

E-Nurse

Group: 16

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Group github: <https://github.com/561Aloha/nursemgmt/>

Platform: Swing Desktop

Functional Specification:

When the application begins, the user will see a login page. Depending on if the user is a nurse or an administrator, the page will be different.

For an administrator, when the site opens up, there will be a couple different options. First, the administrator should be able to put new hospital availability. They should be able to put the hospital that needs a nurse, shift type, and amount of nurses needed. The second thing the admin should do is make an account for new nurses. So when a nurse passes the interview process and is hired, the administrator uses the nurse's email and makes them an account with a temporary password. The final thing an administrator should be able to do is view all the nurses that are scheduled and what shifts are still available. This would have a filtering mechanism based on hospital, date and shift type.

If a nurse logs in, they will have the option to do a couple things. They will be able to look for needed shifts by filtering. The filtering mechanism will filter through date, hospital distance, hospital name and shift type. The nurse will then be able to schedule themselves. Nurses will not be able to schedule a shift that has time conflicts with an already scheduled shift. Another thing a nurse can do is see their upcoming schedule and cancel if need be. They can also see their past shifts. Finally, a nurse should be able to change their password.

USE CASES

Login

User opens application
ViewManager sets the LoginFrame visibility to true
User enters ID and password
User clicks the login button
System verifies credentials
User logged in and dashboard is displayed

Change Password

Nurse selects the change password button on the dashboard
ViewManager sets the ChangePasswordFrame visibility to true
Nurse enters the old password and enters the new password
System verifies old password and then updates the nurse's password field using the change password mutator.

Nurse search available shifts

Nurse selects search option from dashboard
System retrieves list of available shifts
Shifts are drawn on the NShiftsFrame
ViewManager sets the NShiftsFrame visibility to true
Nurse specifies hospital, shift type and date range filter options
list of available shifts are updated based on filter options
Shifts are redrawn on the NShiftsFrame

Admin view available shifts

admin selects search option from dashboard
System retrieves list of available shifts
Shifts are drawn on the AShiftsFrame
ViewManager sets the AShiftsFrame visibility to true
Admin specifies hospital, shift type and date range filter options
list of available shifts are updated based on filter options
Shifts are redrawn on the AShiftsFrame

Reserve a shift

Nurse selects search option from dashboard
System retrieves list of available shifts
Shifts are drawn on the NShiftsFrame
ViewManager sets the NShiftsFrame visibility to true
Nurse specifies hospital, shift type and date range filter options
list of available shifts are updated based on filter options
New shifts are redrawn on the NShiftsFrame
Nurse selects the add button beside the shift
ShiftManger adds the new shift to the nurse's list of shifts
Once successful, it notifies the nurse that reservation has been added.

Cancel reserved shift

Nurse selects the cancel shift option from the dashboard
System retrieves list of the nurse's schedule
The shifts are drawn onto the ScheduleFrame
ViewManager sets the ScheduleFrame visibility to true
The nurse presses the cancel button beside the shift in which they require it to be canceled.
ShiftManger deletes the shift from the nurse's schedule
list of scheduled shifts are updated
New shifts are redrawn on the ScheduleFrame

Create a shift

Admin selects the add availability option from the dashboard

ViewManager sets the ShiftCreationFrame visibility to true

Admin enters date, shift type and hospital

Admin selects the create button

Delete a shift

admin selects search option from dashboard

System retrieves list of available shifts

Shifts are drawn on the AShiftsFrame

ViewManager sets the AShiftsFrame visibility to true

Admin specifies hospital, shift type and date range filter options

list of available shifts are updated based on filter options

Shifts are redrawn on the AShiftsFrame

Admin selects the delete button beside the shift to be deleted

ShiftManager removes the shift from the list of available shifts

AShiftsFrame is redrawn with updated list of shifts

Admin creates new nurse account

Admin selects the add a new nurse option from the dashboard.

ViewManager sets the AddNurseFrame visibility to true

Admin inputs nurse information including: name, ID

The admin clicks the create button

The system adds new nurse to the list of nurses

Admin view nurses

Admin selects the view nurses option from the dashboard.

System retrieves the list of nurses

Load list of nurses on to NursesFrame

ViewManager sets the NursesFrame visibility to true

Admin deletes a nurse

Admin selects the view nurses option from the dashboard.

System retrieves the list of nurses

Load list of nurses on to NursesFrame

ViewManager sets the NursesFrame visibility to true

Admin selects the delete button beside the nurse that needs to be deleted

Logging out

User goes to the dashboard and picks to log out.

The system logs the user out.

ViewManager sets the LoginFrame visibility to true

GLOSSARY:

Nurse: user who searches for nursing shifts in order to work at a specific hospital

Admin: user who manages scheduling system and accounts

User: person who has an account in the scheduling application

Shift: Object which the nurse filters for and adds to their schedule.

Schedule: A list of all the nurse object's future shifts

Hospital: Entity which can be filtered for shifts and for which shifts can be added to.

CRC CARDS

Admin	
<ul style="list-style-type: none">-create and delete a nurse (nurse_id)-(iterator function that creates nurse ID)-create and delete a shift	

Nurse	
<ul style="list-style-type: none">- holds personal information-change password-check available shifts-Add and cancel their shifts-view schedule	<ul style="list-style-type: none">-Shift

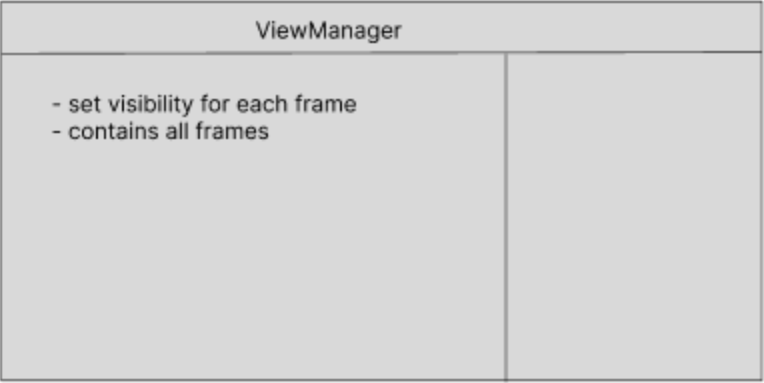
ShiftManager	
<ul style="list-style-type: none">-add reserved shifts to nurse account-reuploads canceled shifts to Hospital shifts-remove shift from nurse schedule if time has passed-gets all available shifts from all hospitals for viewing	

