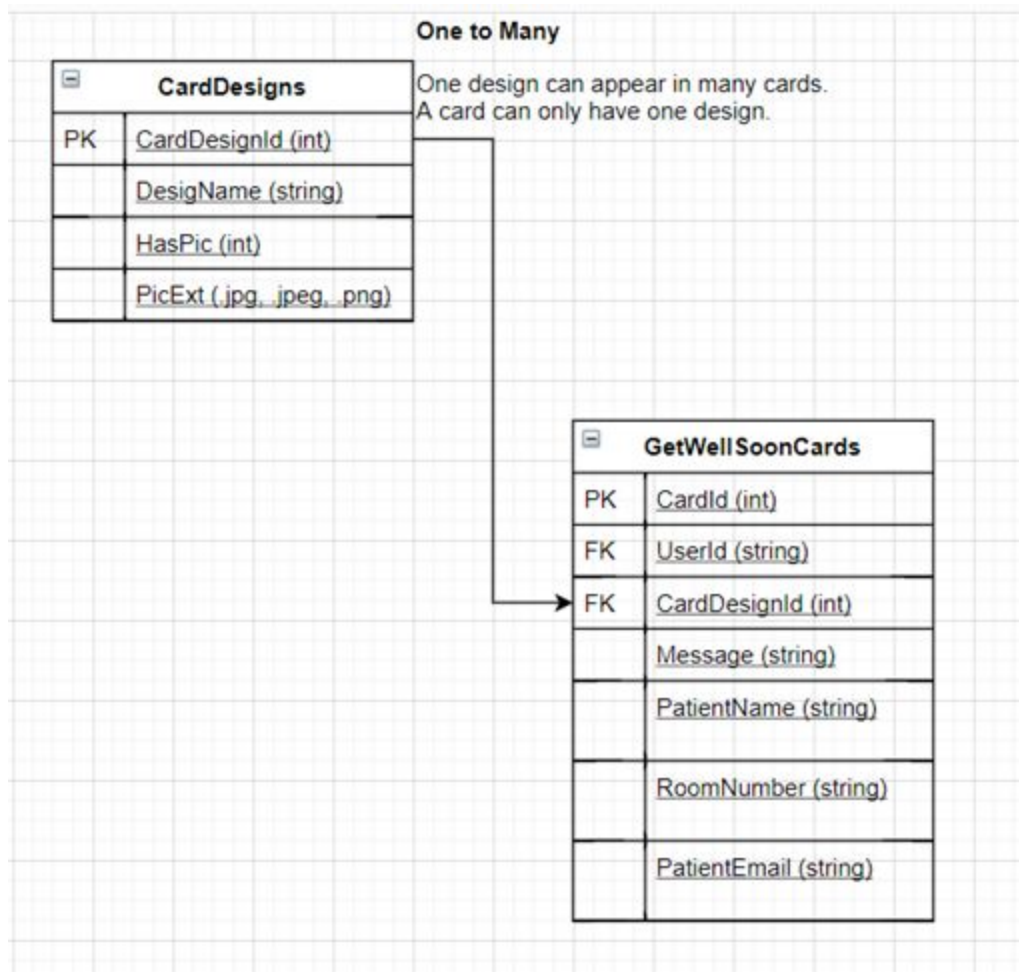


1) Get well Soon Card (Developed by Paul Tran)

1.1) Entity Relationship Diagram



1.2) Narrative story + Justification

A user can send many cards as he likes. For example, Harry's grandparents are in hospital because of the COVID-19 pandemic and he could not visit them because of the quarantine policy. Therefore, he should be able to create 2 (many) cards and send to them. This card will only belong to Harry.

A design can be applied in many cards. For example, Harry like the card with Lily flowers and so does Ron. Therefore, they should be able to both choose the card. A card will only have one design, otherwise, it will be the same card.

1.3) User story and access right

Get Well Card	Guest	Registered User	Admin	Editor
Visibility				
See Get Well Soon Card	No	Only their own	Yes	Yes
See Card Design	No	Yes	Yes	Yes

Admin & Editors Story: Admins and editors can see all the get well soon cards from other users so they can process them

Registered Users & Guest: They can only the cards they create by themselves. Guest can not see the card; they have to log in to use this online service.

Get Well Card	Guest	Registered User	Admin	Editor
Functionality				
Create Get Well Soon Card	No	Yes	Yes	Yes
Update Get Well Soon Card	No	Only their own	Yes	Yes
Delete Get Well Soon Card	No	Only their own	Yes	Yes
Create Card Design	No	No	Yes	Yes
Update Card Design	No	No	Yes	Yes
Delete Card Design	No	No	No	Yes

Admin's story: Hermione is an administrator of the Temiskaming hospital website. Upon logging in to the system, she could see all the get well soon cards sent to the patient at the hospital. She could also create the cards and send out to some old patients who live alone in the area to cheer them up.

Editor's story: Ron is the editor of the Temiskaming hospital website. After the COVID-19 pandemic, as there are so many people recovering from the disease, he helps Hermione send out the card to all the patients. He could help edit, update cards from the hospital as well as from the families of the patient if they request. However, to delete a card, he needs permission from Hermione – an administrator to avoid mistakes. Upon clicking delete, he will encounter a line that says You are not authorized to perform the action.

Register users: Harry 's grandfather, Mr. Dumbledore is in the hospital. He needs to create a card to say to show that he is rooting for his grandpa. When he accesses the Get well soon Card page, the system will require him to log in or register to create a card.

Later on, he found out that he made a typo on the card and his grandfather – a teacher hates typo. He could log in again to see all the cards he has just created so far for different people like his dad: James, his uncle Lupin and Sirius in Temiskaming hospital. He found the card for Mr.

Dumbledore and edited it. Upon editing, he found out his grandfather has returned to England and thus, he deletes the card.

