



Medical Examination Reservation System

Software Design Document

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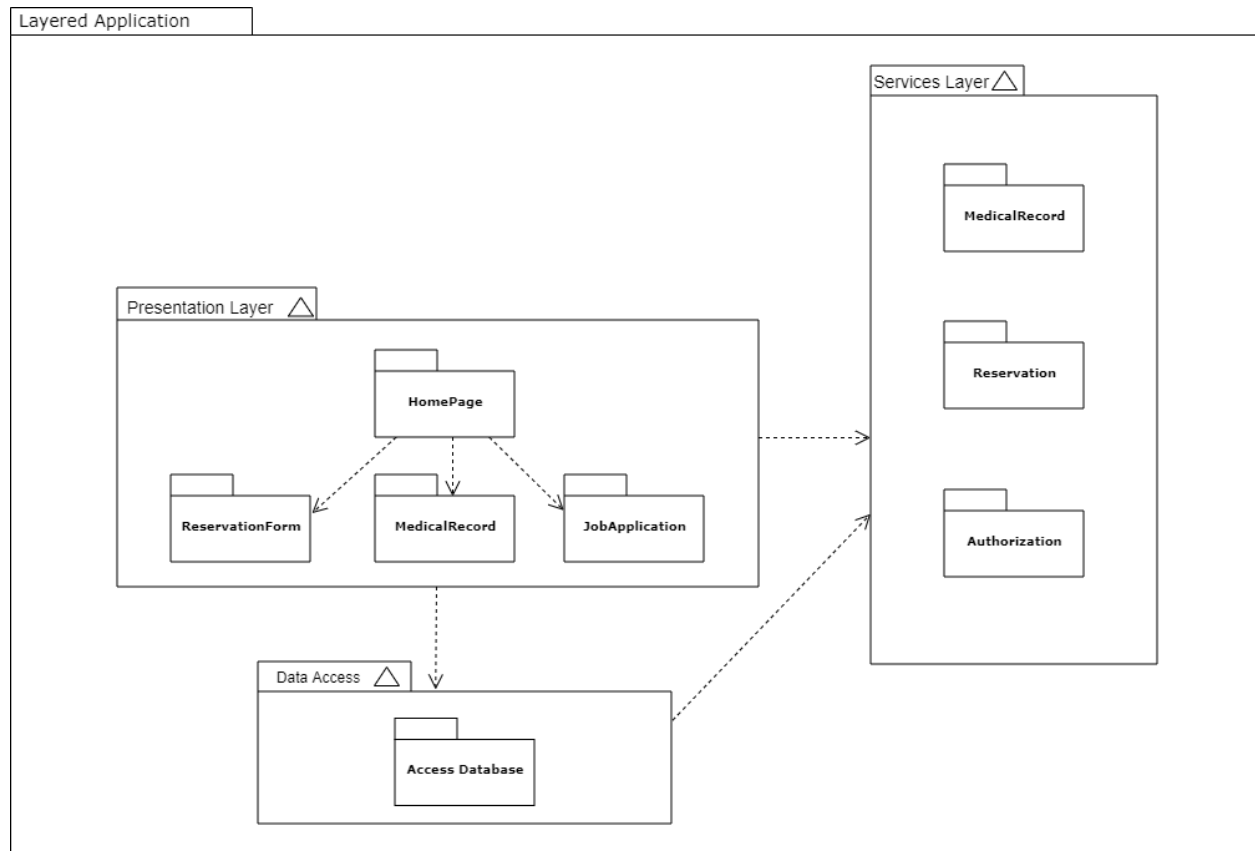
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I. Overview

1. Code Packages/Namespaces



Package descriptions & package class naming conventions

No	Package	Description
01	<i>HomePage</i>	<i>Provide interaction with user, GUI</i> <i>Java Class Naming Convention</i>
02	<i>ReservationForm</i>	<i>Provide interaction with patient</i> <i>Java Class Naming Convention</i>
03	<i>MedicalRecord</i>	<i>Define the logic of data extracted from Database</i> <i>Java Class Naming Convention</i>
04	<i>JobApplication</i>	<i>Provide interaction with user</i> <i>Java Class Naming Convention</i>
05	<i>Access Database</i>	<i>Provide the connection to the Database, Extract data for the system</i>
06	<i>Reservation</i>	<i>Control the data flow between View and Model (DAO), Control the logic of the system</i> <i>Java Class Naming Convention</i>

07	Authorization	Control the redirection between Pages in View and from View to Controller Java Class Naming Convention
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2. Database Schema

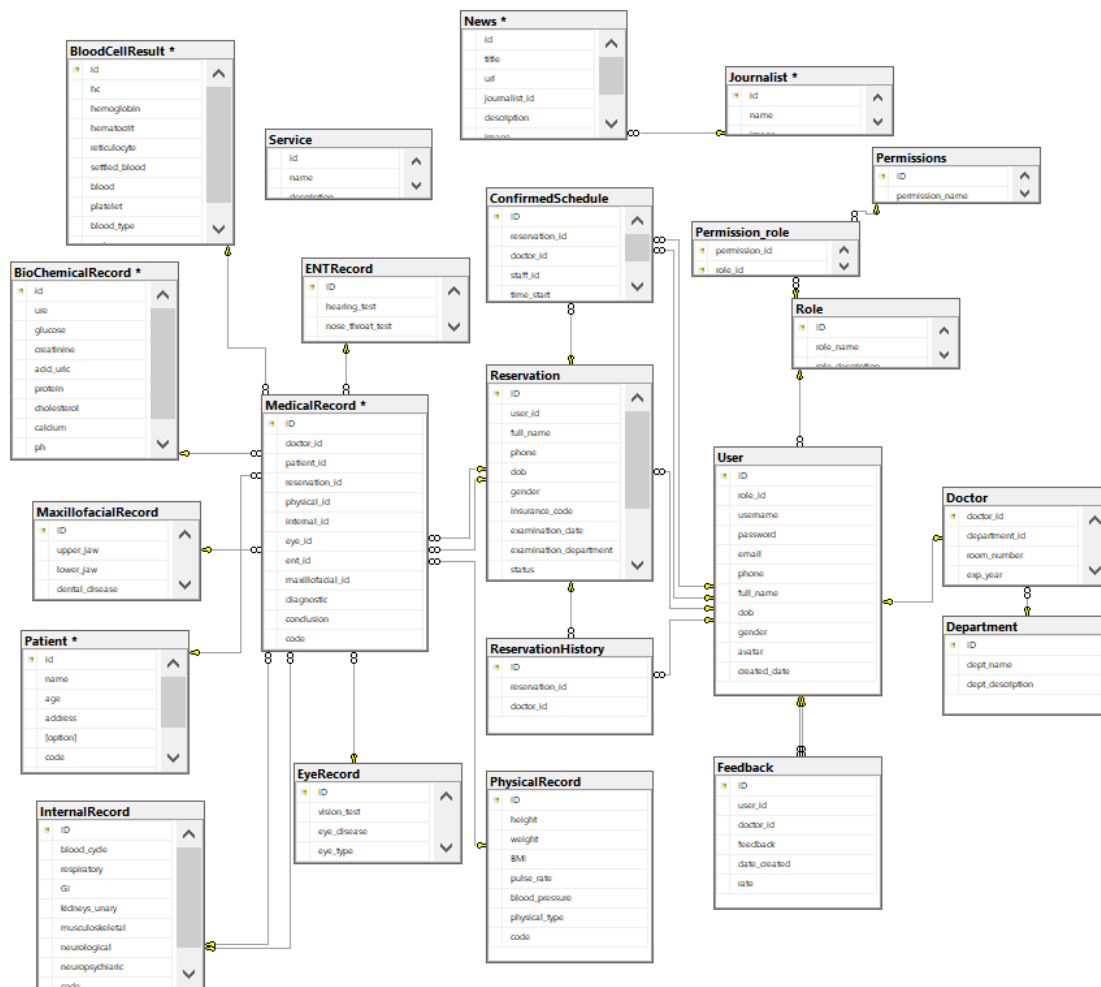


Table descriptions & package class naming conventions are as below

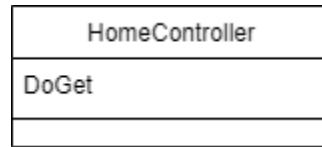
No	Table	Description
01	User	Store user accounts and personal information - Primary keys: user_id - Foreign keys: role_id
02	Role	Each accounts must be 1 of 4 roles: User, Doctor, Staff, Admin - Primary keys: role_id
03	DoctorInfo	Doctor role has some additional information: department, experience, room number

		<ul style="list-style-type: none"> - Primary keys: <i>doctor_id, role_id</i> - Foreign keys: <i>doctor_id, role_id</i>
04	<i>Permissions</i>	<ul style="list-style-type: none"> Permissions for the sites. - Primary keys: <i>permission_id</i>
05	<i>Permission_role</i>	<ul style="list-style-type: none"> Each roles has its authorization to access different sites. - Primary keys: <i>permission_id, role_id</i> - Foreign keys: <i>permission_id, role_id</i>
06	<i>Department</i>	<ul style="list-style-type: none"> Medical department in the hospital. - Primary keys: <i>dept_id</i>
07	<i>Feedback</i>	<ul style="list-style-type: none"> Feedback from user for the doctors when examination finished. - Primary keys: <i>feedback_id</i> - Foreign keys: <i>user_id, doctor_id</i>
08	<i>Reservation</i>	<ul style="list-style-type: none"> Medical reservation form for users, can register for other people. - Primary keys: <i>reservation_id</i> - Foreign keys: <i>user_id</i>
09	<i>ConfirmedSchedule</i>	<ul style="list-style-type: none"> Examination schedule staff make for user and doctor. - Primary keys: <i>id</i> - Foreign keys: <i>reservation_id, doctor_id, staff_id</i>
10	<i>Reservation History</i>	<ul style="list-style-type: none"> Reservation succeed history. - Primary keys: <i>history_id</i> - Foreign keys: <i>reservation_id, doctor_id</i>
11	<i>MedicalRecord</i>	<ul style="list-style-type: none"> Examination report the doctor make for patient. - Primary keys: <i>med_id</i> - Foreign keys: <i>doctor_id, reservation_id, eye_id, internal_id, physical_id, ENT_id, maxillofacial_id</i>
12	<i>PhysicalRecord</i>	<ul style="list-style-type: none"> Specific department record. - Primary keys: <i>physical_id</i>
13	<i>InternalRecord</i>	<ul style="list-style-type: none"> Specific department record. - Primary keys: <i>internal_id</i>
14	<i>EyeRecord</i>	<ul style="list-style-type: none"> Specific department record. - Primary keys: <i>eye_id</i>
15	<i>ENTRecord</i>	<ul style="list-style-type: none"> Specific department record. - Primary keys: <i>ENT_id</i>
16	<i>MaxillofacialRecord</i>	<ul style="list-style-type: none"> Specific department record. - Primary keys: <i>maxillofacial_id</i>
17	<i>BioChemicalRecord</i>	<ul style="list-style-type: none"> Specific department record. - Primary keys: <i>id</i>
18	<i>BloodCellResult</i>	<ul style="list-style-type: none"> Specific department record. - Primary keys: <i>id</i>
19	<i>Journalist</i>	<ul style="list-style-type: none"> Specific journalist details. - Primary keys: <i>id</i>
20	<i>News</i>	<ul style="list-style-type: none"> Specific news details. - Primary keys: <i>id</i>
21	<i>Patient</i>	<ul style="list-style-type: none"> Specific patient details. - Primary keys: <i>id</i>
22	<i>Service</i>	<ul style="list-style-type: none"> Specific service details. - Primary keys: <i>id</i>

II. Code Designs

1. Home page

a. Class Diagram

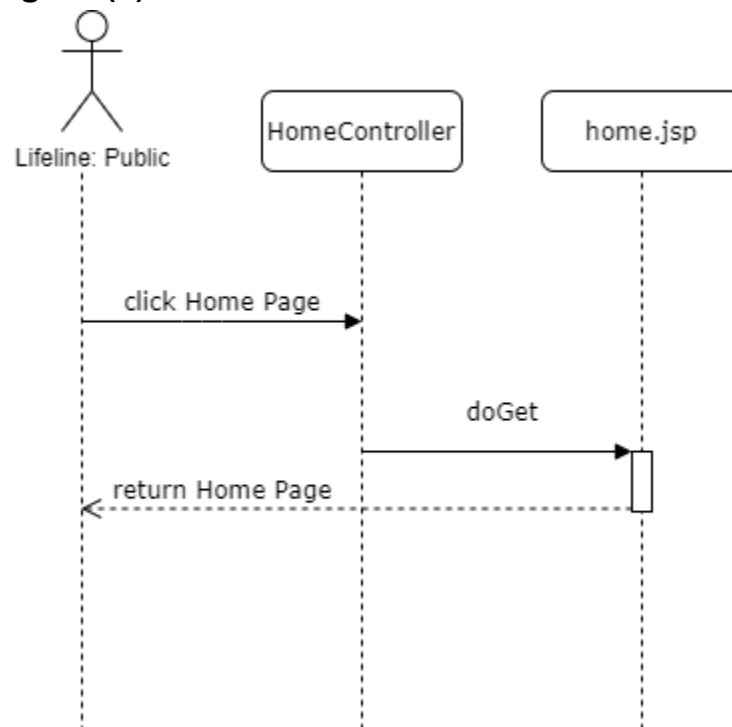


b. Class Specifications

HomeController

No	Method	Description
01	<i>protected void doGet(HttpServletRequest request, HttpServletResponse response)</i>	<i>getRequestDispatcher to Home.jsp to display the Home page</i>

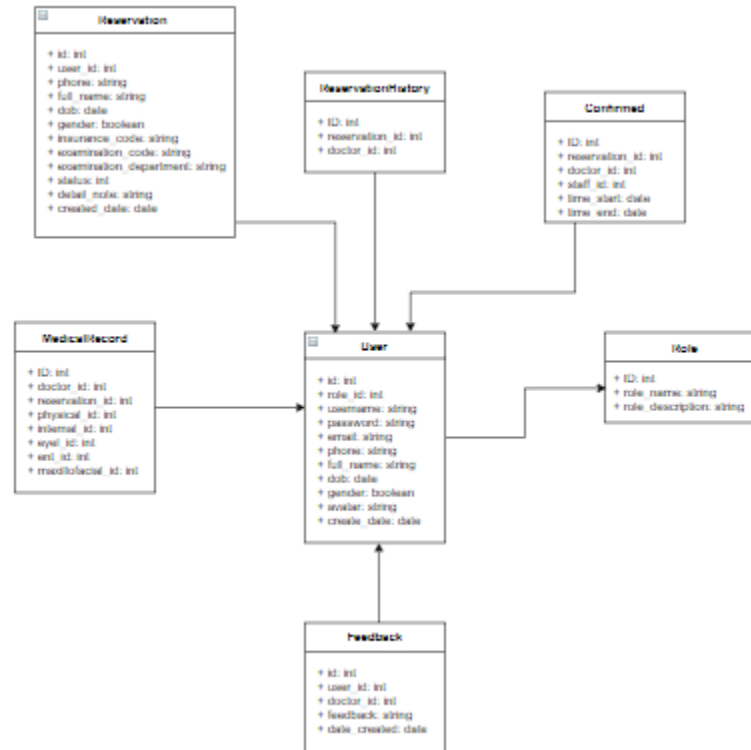
c. Sequence Diagram(s)



d. Database queries

2. User Login

a. Class Diagram



b. Class Specifications

User Class

This class stores all information about a user.