Sort	
- sort shifts by date or hospital	

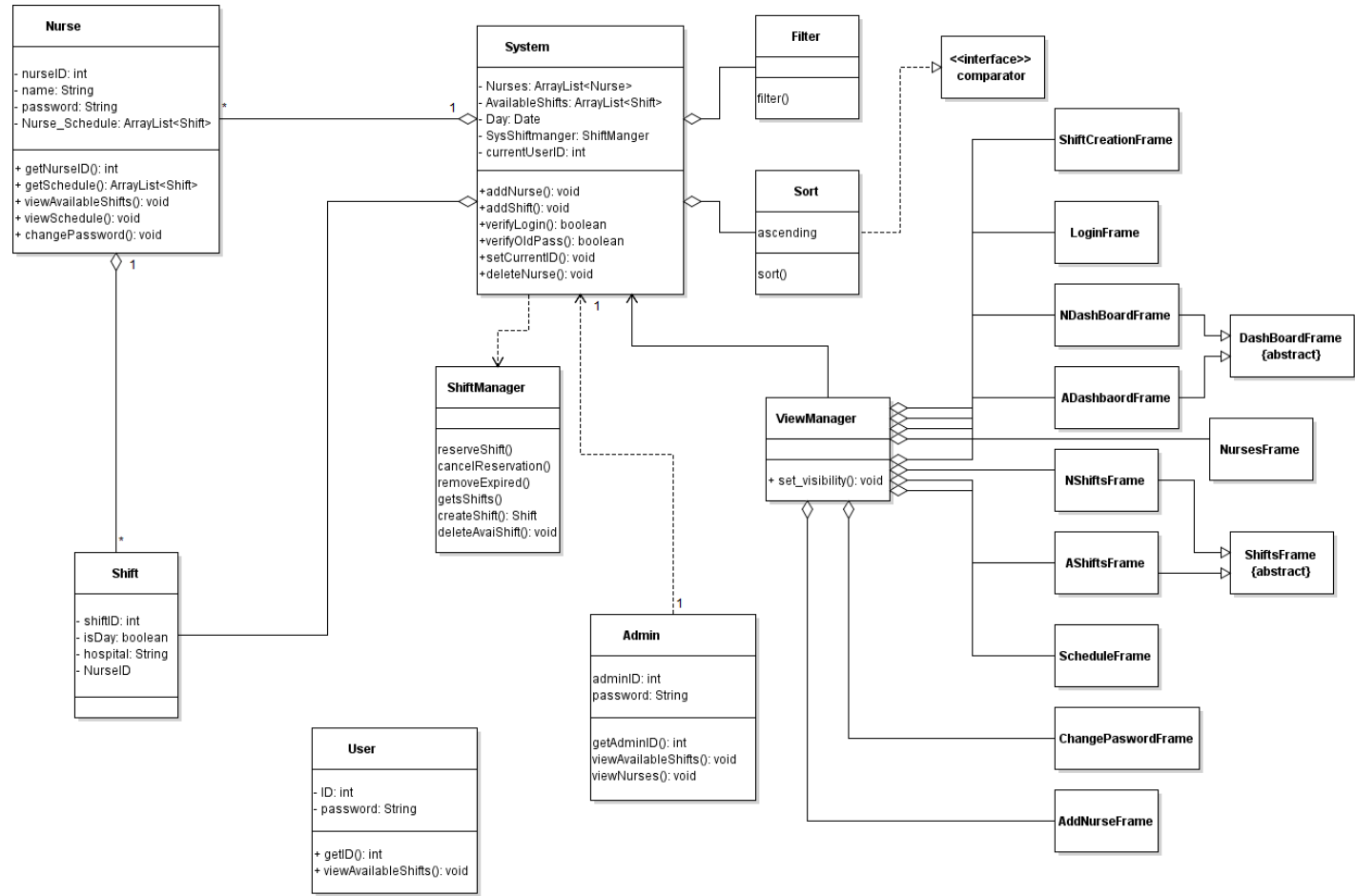
Filter	
-takes in parameters to filter/list specific shifts (type of shift, hospital, date range)	

System	
<ul style="list-style-type: none"> -stores a list of all nurse objects -stores a list of all available shift objects -add new nurse (ID, name, age, email and password) -verifies login information -manage shifts using shift manager 	<ul style="list-style-type: none"> -Nurse -Admin -Shift -Filter -Sort -ShiftManager -VlewManager