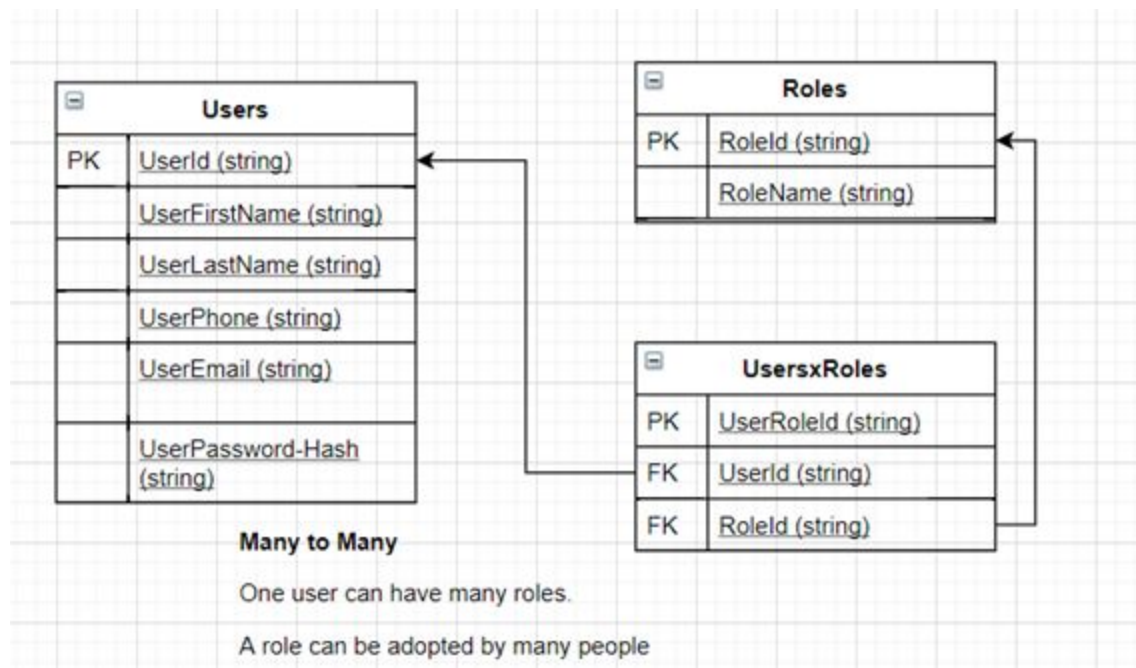
Card Design Functionality

Admins and Editors: Only admins and editors can create card designs. User can only choose from the existing one. For example, Hermione once saw a beautiful design at a shop and wants to sell the design in the hospital online store. After buying from the shop, she can go to website and update the card design list to attract people.

Registered users: For users like Harry, he could not buy and create a card design that the hospital doesn't have so he can only choose from the existing one

2) Log in system (Developed by Paul Tran)

2.1) ERD Diagram



2.2) Narrative story + Justification

Our login system will help to classify our website visitor into 3 types: administrator, editor and register user. All people who registered will be registered users. Editors and administrators can only be assigned by an administrator. Each will have different access and authorization to different contents on the website. The administrator will have full right to see, create, update, delete everything in the website while for editors, register users, that right will be restricted in some contents.

Log in	Guest	Registered User	Admin	Editor
Visibility				
See Roles	No	No	Yes	Yes
See Users	No	No	Yes	Yes

Admin & Editor Story: After logging in, Admin can see all the roles and he can also see users who use the services of the hospital to process their requests.

Register User: The register cannot see the admin information and other users for security reason. For example, Neville should not see Hermione as an admin of the website. He could contact the hospital and Hermione – the admin will answer him under hospital email but he could not see Hermione as an admin.

Log in	Guest	Registered User	Admin	Editor
Functionality				
Create Roles	No	No	Yes	No
Update Roles	No	No	Yes	No
Delete Roles	No	No	Yes	Yes

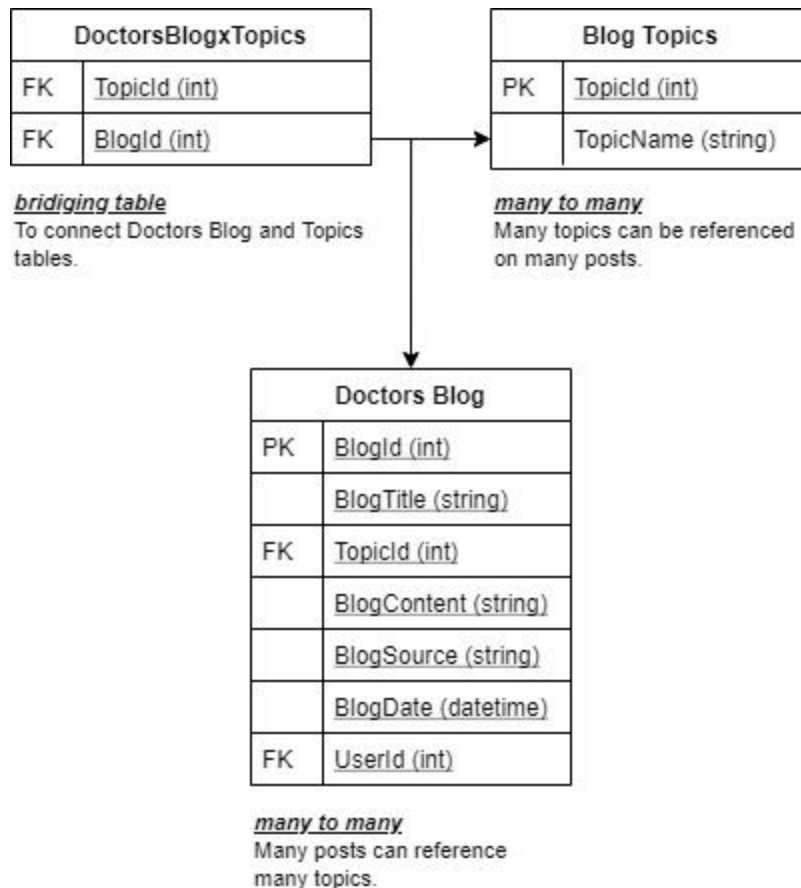
Admin story: Hermione is a nurse and also an administrator of the Temiskaming hospital website. As the COVID-19 pandemic gets serious, she needs to focus more on curing the patient rather than the website. Therefore, she recruits Harry as an administrator to help her.

Editor story: Harry takes on the job and quickly felt overwhelmed as there is so much to handle so he decides to recruit another newly-graduate to help him as an editor. After receiving the email and password from Harry, the newly-recruit can now work as an editor of the website. He cannot create a new account and assign roles to other people like Harry – the admin.

Register user: Neville has registered and logged in to the Temiskaming hospital website so he becomes a registered user. He can now enjoy many online services offered by the hospital such as parking registration, online appointment, send a get well soon card or job listing. However, he could not create a new account for others or himself when he logged in.

3) Doctors Blog (Developed by Alexa Perez)

3.1) ERD Diagram



3.2) Narrative story + Justification

A Dr wants to publish a blog about a certain topic that interests them, this Dr will be signed in as a Editor User, they will be able to create a New Blogpost where they will write the Title, write the content and cite the source. Once he publishes the blogpost this will be able to be sent to the List view of Doctors Blog Posts. They will be able to add or remove topics on the show view or update through a dropdown list.

The blogpost will also appear on the list view of the topics chosen by the blog writer. Depending on the topics selected, Registered Users(patients or visitors) will be able to click a topic and see the different blog posts made by different doctors. Users with the Editor role will be able to create, update or delete their blog posts on the page, while Users with Registered User role will only be able to see the List view of the posts and the Show blog post. All users will be able to search the blog posts by author in the search bar.