No	Method	Description
01	getId()	Get the ID of a User
02	setId()	Set the ID of a User
03	getRole_id()	Get the roleID of a User to authorization
04	setRole_id()	Set the roleID of a User to authorization
05	getUsername()	Get the username of a User
06	setUsername()	Set the username of a User
07	getPassword()	Get the password of a User
08	setPassword()	Set the password of a User
09	getEmail()	Get the email address of a User
10	setEmail()	Set the email address of a User
11	getPhone()	Get the phone number of a User
12	setPhone()	Set the phone number of a User
13	getFull_name()	Get the full name of a User
14	setFull_name()	Set the full name of a User
15	getDob()	Get the date of birth of a User

16	<i>setDob()</i>	<i>Set the date of birth of a User</i>
17	<i>isGender()</i>	<i>Get the value boolean to check gender of a User</i>
18	<i>setGender()</i>	<i>Set the value boolean to check gender of a User</i>
19	<i>getAvatar()</i>	<i>Get the link to the avatar of a User</i>
20	<i>setAvatar()</i>	<i>Set the link to the avatar of a User</i>
21	<i>getCreated_date()</i>	<i>Get the created date of a User</i>
22	<i>setCreated_date()</i>	<i>Set the created date of a User</i>
23	<i>getStatus()</i>	<i>Get the status of a User</i>
24	<i>setStatus()</i>	<i>Set the status of a User</i>

LoginServlet Class

This class takes the data from DAO and push it to JSP to display, as well as execute the Login function

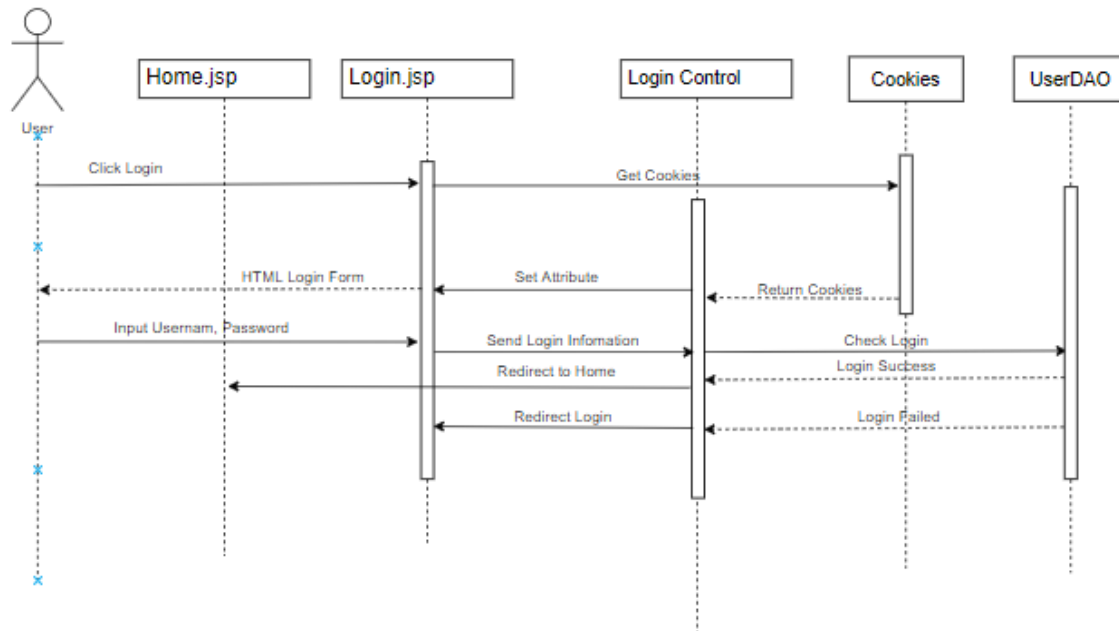
No	Method	Description
01	<i>processRequest()</i>	<i>Display login.jsp</i>
02	<i>doGet()</i>	<i>This method get the information from Cookie to display in JSP</i>
03	<i>doPost()</i>	<i>This method get the information from Cookie to execute Function</i>

UserDAOClass

This class perform action to Data (CRUD) in User table in database

No	Method	Description
01	<i>getAllUser()</i>	<i>Get all user from database and return the list of user from the database</i>
02	<i>checkLogin()</i>	<i>For login a user to the website and return the account information of the account logging in, null if username or password does not exist</i>
03	<i>insert()</i>	<i>Use for signup a user to the website</i>
04	<i>checkUser()</i>	<i>Find an user by username and return the found user, null if the user does not exist in the database</i>
05	<i>changePass()</i>	<i>Update the password of a user</i>
06	<i>edit()</i>	<i>Update the information of a user</i>
07	<i>checkEmail()</i>	<i>Find an user by email and return the found user, null if the user does not exist in the database</i>
08	<i>apply()</i>	<i>Update a user to be a doctor role</i>
09	<i>deny()</i>	<i>Delete a user</i>
10	<i>getUserById()</i>	<i>Find a user by id return the found user, null if the user does not exist in the database</i>

c. Sequence Diagram(s)



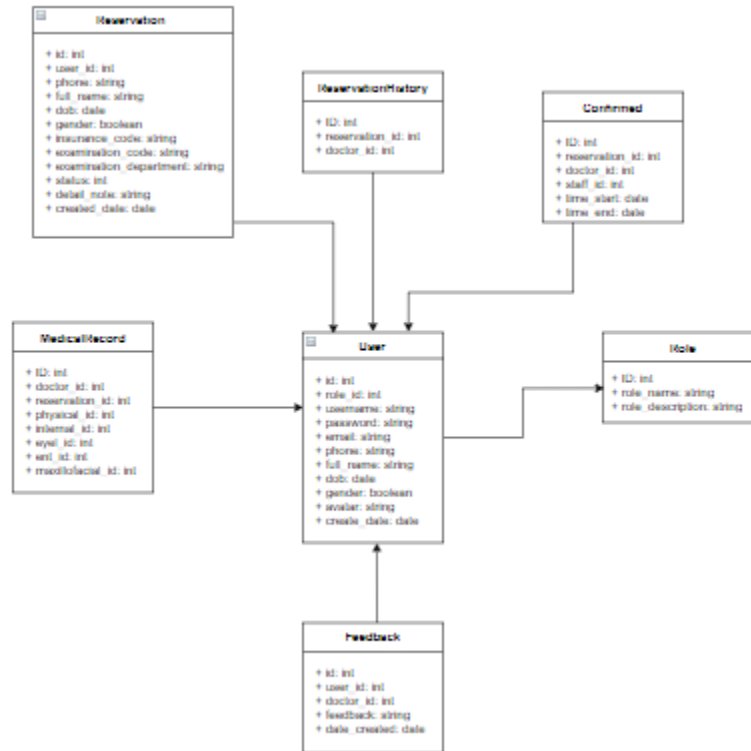
d. Database queries

- *SELECT * FROM Users WHERE email = ?*
- *SELECT * FROM Users WHERE username = ? AND password = ?*
- *SELECT * FROM Users WHERE username= ?*

//Phuc

3. User Register

a. Class Diagram



b. Class Specifications

User Class

This class stores all information about a user.

No	Method	Description
01	getId()	Get the ID of a User
02	setId()	Set the ID of a User
03	getRole_id()	Get the roleID of a User to authorization
04	setRole_id()	Set the roleID of a User to authorization
05	getUsername()	Get the username of a User
06	setUsername()	Set the username of a User
07	getPassword()	Get the password of a User
08	setPassword()	Set the password of a User
09	getEmail()	Get the email address of a User
10	setEmail()	Set the email address of a User
11	getPhone()	Get the phone number of a User
12	setPhone()	Set the phone number of a User
13	getFull_name()	Get the full name of a User
14	setFull_name()	Set the full name of a User
15	getDob()	Get the date of birth of a User
16	setDob()	Set the date of birth of a User
17	isGender()	Get the value boolean to check gender of a User
18	setGender()	Set the value boolean to check gender of a User

19	getAvatar()	Get the link to the avatar of a User
20	setAvatar()	Set the link to the avatar of a User
21	getCreated_date()	Get the created date of a User
22	setCreated_date()	Set the created date of a User
23	getStatus()	Get the status of a User
24	setStatus()	Set the status of a User

SignUpServlet Class

This class takes the data from DAO and push it to JSP to display, as well as execute the Login function

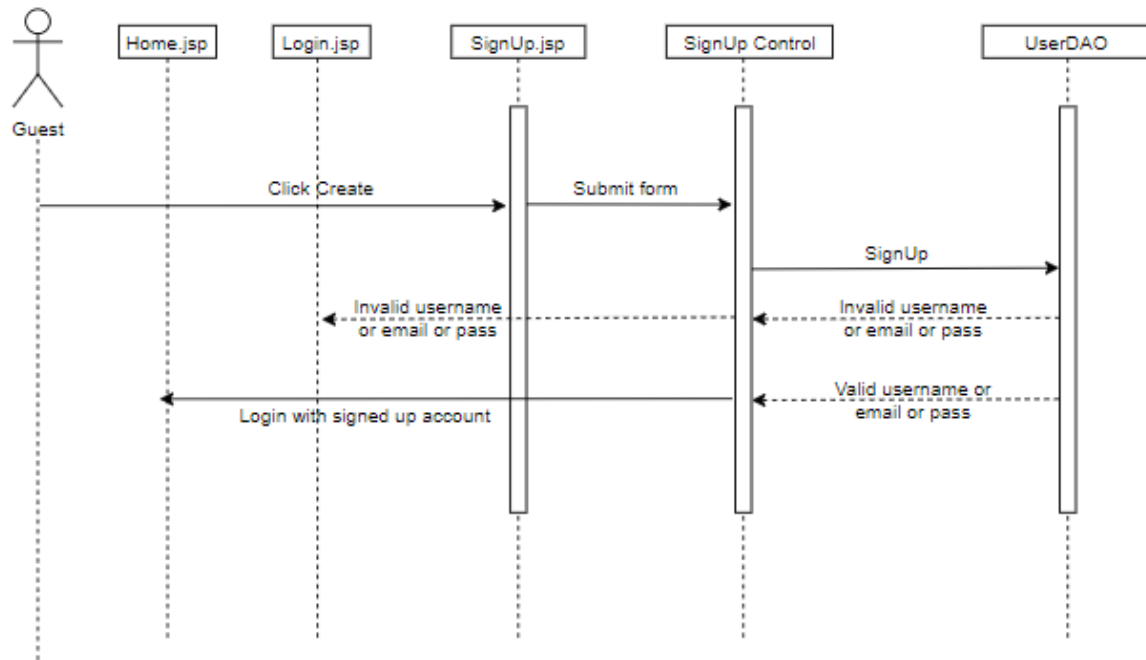
No	Method	Description
01	doGet()	This method get the information from database to display in JSP
02	doPost()	This method get the information from database to execute Function

UserDAO Class

This class perform action to Data (CRUD) in User table in database

No	Method	Description
01	getAllUser()	Get all user from database and return the list of user from the database
02	checkLogin()	For login a user to the website and return the account information of the account logging in, null if username or password does not exist
03	insert()	Use for signup a user to the website
04	checkUser()	Find a user by username and return the found user, null if the user does not exist in the database
05	changePass()	Update the password of a user
06	edit()	Update the information of a user
07	checkEmail()	Find an user by email and return the found user, null if the user does not exist in the database
08	apply()	Update a user to be a doctor role
09	deny()	Delete a user
10	getUserById()	Find a user by id return the found user, null if the user does not exist in the database

c. Sequence Diagram(s)



d. Database queries

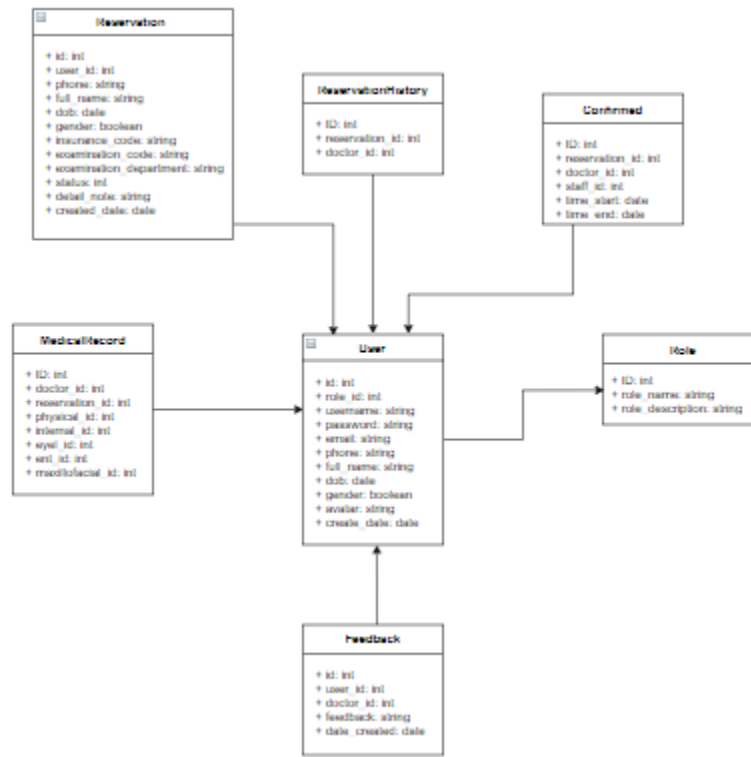
SELECT * FROM Users WHERE email = ?