Shift	
<ul style="list-style-type: none"> -Has a type -hospital -Nurse 	

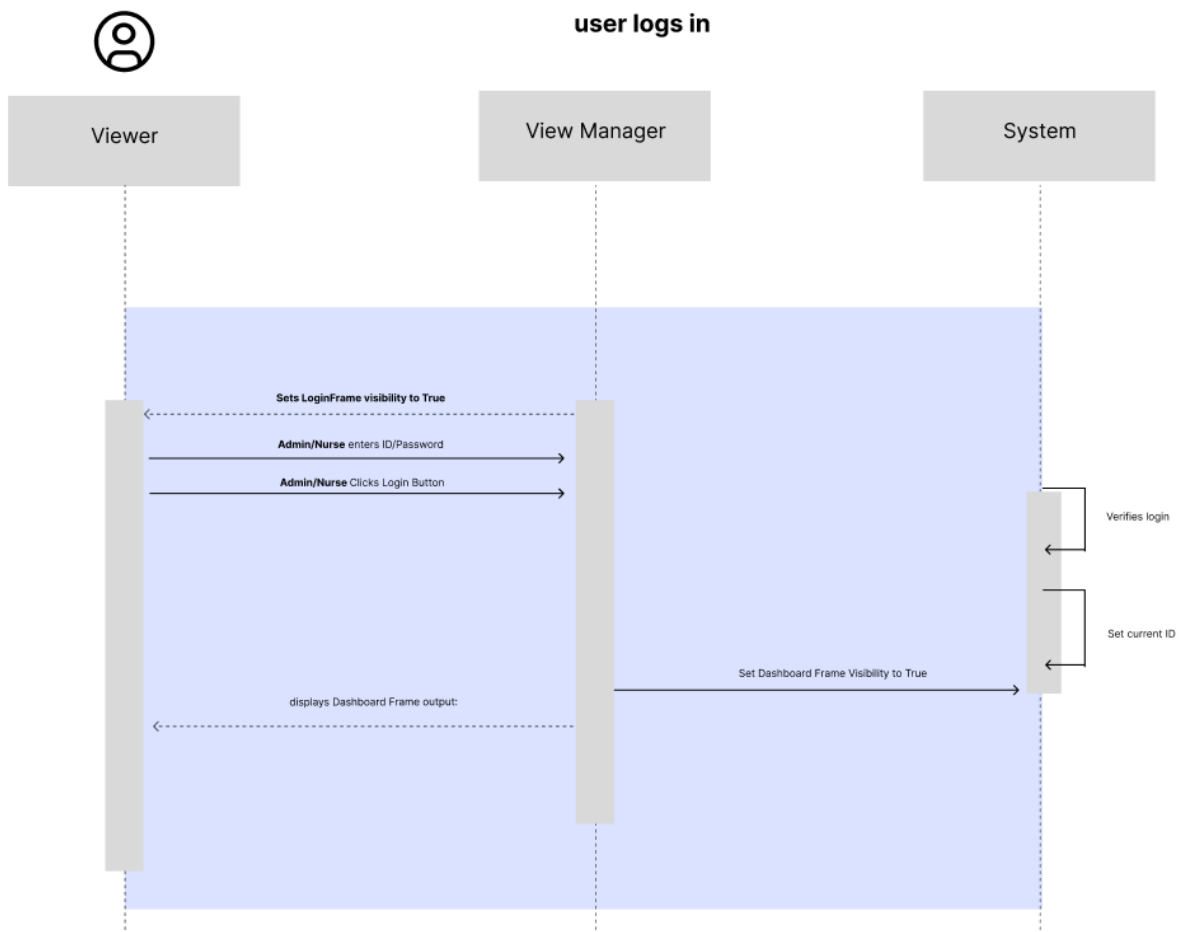


CLASS DIAGRAM

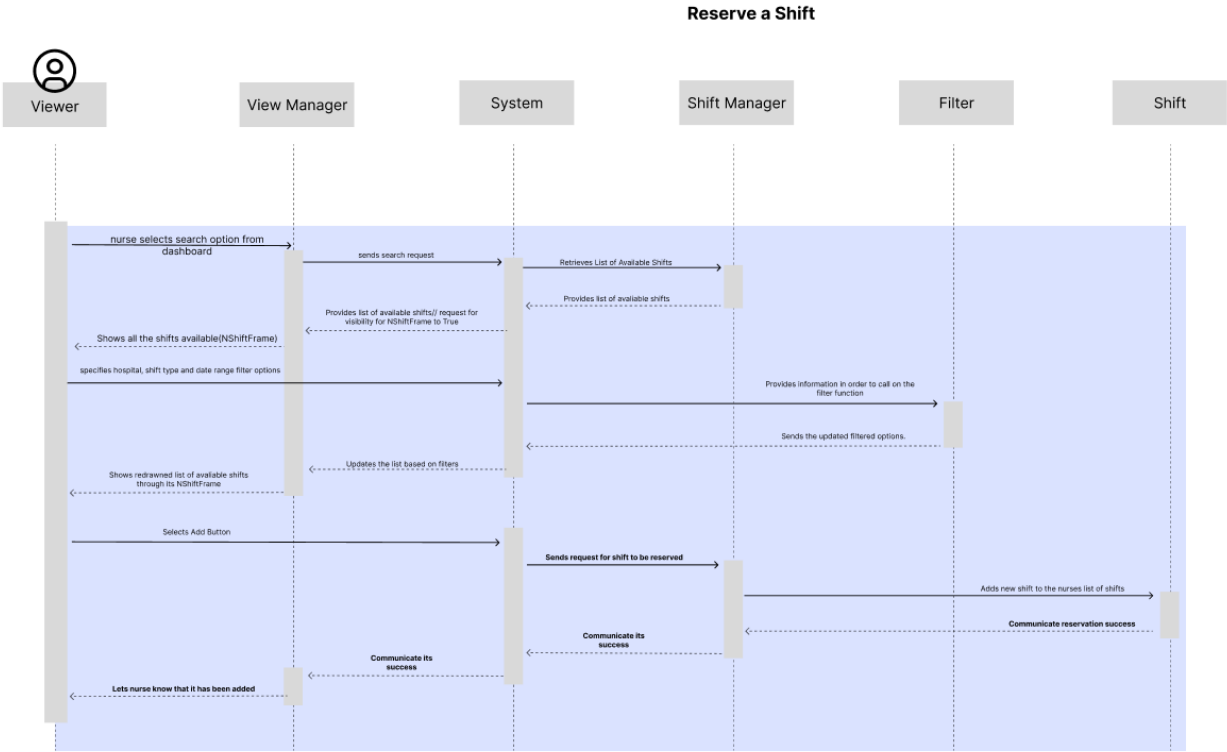