3.3) User story and access right

DOCTORS BLOG	Guest	Registered User	Admin	Editor
Visibility				
Sees Doctors Blogs	Yes	Yes	Yes	Yes
Sees Blog Topics	Yes	Yes	Yes	Yes

Guest & Registered User Story: Billy visits the hospital page and wants to read the doctors Blog posts, he is able to see the Doctors Blog public list, he is able to search for a blog post by title. If he clicks on one of the topics on the blog post he is able to see the Topics view page where he will see a list of Blog entries that have that topic. If he clicks on a blog title he will be able to see that blog entry.

Editor User Story: Dr. Elizabeth is part of the hospital staff. She wants to see the list of blog posts made by her, she is able to see the list and see an option to “Add New Blog Entry” as well as update or delete the entries. She is also able to add, edit or delete Blog Topics.

Admin User Story: Megan as the administrator is part of the hospital staff. She is able to see the list and see an option to “Add New Blog Entry” as well as update or delete the entries. She is also able to add, edit or delete Blog Topics.

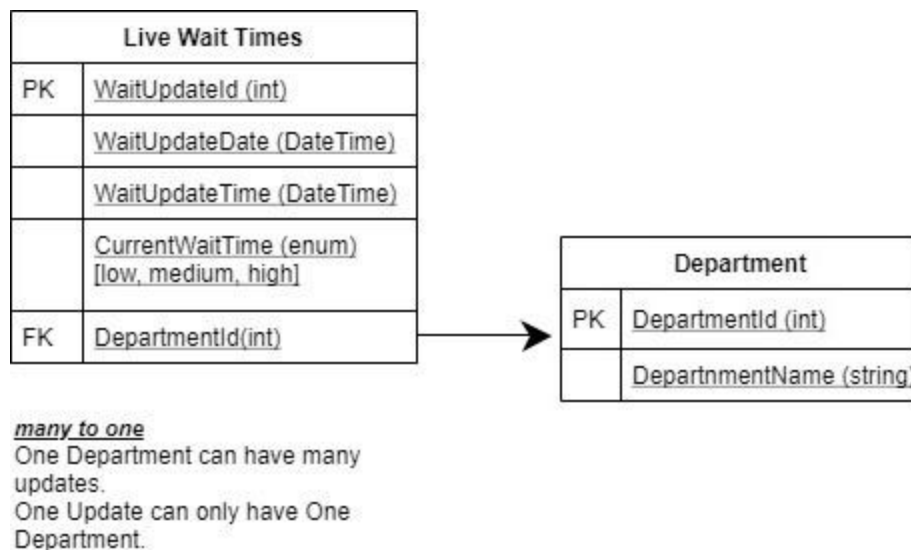
DOCTORS BLOG	Guest	Registered User	Admin	Editor
Functionality				
Doctors Blog Create	No	No	Yes	Yes
Doctors Blog Update	No	No	Yes	Yes
Doctors Blog Delete	No	No	Yes	Yes
Blog Topic Create	No	No	Yes	Yes
Blog Topic Update	No	No	Yes	Yes
BLog Topic Delete	No	No	Yes	Yes

Guests and Registered Users: These users like Billy can only see the blog posts but not edit them or make any changes.

Admin and Editor Users: Users like Dr. Elizabeth or other staff members of the hospital will be able to create, update or delete blog posts or blog topics.

4) Live Wait Times (Developed by Alexa Perez)

4.1) ERD Diagram



4.2) Narrative story + Justification

A logged in administrator (Admin) will be able to create a new entry for wait times, where they input the date, time, they will select the department they are updating information about, and select the current wait time situation. These wait times will be shown on the updates for each department.

They will be able to update or delete the entries on the list view as well as in the show view, for example if they selected the wrong area and want to change it. A Registered User or Editor will only be able to see the list view of the departments, with the option to view the live wait times updates, where they can search by department name to see the wait times, for example a Patient wants to know the current wait time for the Diagnostic imaging department, so they use the search bar to look for this department specifically.

4.3) User story and access right

LIVE WAIT TIMES	Guest	Registered User	Admin	Editor
Visibility				
Sees Live Wait Times	Yes	Yes	Yes	Yes

Guest & Registered User Story: Molly needs to get X-rays at the hospital, she goes online to check the live wait times where she will get an idea of how long it will take the hospital staff to see her. She goes to the Live Wait Times page where she will see a list of departments, she will search for the department and click “View Updates” to see the current wait time.

Admin User Story: Morgan is part of the hospital staff, she is in charge of updating the live wait times for the Diagnostic Imaging department, she is able to see the list of every live wait time update made and can also see an option to add a new one, or update or delete an already made one.

Editor User Story: Dr. Nancy wants to see the live wait times list to see how her department and the other departments are doing, she is able to only see the updates.

LIVE WAIT TIMES	Guest	Registered User	Admin	Editor
Functionality				
Live Wait Times Create	No	No	Yes	No
Live Wait Times Update	No	No	Yes	No
Live Wait Times Delete	No	No	Yes	No

Guests, Registered Users and Editor Users: Users like Molly and Dr. Nancy will not be able to create, update or delete Live Wait Times entries.

Admin Users: Hospital Administrative Staff members like Morgan will have complete control over creating, updating or deleting entries on the Live Wait Times.

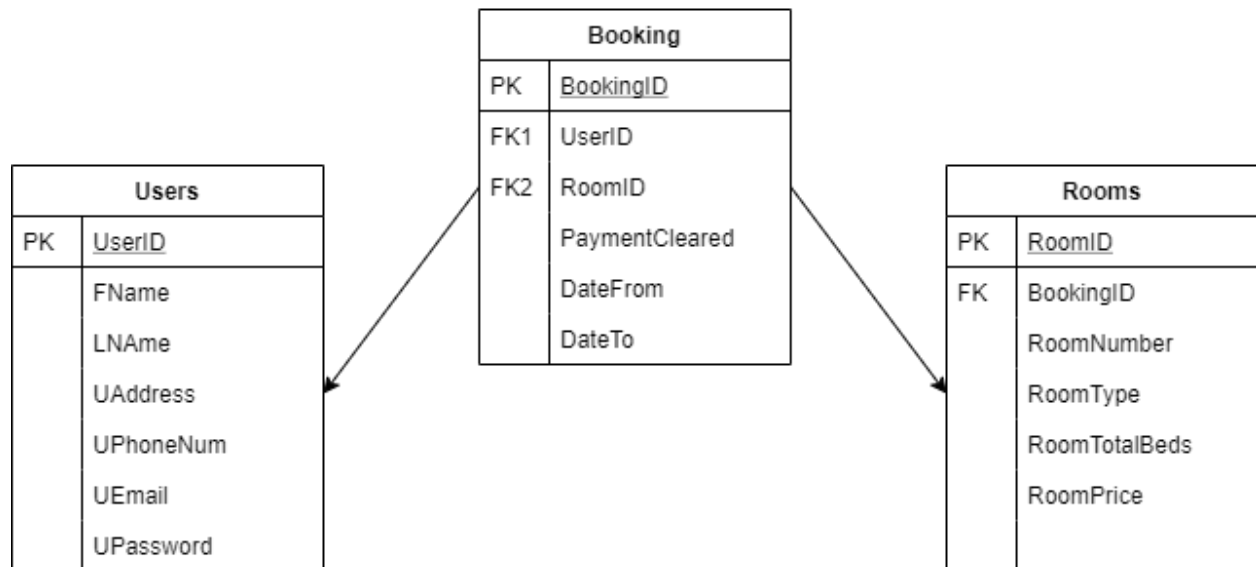
5) Long-term Hospital Stay (Developed by Vitaliy Bulyma)