SELECT * FROM Users WHERE Username = ?

INSERT INTO Users VALUES (?, ?, ?, ?, ?, ?, ?)

4. Forget password

a. Class Diagram



b. Class Specifications

User Class

This class stores all information about a user.

No	Method	Description
01	<i>getId()</i>	<i>Get the ID of a User</i>
02	<i>setId()</i>	<i>Set the ID of a User</i>
03	<i>getRole_id()</i>	<i>Get the roleID of a User to authorization</i>
04	<i>setRole_id()</i>	<i>Set the roleID of a User to authorization</i>
05	<i>getUsername()</i>	<i>Get the username of a User</i>
06	<i>setUsername()</i>	<i>Set the username of a User</i>
07	<i>getPassword()</i>	<i>Get the password of a User</i>
08	<i>setPassword()</i>	<i>Set the password of a User</i>
09	<i>getEmail()</i>	<i>Get the email address of a User</i>
10	<i>setEmail()</i>	<i>Set the email address of a User</i>
11	<i>getPhone()</i>	<i>Get the phone number of a User</i>
12	<i>setPhone()</i>	<i>Set the phone number of a User</i>
13	<i>getFull_name()</i>	<i>Get the full name of a User</i>
14	<i>setFull_name()</i>	<i>Set the full name of a User</i>
15	<i>getDob()</i>	<i>Get the date of birth of a User</i>

16	setDob()	Set the date of birth of a User
17	isGender()	Get the value boolean to check gender of a User
18	setGender()	Set the value boolean to check gender of a User
19	getAvatar()	Get the link to the avatar of a User
20	setAvatar()	Set the link to the avatar of a User
21	getCreated_date()	Get the created date of a User
22	setCreated_date()	Set the created date of a User
23	getStatus()	Get the status of a User
24	setStatus()	Set the status of a User

ResetPassServlet Class

This class takes the data from DAO and push it to JSP to display, as well as execute the Login function

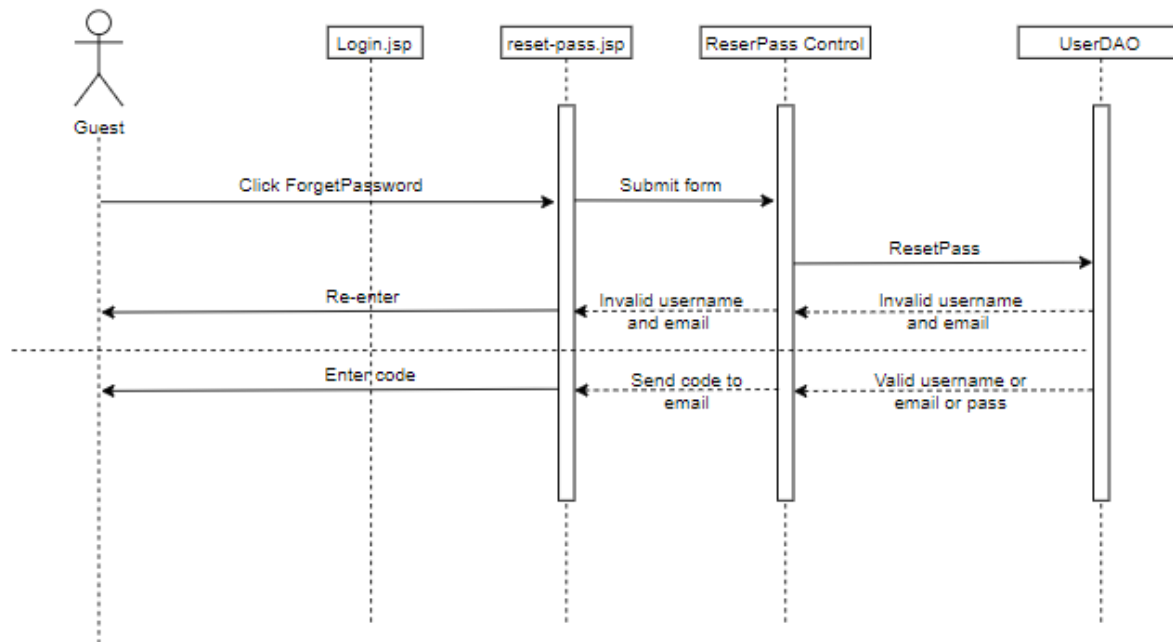
No	Method	Description
01	doGet()	This method get the information from database to display in JSP
02	doPost()	This method get the information from database to execute Function

UserDAO Class

This class perform action to Data (CRUD) in User table in database

No	Method	Description
01	getAllUser()	Get all user from database and return the list of user from the database
02	checkLogin()	For login a user to the website and return the account information of the account logging in, null if username or password does not exist
03	insert()	Use for signup a user to the website
04	checkUser()	Find a user by username and return the found user, null if the user does not exist in the database
05	changePass()	Update the password of a user
06	edit()	Update the information of a user
07	checkEmail()	Find an user by email and return the found user, null if the user does not exist in the database
08	apply()	Update a user to be a doctor role
09	deny()	Delete a user
10	getUserById()	Find a user by id return the found user, null if the user does not exist in the database

c. Sequence Diagram(s)

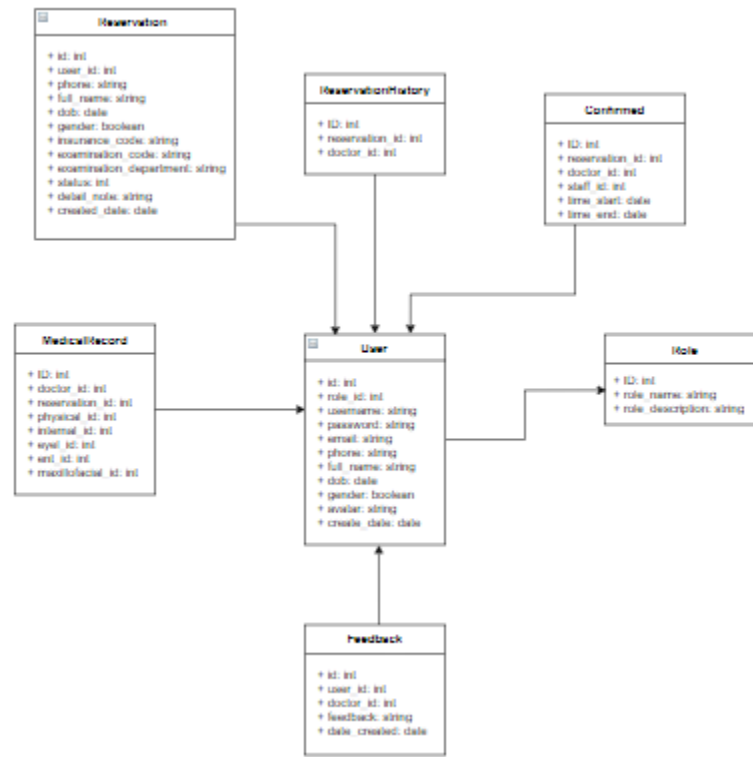


d. Database queries

- *SELECT * FROM User WHERE username = ?*
- *UPDATE User SET password = ? WHERE username = ?*

5. Change password

a. Class Diagram



b. Class Specifications

User Class

This class stores all information about a user.

No	Method	Description
01	getId()	Get the ID of a User
02	setId()	Set the ID of a User
03	getRole_id()	Get the roleID of a User to authorization
04	setRole_id()	Set the roleID of a User to authorization
05	getUsername()	Get the username of a User
06	setUsername()	Set the username of a User
07	getPassword()	Get the password of a User
08	setPassword()	Set the password of a User
09	getEmail()	Get the email address of a User
10	setEmail()	Set the email address of a User
11	getPhone()	Get the phone number of a User
12	setPhone()	Set the phone number of a User
13	getFull_name()	Get the full name of a User
14	setFull_name()	Set the full name of a User
15	getDob()	Get the date of birth of a User
16	setDob()	Set the date of birth of a User
17	isGender()	Get the value boolean to check gender of a User

18	setGender()	Set the value boolean to check gender of a User
19	getAvatar()	Get the link to the avatar of a User
20	setAvatar()	Set the link to the avatar of a User
21	getCreated_date()	Get the created date of a User
22	setCreated_date()	Set the created date of a User
23	getStatus()	Get the status of a User
24	setStatus()	Set the status of a User

ChangePassServlet Class

This class takes the data from DAO and push it to JSP to display, as well as execute the Login function

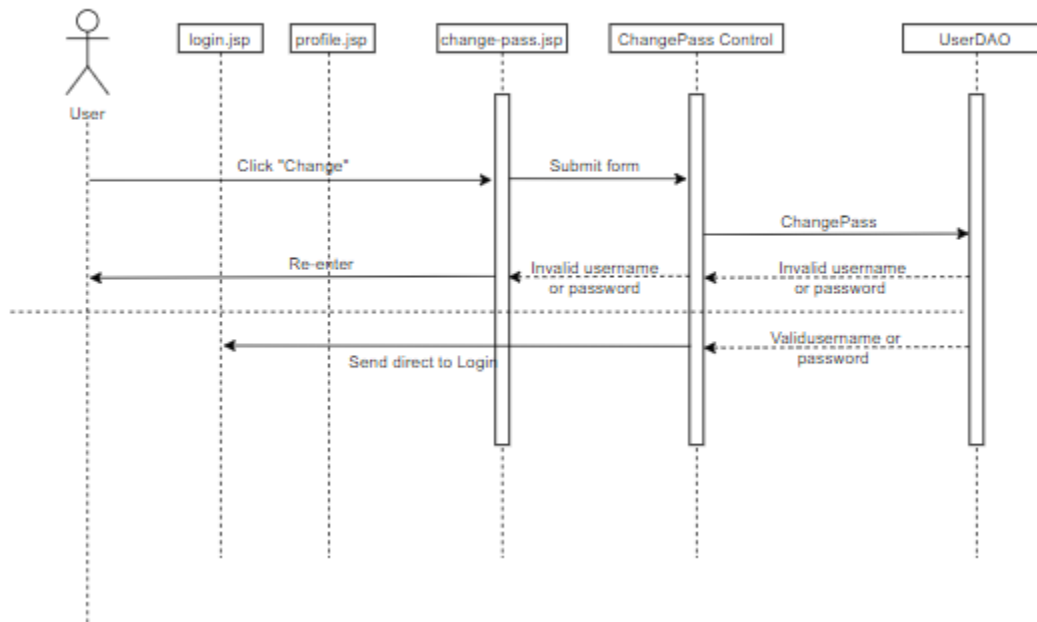
No	Method	Description
01	doGet()	This method get the information from database to display in JSP
02	doPost()	This method get the information from database to execute Function

UserDAO Class

This class perform action to Data (CRUD) in User table in database

No	Method	Description
01	getAllUser()	Get all user from database and return the list of user from the database
02	checkLogin()	For login a user to the website and return the account information of the account logging in, null if username or password does not exist
03	insert()	Use for signup a user to the website
04	checkUser()	Find a user by username and return the found user, null if the user does not exist in the database
05	changePass()	Update the password of a user
06	edit()	Update the information of a user
07	checkEmail()	Find an user by email and return the found user, null if the user does not exist in the database
08	apply()	Update a user to be a doctor role
09	deny()	Delete a user
10	getUserById()	Find a user by id return the found user, null if the user does not exist in the database

c. Sequence Diagram(s)



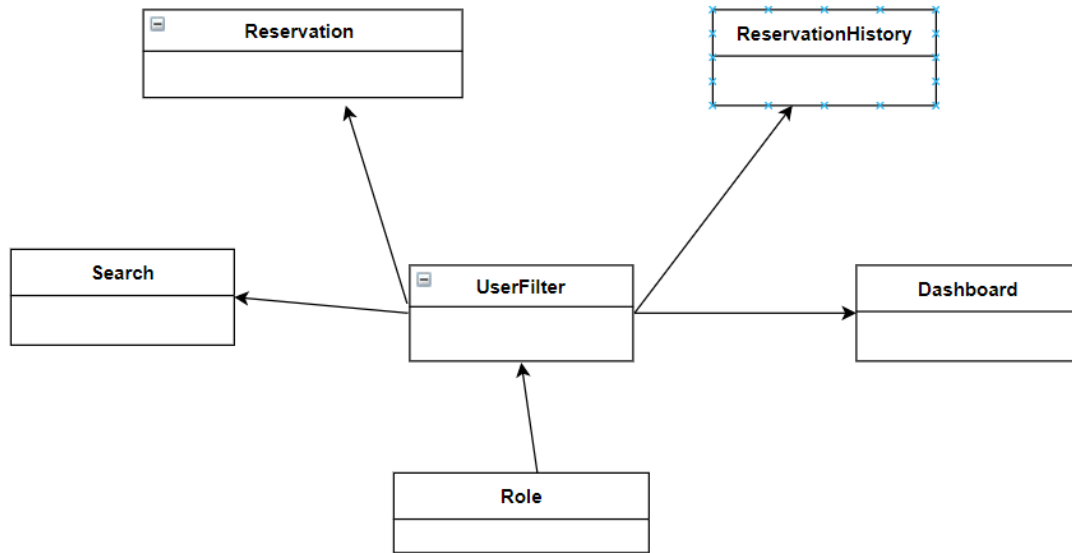
d. Database queries

SELECT * FROM User WHERE username= ?

UPDATE User SET password = ? WHERE username= ?

