Mentor Management System

User Manual

Version 1.1

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Revision History

Version	Author	Comments
1.0	Ali	Initiated the document, mentor side, admin side
1.1	Mavis	Clarify language, add section on automated tasks

Table of Contents

1. Introduction

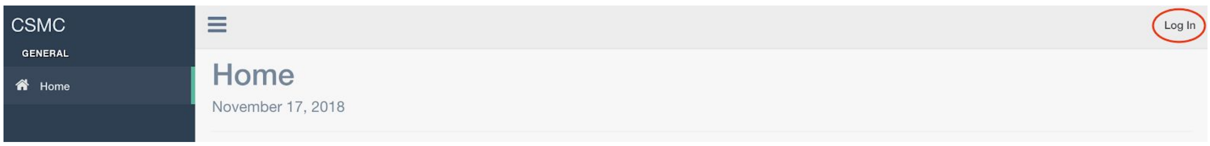
This document is intended to introduce the CSMC Mentor Management System (MMS), which is developed by Team TechyComets over the Fall 2018 semester. We strive to present every feature of the system in as much detail as possible so that our customer(s) will not have difficulty using this system. In order to keep things organized, we have divided the document into three parts. In the first part, we describe the mentor side and in the second half we describe the admin side. By “mentor side,” we mean all the pages that are accessible by mentors (such as the Login page, mentor homepage, etc.). On the other hand, “admin side” resources include much more than mentor side. In fact, the things that an admin can access subsume all the things that mentors can see. Lastly, we explain the automated tasks involved in the system that have to do with automatic detection of tardiness, and scheduled commands for detecting absences, accumulating tardiness, and sending notifications.

2. Mentor Side

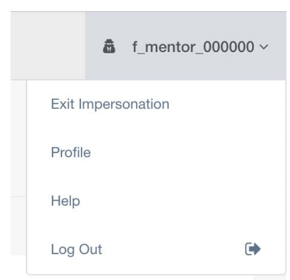
In this section, we describe all the pages that a mentor can access. These include homepage, Login page, mentor homepage, mentor profile page, and behavior occurrence page. In what follows, we describe each of these pages in more detail.

2.1. Mentor Login

The very top part of the homepage looks like the following (we have circled the login button).



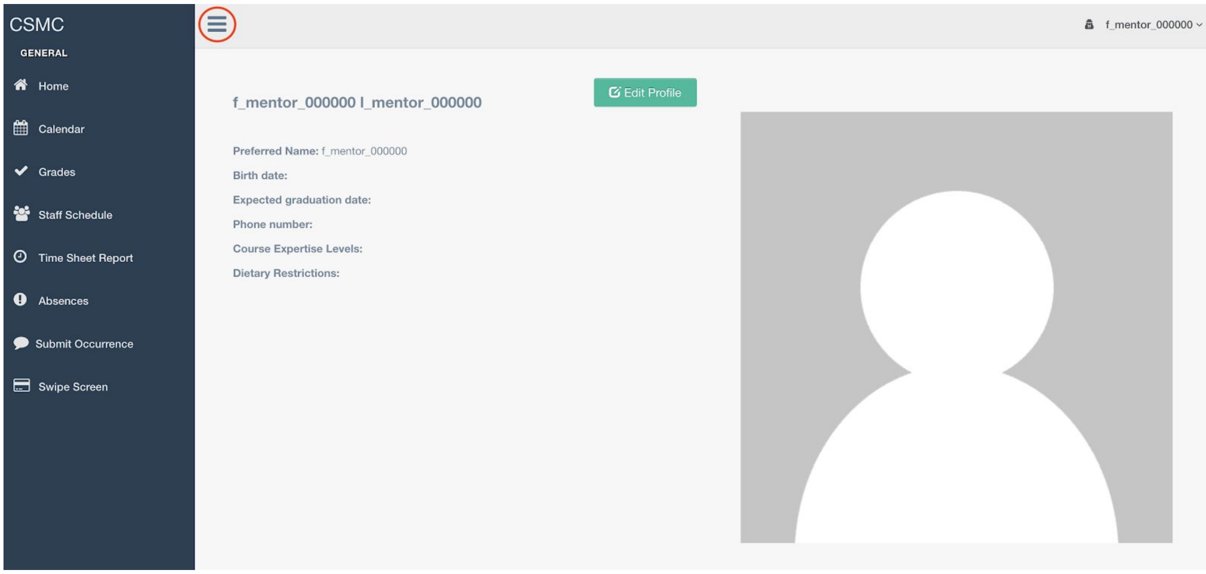
By pressing the button “Log In” (shown in the above figure), the user will be redirected to the same homepage, the difference being that this time the text of the button changed to the first name (or preferred name, if it has been set) of the mentor that has logged in. The two figures below show the “Log In” button right after logging in and the drop-down menu then that appears once the user clicks on the name. Please note that the “spy” icon and as well as the menu item “Exit Impersonation” are for debugging purposes, and are visible only to users with the role “developer”.



Clicking on the menu item “Log Out,” logs out and redirects the user to the homepage, a partial screenshot of which is shown in the beginning of present subsection. By clicking on the menu item “Profile” the user will be redirected to the profile page which is described in the next subsection in greater detail.

2.2. Mentor Profile Page

According to what we described in Section 2.1, once the user clicks on the menu item “Profile” they get redirected to a page that we call Mentor Profile Page. A screenshot of this page is displayed below. Please note that we have circled the button through which the user can choose the look-and-feel of the side menu.



On the left side of the page we can see a list of items that are actually links to different parts of the system:

- Home: redirects the user to the homepage (Section 2.1).
- Calendar: not related to the current project.
- Grades: not related to the current project.
- Staff Schedule: not related to the current project.
- Time Sheet Report: not related to the current project.
- Absences: not related to the current project.
- Submit Occurrence: redirects the user to behavior occurrence page wherein the mentor can report report occurrences related to the behavior of their colleagues. This feature is described in Section 2.3 in greater details.
- Clicking on the item "Swipe Screen" redirects the user to a page that allows users to swipe their Comet cards. This is tied into the feature of detecting tardiness, described in Section 4.1.

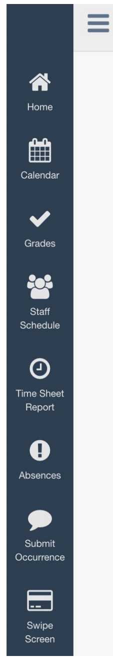
By clicking on the button that is circled in the above figure, the user can choose between the default menu appearance that is already shown and another more succinct one. The succinct version uses icons and smaller fonts to making the menu bar take up less space. Furthermore, the menu is "stateful," meaning that clicking on each item highlights the item while redirecting the user to the desired page (as if the page is tabbed). In the next page, we have shown the succinct version of the menu bar as well as the fact that the menu bar remembers the choices.