5.1) Entity Relationship Diagram

Booking is a bridging table which connects user and room

Each user might have multiple bookings

Each room might have multiple booking



5.2) Narrative story + Justification

Each room might have more than one bed in it, which means there might be several patients(users in the database) occupying one room. Also, a patient might have booked different rooms for different times. This means user and room are related as many to many, with booking table as a bridge between them

- Users might have multiple bookings (different time)
- Room might have multiple bookings(many beds in a room)
- One booking is for one user for one room at the time

5.3) User story and access right

Long-term Stay	Guest	Registered User	Admin	Editor
Visibility				
See Rooms	yes	yes	yes	yes
See Bookings	no	yes(their own)	yes	yes
See booking form	no	yes	yes	yes

Guest: A person who has severe medical conditions is researching their possible options to where to stay during the medical procedures that require presence at the hospital. There are several options available to be seen without the need to register or login. This way the information is available immediately and does not require additional time to retrieve it. Guests cannot see the booking form, or booking unless they register.

Registered User: When a person registers with the hospital, in addition to being able to see the room information, they can see the registration form, and their own booking information.

Admin and Editor: For this feature administrator and the editor(s) have the same access and permissions to see all information regarding room reservation

Long-term Stay	Guest	Registered User	Admin	Editor
Functionality				
Make Reservation	no	yes	yes	yes
Edit Booking	no	yes	yes	yes
Delete Booking	no	no	yes	yes

Guest: A person who is simply researching or browsing the site will not be able to access any of the functionality of this feature.

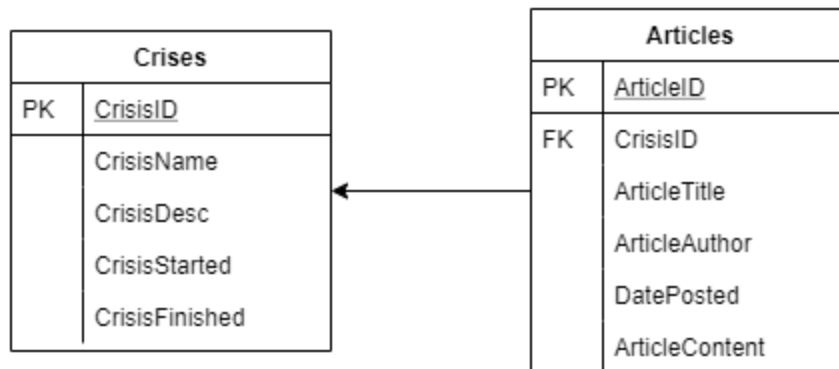
Registered User: When the decision to book a specific room is made a registered user is able to access the registration form, enter their personal information, and, by using a third-party payment processing services, make a payment. If after the submission they noticed that they spelled their address or any other information wrong, they should be able to edit it themselves. However, the user would not be able to delete their booking, since the payment is non-refundable, and booking is not cancelable.

Admin and Editor: When the admin or editor of the page sees some errors in the form, they can change it. In the case the patient dies before the booking is fulfilled they can delete the booking and make sure it is available for next booking. An editor(eg. Receptionist or other support staff), in the context of this feature, is a person able to assist in making reservations, for example if a patient is unable to make online reservations and calls the hospital directly to make a booking.

6) Public Health Crisis Information (Developed by Vitaliy Bulyma)

6.1) Entity Relationship Diagram

Crisis to Articles is One-to-Many Relationship



6.2) Narrative story + Justification

There are many (unfortunately) public health crises in history. For the purpose of this page, a crisis will consist of a name, a description (including scientific classification), the first reported case(when the crisis started), and when the crisis was officially resolved by public health authorities. This page will display several recent public health crises, and associated articles and information regarding it. An article could consist of an informational pamphlet, or an update on number of cases reported, number of deaths, recovered, etc.

- There might be many articles related to one crisis
- Article cannot be related to more than one crisis

6.3) User story and access right

Public Health Crisis	Guest	Registered User	Admin	Editor
Visibility				
See Crises list	yes	yes	yes	yes
See Articles	yes	yes	yes	yes

Guest, Registered User, Admin, Editor: The main purpose of this page is to make vital information, especially about the current epidemic, available to the public without any restrictions. Anyone who is visiting the hospital's website for any reason should be able to see it at the time of a public health crisis event, even a pizza delivery guy named Steven, who opened the hospital's website to confirm the address.

Public Health Crisis	Guest	Registered User	Admin	Editor
Functionality				
Create article	no	no	yes	yes
Edit Article	no	no	yes	yes
Delete Article	no	no	yes	no
Create crisis	no	no	yes	no
Edit Crisis	no	no	yes	no
Delete Crisis	no	no	yes	no