6. User Authorization

a. Class Diagram



b. Class Specifications

UserFilter Class

No	Method	Description
01	<i>doFilter()</i>	<i>This is a default function of java web filter, user to manage the request of user.</i>

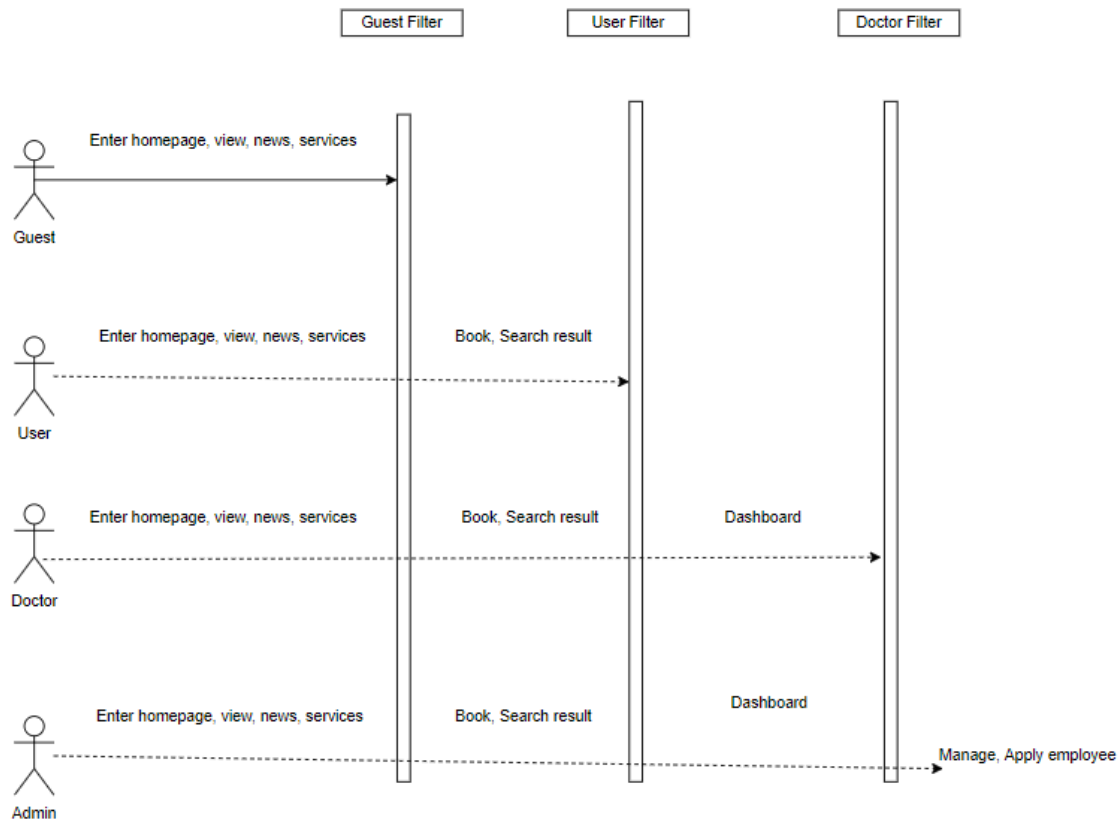
UserDAO Class

This class perform action to Data (CRUD) in User table in database

No	Method	Description
01	<i>getAllUser()</i>	<i>Get all user from database and return the list of user from the database</i>
02	<i>checkLogin()</i>	<i>For login a user to the website and return the account information of the account logging in, null if username or password does not exist</i>
03	<i>insert()</i>	<i>Use for signup a user to the website</i>
04	<i>checkUser()</i>	<i>Find a user by username and return the found user, null if the user does not exist in the database</i>
05	<i>changePass()</i>	<i>Update the password of a user</i>
06	<i>edit()</i>	<i>Update the information of a user</i>
07	<i>checkEmail()</i>	<i>Find an user by email and return the found user, null if the user does not exist in the database</i>
08	<i>apply()</i>	<i>Update a user to be a doctor role</i>
09	<i>deny()</i>	<i>Delete a user</i>

10	<code>getUserById()</code>	<i>Find a user by id return the found user, null if the user does not exist in the database</i>
----	----------------------------	---

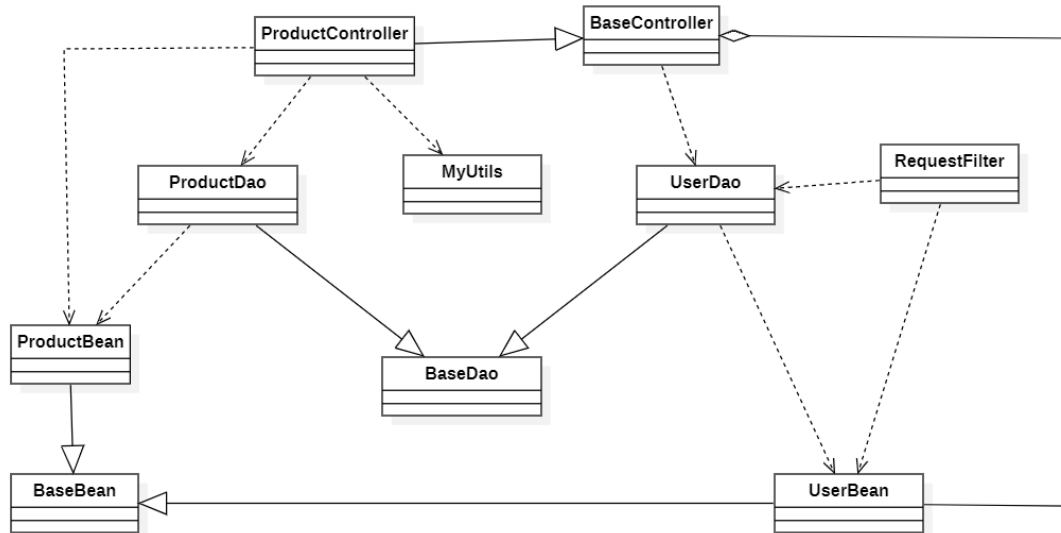
c. Sequence Diagram(s)



d. Database queries

7. View medical examination

a. Class Diagram



b. Class Specifications

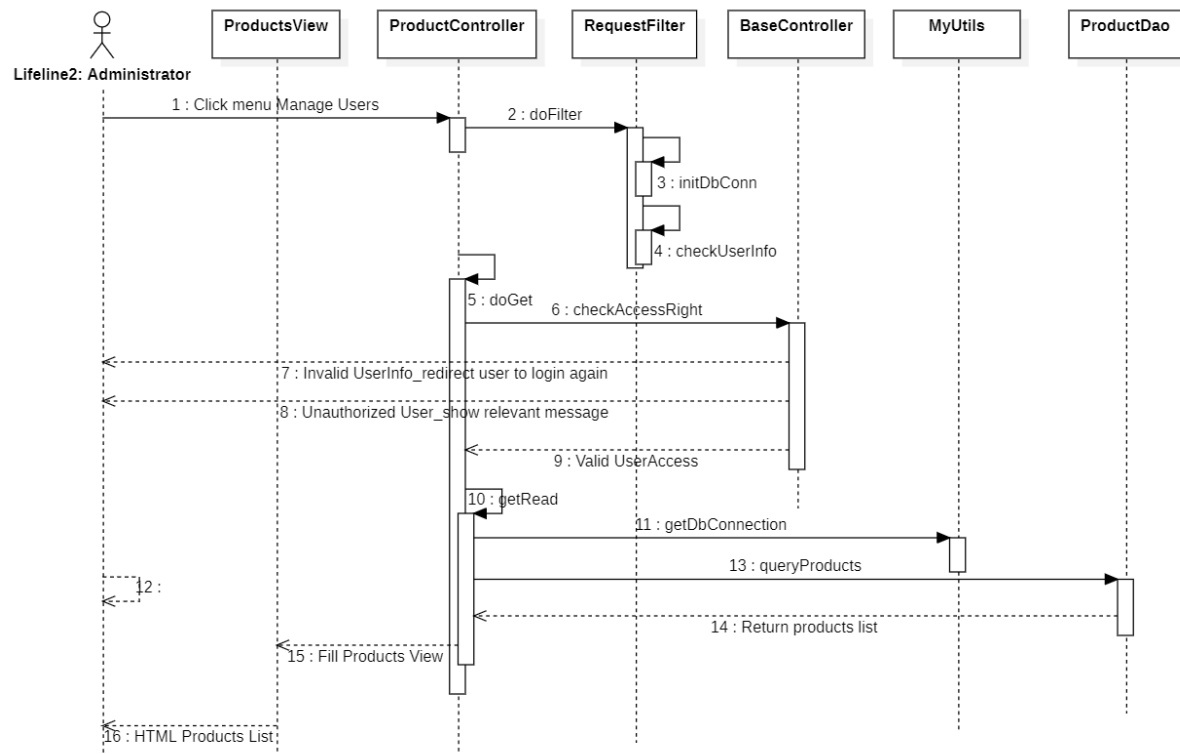
XYZ Class

No	Method	Description
01	<method name>	<Description of the method, including the inputs, outputs & internal method processing>

ABC Class

No	Method	Description
01	<method name>	<Description of the method, including the inputs, outputs & internal method processing>

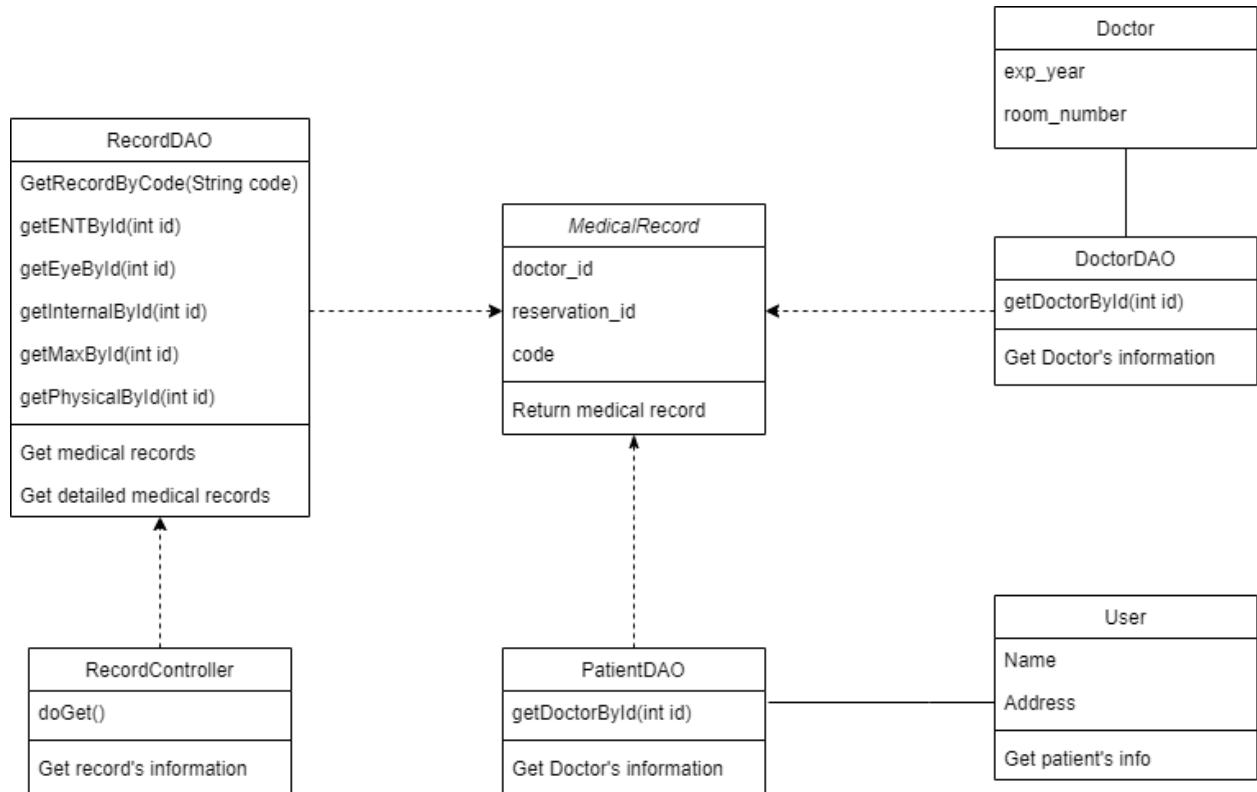
c. Sequence Diagram(s)



d. Database queries

8. Setup medical examination

a. Class Diagram



b. Class Specifications

Patient Class

No	Method	Description
01	<i>getID()</i>	<i>get patient id</i>
02	<i>setID()</i>	<i>set patient id</i>
03	<i>getName()</i>	<i>get patient name</i>
04	<i>setName()</i>	<i>set patient name</i>
05	<i>getAge()</i>	<i>get patient age</i>

06	<i>setAge()</i>	<i>set patient age</i>
07	<i>getPhone</i>	<i>get patient phone</i>
08	<i>setPhone</i>	<i>set patient phone</i>
09	<i>getOption</i>	<i>get patient option</i>
10	<i>setOption</i>	<i>set patient option</i>
11	<i>getAddress</i>	<i>get patient address</i>
12	<i>setAddress</i>	<i>set patient address</i>
13	<i>getGender</i>	<i>get patient gender</i>
14	<i>setGender</i>	<i>set patient gender</i>
15	<i>getPatientList()</i>	<i>get all patient from database</i>

Doctor Class

No	Method	Description
01	<i>getDoctor_ID()</i>	<i>get user id</i>
02	<i>set Doctor_ID()</i>	<i>set user id</i>
03	<i>getDepts_Id()</i>	<i>get user role</i>
04	<i>setDepts_Id()</i>	<i>set user name</i>
05	<i>getRoom_number</i>	<i>get user Room_number</i>

06	<i>setRoom_number ()</i>	<i>set user Room_number</i>
07	<i>getExp_year()</i>	<i>get user Exp_year</i>
08	<i>setExp_year ()</i>	<i>set user Exp_year</i>
09	<i>getStatus()</i>	<i>get user Status</i>
10	<i>setStatus ()</i>	<i>set user Status</i>