SEQUENCE DIAGRAMS

Login use case

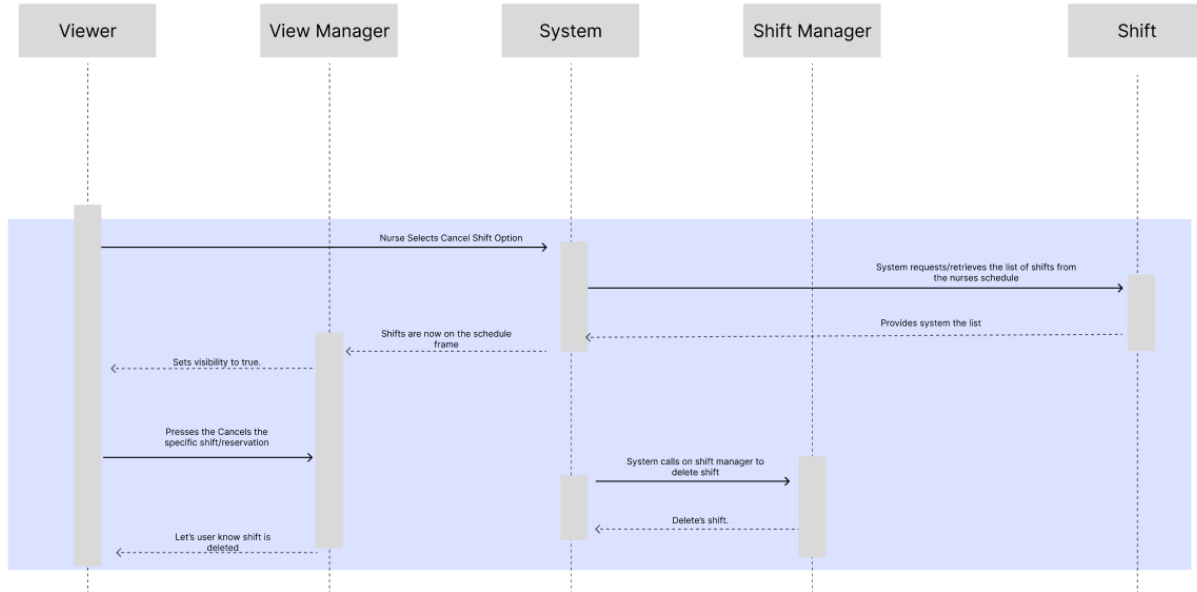


Reserve a shift use case



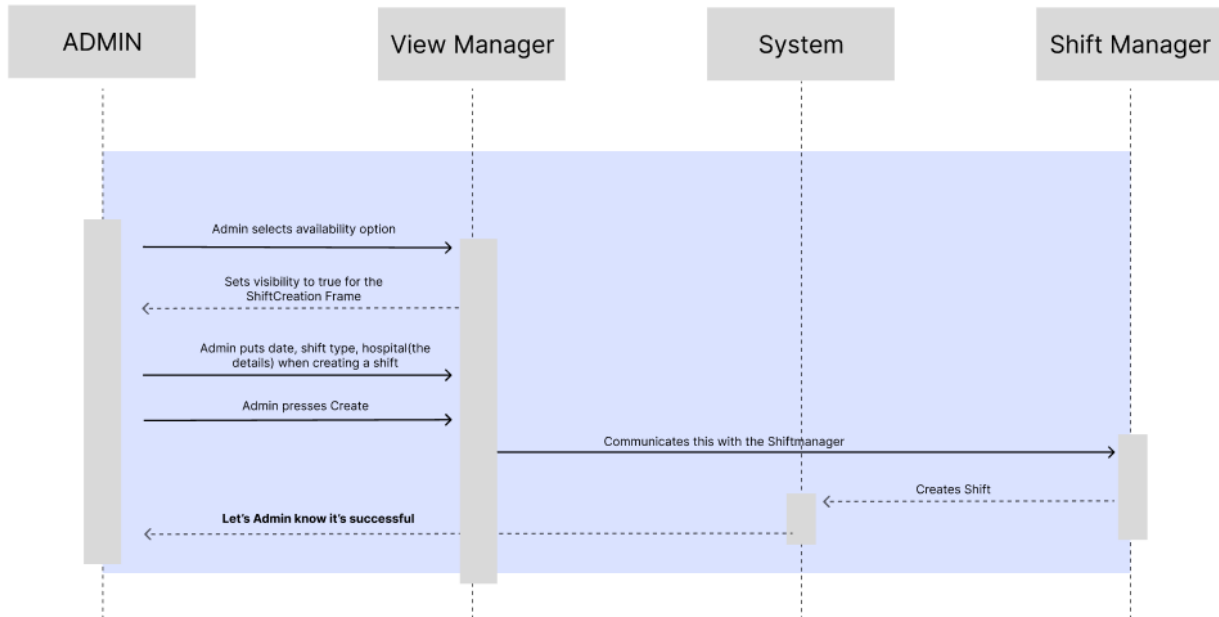