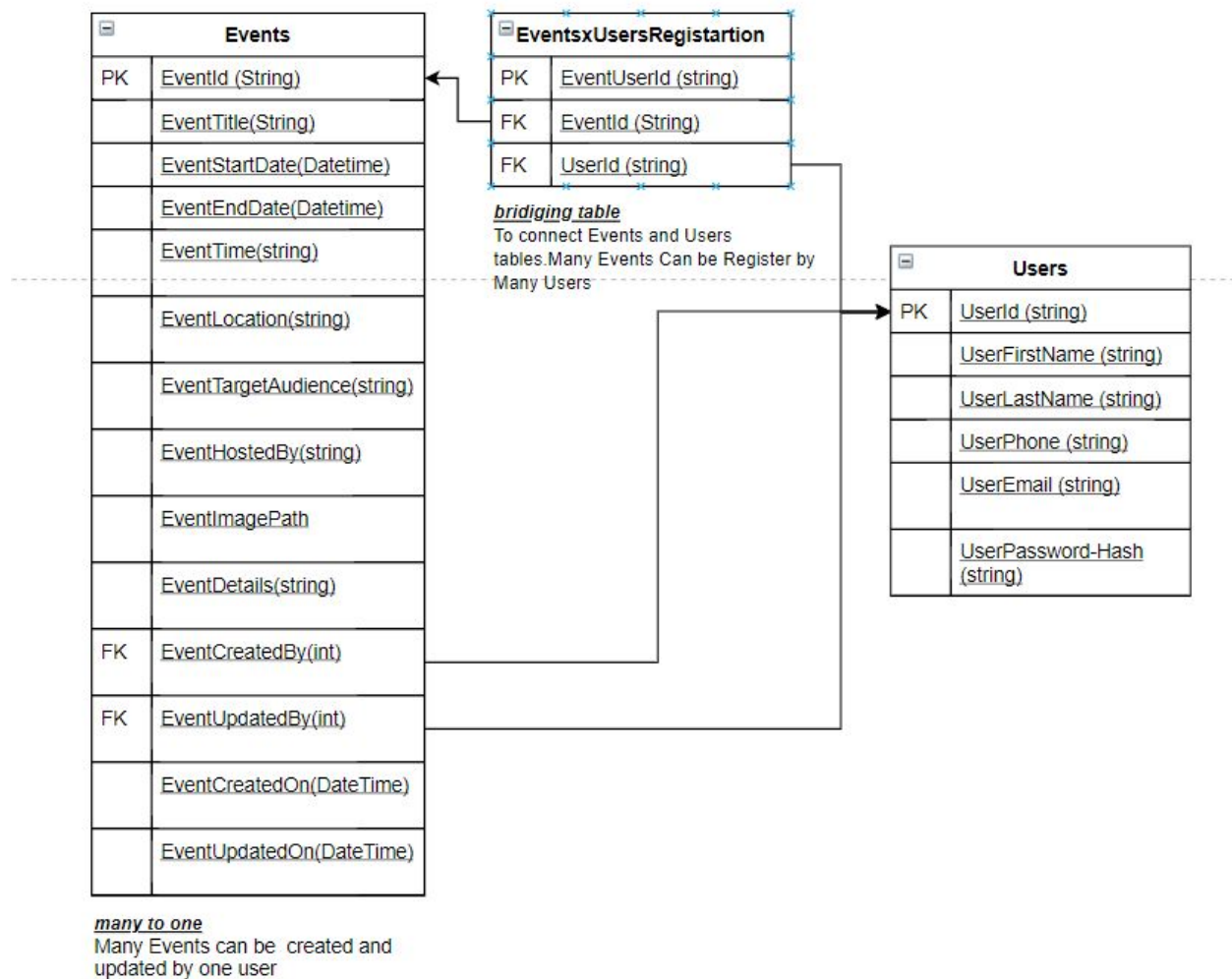
Guest, Registered User: Since the intention of this page is to provide an important, vital information, access to content management is restricted. Visitors of the website, regardless if they are registered or not, would not be able to create or modify the content of the page

Admin: Administrators have full access to create, edit, and delete both crisis and articles related content. The administrator is a person who is trusted to make executive decisions if any of the content needs to be modified or even deleted. When a new crisis is created by the administrator, it triggers the event when the RED Banner appears on the main page of the website, alerting the public about the existence of the Public Health Crisis. Consequently, when the admin edits the Finished Date of the crisis, the banner disappears. The record of the crisis and all related articles should not be erased from a database ever. However, if some error or mistake occurred, the admin would be able to delete the record.

Editor: In the context of this feature an editor is a person who is allowed to write or edit the content of an article related to the specific crisis on behalf of the hospital. Once an article has been written, it should not be easily deleted, since these articles are stored in the database for historical reference and other research purposes. In addition to not being able to delete an article, editors are not allowed to create or modify a Crisis, for the reason of importance of that information, and potential consequences of wrongfully creating the panic by alerting the public, or opposite, removing alerts prior to the end of the crisis.

7)Events (Developed by Priyanka Khadilkar)

7.1 Entity Relationship Diagram



7.2) Narrative story + Justification

To illustrate the Many to many relationships between Users and Events, Let's have a look into the story of Siddhant and Priyanka. Siddhant logged into the system and clicked on the Events calendar. He wants to register for "**Neurosurgery Education Workshop**" and "**Blood Donation Camp**" events. Priyanka also wants to register for both events. If Siddhant wants to see the list of the events he registered for in the past and view the details of the same. Then he can login into the system and access all the list of registered events.

7.3) User story and access right

Events	Guest	Registered User	Admin	Editor
Visibility				
See Events	Yes	Yes	Yes	Yes

Guest & Registered User story : Mr. Gilheany searches for the temiskaming hospital and goes to the website. He saw the Events link in navigation and he clicked on it so he can see all the events are going to be held at the hospital. However if he wants to register for events then he has to register in to system and then he can login and register for the events. Users like Priyanka and Siddhant then are registered and logged into system so they can register for the more than one events and they can see the history of the events they have registered before.

Admin & Editor User Story : Dr. Logan wants to register for an event which is hosted by the heart surgeon of the hospital so he can search for the same event in the list of events. Mr. Scot is the Admin user of the system who is Event organizer of the hospital and wants to see all the events so he can go to the event page and see a list of the events.

Events	Guest	Registered User	Admin	Editor
Functionality				
Event Create	No	No	Yes	No
Event Update	No	No	Yes	No
Event Delete	No	No	Yes	No
Event Register	No	Yes	Yes	Yes

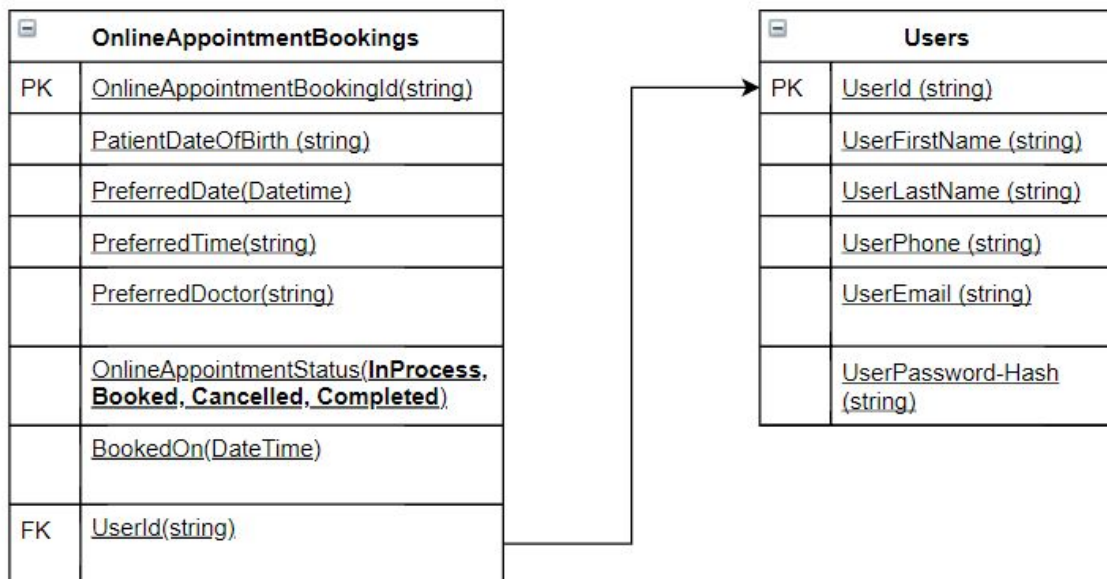
Guest Users : Users like Mr. Gilheany who are Guest users(visitors of website) can not Add, Update, delete or register for the events.