Putting the menu bar aside, most of the space of the page is devoted to displaying the basic information about the mentor that has just logged in.

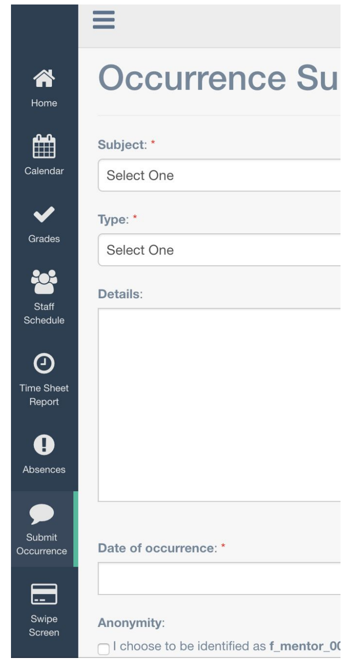
The first and last name of the mentor is displayed with a distinguished font size in the top part and the rest of the mentor's information is listed below it. A relatively large space is also allocated to display a photo of the mentor in question.

By clicking on the green button "Edit Profile," the user will be redirected to the page wherein they can change all the information related to them. This part is to be delineated in the following subsection.

Succinct menu bar

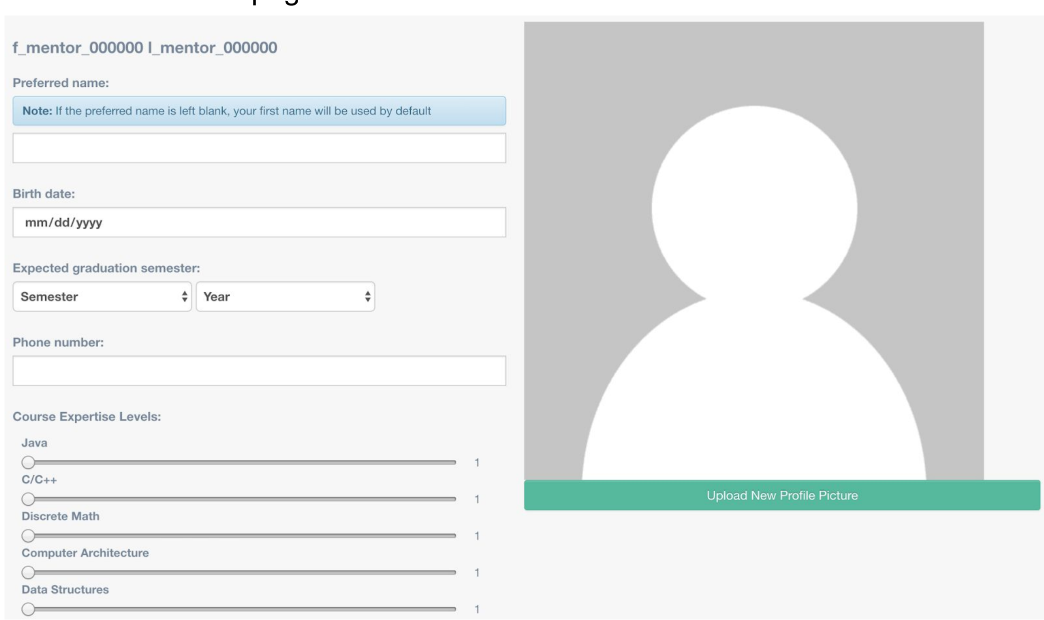


"Submit Occurrence" item gets selected after clicking on the item



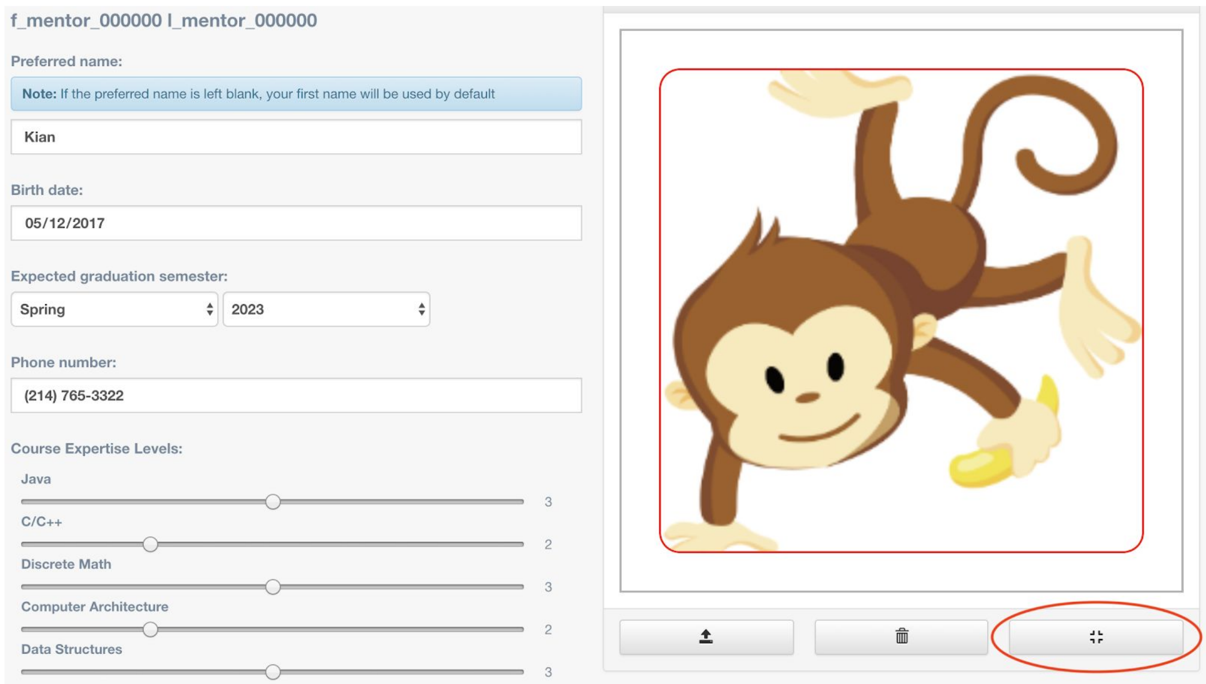
2.2.1. Edit Profile Page

A partial screenshot of the page Edit Profile is shown below.