Cancel reserved shift use case

Cancel reserved shift

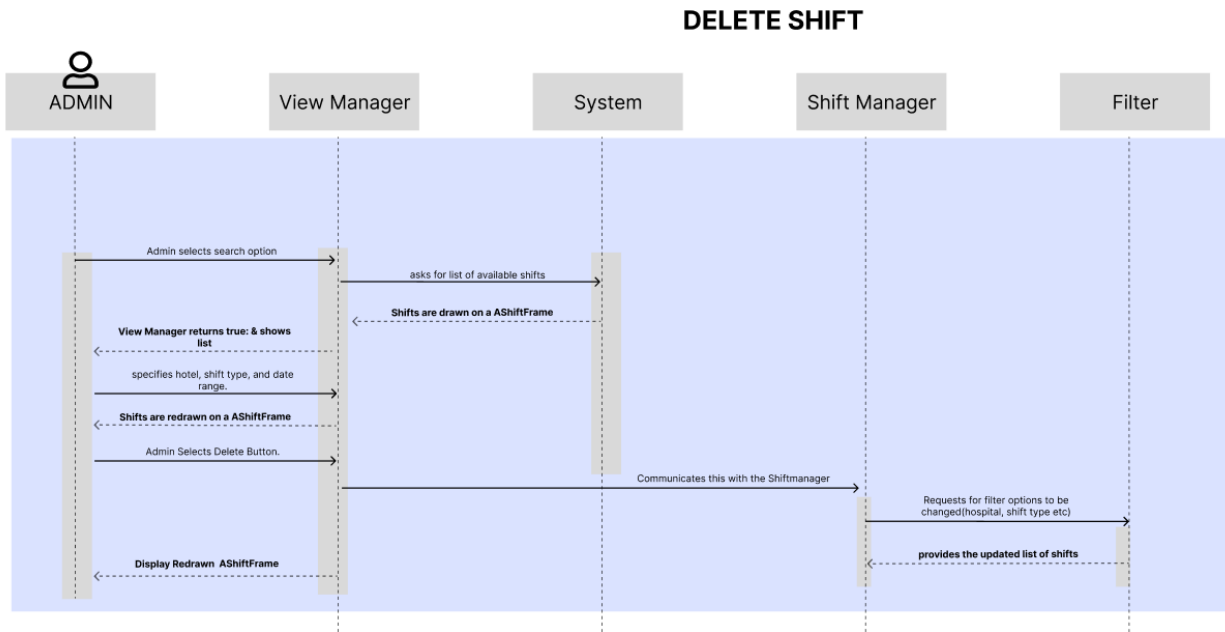


Create a shift use case

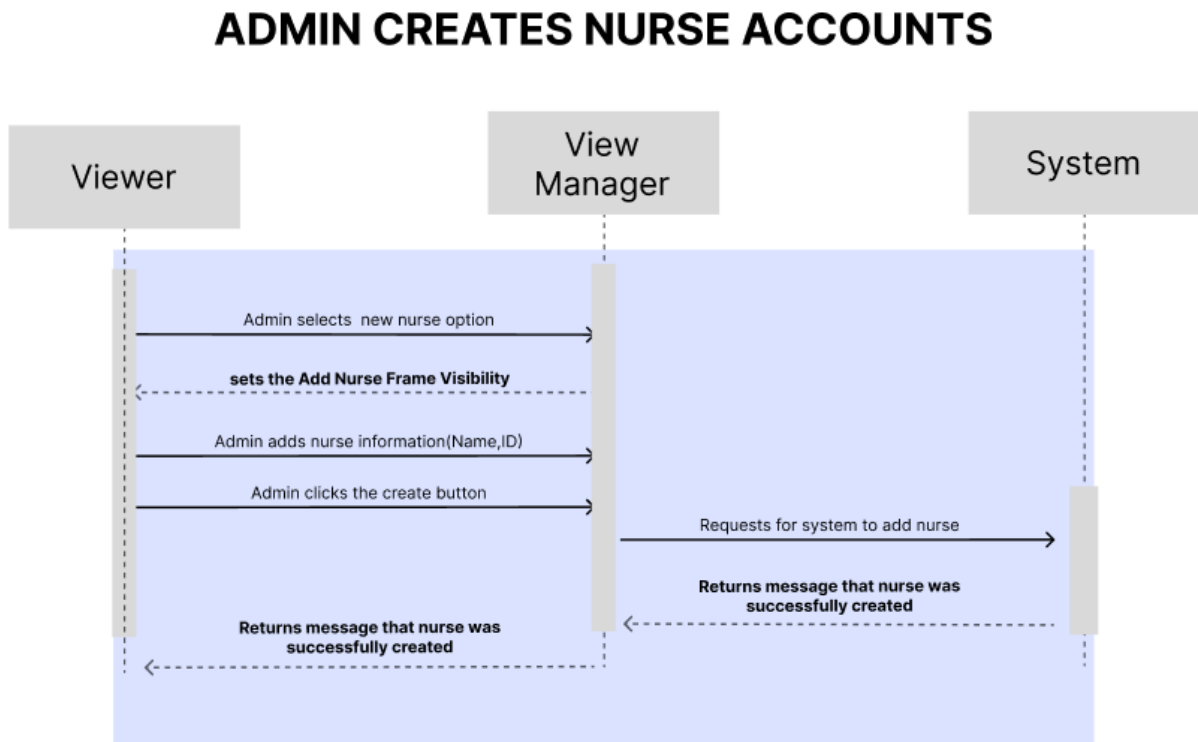
