ShiftScheduler User's Guide

Introduction to ShiftScheduler:
ShiftScheduler is a web-based platform for the Butler/Wilson dining hall employees of Princeton University to efficiently manage their shifts. We provide a wide variety of functionalities as well as an aesthetic interface.

In the dining hall student employment system, there are three roles--employee, manager, and coordinator. Everybody is an employee. Some employees are managers, and the main distinction is that they have a higher pay grade; in practice, they are basically the same. Finally, there is one employee who is a coordinator, and he/she coordinates all of the employees and shifts during the year.

In ShiftScheduler, we have separate functionalities for employees and coordinators, as shown in the two versions of use cases below. Note that managers and employees have the same functionality; the only difference is that managers have a "Manager" position title that will show up in their profiles for bookkeeping purposes. All employees will be able to view their shifts in a calendar, sub-in and sub-out, and see details of all shifts. All coordinators will be able to report walk-ons and no-shows, add/remove employees, assign/unassign regular shifts, and generate a report of each employee's hours within a given period.

If you are a coordinator, we recommend going through the "Use Cases - Employee" section before the "Use Cases - Coordinator" section. The cases are meant to be performed in order, and will assume that you are continuing from the previous case. Please note that you will only be able to access ShiftScheduler if you have been added as an employee or coordinator. If you require access and do not have it, please contact the ShiftScheduler Team--contact information can be found at https://shiftscheduler.herokuapp.com/team.

Use Cases - Employee:
Accessing the System
ShiftScheduler is currently accessible at https://shiftscheduler.herokuapp.com/. Please navigate to this URL in your preferred web browser (we recommend Chrome since that's what the ShiftScheduler team largely used during development, though the system will still work in other browsers).

Logging In
Once you have navigated to https://shiftscheduler.herokuapp.com/, you are at the landing page. Click the "Click here to log in" button to log in. If you are not already logged in to the Princeton University CAS, you will be redirected there. Please log in with your Princeton University account and you will be redirected back to ShiftScheduler.
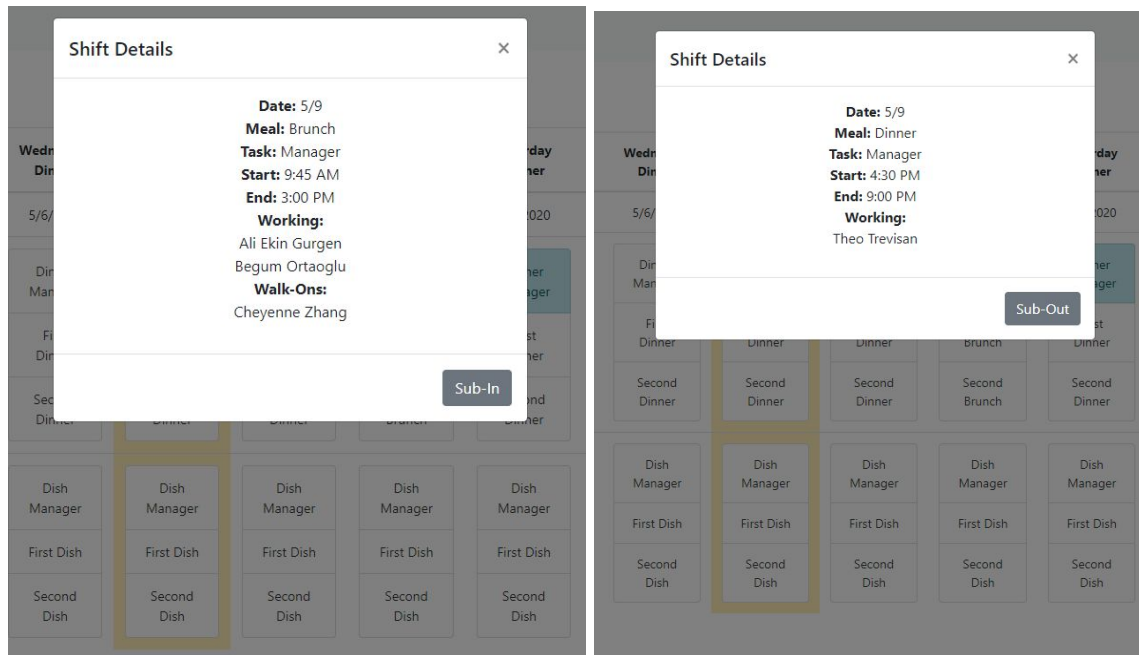
Employee Calendar - Shift Details

Once you have logged in, you will be redirected to the employee calendar page (NOTE: If you are also a coordinator, you will see the Index page upon login rather than the employee calendar page. Please see section "Index" in "Use Cases - Coordinator" below. In order to continue with use cases for employees simply click on the "Employee" button).