The user can fill out the each of the fields. Only preferred name and the field for dietary restrictions are optional and can be left blank. Some of the fields have default values, though. For example, leaving the field "Preferred name" blank, will result in choosing the first name of the mentor as his/her preferred name. Similarly, leaving the slider bars for expertise level untouched will be considered as having a bare minimum knowledge of each field (which is denoted 1 in this system). For the other fields, if the user submits a form without filling them out, the system will complain by throwing appropriate messages.

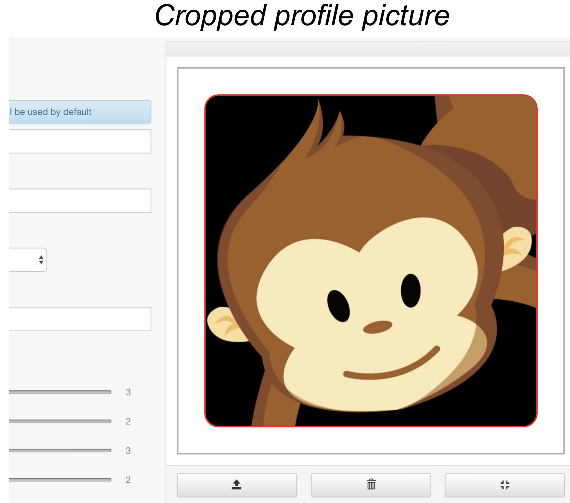
A couple of these changes will not take effect before approval of the admin (**Section 3.2**). An example of a filled out form (a partial screenshot) is shown below. Please note that we have circled the button for cropping facilities.



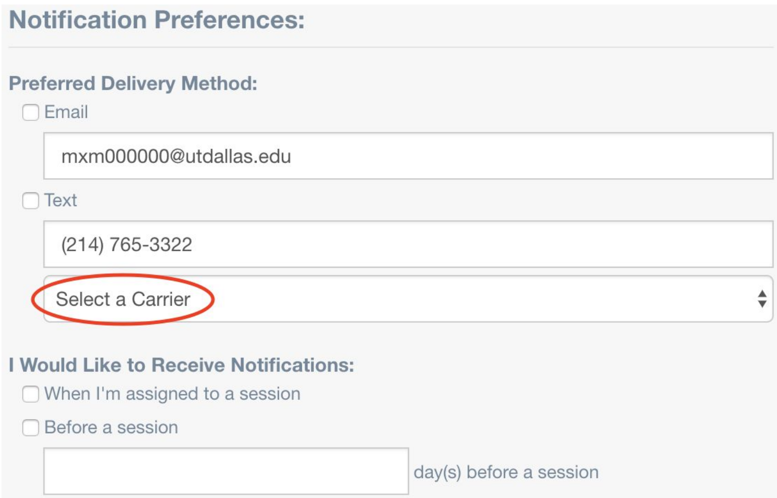
Hovering the mouse cursor over the uploaded photo will show its file size. By clicking on the button for cropping (circled in the above figure), the user can customize their profile picture. Furthermore, the field “Phone number” employs some sanitization facilities to reject nonsensical phone numbers.

Cropping window

Cropped profile picture



At the very bottom of the edit profile page, there are a group of fields through which the mentor can tune their preferences about system notifications. We will give details of the notification system in Section 4.4, but here we just mention how the mentors can set their preferences about getting notified. Below a partial screenshot of the bottom part of the edit profile page is displayed.

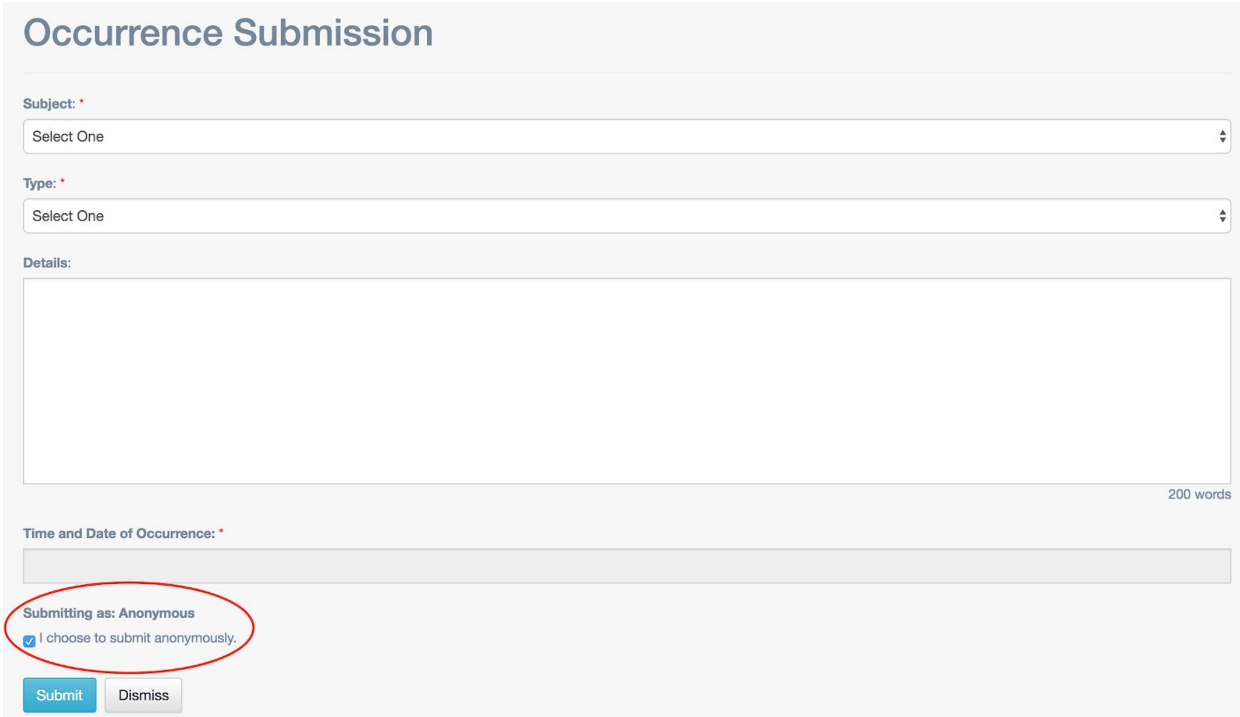


Please note that we have circled the field that is related to the name of cellular network provider. According to the figure, the user can choose between getting notified through email and/or text message. By default, the field for email address and phone number are filled with the mentor's UTD emails and phone number, respectively (if the phone number had been filled in previously). As we have emphasized in the side figure, once the user indicates that they wish to be notified using text message, they need to specify the name of the carrier they are using. Last but not least, the user can determine when they should get notified.

After filling out all the fields and pressing the button "Submit" the user will be redirected to their mentor profile page, but this time some fields will be accompanied with some annotations denoting the change in the information.