ADMIN Create SHIFT



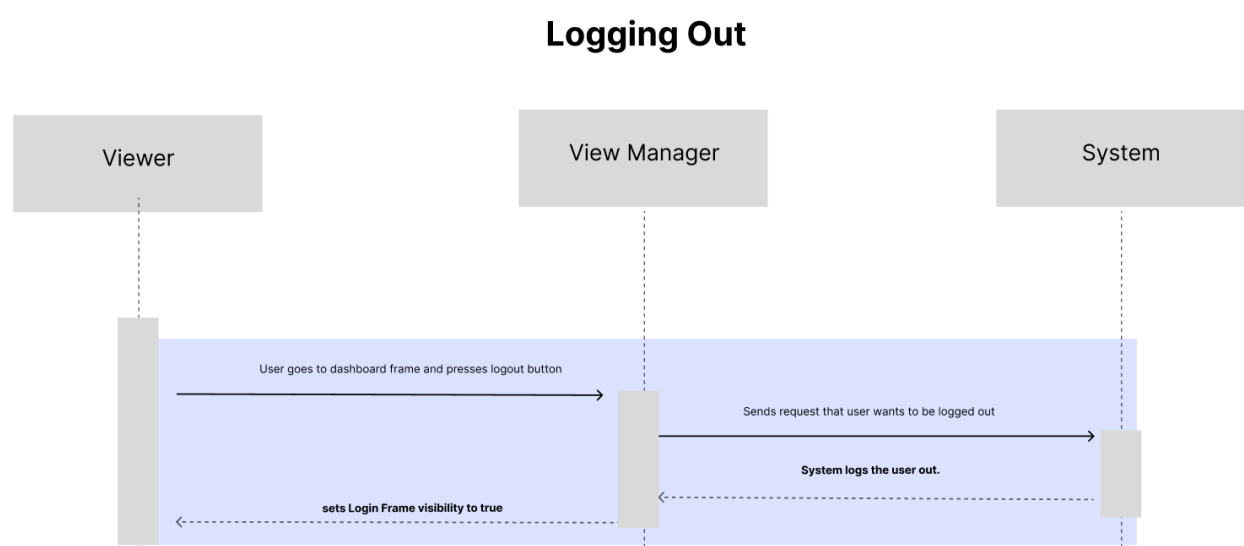
Delete a shift use case



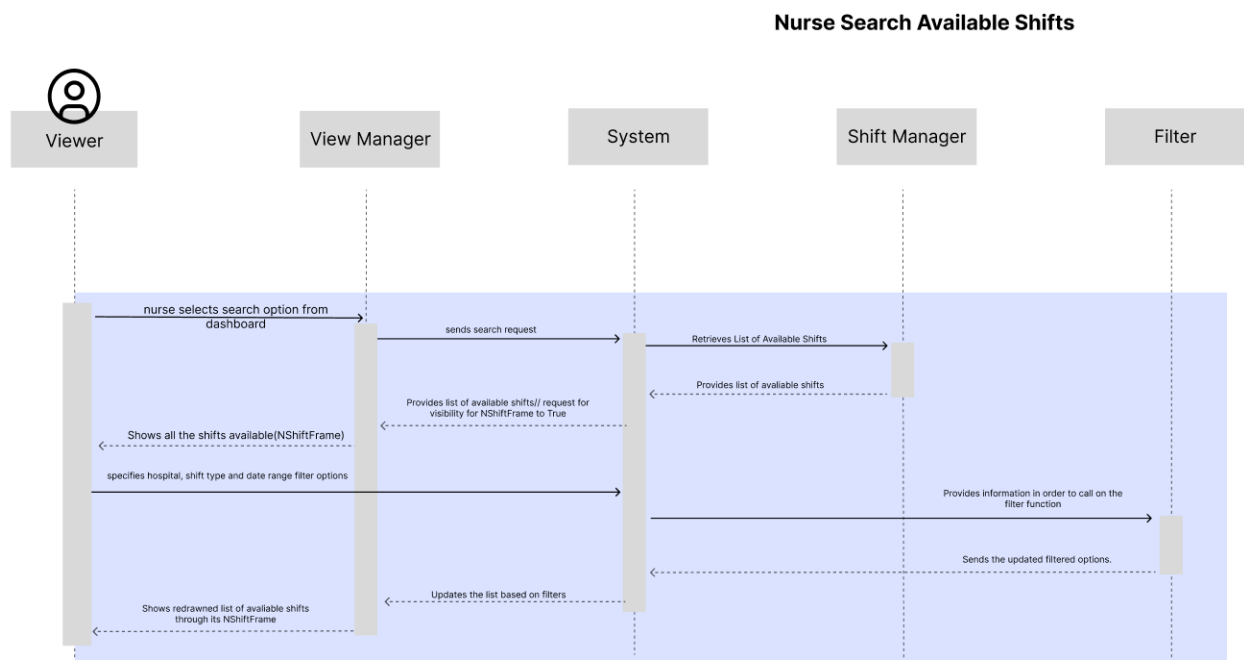
Admin creates new nurse account use case



