Time Pies

Use Case Diagram

Submitted to:

Prof. Ma. Rowena C. Solamo
Faculty Member
Department of Computer Science
College of Engineering
University of the Philippines, Diliman

Submitted by:
Co, Patricia Kelly Dy
Otsuka, Kenneth Tigranes
Rubio, Mary Jane Talan

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Revision Control

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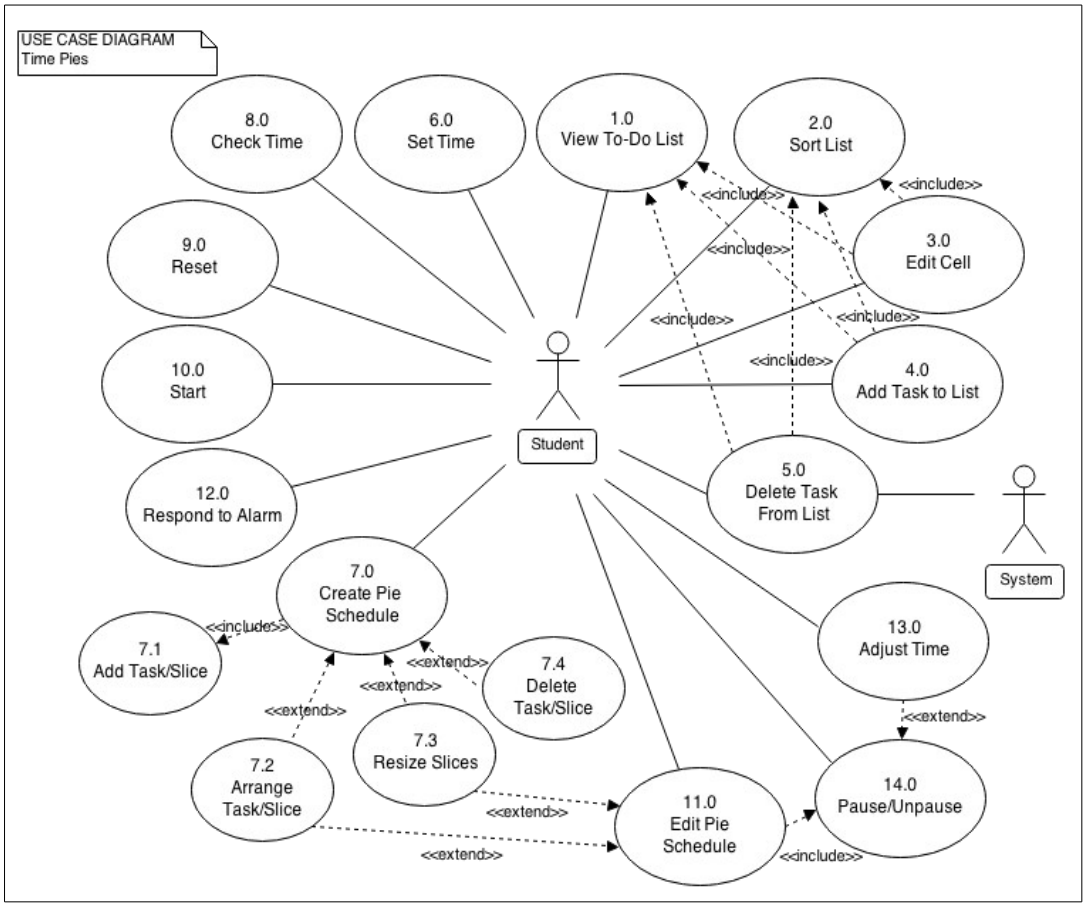
Revision Date	***Person Responsible***	***Version Number***	***Modification***
9/11/14	Patricia Kelly Co Kenneth Otsuka Mary Jane Rubio	1.0	Initial Document.
9/24/14	Patricia Kelly Co Kenneth Otsuka Mary Jane Rubio	1.1	Use-Case Diagram

System Name: Time Pies – A Mobile Time Management Application

Description: The application is a time management tool to help users (i.e. students) with their daily activities by providing a visual aid to keep track of their time and boost productivity. It is a to-do list for the day presented in the form of a pie chart. Each task added to the list will be a slice of the pie. These slices can be arranged by dragging and be resized by moving their partitions. The duration for the entire list will be set by the user and based on the ratio of each slice to the whole pie, the application will compute what fraction of the inputted time is allotted to each task. Once set to start, the pie will act as a timer that alarms whenever a slice runs out of time and asks whether the task is finished or not. If yes, it will show the next task, otherwise it will give the option to adjust the remainder of the pie.