2.3. Behavior Occurrence Submission

The following figure shows the occurrence submission page. The system lists the preferred names of all mentors in the dropdown box for "Subject." The dropdown box for "Type" also correctly lists the set of all occurrence types that are specified by the admin. Please note that the system does not give the option of selecting the preferred name of the mentor who has just loaded the page as the Subject. There is a text area of limited size in which the user can type details of the occurrence. The limit of the text area is placed both on the number of characters and the number of words. Once the user exceeds the limit of the text area, the system warns the user with an appropriate blinking message with some distinguished color while disabling the submit button. Please note that we have circled the part in which the mentor can decide how they wish to be identified. By default, the checkbox is in "checked" stated, meaning that the behavior occurrence report will be submitted anonymously. However, once the user "unchecks" the checkbox, the system will indicate that the report is going to be submitted in such a way that it is associated with the author. All the fields, except "Details," are mandatory and the system will complain if the user leaves them blank.



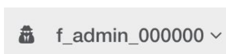
The field “Type” is used to select between types of occurrences. Types of occurrences are set by the admin (see Section 3.3). The mentor is also required to select the time and date of occurrence. This date does not need to be accurate, and indeed the system renders time units of size 30 minutes, and the range of time is limited to 6:00 to 22:00. Once the user clicks on the read-only textbox, the system shows a calendar and a list of times (in 24-hour format) so that the user can choose the occurrence time and date. By default, the system rounds (downwards) the current time to the nearest time slot.

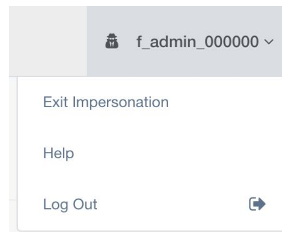
3. Admin Side

In this section, we are going to explain the pages that are available to the admin. In what follows, we begin with admin login and then explain more advanced features.

3.1. Admin Login

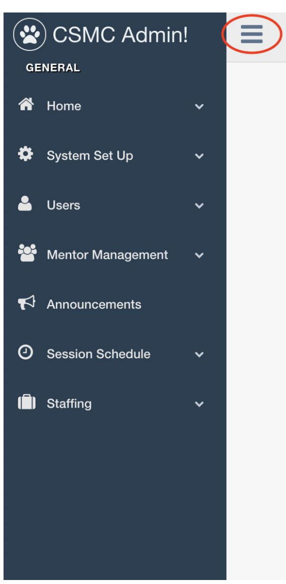
The login process for the admin is similar to that of mentors. Once the admin logs in, his/her first name will replace the title of the “Log In” button in the top right corner of the homepage.



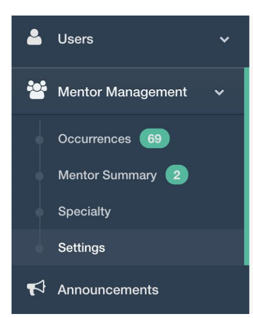


Just like mentors, the little “spy” icon and “Exit Impersonation” option are used for debugging purposes, and are available only to users with the role “developer”. Similar to mentors, by clicking on the name of the logged in admin, a drop-down menu will appear (the right side of the figure above). Clicking on the item “Log Out” logs the user out, and redirects the user to the homepage. For the purposes of this project, no behavior is defined for the menu item “Help,” so it does nothing once the user clicks on it. The other item is not related to our discussion here.

3.2. Admin Page



After logging in as the admin, the user can access the admin page by navigating to `/admin`. The side menu for Admin page is significantly richer than that of mentor profile page. The side-figure shows the menu bar for Admin page (in which we have circled the button that changes the look-and-feel of the menu bar). The first item redirects the user to the homepage. All the remaining items, except the one for “Mentor Management,” lack any kind of behavior in our given subset of the system, and thus clicking on them has no effect. The menu bar for Admin page is actually a so-called “tree view.” By clicking on each of the menu items more specific menu items show up. For example, the following figure shows the sub-items for the item “Mentor Management.” According to the this partial screenshot shown in the side-figure to the right, “badges” are used to show the number of pending requests/occurrences that the admin needs

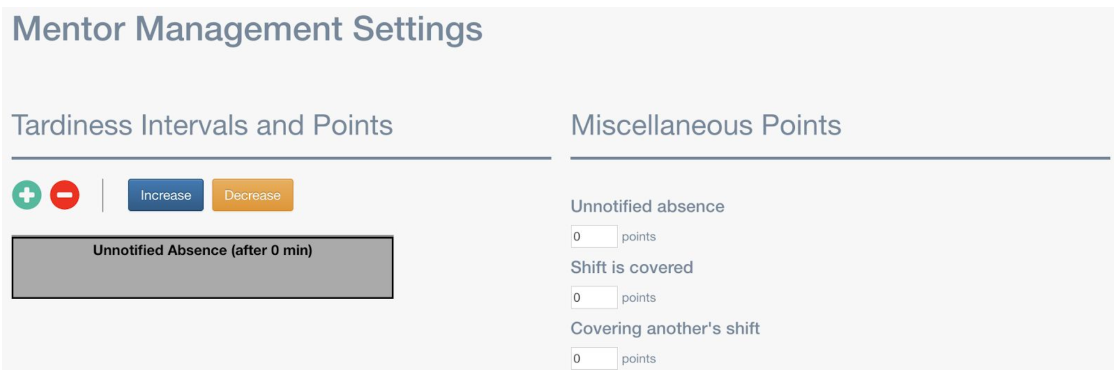


to review. In the following sections we will discuss each of the items in great detail.

3.3. Admin Settings

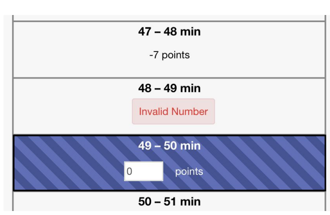
This page is accessible through *Admin Page* **>** *Mentor Management* **>** *Settings*. The page is composed of three parts that are responsible for setting penalty (and reward) points for tardiness (and covering shifts), penalty points for absence, and setting thresholds for suggested actions and adding occurrence types. Please note that all of these seemingly different parts are kind of related to each other; they are all subsystems of penalty score management. In what follows we explain each of these parts in greater detail.

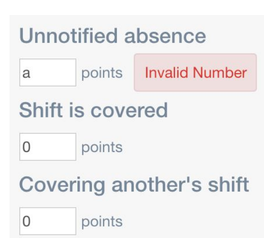
The following figure shows a screenshot of the part related to penalty score management for tardiness.