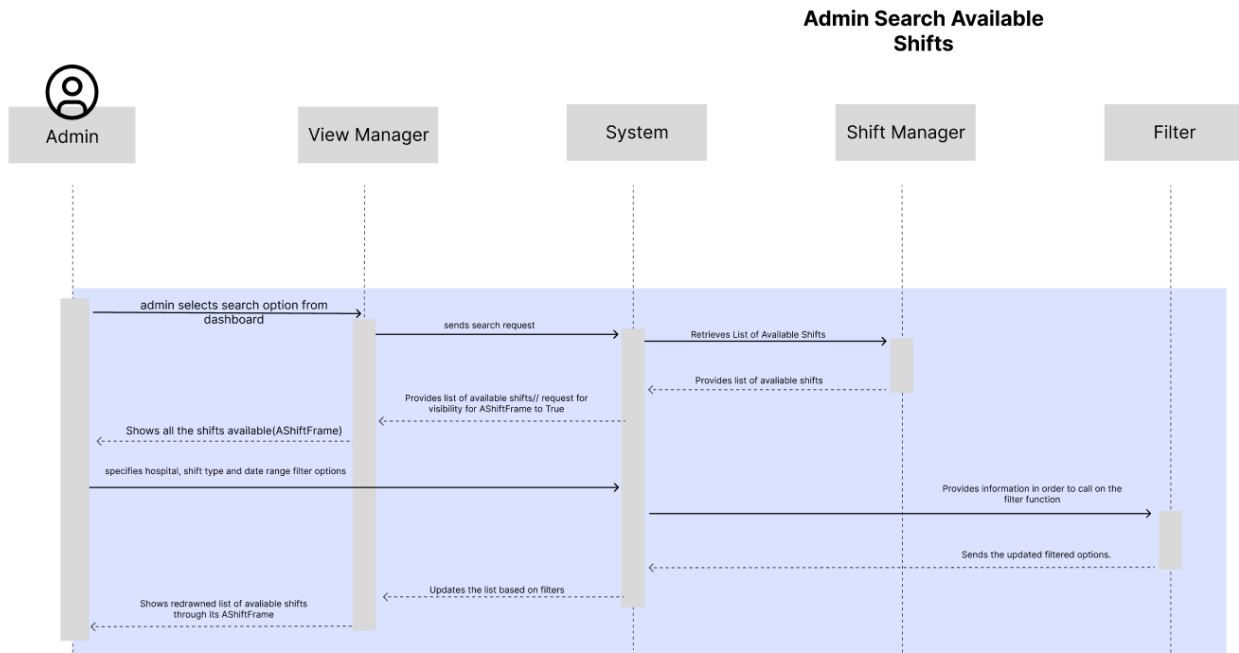
Logging out use case



Nurse search available shifts use case

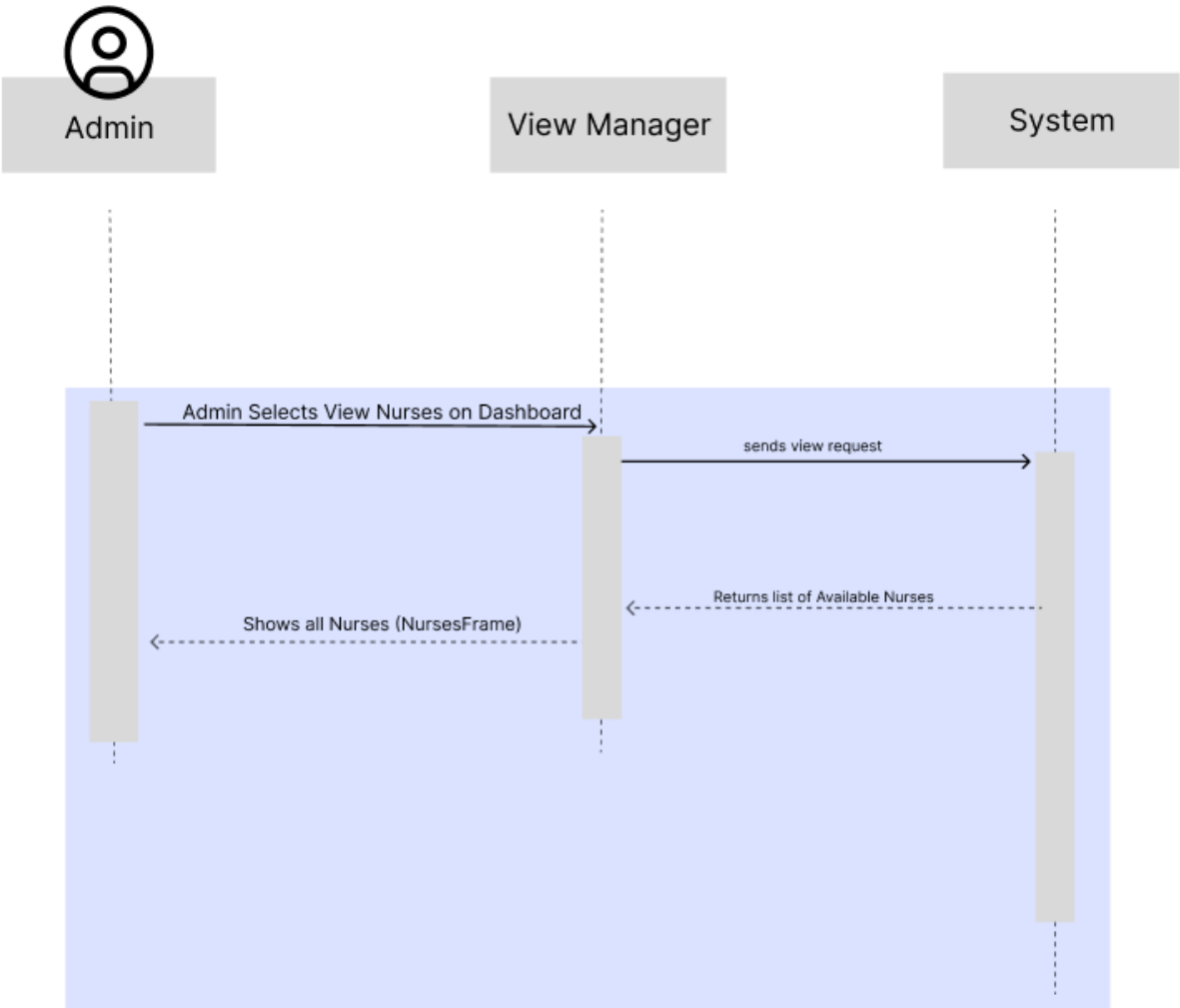


Admin search available shifts use case



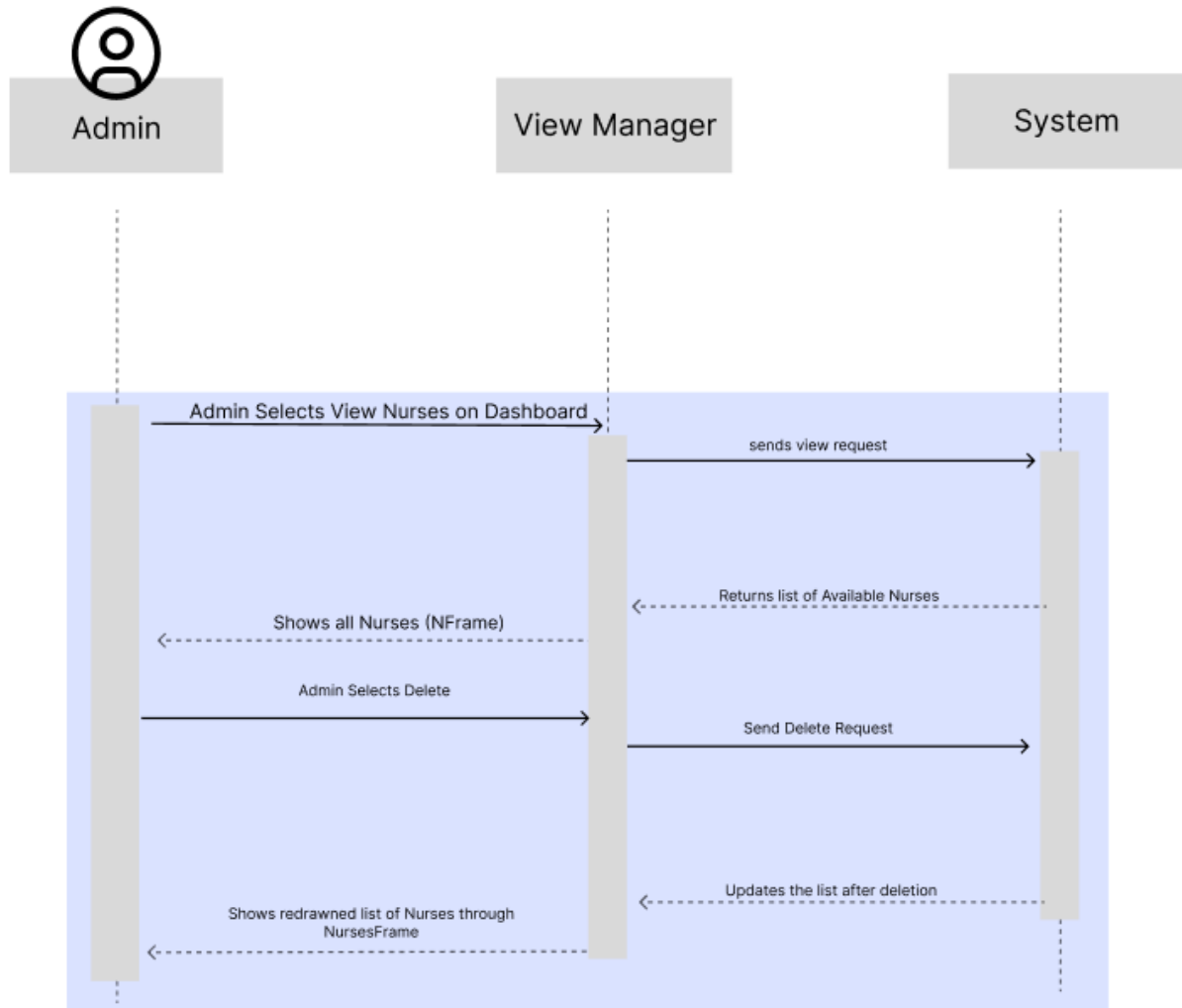
Admin view nurses use case