Registered Users and Editor User : Users like Siddhant and Priyanka who is registered users(Patient, family member or job seekers) or Editor user(doctor) can see all the list of events and register for the event.As doctors would need permission of board of members for hosting an event so they can not add or update the events.

Admin Users : Admin users can add, update,delete, register and see the list of users register for the events.

8)Online Appointment Booking (Developed by Priyanka Khadilkar)

8.1 Entity Relationship Diagram



many to one

Many Appointments Can be booked by one User.

An appointment can have only one User.

8.2) Narrative story + Justification

To illustrate, one to many the relationship between User and Appointment Bookings let's have a look into the story of Jack. Jack is not well so he wants to see a doctor so jack logged in into the hospital system and booked an appointment. Also, Jack has to see a doctor with knee x ray after three days he books a separate appointment.

After a day Jack is feeling good and wants to cancel the appointment so he logged into the system to go to the list of booked appointments and cancel the appointment.

8.3) User story and access right

Online Appointment Booking	Guest	Registered User	Admin	Editor
Visibility				
See Online Appointment Booking	No	Yes	Yes	Yes

Guest User Story : Mr. Hawkins wants to book an appointment with a doctor at Temiskaming hospital so he can do it online. However if he has to register into the system to book an appointment.

Admin, Editor User story : Ms. Denise Balch who is trustee at hospital and as well as she is admin user into the website. She wants to see the list of appointments booked for tomorrow so she can login into system and access the list of appointments booked. Dr. Logan also wants to see the list of booked appointments.

Registered UserStory : Prima is the registered user. She wants to see the list of past booked appointments and so she can login in to the system and access the list of past appointments.

Online Appointment Booking	Guest	Registered User	Admin	Editor
Functionality				
Online Appointment Booking	No	Yes	Yes	Yes
Online Appointment Booking Update	No	Yes	Yes	Yes

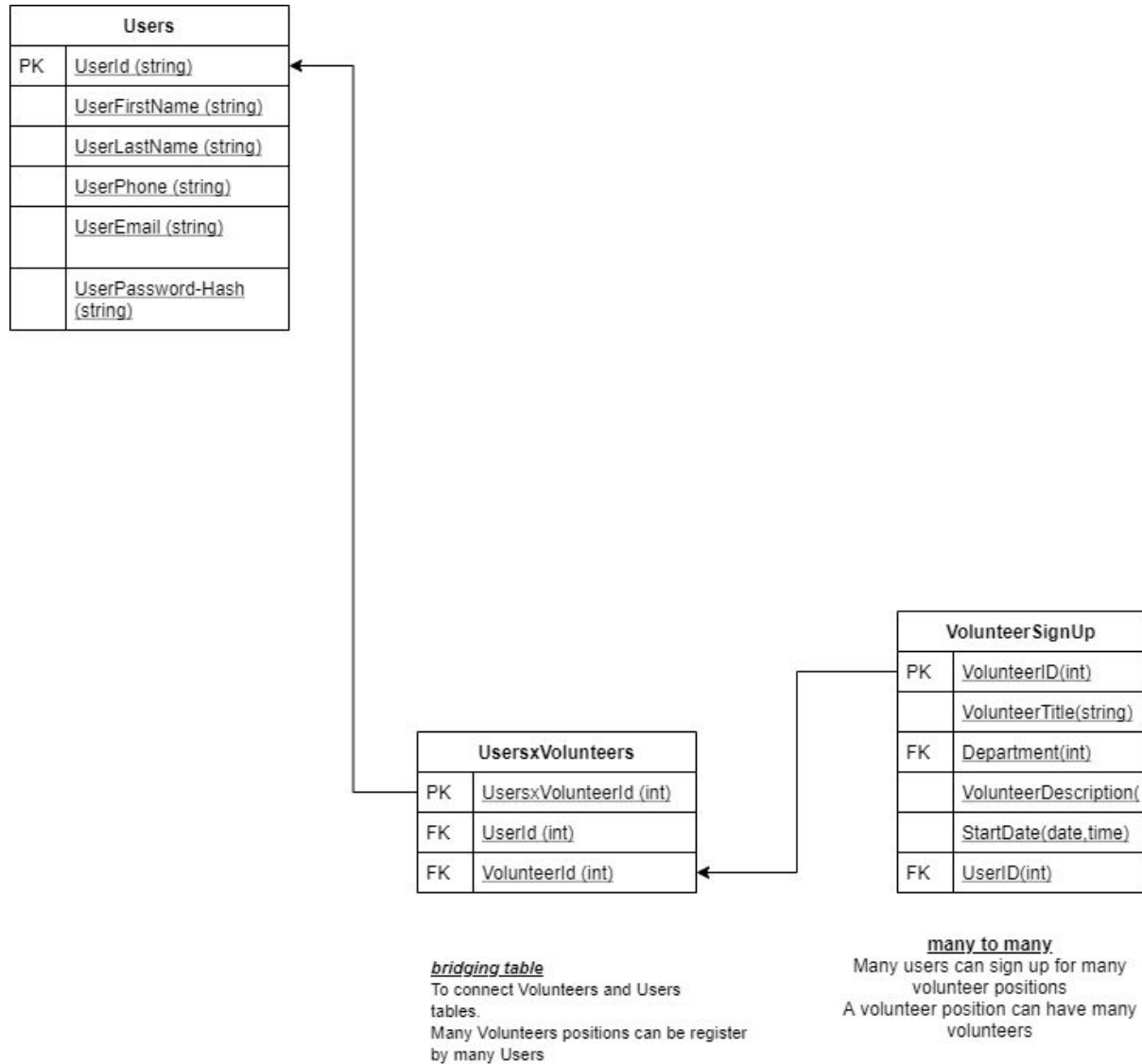
Guest Users : Guest users do not have any access to the appointment data.

Registered Users : Registered users(patients) can book appointments and cancel their own appointments only.

Admin Users, Editor Users : These users(Board of member, doctors, staff of the hospital) can update the appointment details of any appointment record as well as book appointments too.

9) Volunteer Sign Up (Developed by Eseroghene Omene)

9.1) Entity Relationship Diagram



9.2) Narrative story + Justification

A user can volunteer for many volunteer positions. Katniss has volunteered for three volunteer postings including a position in the NICU Department. Marvel, Cato and Clove have also signed up to volunteer in the NICU Department.