Clicking on the "plus" sign adds more intervals. Default interval length is 1 minute. Clicking on any of the intervals selects the interval, so that the user can assign different points to it. Selecting the first interval displays a little checkbox through which the user can specify whether a tardiness of 0 to n minutes should be considered cumulatively. The user can increase (resp. decrease) the size of the interval by selecting the interval and repeatedly clicking on the increase (resp. decrease) button. The visual size of an interval does not increase beyond some limit, while its value increases indefinitely. The value (and the visual size) of an interval does not decrease below 1.

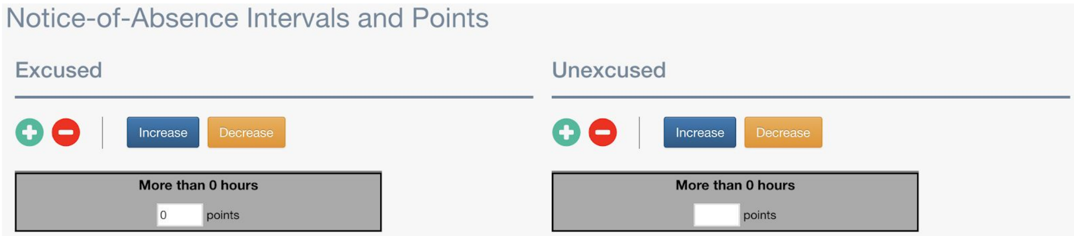
Once the user enters invalid penalty values for either of the intervals, the system complains appropriately. The system automatically negates the numbers inserted as penalty values, or interprets lack of number as 0.





The user can rectify the number by selecting the interval once again and enter a valid number. Similarly, the user is not allowed to enter invalid numbers as points for absences. The "Apply"

button gets disabled in these situations. The button immediately get enabled once the user enters a valid number as penalty score.
Below a partial screenshot of the second part of penalty score management is shown. This part that is related to specifying the penalty scores for absences.



Similar to tardiness, the “plus” sign is used to create intervals. With one difference that here the granularity is “hour,” instead of “minute,” and the interval size increases/decreases by 12 hours for each button press. One important difference with tardiness point specification is the nature of “Notice-of-Absence.” Please note that the intervals here denote the amount time *before* commiting the absence that the mentor submitted notice of absence.
The system notices invalid numbers and reacts appropriately. There are limits on the visual size of the intervals.
The following figure shows a partial screenshot of the admin page for suggested actions and occurrence types.

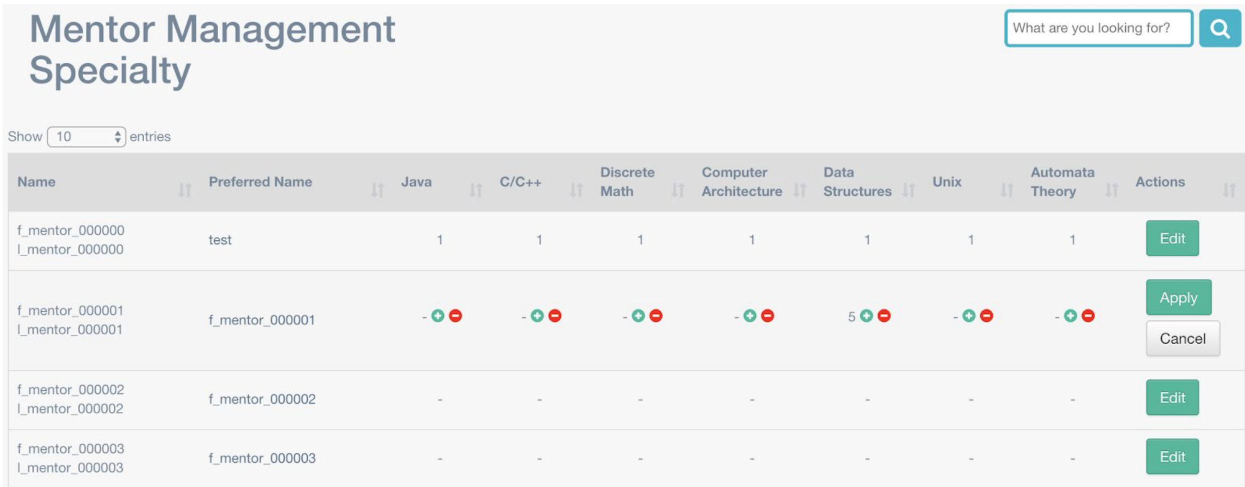
The user can add as many “Suggested Actions” or “Occurrence Types” as they want. Suggested actions are kind of reminders for the admin when a mentor’s total points has accumulated beyond the given thresholds. The thresholds for suggested actions can be positive or negative. Occurrence types are actually used when submitting behavior occurrence reports. The user can enter negative or positive numbers as penalty scores. Scores should be either negative values (for negative behavior) or positive values (for exemplary behavior) to affect the overall score of the mentors accordingly.

3.4. Occurrence Submission

Similar to mentors, the admin can also submit behavior occurrences. The difference being that, once the admin uses this page, the system lists all of the mentors (because the admin is completely different entity than all of the mentors). Since the details about occurrence submission is pretty much the same as the one at the mentor side, we are not going to explain it further. We invite the reader to refer to Section 2.3 for more details.

3.5. Specialities

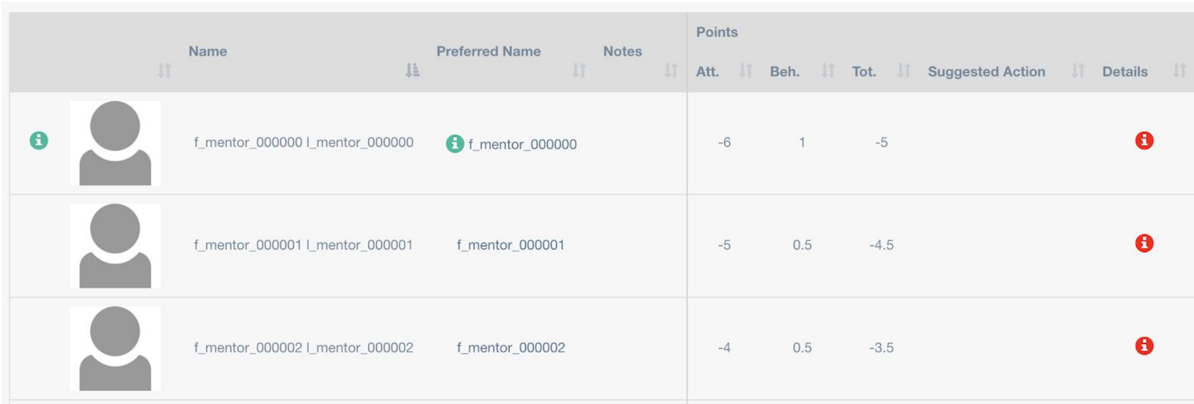
The admin is able to see the specialities of all the mentors and also modify them. The page for specialities is accessible through *Admin Page* **>** *Mentor Management* **>** *Speciality*. The admin is also able to sort the table based on different criteria such as first name/last name of the mentor, as well as each of the specialities. The admin can directly increase or decrease the level of specialities of each of the mentors which is then reflected in the profile page of the corresponding mentor (the limit being that the specialities cannot be larger than 5 or less than 1). The page elements provides sufficient guidance to the user (e.g. tooltip texts, as well as icons for increasing/decreasing sorting) so that the user can with the system without much trouble. The figure below shows a partial screenshot of speciality settings page.