Here, you will see a full list of shifts for the current week, colored appropriately. There are nine columns for each of the nine meals that the workers work—dinner every day of the week and brunch on the weekends. The yellow highlighted column(s) indicate that these are the shifts for today. Each individual shift is colored blue, red, or white. A blue shift indicates that you are working the shift, a red shift indicates that the shift has been subbed out of and thus requires a sub-in, and a white shift indicates that you are neither working it nor has a sub been requested. Clicking on any shift will bring up detailed information about that shift.

Employee Calendar [<] [>]

Monday Dinner	Tuesday Dinner	Wednesday Dinner	Thursday Dinner	Friday Dinner	Saturday Brunch	Saturday Dinner	Sunday Brunch	Sunday Dinner
5/4/2020	5/5/2020	5/6/2020	5/7/2020	5/8/2020	5/9/2020	5/9/2020	5/10/2020	5/10/2020
Dinner Manager	Dinner Manager	Dinner Manager	Dinner Manager	Dinner Manager	Brunch Manager	Dinner Manager	Brunch Manager	Dinner Manager
First Dinner	First Dinner	First Dinner	First Dinner	First Dinner	First Brunch	First Dinner	First Brunch	First Dinner
Second Dinner	Second Dinner	Second Dinner	Second Dinner	Second Dinner	Second Brunch	Second Dinner	Second Brunch	Second Dinner
Dish Manager	Dish Manager	Dish Manager	Dish Manager	Dish Manager	Dish Manager	Dish Manager	Dish Manager	Dish Manager
First Dish	First Dish	First Dish	First Dish	First Dish	First Dish	First Dish	First Dish	First Dish
Second Dish	Second Dish	Second Dish	Second Dish	Second Dish	Second Dish	Second Dish	Second Dish	Second Dish

An example week in the Employee Calendar Page. Note the blue assigned shift and the red shift that needs a substitute.

Click on the "Dinner Manager" shift in the "Sunday Dinner" column to view its shift details. You should see the date, the meal, the task, the start time, the end time, the names of all employees working (currently Ali Ekin Gurgen), and the names of all walk-on (meaning that the employee was not originally assigned the shift but chose to walk-on on the day of) employees. Click "Close" to return to the calendar view.

Some example shift details on the Employee Calendar, with the left one needing a sub and the right one being worked by the user. Note the different buttons in the lower right hand corner.

Employee Calendar - Sub In
The "Brunch Manager" shift in the "Sunday Brunch" column should be red (we have set this up for the weeks of 5/11/20 and 5/18/20. If you are testing outside of these weeks, you may see a different coloring). This indicates that a sub has been requested. Click on it to view its shift details and to sub-in. You should see the date, the meal, the task, the start time, and the end time. Since there are no employees currently working it, those are all the details about this shift. Click "Sub-In" to sub into the shift. You should see a "Sub-In Successful!" message and the page will reload back to the calendar view. The "Brunch Manager" shift in the "Sunday Brunch" column should now be blue because you are working it.

Click on the red "Dinner Manager" shift in the "Monday Dinner" column. Since this is in the past, you cannot sub-in to this shift even though it is red. Click the sub-in button. You should see a "You cannot sub-in to a past shift." message and the page will reload back to the calendar view.

Finally, click on the red "Dinner Manager" shift in the "Saturday Dinner" column. Since you are already working the First Dinner shift at the same time, you cannot sub-in to this shift even though it is red. Click the sub-in button. You should see a "Sub-In not successful. You already have a shift at this time." message and the page will reload back to the calendar view.

Employee Calendar - Sub Out
The "First Dinner" shift in the "Saturday Dinner" column should be blue. This indicates that you are working the shift. Click on it to view its shift details and sub-out. You should see the date, the meal, the task, the start time, the end time, and your name under "Working." Click "Sub-Out"

to request a sub for the shift. You should see a "Sub-Out Successful!" message and the page will reload back to the calendar view. The "First Dinner" shift in the "Saturday Dinner" column should now be red because a sub has been requested. Note that subbing out sends an email to all current employees, notifying them that a sub has been requested and to navigate to their employee calendar page to sub-in if they so desire. If you check your email inbox, you should see this message. Click on the shift again and click the "Sub-In" button. The shift is now yours again. Click the "x" in the top right corner to return to the calendar view. The shift is once again blue.