MedicalRecord Class

No	Method	Description
01	<i>public MedicalRecord()</i>	<i>Constructor of medical record class</i>
02	<i>public int getId()</i>	<i>Get the ID of a medical record object</i>
03	<i>public void setId(int id)</i>	<i>Set the ID of a medical record object</i>
04	<i>public int getDoctor_id()</i>	<i>Get the doctor ID of a medical record object</i>
05	<i>public void setDoctor_id(int doctor_id)</i>	<i>Set the doctor ID of a medical record object</i>
06	<i>public int getServation_id()</i>	<i>Get the reservation ID of a medical record object</i>
07	<i>public void setServation_id(int servation_id)</i>	<i>Set the reservation ID of a medical record object</i>

08	<i>public int getPhysical_id()</i>	<i>Get the Physical ID of a medical record object</i>
09	<i>public void setPhysical_id(int physical_id)</i>	<i>Set the Physical ID of a medical record object</i>
10	<i>public int getInternal_id()</i>	<i>Get the Internal ID of a medical record object</i>
11	<i>public void setInternal_id(int internal_id)</i>	<i>Set the Internal ID of a medical record object</i>
12	<i>public int getEye_id()</i>	<i>Get the Eye ID of a medical record object</i>
13	<i>public void setEye_id(int eye_id)</i>	<i>Set the Eye ID of a medical record object</i>
14	<i>public int getEnt_id()</i>	<i>Get the Ear Nose Throat ID of a medical record object</i>
15	<i>public void setEnt_id(int ent_id)</i>	<i>Set the Ear Nose Throat ID of a medical record object</i>
16	<i>public int getMaxillofacial_id()</i>	<i>Get the maxillofacial ID of a medical record object</i>
17	<i>public void setMaxillofacial_id(int maxillofacial_id)</i>	<i>Set the maxillofacial ID of a medical record object</i>
18	<i>public String getCode()</i>	<i>Get the code of a medical record object</i>
19	<i>public void setCode(String code)</i>	<i>Set the code of a medical record object</i>

RecordDAO Class

No	Method	Description
01	<i>public MedicalRecord GetRecordByCode(String code)</i>	<i>Get personal Medical Record of patient from database by code.</i>
02	<i>public EntRecord getENTById(int id)</i>	<i>Get a personal Ears Nose Throat record of a patient from the database by id.</i>
03	<i>public EyeRecord getEyeById(int id)</i>	<i>Get personal Eyes Record of patient from database by id.</i>
04	<i>public InternalRecord getInternalById(int id)</i>	<i>Get personal Internal Record of patient from database by id.</i>
05	<i>public MaxillofacialRecord getMaxById(int id)</i>	<i>Get personal Maxillofacial Record of patient from database by id.</i>
06	<i>public PhysicalRecord getPhysicalById(int id)</i>	<i>Get personal Physical Record of patient from database by id.</i>

PatientDAO Class

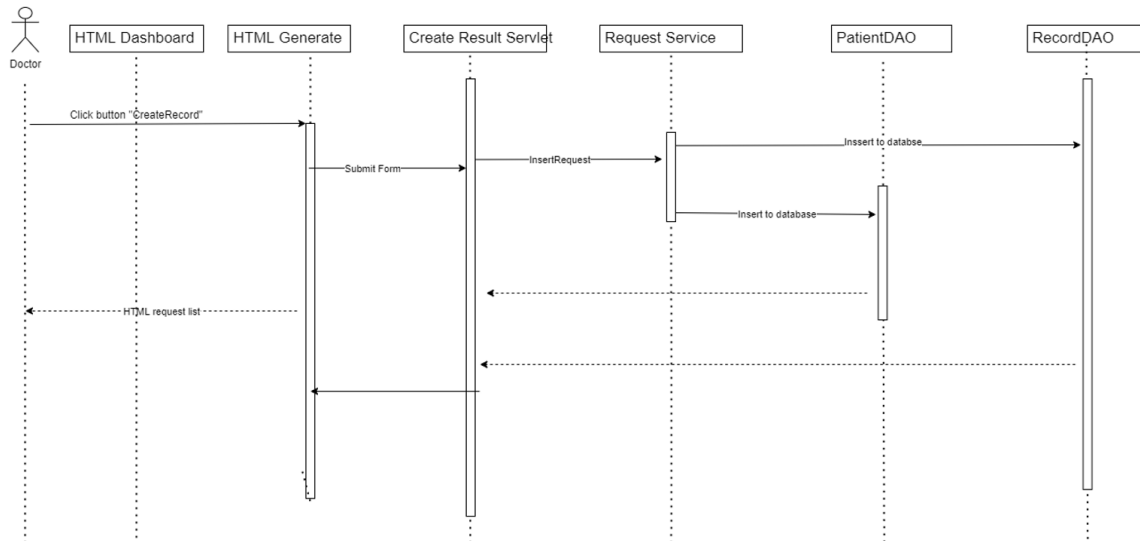
No	Method	Description
01	<i>public User getPatientById(int id)</i>	<i>Get patient's information from database by id</i>

DoctorDAO Class

No	Method	Description
----	--------	-------------

01	<i>public Doctor getDoctorById(int id)</i>	<i>Get doctor information from database id</i>
----	--	--

c. Sequence Diagram(s)



d. Database queries

```
String sql = "SELECT department_id, room_number, exp_year FROM [Doctor] "
            + "WHERE [doctor_id] = ? ";
```

```
SELECT * FROM medicalrecord WHERE [code] = ?;
```

```
INSERT INTO MedicalRecord(doctor_id, patient_id,
[diagnostic],[conclusion],[code]) VALUES(?,?,?,?,?);
```

```
INSERT INTO BloodCellResult VALUES (?,?,?,?,?,?,?,?);
```

```
INSERT INTO BioChemicalRecord VALUES (?,?,?,?,?,?,?,?);
```

```
INSERT INTO PhysicalRecord VALUES (?,?,?,?,?,?,?);
```

```
INSERT INTO ENTRecord VALUES (?,?,?);"
```

```
INSERT INTO EyeRecord VALUES (?,?,?,?);
```

```
INSERT INTO InternalRecord VALUES (?, ?, ?, ?, ?, ?, ?, ?);
```

```
INSERT INTO MaxillofacialRecord VALUES (?, ?, ?, ?);
```

```
SELECT p.id, p.name, m.diagnostic, m.conclusion, m.code FROM Patient p join
MedicalRecord m on p.id = m.patient_id;
```

```
SELECT * FROM BioChemicalRecord WHERE [code] = ?;
```

```
SELECT * FROM BloodCellResult WHERE code = ?;
```

```
SELECT * FROM PhysicalRecord WHERE code = ?;
```

```
SELECT * FROM EyeRecord WHERE code = ?;
```

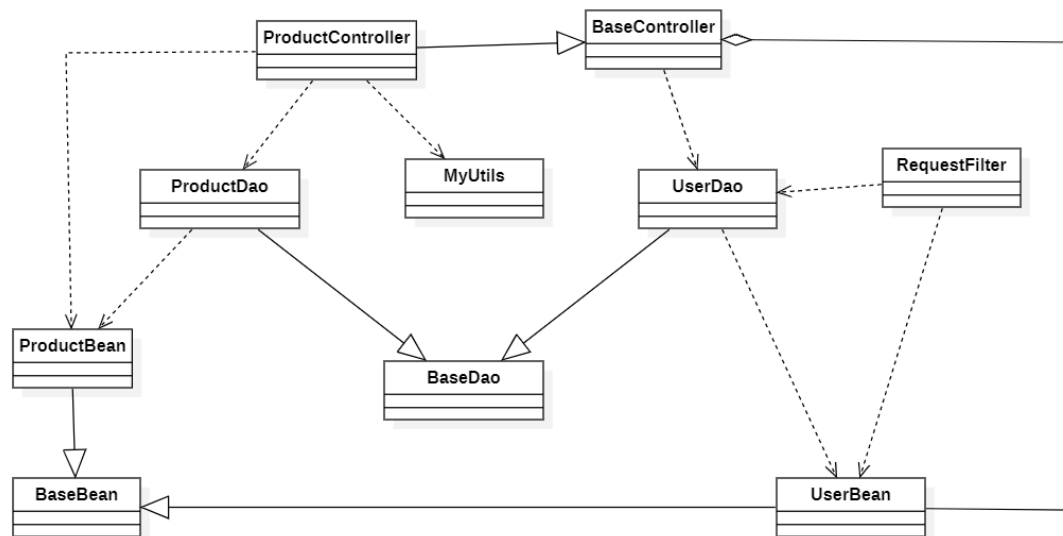
```
SELECT * FROM ENTRecord WHERE code = ?;
```

```
SELECT * FROM InternalRecord WHERE code = ?;
```

```
SELECT * FROM MaxillofacialRecord WHERE code = ?;
```

9. Control medical examination

a. Class Diagram



b. Class Specifications

XYZ Class

No	Method	Description
01	<method name>	<Description of the method, including the inputs, outputs & internal method processing>

ABC Class

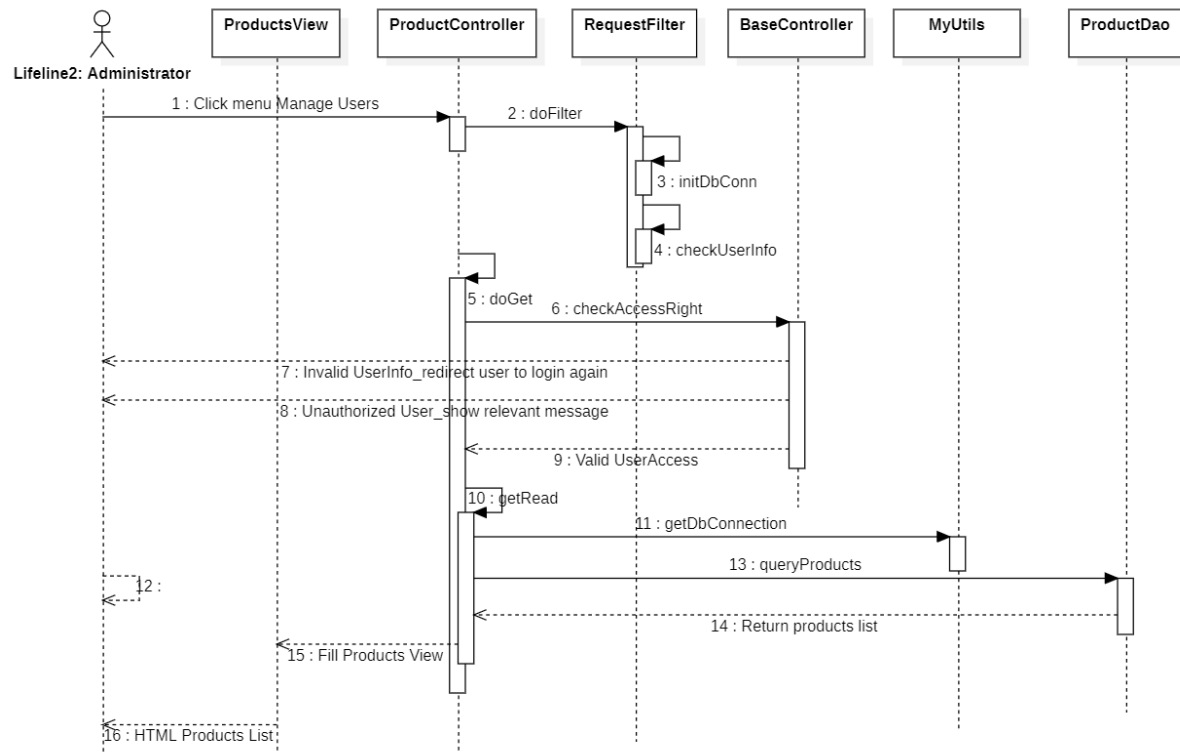
Class Methods

[Provide the detailed description for the class methods]

No	Method	Description
01	<method name>	<Description of the method, including the inputs, outputs & internal method processing>

c. Sequence Diagram(s)

[Provide the sequence diagram(s) for the feature, see the sample below]



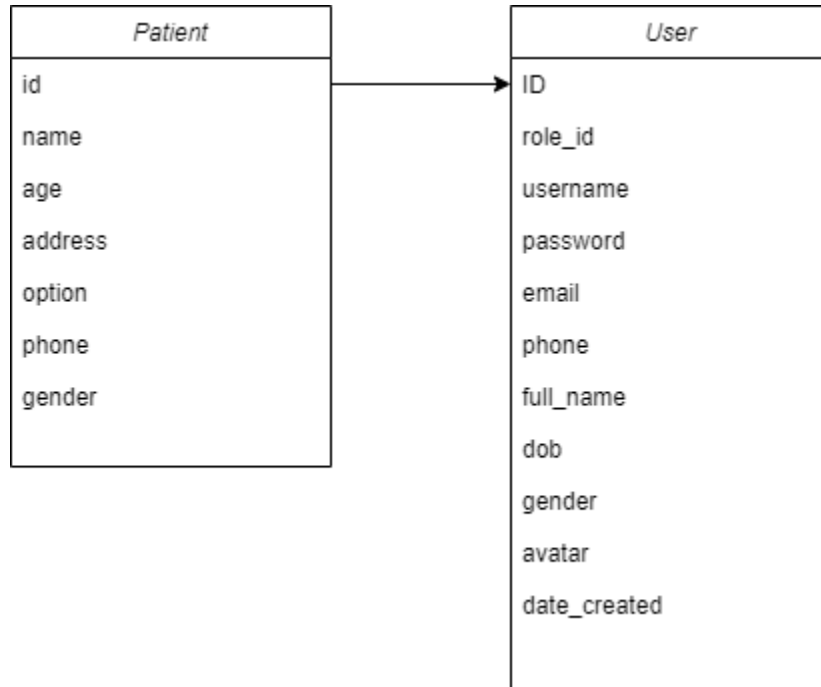
d. Database queries

[Provide the detailed SQL (select, insert, update...) which are used in implementing the function/screen]

//Hoang

10. Patient List

a. Class Diagram



b. Class Specifications

Patient Class

No	Method	Description
01	<i>getID()</i>	<i>get patient id</i>
02	<i>setID()</i>	<i>set patient id</i>
03	<i>getName()</i>	<i>get patient name</i>
04	<i>setName()</i>	<i>set patient name</i>
05	<i>getAge()</i>	<i>get patient age</i>
06	<i>setAge()</i>	<i>set patient age</i>
07	<i>getPhone</i>	<i>get patient phone</i>