Use-Case Diagram:



List of Actors:

Actors	***Description***
Students	Students that need help in time management. Those with the habit of making a to-do list for the day and try to complete them successfully. To help keep track of their time and tasks, they can use Time Pie to create a visually appealing schedule on their mobile gadgets.
System	This use case pertains to the program's controller. In particular, this handles the deletion of tasks from the list. These tasks are the finished tasks that have been included in the pie schedule.

List of Use-cases:

Use-Case	***Description***
Use-Case 1.0 View To-do List	The list stores the tasks listed by the user. View To-do List shows a column of tasks and a column of dates. Each row contains a task name and corresponding schedule.
Use-Case 2.0 Sort List	By clicking the column header, the list can be sorted by task name and by date in alphabetical and chronological order, respectively. When sorted by date, tasks having the same date are arranged alphabetically. Tasks without a set date are grouped together alphabetically and placed at the bottom of the list upon sorting.
Use-Case 3.0 Edit Cell	The list is a table with two columns and a definite number of rows. It can be edited by editing its cells one at a time. The user can change the tasks' names and dates. After a cell is modified, the list is resorted.
Use-Case 4.0 Add Task to List	A task is added by inputting its name/label. The user may or may not input a scheduled date. A new row containing the entry is inserted into the list based on how the list is currently sorted.
Use-Case 5.0 Delete Task from List	The user can choose to remove a task from the list. A task is deleted by deleting the cell containing the task name. This removes the entire row from the list. If a task in the list is added to the pie, once it is done, the task is automatically deleted from the list.
Use-Case 6.0 Set Time	The time frame of the pie is set by the user. The input can be either the duration or the start and end times expected to accomplish all the tasks in the schedule. Once the user has started the timer of the pie, the application will run during the given time.
Use-Case 7.0 Create Pie Schedule	This is the main operation of the application. The pie schedule is manually created by the user by adding, arranging, allotting time, and deleting. This is linked to the To-do List.

Use-Case	*Description*
Use-Case 7.1 Add Task/Slice	A task is added by inputting its name and choosing a color. It is added to the pie schedule as a slice with the chosen color. The user can add up to 18 tasks only. The user can also select tasks from the To-do list. The list will show only the tasks scheduled on the same date the user creates the pie.
Use-Case 7.2 Arrange Task/Slice	The tasks can be easily rearranged. The slices are moved by dragging them clockwise or counterclockwise along the pie. This can be done anytime when creating the pie schedule.
Use-Case 7.3 Resize Slices	Only after all the tasks have been added can the user change their sizes. Once resizing has occurred, adding a task will be impossible. Slices are resized by dragging their partitions. The size of a slice is used to compute for its corresponding task's allotted time. The ratio of a task's duration to the time frame of the whole pie is equal to the ratio of the slice's area to the pie's.
Use-Case 7.4 Delete Task/Slice	Tasks can be deleted one at a time. Since there is no edit task function, the alternative is to delete and add. When a task is deleted, the pie adjusts such that the area previously occupied by the deleted slice is distributed equally among the slices.
Use-Case 8.0 Check Task	The user can view the detail of a slice by clicking it. This will show the task and its remaining allotted time. This can be done anytime.
Use-Case 9.0 Reset	This deletes all the tasks resulting to an empty circle. It is useful when the user wants to add tasks after resizing. This can be done anytime.
Use-Case 10.0 Start	This starts the timer of the pie. Also, the user picks from which task to start. Once the start button is pressed, the schedule cannot be modified.
Use-Case 11.0 Edit Pie Schedule	This allows the user to edit the schedule after Start. While editing, the timer is paused. The user can only resize and arrange the slices of the undone tasks including the current task being interrupted while editing.
Use-Case 12.0 Respond to Alarm	The application will alarm once for a few seconds whenever a task runs out of time. At the same time, it will ask the user if the task is finished or not. If yes, the next task will be shown and the timer will resume. Otherwise, the user will have the option to auto-adjust.
Use-Case 13.0 Adjust Time	When the time allotted for a task runs out and the user is not yet done, he/she has the option to let the application redistribute the remaining time among the unfinished tasks. If the user chooses to do so, the Adjust Time will recalculate the durations. This may also occur after Unpause Timer.
Use-Case 14.0 Pause/Unpause	The Pause Timer function enables the user to pause the timer

Use-Case	*Description*
Timer	for the schedule. Its purpose is to make it convenient for the user when necessary to tend to things not included in the pie. The Unpause Timer function resumes the timer. In setting the time, if the input was start and end times instead of duration, the user will be given to options: move end time or recalculate the durations for the unfinished tasks. Selecting move end time changes the end time by adding the duration of the pause. While choosing recalculate the durations results to Adjust Time.