Admin Views Nurses



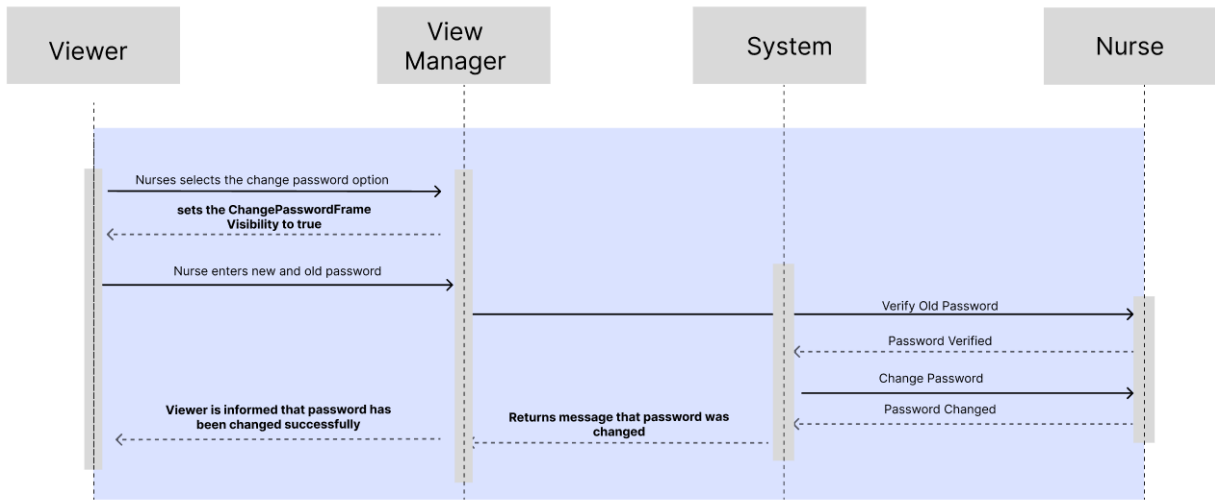
Admin deletes a nurse use case

Admin Deletes Nurses



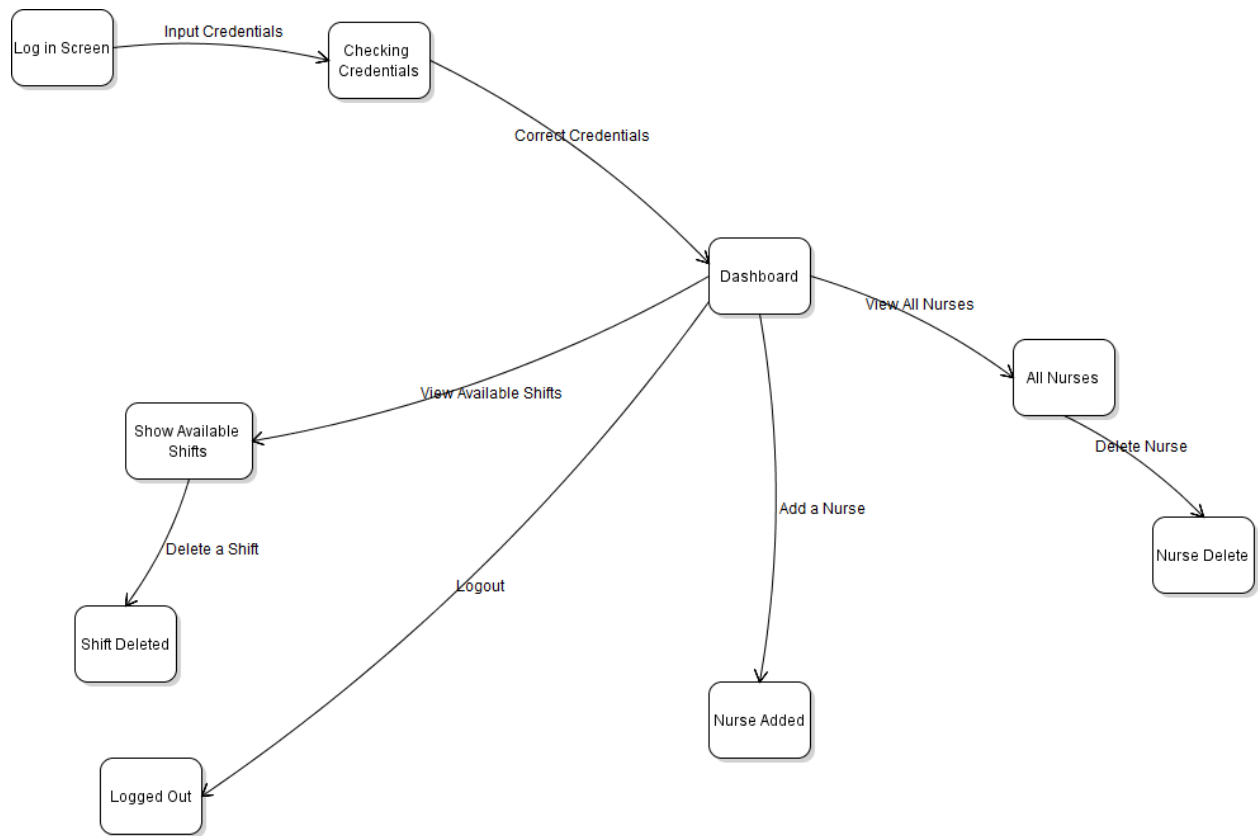
Change Password use case

NURSE CHANGES PASSWORD



STATE DIAGRAMS

Admin



Nurse