08	<i>setPhone</i>	<i>set patient phone</i>
09	<i>getOption</i>	<i>get patient option</i>
10	<i>setOption</i>	<i>set patient option</i>
11	<i>getAddress</i>	<i>get patient address</i>
12	<i>setAddress</i>	<i>set patient address</i>
13	<i>getGender</i>	<i>get patient gender</i>
14	<i>setGender</i>	<i>set patient gender</i>
15	<i>getPatientList()</i>	<i>get all patient from database</i>

User Methods

No	Method	Description
01	<i>getID()</i>	<i>get user id</i>
02	<i>setID()</i>	<i>set user id</i>
03	<i>getRole_Id()</i>	<i>get user role</i>
04	<i>setRole_Id()</i>	<i>set user name</i>
05	<i>getUsername</i>	<i>get user age</i>

06	setUsername ()	set user age
07	getPhone	get user phone
08	setPhone	set user phone
09	getEmail	get user option
10	setEmail	set user option
11	getAddress	get user address
12	setAddress	set user address
13	getGender	get user gender
14	setGender	set user gender
15	getFull_name()	get user fullname
16	setFull_name()	set user fullname
17	getDob	get user DOB
18	setDob	set user DOB
19	getAvatar	get user Avatar

20	setAvatar	set user Avatar
21	getDate_Create	get user date_create
22	setDate_Create	set user date_create

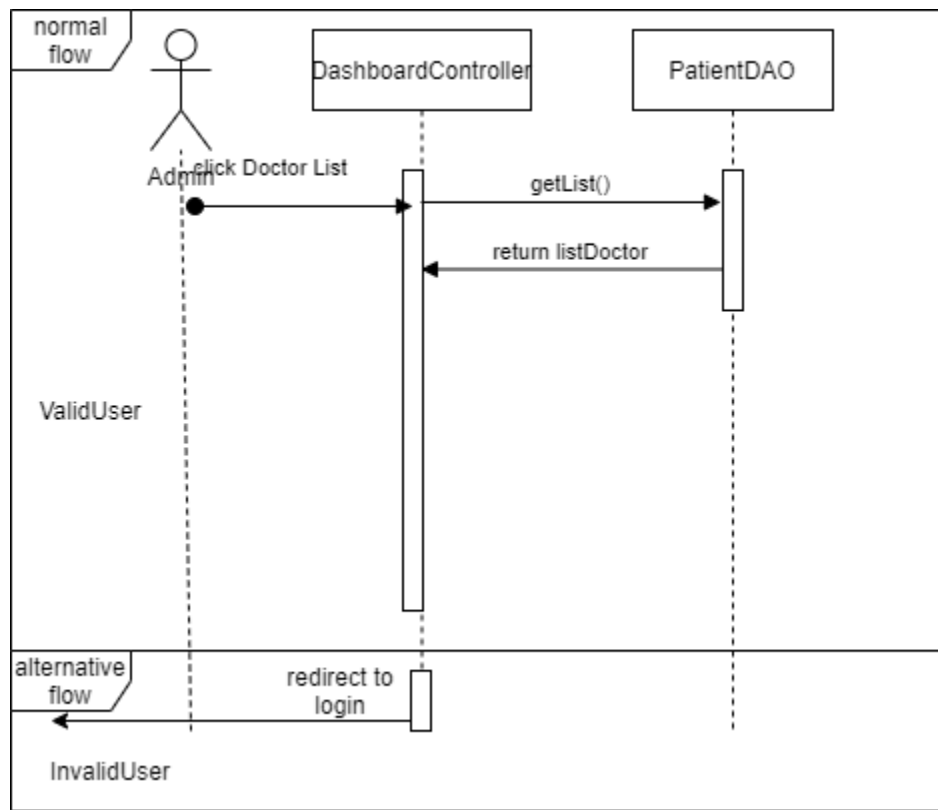
PatientDAO Class

No	Method	Description
01	<i>getPatientList()</i>	<i>get all patient from database</i>

HomeController Class

No	Method	Description
01	<i>doGet()</i>	<i>Handle GET request</i>

c. Sequence Diagram(s)



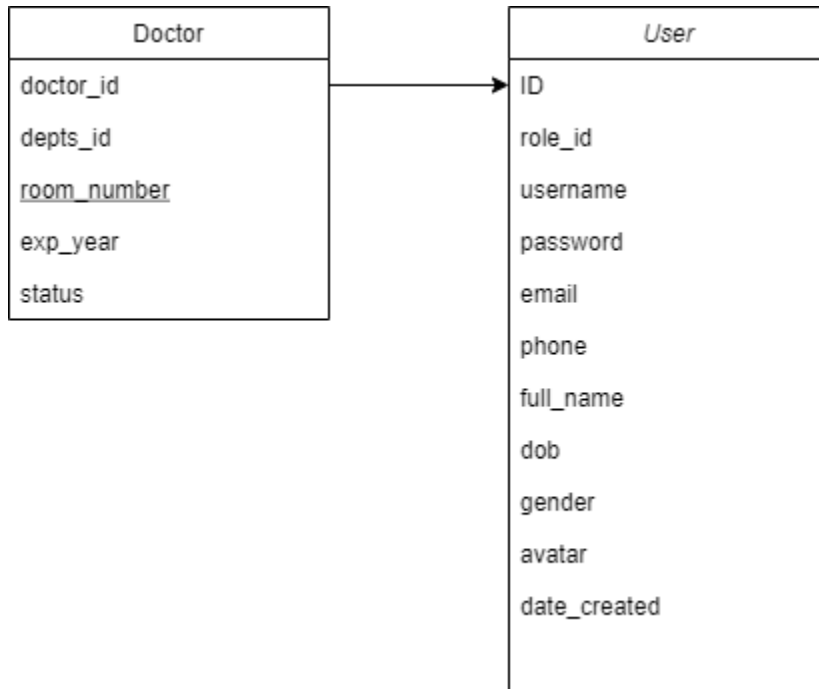
d. Database queries

SELECT id, name, age, address, option, code, gender FROM Patient

//Hoang

11. Doctor List

a. Class Diagram



b. Class Specifications

Doctor Class

No	Method	Description
01	<i>getDoctor_ID()</i>	<i>get user id</i>
02	<i>set Doctor_ID()</i>	<i>set user id</i>
03	<i>getDepts_Id()</i>	<i>get user role</i>
04	<i>setDepts_Id()</i>	<i>set user name</i>
05	<i>getRoom_number</i>	<i>get user Room_number</i>
06	<i>setRoom_number ()</i>	<i>set user Room_number</i>
07	<i>getExp_year()</i>	<i>get user Exp_year</i>

08	<i>setExp_year ()</i>	<i>set user Exp_year</i>
09	<i>getStatus()</i>	<i>get user Status</i>
10	<i>setStatus ()</i>	<i>set user Status</i>

User

No	Method	Description
01	getID()	get user id
02	setID()	set user id
03	getRole_Id()	get user role
04	setRole_Id()	set user name
05	getUsername	get user age
06	setUsername ()	set user age
07	getPhone	get user phone
08	setPhone	set user phone
09	getEmail	get user option

10	setEmail	set user option
11	getAddress	get user address
12	setAddress	set user address
13	getGender	get user gender
14	setGender	set user gender
15	getFull_name()	get user fullname
16	setFull_name()	set user fullname
17	getDob	get user DOB
18	setDob	set user DOB
19	getAvatar	get user Avatar
20	setAvatar	set user Avatar
21	getDate_Create	get user date_create
22	setDate_Create	set user date_create

Feedback

No	Method	Description
1	<i>getUserID</i>	<i>Get userID</i>
2	<i>setUserID</i>	<i>Set UserID</i>
3	<i>getDoctorID</i>	<i>Get DoctorID</i>
4	<i>setDoctorID</i>	<i>Set DoctorID</i>
5	<i>getFeedback</i>	<i>Get Feedback</i>
6	<i>setFeedback</i>	<i>Set Feedback</i>
7	<i>getDateCreate</i>	<i>Get DateCreate</i>
8	<i>setDateCrate</i>	<i>Set DateCrate</i>
9	<i>getRate</i>	<i>Get Rate</i>
10	<i>setRate</i>	<i>Set Rate</i>

FeedbackDAO

No	Method	Description
1	<i>giveFeedback()</i>	<i>Insert new feedback into database</i>

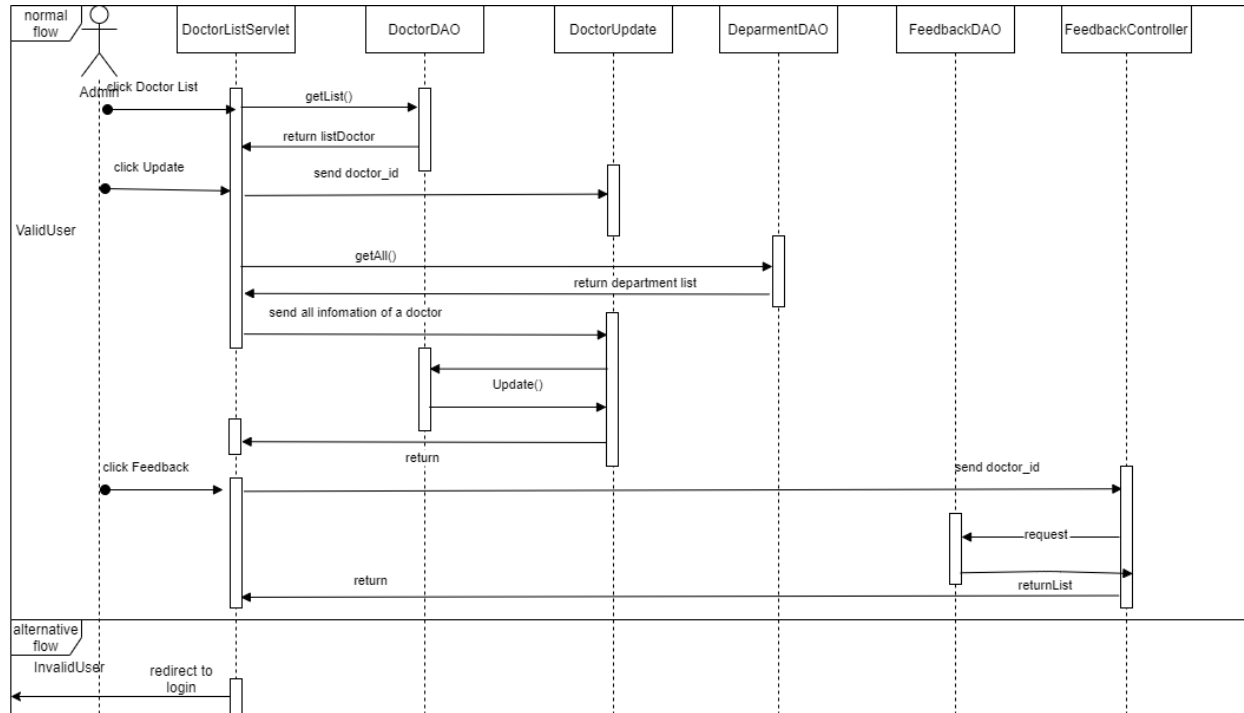
UpdateDoctorController

No	Method	Description
01	<i>protected void doGet(HttpServletRequest request, HttpServletResponse response)</i>	<i>get 1 doctor that admin select and getRequestDispatcher to profile page</i>
02	<i>protected void doPost(HttpServletRequest request, HttpServletResponse response)</i>	<i>Update Doctor with input information and redirect to dashboard</i>

FeedbackController

No	Method	Description
01	<i>protected void doGet(HttpServletRequest request, HttpServletResponse response)</i>	<i>get 1 doctor that admin select and getRequestDispatcher to profile page</i>

c. Sequence Diagram(s)



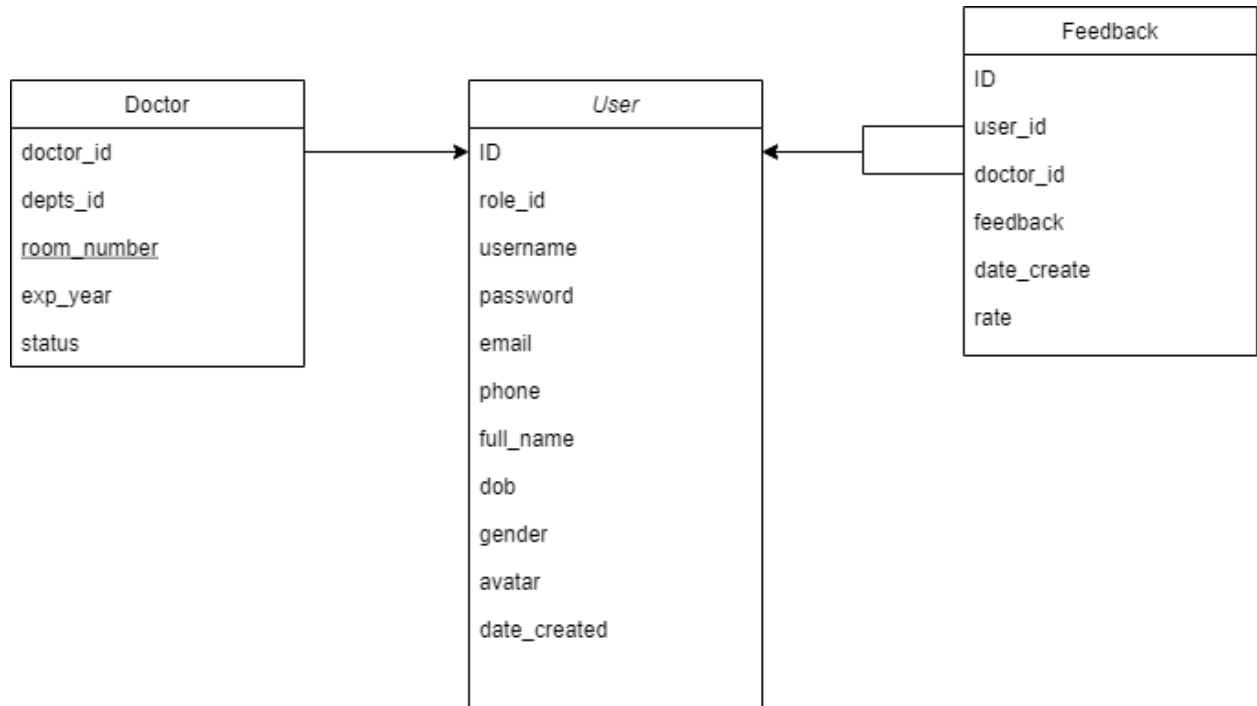
d. Database queries

```

SELECT u.id,i.u.role_id,u.username ,u.password ,u.email,
u.phone,d.doctor_id,d.depts_id,d.exp_year,d.status
FROM [User] u inner join Doctor d on u.id = d.id;
  