Click on the blue "First Dish" shift in the "Monday Dinner" column. Since this is in the past, you cannot sub-out of this shift. Click the sub-out button. You should see a "You cannot sub-out of a past shift." message and the page will reload back to the calendar view.

Employee Calendar - Navigate Between Weeks
In the top right corner, directly above the "Sunday Dinner" column, you should see two black arrows. Click on the right one to navigate to the next week. Click on the left one to navigate back to the current week. Note that if you navigate to any week after 5/24, you will notice that the calendar does not have any blue/red shifts and clicking on a shift does not display any shift details. This is because the dining halls close on 5/24 and the ShiftScheduler database does not contain any shifts after this date.

Profile
In the navigation bar at the top, you should see "ShiftScheduler" and to its right your net ID with an arrow indicating a dropdown menu. Click the arrow. You should see three options: "Home", "Profile" and "Log Out". Click "Profile" to navigate to the profile page. You should see your net ID, your full name, your position (Manager or Regular), your total hours in this pay period, and a list of your regular shifts. Click "Back to Employee Calendar" to navigate back to the employee calendar.

Team
In the footer at the very bottom of the page, you should see "© The ShiftScheduler Team 2020". Click on "The ShiftScheduler Team" to navigate to the team page. Here you will see a short description of ShiftScheduler and can also report any bugs encountered by clicking "here" in the "Please report any bugs you may encounter here or feel free to contact the developers below with any questions." You will also see short profiles of the members of the ShiftScheduler development team and their contact information. If you click on "Contact Me" for any of the team members, your default mail application will open to send an email to that team member. Click the "Back to ShiftScheduler Login" button to return to the landing page.

Log Out
You are at the landing page. Click the "Click here to log in" button to log into ShiftScheduler again. If you are not already logged in to the Princeton University CAS, you will be redirected there. You are now back at the employee calendar page. In the navigation bar at the top, you

should see "ShiftScheduler" and to its right your net ID with an arrow indicating a dropdown menu. Click the arrow. You should see three options: "Home", "Profile" and "Log Out". Click "Log Out" to log out of both ShiftScheduler and Princeton University CAS authentication. You should see the CAS "Logged out" page.

Use Cases - Coordinator:

Accessing the System
ShiftScheduler is currently accessible at https://shiftscheduler.herokuapp.com/. Please navigate to this URL in your preferred web browser (we recommend Chrome since that's what the ShiftScheduler team extensively used during development).

Logging In
Once you have navigated to https://shiftscheduler.herokuapp.com/, you are at the landing page. Click the "Click here to log in" button to log in. If you are not already logged in to the Princeton University CAS, you will be redirected there.

Index
Once you have logged in, you will be redirected to the index page. This is the homepage for coordinators, and can only be accessed by coordinators. Here you can choose your role: Employee or Coordinator. Clicking the "Employee" button would access the employee's functionalities exactly as shown above in the "Use Cases - Employee" section. We recommend reading through that section before returning here. Click the "Coordinator" button to access the coordinator functionalities.

Coordinator Calendar - Shift Details
The first coordinator functionality is a calendar that looks relatively similar to the Employee Calendar. Like with the Employee Calendar, there are nine columns (one for each meal of the week), and the current day is highlighted in yellow. However, in the Coordinator Calendar, shifts are colored either red (meaning that a sub is needed) or white (meaning that no sub is needed). Click on the "Dinner Manager" shift in the "Monday Dinner" column to view its shift details. You should see the date, the shift's ID, the meal, the task, the start time, the end time, the names of all employees working (currently Begum Ortaoglu), and the names of all walk-on (meaning that the employee was not originally assigned the shift but chose to walk-on on the day of) employees (currently Cheyenne Zhang).

The Coordinator Calendar page. Note that Saturday Brunch Manager and Saturday Dinner Manager are colored red in this example because they need substitutes.