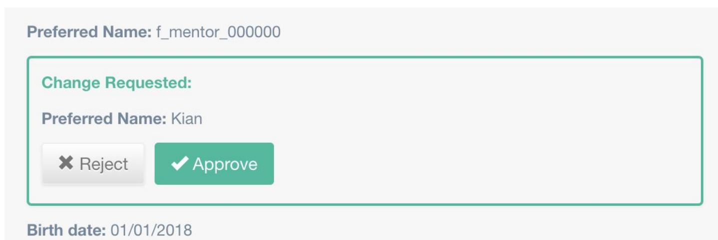
According to the figure above, all of the mentors are listed in a paginated list. The user can select how many mentors to show on one page (10, 25, 50, or All). Clicking on either of the “Edit” buttons allows the user to modify the speciality levels, similar to what is displayed in the second row above. By clicking on either “plus” or “minus” buttons, the user can increase or decrease, respectively, the speciality levels. Once the setting is done, the user can store the values in the database by clicking on the “Apply” button.

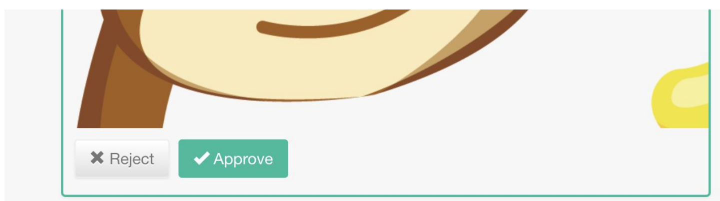
3.6. Mentor Summary

This page which is accessible through *Admin Page* **>** *Mentor Management* **>** *Mentor Summary*, besides showing overall score of each of the mentors, lists the set of pending requests made by the mentors. For example, the change that we made in previous sections appears as small, green “information” icons next to the name/profile picture of the requester mentor.



By clicking on the icons the admin is redirected to the profile page of the mentor that had made the request. Once the profile picture of such a mentor is loaded the admin will see "Approve"/"Reject" buttons next to each field that is changed and needs Admin's approval.

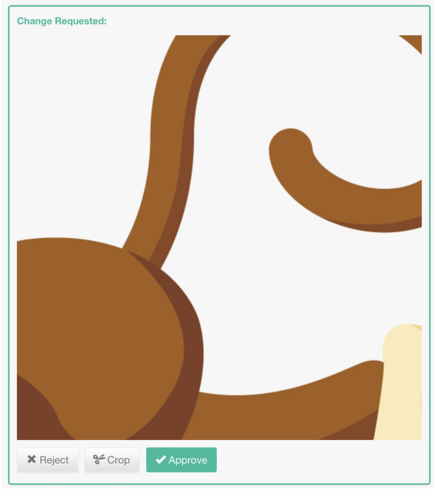




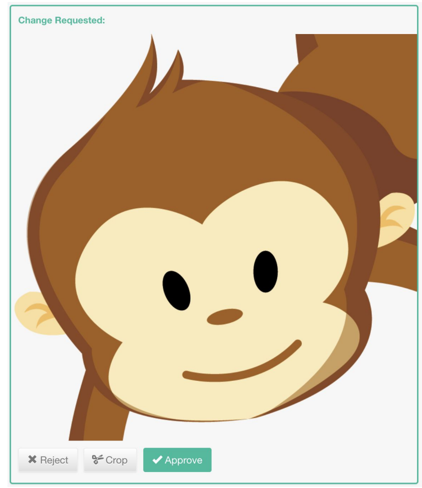
The admin can approve (resp. reject) each request by clicking on the "Approve" (resp. "Reject") button next to each request.

As we saw in the beginning of this sections, the system updating badges according to the number of requests made by the mentors. In this way, the admin will be aware of any pending change. The system returns to the Mentor Summary page after approval or rejection of each of the change requests. In the latest version of MMS the admin can also crop the profile photos uploaded by mentors, as shown below.

Mentor profile page before admin moderation



Mentor profile page after admin moderation



According to the figure displayed in the beginning of this section, the amount of scores is computed by the system based on the approved occurrences. We shall discuss about occurrences in the following subsection in greater detail, but for now we need to emphasize that there are generally two classes of occurrences: (1) those that are related to behavior; (2) those that are related to attendance. As it can be seen from the figure the system shows the points earned/lost by each mentor. The points related to each category are distinguished appropriately. Clicking on any of the “information” icons under the column “Details,” redirects the admin to the Occurrences page (see Section 3.7) wherein the admin can see all the occurrences related to a particular mentor. For example, clicking on the information icon associated with the mentor `f_mentor_000001`, redirects the user to the Occurrences page in which a list of all pending, approved, and rejected occurrences related to that particular mentor is shown. The information icon is colored red if there are any pending occurrences for that mentor. Filtering the reports is crucial for as time passes, the number of reports will grow so the admin might get lost under a huge pile of occurrence report. The figure below shows the list of occurrences related to the aforementioned mentor.

Closed

Submitted	By	Type	Description	Subject	Date Occurred	Points	Notes	Status	Details
11/19/2018	Anonymous	Something	Details	f_mentor_000001	11/19/2018	+0.5		✖	ℹ
11/19/2018	Anonymous	Something	Details	f_mentor_000001	11/19/2018	+0.5		✖	ℹ
11/19/2018	Anonymous	Something	Details	f_mentor_000001	11/19/2018	+0.5		✖	ℹ
11/19/2018	System	Absence (Unjustified)	No notice	f_mentor_000001	11/19/2018	-5.0		✖	ℹ
11/19/2018	System	Absence (Unjustified)	No notice	f_mentor_000001	11/19/2018	-5.0		✔	ℹ
11/19/2018	System	Tardiness (ACC)	5 minutes	f_mentor_000001	11/19/2018	+2.0		✔	ℹ