```

12. Patient feedback

a. Class Diagram



b. Class Specifications

User Class

No	Method	Description
01	<i>getID()</i>	<i>get user id</i>
02	<i>setID()</i>	<i>set user id</i>
03	<i>getRole_Id()</i>	<i>get user role</i>
04	<i>setRole_Id()</i>	<i>set user name</i>
05	<i>getUsername</i>	<i>get user age</i>
06	<i>setUsername ()</i>	<i>set user age</i>
07	<i>getPhone</i>	<i>get user phone</i>

08	<i>setPhone</i>	<i>set user phone</i>
09	<i>getEmail</i>	<i>get user option</i>
10	<i>setEmail</i>	<i>set user option</i>
11	<i>getAddress</i>	<i>get user address</i>
12	<i>setAddress</i>	<i>set user address</i>
13	<i>getGender</i>	<i>get user gender</i>
14	<i>setGender</i>	<i>set user gender</i>
15	<i>getFull_name()</i>	<i>get user fullname</i>
16	<i>setFull_name()</i>	<i>set user fullname</i>
17	<i>getDob</i>	<i>get user DOB</i>
18	<i>setDob</i>	<i>set user DOB</i>
19	<i>getAvatar</i>	<i>get user Avatar</i>
20	<i>setAvatar</i>	<i>set user Avatar</i>
21	<i>getDate_Create</i>	<i>get user date_create</i>
22	<i>setDate_Create</i>	<i>set user date_create</i>

Doctor

No	Method	Description
01	<i>getDoctor_ID()</i>	<i>get user id</i>
02	<i>set Doctor_ID()</i>	<i>set user id</i>
03	<i>getDepts_Id()</i>	<i>get user role</i>
04	<i>setDepts_Id()</i>	<i>set user name</i>
05	<i>getRoom_number</i>	<i>get user Room_number</i>
06	<i>setRoom_number ()</i>	<i>set user Room_number</i>
07	<i>getExp_year()</i>	<i>get user Exp_year</i>
08	<i>setExp_year ()</i>	<i>set user Exp_year</i>
09	<i>getStatus()</i>	<i>get user Status</i>
10	<i>setStatus ()</i>	<i>set user Status</i>

Feedback

No	Method	Description
1	<i>getUserID</i>	<i>Get userID</i>
2	<i>setUserID</i>	<i>Set UserID</i>
3	<i>getDoctorID</i>	<i>Get DoctorID</i>

4	<i>setDoctorID</i>	<i>Set DoctorID</i>
5	<i>getFeedback</i>	<i>Get Feedback</i>
6	<i>setFeedback</i>	<i>Set Feedback</i>
7	<i>getDateCreate</i>	<i>Get DateCreate</i>
8	<i>setDateCrate</i>	<i>Set DateCrate</i>
9	<i>getRate</i>	<i>Get Rate</i>
10	<i>setRate</i>	<i>Set Rate</i>

FeedbackDAO

No	Method	Description
1	<i>giveFeedback()</i>	<i>Insert new feedback into database</i>

DoctorDAO

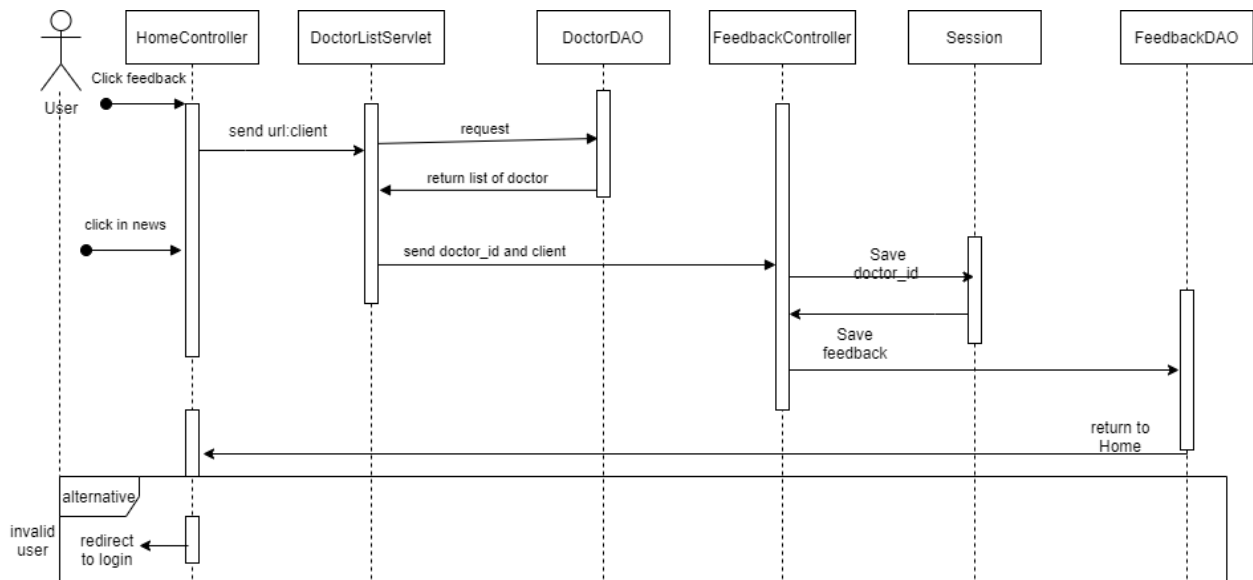
No	Method	Description
1	<i>getDoctors()</i>	<i>Get list of doctor</i>

DoctorUpdate

No	Method	Description
01	<i>doGet()</i>	<i>Handle GET request</i>

02	doPost()	Handle Post request
----	----------	---------------------

c. Sequence Diagram(s)



d. Database queries

Select f.ID, u.full_name as 'Doctor', u2.full_name as 'Customer', f.[user_id], f.[doctor_id], f.feedback, f.rate, f.date_created

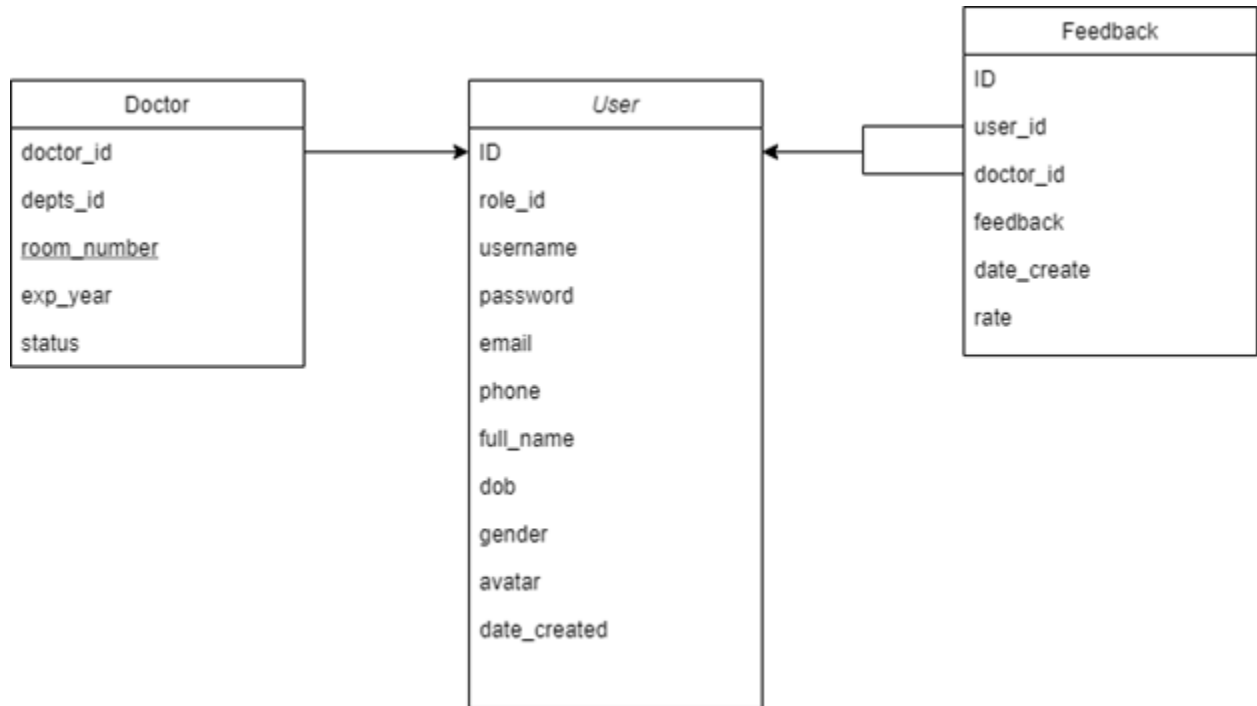
FROM Feedback f inner join [User] u on f.doctor_id = u.ID

inner join [User] u2 on f.[user_id] = u2.ID

WHERE doctor_id = ? AND rate = ?

13. View feedback list

a. Class Diagram



b. Class Specifications

User Class

No	Method	Description
01	<i>getID()</i>	<i>get user id</i>
02	<i>setID()</i>	<i>set user id</i>
03	<i>getRole_Id()</i>	<i>get user role</i>
04	<i>setRole_Id()</i>	<i>set user name</i>
05	<i>getUsername</i>	<i>get user age</i>
06	<i>setUsername ()</i>	<i>set user age</i>
07	<i>getPhone</i>	<i>get user phone</i>

08	<i>setPhone</i>	<i>set user phone</i>
09	<i>getEmail</i>	<i>get user option</i>
10	<i>setEmail</i>	<i>set user option</i>
11	<i>getAddress</i>	<i>get user address</i>
12	<i>setAddress</i>	<i>set user address</i>
13	<i>getGender</i>	<i>get user gender</i>
14	<i>setGender</i>	<i>set user gender</i>
15	<i>getFull_name()</i>	<i>get user fullname</i>
16	<i>setFull_name()</i>	<i>set user fullname</i>
17	<i>getDob</i>	<i>get user DOB</i>
18	<i>setDob</i>	<i>set user DOB</i>
19	<i>getAvatar</i>	<i>get user Avatar</i>
20	<i>setAvatar</i>	<i>set user Avatar</i>
21	<i>getDate_Create</i>	<i>get user date_create</i>
22	<i>setDate_Create</i>	<i>set user date_create</i>

Doctor

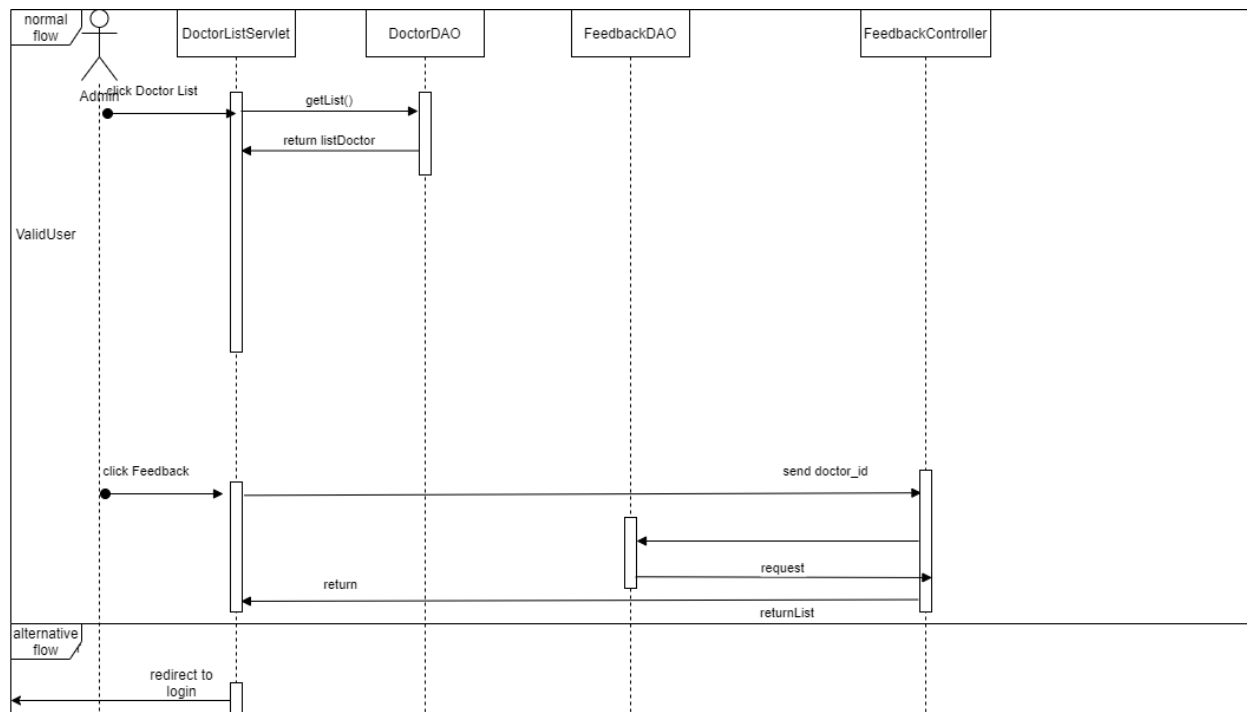
No	Method	Description
01	<i>getDoctor_ID()</i>	<i>get user id</i>
02	<i>set Doctor_ID()</i>	<i>set user id</i>
03	<i>getDepts_Id()</i>	<i>get user role</i>
04	<i>setDepts_Id()</i>	<i>set user name</i>
05	<i>getRoom_number</i>	<i>get user Room_number</i>
06	<i>setRoom_number ()</i>	<i>set user Room_number</i>
07	<i>getExp_year()</i>	<i>get user Exp_year</i>
08	<i>setExp_year ()</i>	<i>set user Exp_year</i>
09	<i>getStatus()</i>	<i>get user Status</i>
10	<i>setStatus ()</i>	<i>set user Status</i>