Coordinator Calendar - No Shows

You can also designate and undo no-shows (where the employee did not show up for their shift) and assign walk-ons (where the employee showed up to perform a task not originally assigned to them). Please note that you cannot designate or undo a no-show for today or a future date. To designate an employee as a no-show for the Monday Dinner Manager shift, click on the grey "mark no show" button next to the first employee's name (currently Begum Ortaoglu), and the grey button will turn into a red "no show" button. The employee has now been marked as a no-show. To undo this assignment, click on the red "no show" button to revert it to its original grey "mark no show" button. The employee is no longer a no-show. Please note that attempting to designate and undo several no-shows in a row is slightly buggy at the moment. You may need to close and reopen the popup if you need to perform this process more than once.

Shift Details ✕

Date: 5/8
Shift ID: 742
Meal: Dinner
Task: Manager
Start: 4:30 PM
End: 9:00 PM
Working:

Ali Ekin Gurgen   [mark no show]

Cheyenne Zhang   [mark no show]

Walk-Ons:
Begum Ortaoglu

@ | netid   [Add Walk-On]

Shift details on the Coordinator Calendar page. Note that this is a future shift, so the "mark no show" and "Add Walk-On" buttons are disabled.

Coordinator Calendar - Walk-Ons

As an example of noting an employee's walk-on shift, you will go through all the motions to add yourself as a walk-on to the Monday Dinner Manager shift. **Currently, there is no way to undo a walk-on assignment, so do not actually perform the last step unless you need to add yourself as a walk-on to that shift**. In the bottom right corner of the shift details box, enter your net ID in the input field. To add the walk-on assignment, click the grey "Add Walk-On" button to the right of the text field (this step is irreversible). Please also note that you cannot assign a walk-on to today or a future date. In practice, we recommend that the coordinators communicate with the managers to obtain walk-on and no-show data after each meal, then the coordinator inputs the walk-on and no-show data here as necessary in the following days.

You cannot add an employee that does not exist as a walk-on. Enter "aaaabbbb" into the net ID input field (this net ID does not exist in the system). It should give the error message: "The entered net ID does not belong to any employee." Click "Close" to return to the calendar view.

You also cannot add someone to a shift if they are already working at that shift. Click on "Second Dish" under the "Monday Dinner" column. "Cheyenne Zhang" should appear under the "Working" list for this shift. Try to add her as a walk-on to this shift by typing "cz10" in the walk-on input field and clicking on "Add Walk-On." It will give the error message: "This employee is already assigned to this shift."

<u>Coordinator Employee Details - Add Employee</u>
In the black navigation bar, click on the "Employees" tab. You should be redirected to the employees page. There are three columns—the leftmost shows a list of all current employees, the middle will show an employee's details when one is selected in the leftmost column, and the rightmost allows you to add and remove employees. In the top half of the rightmost column, you can enter a student's information to add him/her as an employee. Enter a dummy profile--first name "Test", last name "Guy, net ID "tguy", "Yes" for manager. Click the "Add" button. The student should show up as an employee in the list in the leftmost column now.

If you try adding an employee that has a space character in their net ID, the employee will not be added and you will get an error message: "Please enter a valid net ID." Similarly, if you leave any of the fields empty or do not choose an option for "Manager," you will get a descriptive error message that tells you not to leave that input field empty (i.e. "Please enter a last name.").

Adding an employee will automatically include them in the emails sent out, and will also enable you to add and remove regular shifts for this employee.

The "Employees" page.

Coordinator Employee Details - Employee Details

In the leftmost column, click on an employee's name to view their details (our example employee is the "Test Guy" dummy we just created). The corresponding details should show up in the middle column, including hours worked, walk-ons, no-shows, and substitute info.

Coordinator Regular Shifts - Assign Regular Shifts

In the black navigation bar, click on the "Regular Shifts" tab. There are again three columns—the leftmost shows a list of all current employees, the middle will show an employee's details when one is selected in the leftmost column and allows you to unassign that employee's regular shifts, and the rightmost allows you to assign that employee regular shifts when one is selected in the leftmost column. Click on "Test Guy" in the leftmost column. In the rightmost column, you can now assign a regular shift. Select "Monday" in the first dropdown, "Dinner Manager" in the second dropdown, and click the "Add Regular Shift" button. The employee has now been assigned regularly to the Monday Dinner Manger shift. You should see "Monday Dinner Manager" appear at the bottom of the middle column with an "unassign" button to its right.

Once you assign a regular shift, the system will automatically assign the employee to future shifts for that weekday and task. The app will also check for scheduling conflicts and forbid them; for example, someone cannot be assigned both a dinner manager shift and a dinner dish shift. Select "Monday" in the first dropdown and "Dinner First Dish" in the second dropdown, and click the "Add Regular Shift" button. You will see a "Request conflicts with another assigned shift." error message and the shift will not be assigned.