9.3) User story and access right

Volunteer Sign Up	Guest	Registered User	Admin	Editor
Visibility				
See Volunteer Listing	yes	yes	yes	yes
See Department	yes	yes	yes	yes

Admin, Editors, Registered Users & Guests: Admins and editors can see all the volunteer listings.

Volunteer Listing	Guest	Registered User	Admin	Editor
Functionality				
Create Volunteer Listing	No	No	Yes	Yes
Update Volunteer Listing	No	Only their own	Yes	Yes
Delete Volunteer Listing	No	Only their own	Yes	Yes
Create Department	No	No	Yes	No
Update Department	No	No	Yes	No
Delete Department	No	No	Yes	No

Admin's story: Seneca is the administrator of the Temiskaming hospital website. Upon logging in to the system, he could see all the volunteer listings for the hospital, as well as the volunteers who have signed up. He could also create a new volunteer listing, as well as update or delete any volunteers, or departments in the hospital.

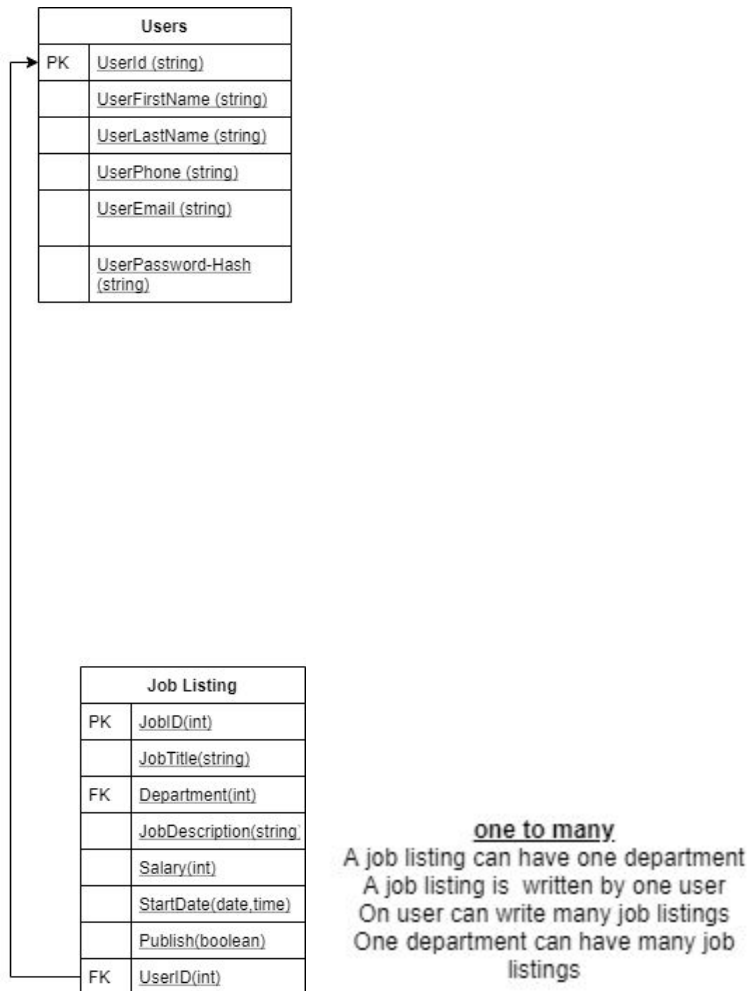
Editor's story: Caesar is the editor of the Temiskaming hospital website. With the COVID-19 pandemic hitting the town of Temiskaming, there is a lot of shuffling of volunteers in the hospital. He is able to create more volunteer listings as well as update any current positions in response to the pandemic . Caesar will have to contact Senec to add in more departments to help facilitate new departments for positions.

Register users: Primrose has signed up to volunteer in the Internal Medicine department. Unfortunately due to school, she no longer is available when they need her. Primrose is able to login and delete the volunteer position from her profile.

Guest: Gale was visiting the Temiskaming hospital website to find some information on how to treat a cut he got while trapping a rabbit. While searching he noticed several volunteer listings that interested him. He made a mental note and will look into it further once he has time.

1) Job Listing (Developed by Eseroghene Omene)

1.1) Entity Relationship Diagram



1.2) Narrative story + Justification

A user can post many job listings. Sandor has been put in charge of creating three job postings for positions in the Plastics Department. As a user, he is able to create all three (many) job listings and post them. These listings will only have one creator.

A department can have many job listings. With the same example, Sandor's listings will all be for the same department, and the same listings would not be available to different departments.

1.3) User story and access right

Job Listing	Guest	Registered User	Admin	Editor
Visibility				
See Job Listing	yes	yes	yes	yes
See Department	yes	yes	yes	yes

Admin, Editors, Registered Users & Guests: All users can see all the job listings.

Job Listing	Guest	Registered User	Admin	Editor
Functionality				
Create Job Listing	No	No	Yes	Yes
Update Job Listing	No	Only their own	Yes	Yes
Delete Job Listing	No	Only their own	Yes	Yes
Create Department	No	No	Yes	No
Update Department	No	No	Yes	No
Delete Department	No	No	Yes	No

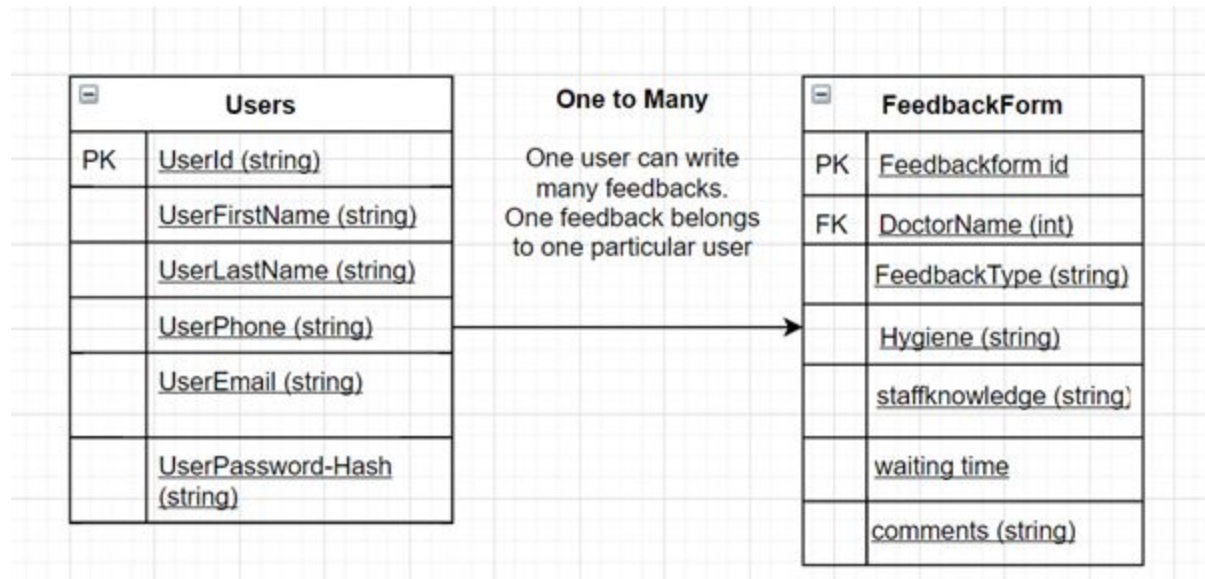
Admin's story: Missandei is an administrator of the Temiskaming hospital website. Upon logging in to the system, she could see all the job listings for the hospital. She could also create a new job listing, as well as update or delete any departments in the hospital.