<< 1 >>

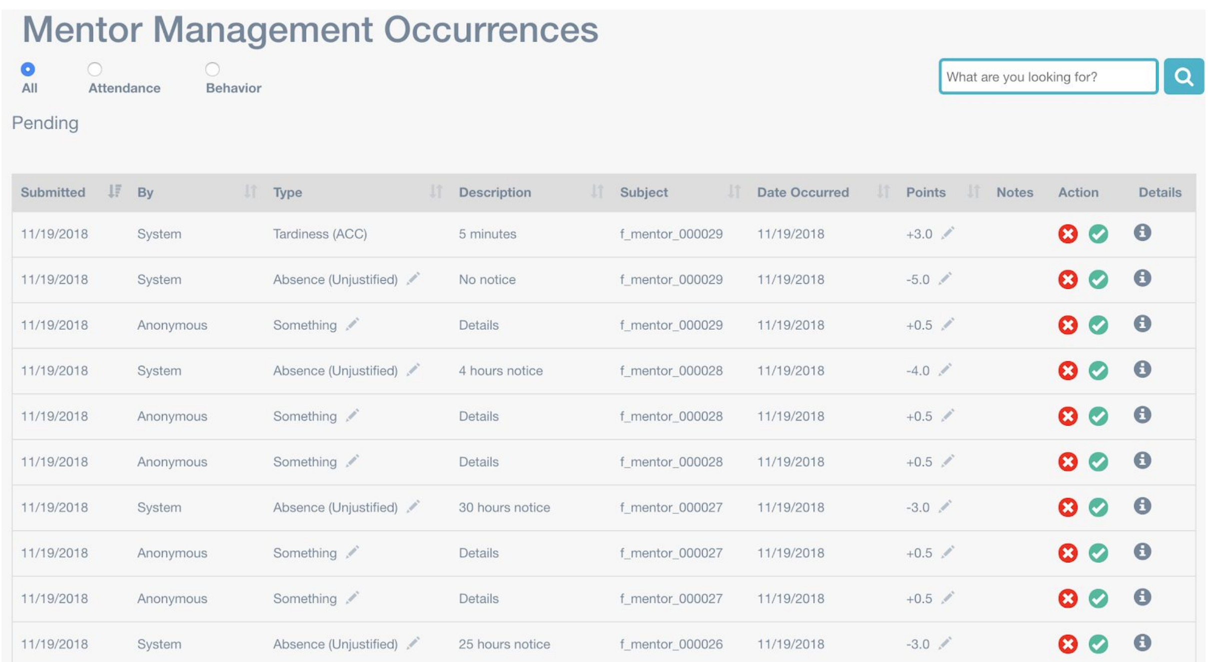
3.7. Occurrences

This page is accessible through *Admin Page* **>** *Mentor Management* **>** *Occurrences*, and is intended to display a summary of all the occurrences. This page contains two parts: (1) the top part which lists the set of pendinding occurrences; (2) the bottom part of the page lists all the approved/rejected (altogether “closed”) occurrences. The following figure shows the top part of the page. Since there might be a huge number of occurrences posted, the developers of TechyComets have decided to provide three helper mechanisms: (1) a search bar; (2) category-based filtering; (3) sorting based on each of the columns. A pagination mechanism is also provided to make large lists manageable.

The user can click on either of radio buttons located at the top of the page to the filter the occurrences. Clicking on the radio button “Attendance” shows only the occurrences related to attendance, while by clicking on the radio button “Behavior” the set of all behavior occurrences is displayed, and clicking the radio button “All” shows all the occurrences.

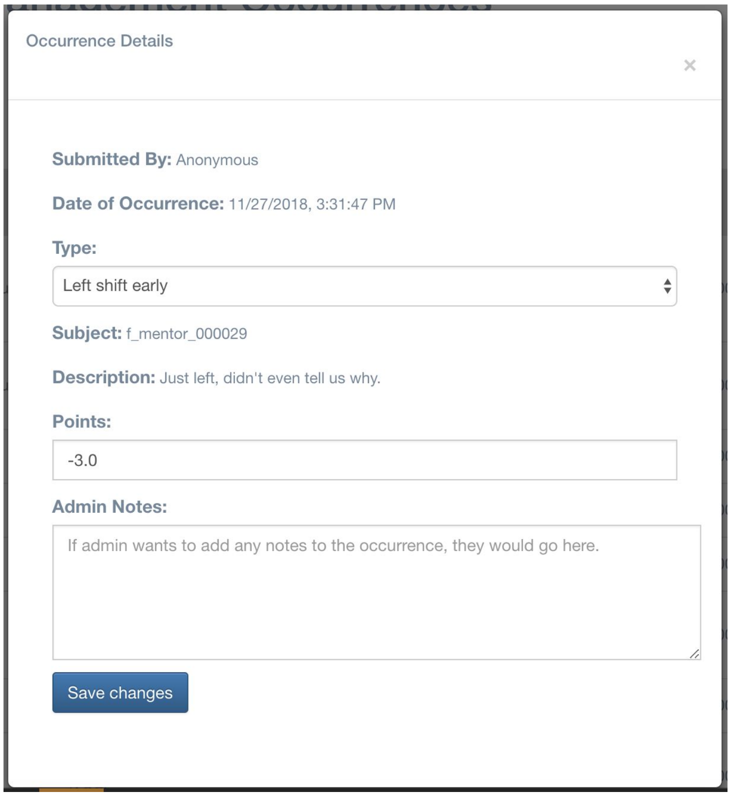
The search bar (located at the top right corner of the page) is a completely interactive searching tool that *aggressively* searches the entire table for pending occurrences and filters the results accordingly.

The following screenshot shows the top part of the occurrences page. Clicking on the green checkmark approves the occurrence, while clicking on the red cross button dismisses the occurrence as rejected. Clicking on either the green checkmark or the red cross moves the occurrence to the table located bottom part of the page upon refresh. We stress that rejected occurrences also get transferred to the “closed occurrences” table located at the bottom part of the page.



Submitted	By	Type	Description	Subject	Date Occurred	Points	Notes	Action	Details
11/19/2018	System	Tardiness (ACC)	5 minutes	f_mentor_000029	11/19/2018	+3.0			
11/19/2018	System	Absence (Unjustified)	No notice	f_mentor_000029	11/19/2018	-5.0			
11/19/2018	Anonymous	Something	Details	f_mentor_000029	11/19/2018	+0.5			
11/19/2018	System	Absence (Unjustified)	4 hours notice	f_mentor_000028	11/19/2018	-4.0			
11/19/2018	Anonymous	Something	Details	f_mentor_000028	11/19/2018	+0.5			
11/19/2018	Anonymous	Something	Details	f_mentor_000028	11/19/2018	+0.5			
11/19/2018	System	Absence (Unjustified)	30 hours notice	f_mentor_000027	11/19/2018	-3.0			
11/19/2018	Anonymous	Something	Details	f_mentor_000027	11/19/2018	+0.5			
11/19/2018	Anonymous	Something	Details	f_mentor_000027	11/19/2018	+0.5			
11/19/2018	System	Absence (Unjustified)	25 hours notice	f_mentor_000026	11/19/2018	-3.0			

Clicking on any of the items which have been marked with a “pen” edit icon converts the item to an editable field that the user can edit directly from the table view. Clicking on the “information” buttons shows the details about the occurrences in a modal window. The modal window also allows the user to change pretty much everything about each of the occurrences. The following figure shows a screenshot of the modal window.



