo.com |
| Henry Yang | hkyang@csu.fullerton.edu |
|  |  |

# 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.

## Analysis Class Diagram

## Analysis Class List

|  |  |
| --- | --- |
| **Sequence Number** | **Analysis Class** |
| 1 | Calendar |
| 2 | Block |
| 3 | Primary Schedule |
| 4 | Task |

### Calendar Class

Description: UI element that contains the user’s Primary Schedule and Tasks, both of which are represented as blocks. This is where Tasks can be created, and the Primary Schedule can be edited. The Calendar is also what keeps tracks of all assigned/unassigned tasks.

Methods:

* EditPrimarySchedule
* CreateTask

Attributes:

* Primary Schedule
* List of unassigned tasks
* List of assigned tasks

**2.2.2 Block Class**

Description: Depicts a block of time on the calendar. Blocks are used by the Primary Schedule, as well as Tasks. Primary Schedule blocks can have their Start Time and End Times manipulated, while Task blocks cannot. Start and End times can only be changed in 15 minute increments/decrements.

Methods

* SetName
* SetDescription
* ShiftForwardFifteenMinutes
* ShiftBackwardFifteenMinutes
* ChangeColor

Attributes

* Block Type (“Primary Schedule” or “Task”)
* Name
* Description
* Start Point
* End Point
* Color

### 2.2.3 Primary Schedule Class

Description: Represents the activities the user will engage in at the designated time. These activities are represented as blocks on the Calendar, and prevent tasks from being assigned to the timeframes the activities take up.

Methods:

* CreatePrimaryScheduleBlock
* DeletePrimaryScheduleBlock

Attributes:

* List of primary schedule blocks

**2.2.4 Task Class**

Description: Tasks are the activities the user wants to complete. Created tasks are placed in the “Unassigned Tasks” list. Unassigned tasks can be individually viewed, where they can be assigned to the Calendar. How they are assigned to the calendar is determined by their Scheduling Algorithm. Once assigned, tasks are represented as blocks on the Calendar. Assigned tasks can also be individually viewed, and can be unassigned from the Calendar.

Methods:

* DeleteTask
* AssignTask
* UnassignTask
* ChangeDueDate

Attributes:

* Assigned (True/False)
* Due Date
* Time Needed to Complete the Task
* Scheduling Algorithm (“Slow and Steady” or “Rip the Bandaid”)