Editor's story: Arya is the editor of the Temiskaming hospital website. As the community grows in Temiskaming, there is a need for new departments, and more doctors in the hospital. She is able to create numerous job listings to help attract more candidates to the hospital. However, Arya will need to contact Missandei (the admini) to create the new departments for some of the listings.

Guest & Register users: Samwell has just completed his schooling at the Citadel School of Medicine and is looking for a job. He has decided to move to Temiskaming to stay with his father Randyll. Randyll has suggested to Samwell to check out the hospital website. Samwell (as a guest) sees there are multiple openings in the Plastics Department, he registers(becoming a user) and is able to create a list of job listings he is interested in. Once Samwell is hired, he can login and delete the list of jobs from his profile.

11)Feedback Form: (Developed by Kshitija Patel)

11.1] ERD Diagrams



11.2] Narrative story + Justification

A user can provide as many as feedbacks once they are logged in successfully. Once they login to the account they can add, view or delete the feedback they have given. For example, Emily is user of given website. She can provide the different feedbacks regarding the services provided by the hospital. As well as after sending the feedback if she feels like she wants to delete that feedback then she can also delete it. Here one user can give multiple feedbacks but each feedback is assigned to that particular user.

An Admin can view or delete any of the feedback once admin is logged in. For example, As admin Adam should be able to view list of the feedbacks that users have given and also he should be able to delete them if they seem appropriate.

11.3] User story and access right

Feedback Form	Guest	Registered User	Admin	Editor
Visibility				
Sees Feedback Form	No	Yes	Yes	Yes

Admin: Admin can view list and individual feedback of users. Admin can delete the feedback if they seem not proper.

User: User can add new feedback as well they should have right to see the feedback they have provided. User should have right to delete the previously provided feedbacks.

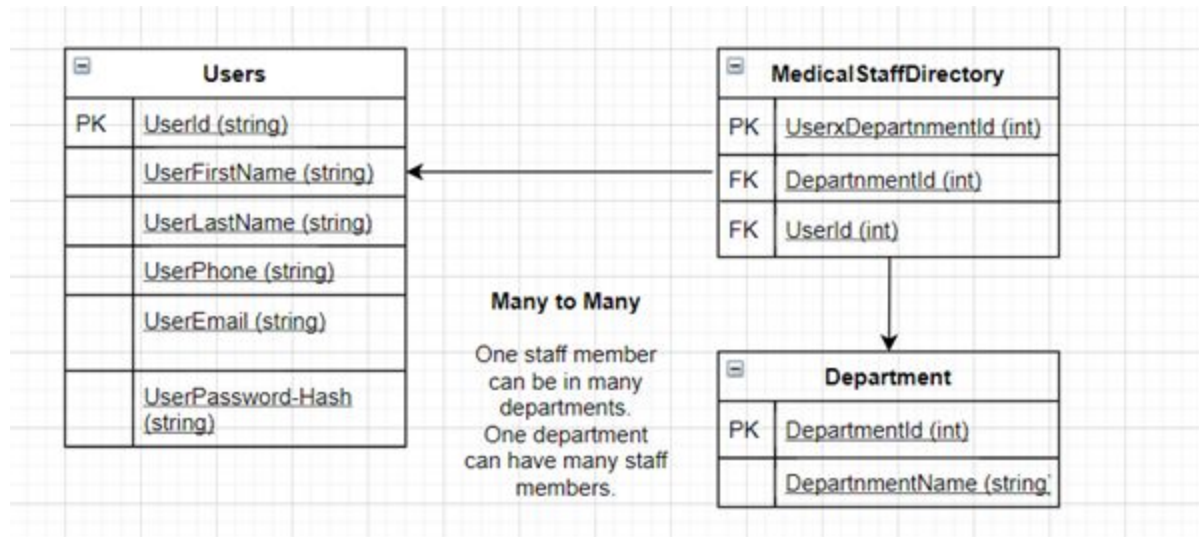
Feedback Forms	Guest	Registered User	Admin	Editor
Functionality				
Feedback Form Add	No	Yes	No	No
Feedback Form Show	No	Yes(only theirs)	Yes	No
Feedback Form Delete	No	Yes(only theirs)	Yes	No
Feedback Form List	No	Yes(only theirs)	Yes	No

Admin story: Hermione is an administrator of the Temiskaming hospital website. Upon logging in to the system, she could see list of all the feedbacks each users have provided for the hospital. She can delete or view individual feedbacks.

User Story: Ron is patient of the hospital. Once logging in the website, he could post new feedback to website. Also he could view his previously provided feedbacks and delete it as well.

12)Medical staff directory: (Developed by Kshitija Patel)

12.1] ERD Diagram:



12.2] Narrative story + Justification

A user can see the directory of hospital staff. They can view each person's name and their contact details as well as their department. An Admin can view the directory with name, department and contact details of the staff. Additionally, Admin can delete the record of previous staff who is currently not working or add new data in directory for newly recruited staff members. Admin can also update the information of the staff in the directory. One staff member can be in different departments and one department can have multiple staff members

12.3] User story and access right

Medical Staff Directory	Guest	Registered User	Admin	Editor
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Visibility				
Sees Medical Staff Directory	Yes	Yes	Yes	Yes

Admin: Admin can view the directory of hospital staff containing their Name, Department, and Contact details. They can also add new data or delete or modify previously entered data of hospital's Medical Staff Directory.

User: User should be able to see list and details of individual such as Staff Members Name, Contact details and their Department in the website.

Medical Staff Directory	Guest	Registered User	Admin	Editor
Functionality				
Add Staff Members	No	No	Yes	No
Medical Staff Directory List	Yes	Yes	Yes	Yes
Delete Staff Members	No	No	Yes	No
Update Staff Members	No	No	Yes	No

Admin story: Rob is an admin of the hospital, once logged in as Admin he could modify or view hospital's Medical Staff Directory including their name, contact detail and department. He could add newly recruited staff's data and as well as have right to delete the data of previous hospital staff.

User Story: Eva is patient of the Hospital. As a user of the hospital website, she will be able to view the hospital's Medical Staff Directory.