The "Regular Shifts" page.

Coordinator Regular Shifts - Unassign Regular Shifts

Make sure "Test Guy" has been selected in the leftmost column. This means that Test Guy's employee details should be visible in the middle column. Remove the Monday Dinner Manager shift that you just assigned him by clicking the blue "unassign" button to the right of "Monday Dinner Manager." The page will reload, and "Monday Dinner Manager" no longer appears as one of Test Guy's shifts in the middle column. Test Guy is no longer assigned to this regular shift.

Coordinator Employee Details--- Remove Employee

In the black navigation bar, click on the "Employees" tab. In the bottom half of the rightmost column, you can remove an employee by entering his/her net ID. Enter "tguy" and click the "Remove" button. After you click on "Yes" in the "Are you sure?" pop-up, "tguy" will be removed and you cannot see him on the employees list anymore.

When an employee is removed from the database, they will no longer show up on the calendar, but their shift data will still be archived in case they were accidentally removed. So if you add "tguy" back as an employee, he will be added back with his regular shifts and statistics (number of subins/subouts/walkons/noshows) same as before.

Note that as a coordinator, you cannot remove yourself from being an employee. Try entering your netid in the input field and click on "Remove." You will not be removed and you will see an error message: "You cannot remove yourself!". Similarly, you cannot remove an employee if he/she does not exist in the system. Try entering "aaabbb" in the input field and click on "Remove." Then, choose "Yes" in the "Are you sure?" prompt. You will see an error message saying "aaabbb is not an employee."

Coordinator Hours - Generate Hours Report

In the black navigation bar, click on the "Calculate Hours" tab to navigate to the hours page. Here, you can select a start date and an end date, and you will see a report of all employees and their hours in the given time period as well as total statistics. Enter today's date as the start date and tomorrow's date as the end date. Click the "Generate Report for Selected Period" button. You should see the report appear below the buttons.

The report covers a time period inclusive of the start date but exclusive of the end date. It contains employees' names, hours in the selected period, total sub-ins for the semester, total sub-outs for the semester, total walk-ons for the semester, and total no-shows for the semester.

05/03/2020	

End Date

05/17/2020	

Generate Report for Selected Period

First Name	Last Name	Hours	Total Sub-Ins	Total Sub-Outs	Total Walk-Ons	Total No-Shows
Ali Ekin	Gurgen	27.75	1	2	0	0
Begum	Ortaoglu	33.5	0	0	3	0
Cheyenne	Zhang	23.0	0	2	3	0
Elena	Lucherini	0.0	0	0	0	0
Hector	Betanzos	12.5	1	1	0	0
Jack	Tait	9.0	1	0	2	0
Theo	Trevisan	13.5	0	0	0	0

An example hours report. Note that the "Hours" column shows the hours within the selected period, but the other four columns show total counts for the whole semester.

Enter yesterday's date as the start date and today's date as the end date. You should see a "Start date must be before end date." error message and no report will be generated.

Additional Functionality

The following cases will not occur regularly and are not conducive to frequent testing, but the functionality is still included in the ShiftScheduler application.

Coordinator Reset - Reset Stats

In the black navigation bar, click on the "Reset" tab. Clicking on this red button will reset the numbers of all sub-ins, sub-outs, walk-ons, no-shows for all employees. We recommend that this only be used at the beginning or end of a semester. Click on the red button. If you were to use this functionality, you would need to type the exact statement "Yes, I am sure that I want to reset." verifying that you intend to reset all stats. **Do not enter this into the input field unless you are sure that you want to reset all statistics.** Enter "This is the wrong text." into the input field. You will get a "Input was not correct. Please try again." error message and the statistics will not be reset.

The "Reset" page. Clicking the red button would bring up an "Are you sure?" pop-up.

Use Cases - ShiftScheduler Team:

The following cases are not supported for either employees or coordinators. You will need to contact the ShiftScheduler Team to perform the following tasks:

- Authorizing coordinators
- Creating the initial shift schedule

Both of these tasks should only need to be done at the start of the semester. Throughout a regular semester, everything can be done by the coordinators. Please contact us if there are any bugs. The ShiftScheduler Team will be doing maintenance work periodically. Our contact information and a bug report Google Form can be found at: https://shiftscheduler.herokuapp.com/team.