The side figure shows an instance of Occurrence details modal window. According to this figure, the window does not display more information than each row of the main table. As it can be seen in the figure, the admin can either change the information about the occurrences or leave a note. There is an exception at this point which makes this page different from all other parts of the system. Here there is no restriction on the points that the admin can set for each occurrence. The admin can enter arbitrarily large or small numbers. The admin, however, is not allowed to enter invalid number. In order to help the admin in choosing the most appropriate point value, the system shows the default point for each type that they select. Similar to Occurrence Submission page, there is a limit on the length of the admin note. Clicking on the button “Save changes” saves the changes into the database, immediately. After clicking the button, the page is refreshed and the contents of the occurrences table update automatically to reflect the most recent changes.

As we mentioned earlier, the admin can approve (resp. reject) any of the occurrences by clicking on the green check mark (resp. red cross) buttons in each row. Accepting or rejecting an occurrence transfers the occurrence to the bottom table which lists the set of closed occurrences. A screenshot of this table is shown below.

Closed

Submitted	By	Type	Description	Subject	Date Occurred	Points	Notes	Status	Details
11/19/2018	Anonymous	Something	Details	f_mentor_000000	11/19/2018	+0.5		✔	ℹ
11/19/2018	Anonymous	Something	Details	f_mentor_000000	11/19/2018	+0.5		✔	ℹ
11/19/2018	Anonymous	Something	Details	f_mentor_000000	11/19/2018	+0.5		✔	ℹ
11/19/2018	Anonymous	Something	Details	f_mentor_000000	11/19/2018	+0.5		✖	ℹ
11/19/2018	Anonymous	Something	Details	f_mentor_000000	11/19/2018	+0.5		✖	ℹ
11/19/2018	System	Absence (Unjustified)	No notice	f_mentor_000000	11/19/2018	-5.0		✖	ℹ
11/19/2018	System	Absence (Unjustified)	No notice	f_mentor_000000	11/19/2018	-5.0		✔	ℹ
11/19/2018	System	Tardiness (ACC)	5 minutes	f_mentor_000000	11/19/2018	+3.0		✔	ℹ
11/19/2018	Anonymous	Something	Details	f_mentor_000001	11/19/2018	+0.5		✖	ℹ
11/19/2018	Anonymous	Something	Details	f_mentor_000001	11/19/2018	+0.5		✖	ℹ

<< 1 2 3 4 5 ... 18 >>

Please note that, at this point we have *all* the occurrences piled up. But the same filtering and searching facilities apply to the bottom table as well, making the data in the table more manageable. The following figure shows an instance of an approved occurrence with some admin note.

Mentor summary page entry

f_mentor_000004	-5	-20	-25

An approved occurrence against the mentor

-20.0	deducing 10 more point! And he says bad words when he teaches the concept of Strongly Connected	✔	ℹ

Click on the information button shows the same occurrence detail window, and the admin can change the information there, without any restriction.

When clicking on the information button for a closed (approved or rejected) occurrence, an additional item is added to the modal window that allows the admin to change the status from approved or rejected or vice versa, in case either option was selected by accident. (To prevent unintentional status changes, this option is only accessible through the information modal window.)

3.8. Admin Profile Edit

Similar to mentors, the admin can change any mentor's profile. The difference being that the when the admin updates a mentor's profile, changes to the preferred name or profile picture do not need any kind of approval. Since this part is identical to the Profile Edit page we described in Section 2.2.2, we are omitting the details.

4. Automated Tasks

In this section, we explain the parts of the Mentor Management System that involve automated tasks of detecting tardiness, detecting absences, accumulating tardiness, and sending notifications.

4.1. Detect Tardiness

When a mentor swipes in for their shift through the “Swipe Screen”, the system checks if the swipe occurred during a shift for which the mentor is scheduled. If so, the system takes note of the difference between the start of the shift and the time of swipe, and submits a tardiness occurrence with a penalty amount corresponding to the tardiness interval penalties configured by the admin (Section 3.3). If the tardiness amount falls into the “Unnotified Absence” range, then an absence occurrence is created instead. (Note: If the first interval of the tardiness interval penalties is marked as cumulative, then tardiness occurrences within that first threshold will not be displayed; instead they will be accumulated into a single “Tardiness (ACC)” occurrence. See Section 4.3 for details.)

4.2. Detect Absences

This functionality is achieved through a console command “app:detect-absences.” This command is to be scheduled to run every evening after closing. It compares mentors’ sign-in and sign-out times with their scheduled shift times and creates absence occurrences for all shifts for which they were absent. The penalties assigned to the absence occurrences depend on the amount of notice the mentor gave (if any), whether admin marks the absence as excused or not, and most importantly the settings configured by the admin (Section 3.3).

4.3. Accumulate Tardiness

This functionality is achieved through a console command “app:accumulate-tardiness.” This command is to be scheduled to run every Saturday evening after closing. If the “Cumulative” option for the first tardiness threshold is checked (see Section 3.3), then this command does the following. For each mentor, the command finds all his tardiness occurrences that fall within the Cumulative threshold, accumulates the tardiness amounts, and creates a single Cumulative Tardiness for that mentor (displayed as “Tardiness (ACC)” in the occurrence summary table).

4.4. Send Notifications

This functionality is achieved through two console commands “app:send-session-assignment-notifications” and “app:send-session-reminders,” for notifying mentors of any sessions they were recently assigned, and reminding them of upcoming sessions, respectively.

The “app:send-session-assignment-notifications” command is to be scheduled every evening after closing. This command looks at sessions that were assigned that day, and sends notifications to the assigned mentors if they opted in for this type of notification (see Section 2.2.1).

The “app:send-session-reminders” command is to be scheduled every morning before start of day. For mentors who opt in to this type of notification, this command reminds mentors of upcoming sessions they have however many days in advance that they specified in their notification preferences (see Section 2.2.1). (Note: the mentor can enter “0 days in advance” to be notified on the morning of the day of the scheduled session.)

For both of these notification types, the command sends an email to the provided email address and/or sends a text message to the provided email address for that mentor (see Section 2.2.1).