Feedback

No	Method	Description
1	<i>getUserID</i>	<i>Get userID</i>
2	<i>setUserID</i>	<i>Set UserID</i>
3	<i>getDoctorID</i>	<i>Get DoctorID</i>

4	<i>setDoctorID</i>	<i>Set DoctorID</i>
5	<i>getFeedback</i>	<i>Get Feedback</i>
6	<i>setFeedback</i>	<i>Set Feedback</i>
7	<i>getDateCreate</i>	<i>Get DateCreate</i>
8	<i>setDateCrate</i>	<i>Set DateCrate</i>
9	<i>getRate</i>	<i>Get Rate</i>
10	<i>setRate</i>	<i>Set Rate</i>

c. Sequence Diagram(s)



d. Database queries

Select f.ID ,u.full_name as 'Doctor', u2.full_name as 'Customer', f.[user_id], f.[doctor_id], f.feedback, f.rate, f.date_created

FROM Feedback f inner join [User] u on f.doctor_id = u.ID

inner join [User] u2 on f.[user_id] = u2.ID

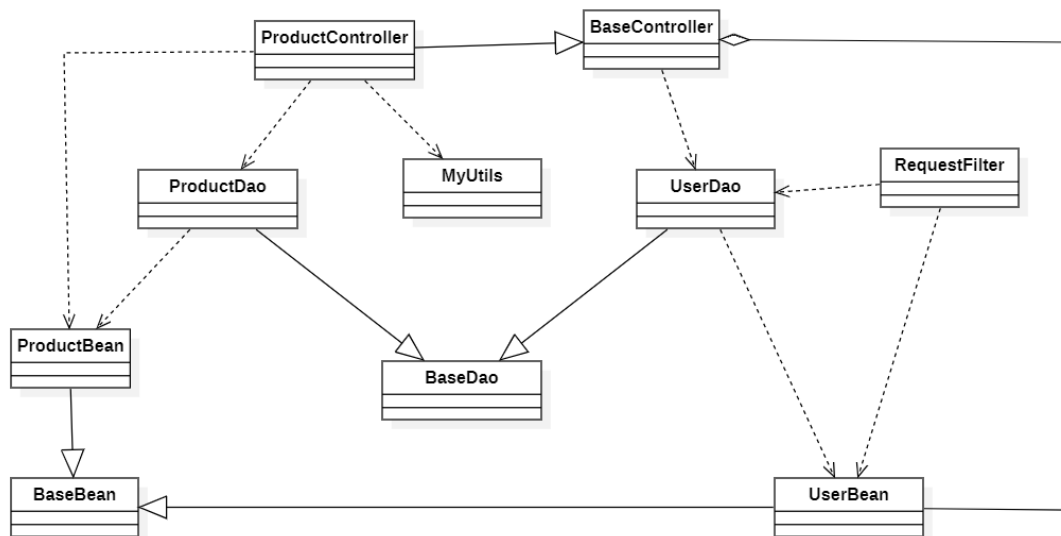
WHERE doctor_id = ? AND rate = ?

14. Feedback detail (Cancel)

[Provide the detailed design for the function <Feature/Function Name1>. It include Class Diagram, Class Specifications, and Sequence Diagram(s)]

a. Class Diagram

[This part presents the class diagram for the relevant feature]



b. Class Specifications

[Provide the description for each class and the methods in each class, following the table format as below]

XYZ Class

[Provide the detailed description for the class methods]

No	Method	Description
01	<method name>	<Description of the method, including the inputs, outputs & internal method processing>

ABC Class

Class Methods

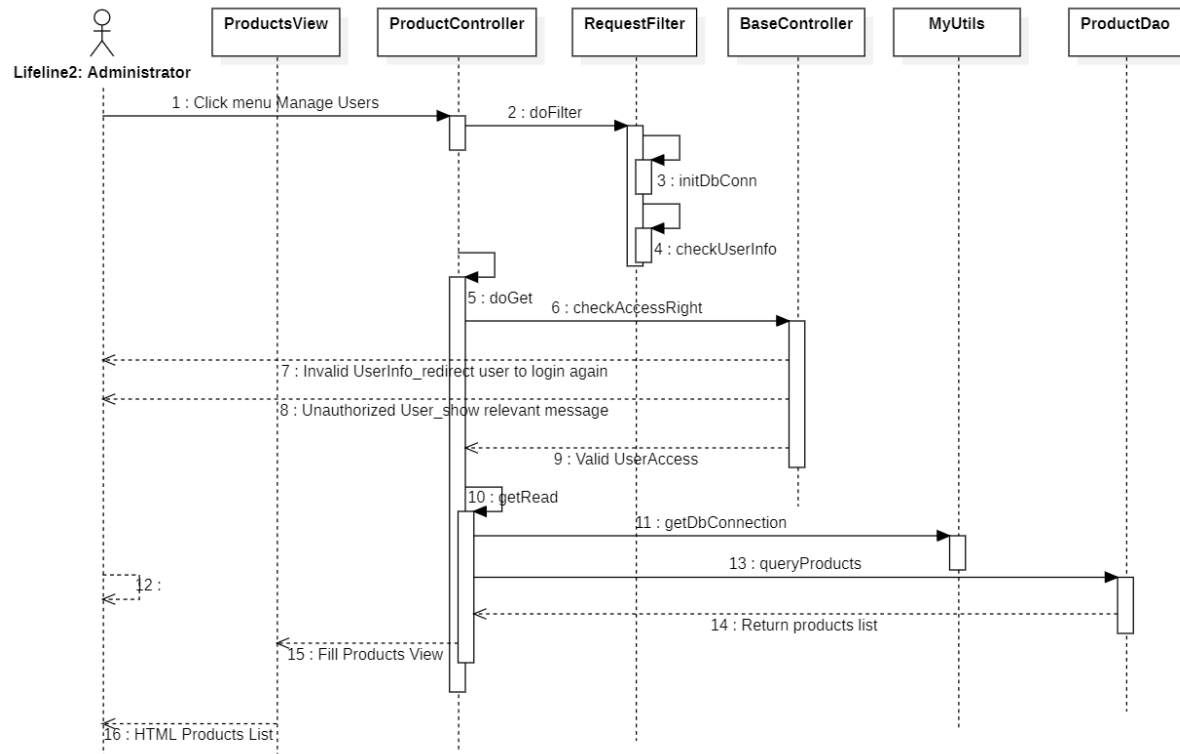
[Provide the detailed description for the class methods]

No	Method	Description
----	--------	-------------

01	<method name>	<Description of the method, including the inputs, outputs & internal method processing>

c. Sequence Diagram(s)

[Provide the sequence diagram(s) for the feature, see the sample below]

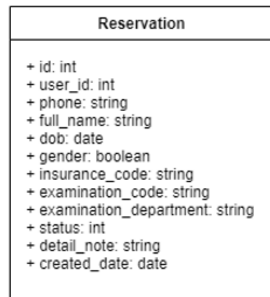


d. Database queries

[Provide the detailed SQL (select, insert, update...) which are used in implementing the function/screen]

15. Reservation List

a. Class Diagram



b. Class Specifications

Reservation Class

This class stores all information about a reservation.

No	Method	Description
01	Reservation()	Constructor of reservation class
02	getId()	Get the ID of a reservation object
03	setId()	Set the ID of a reservation object
04	getUser_id()	Get the user id of a reservation object
05	setUser_id()	Set the user id of a reservation object
06	getFull_name()	Get the full name of a reservation object
07	setFull_name()	Set the full name of a reservation object
08	getPhone()	Get the phone of a reservation object
09	setPhone()	Set the phone of a reservation object
10	getDob()	Get the date of birth of a reservation object
11	setDob()	Set the date of birth of a reservation object
12	isGender()	Get the gender of a reservation object
13	setGender()	Set the gender of a reservation object
14	getInsurance_code()	Get the Insurance code of a reservation object
15	setInsurance_code()	Set the Insurance code of a reservation object
16	getExam_date()	Get the examination date of a reservation object
17	setExam_date()	Set the examination date of a reservation object
18	getExam_dept()	Get the examination department of a reservation object
19	setExam_dept()	Set the examination department of a reservation object
20	getStatus()	Get the status of a reservation object
21	setStatus()	Set the status of a reservation object
22	getDetail_note()	Get the detail note of a reservation object
23	setDetail_note()	Set the detail note of a reservation object
24	getCrated_date()	Get the create of a reservation object
25	setCrated_date()	Set the create of a reservation object

26	getEmail()	Get the email a reservation object
27	setEmail()	Set the email a reservation object

ReservationDAO Class

No	Method	Description
01	getAllReservation()	Get a list of reservation from database
02	insert()	Add a reservation to database
03	AdminUpdateStatusByID()	Update the status of a reservation to database

ReservationListServlet Class

No	Method	Description
01	processRequest()	return reservation-list page
02	doGet()	Get list of all reservation
03	doPost()	Handle POST request

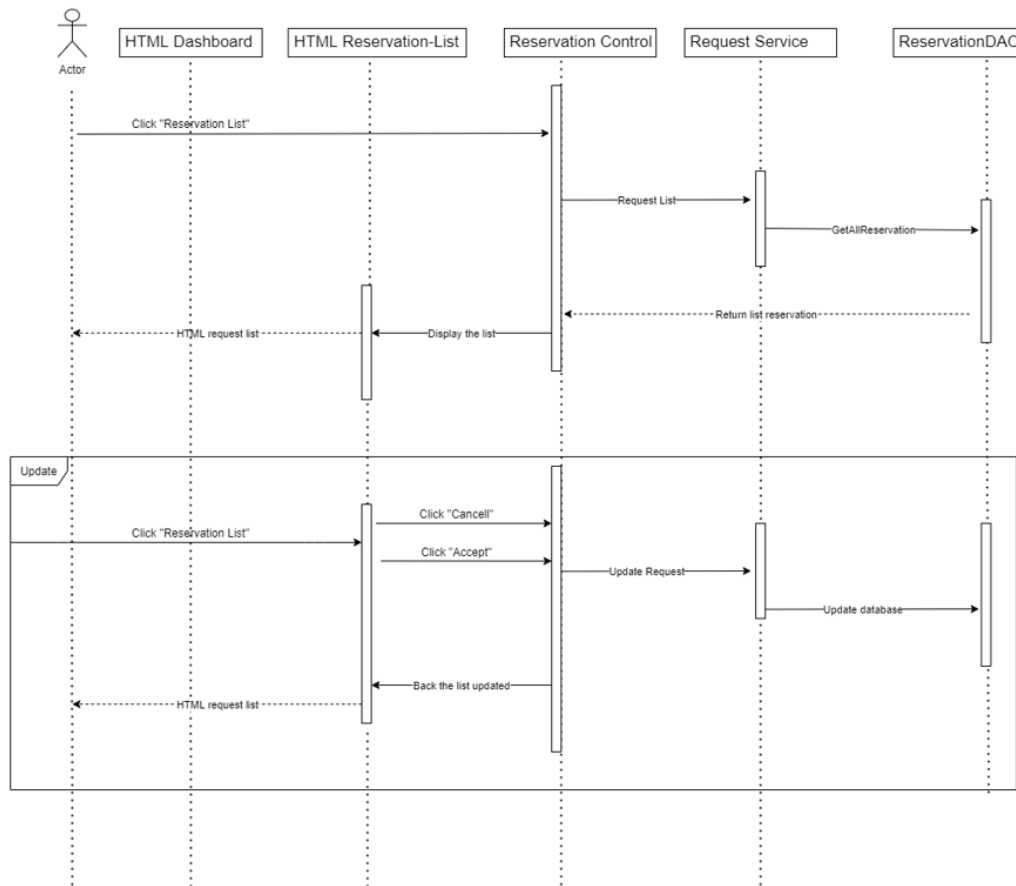
AccpectReservationServlet Class

No	Method	Description
01	processRequest()	get user id by session then using function AdminUpdateStatusByID() to update status of a reservation by it id and return new value to reservation-list page
02	doGet()	Handle GET request
03	doPost()	Handle POST request

AdminCancelServlet Class

No	Method	Description
01	processRequest()	get user id by session then using function AdminUpdateStatusByID() to update status of a reservation by it id and return new value to reservation-list page
02	doGet()	Handle GET request
03	doPost()	Handle POST request

c. Sequence Diagram(s)



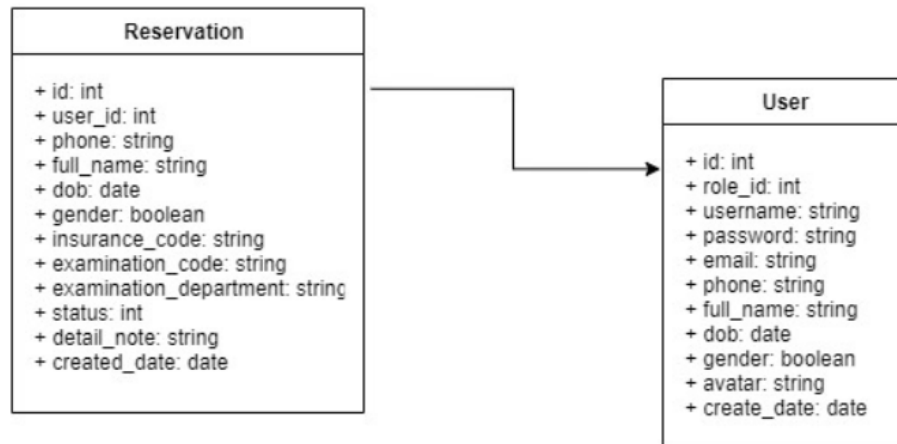
d. Database queries

Update [Reservation] set status=? where ID=?;

```
SELECT [ID], [user_id], [full_name], [phone], [dob], [gender], [insurance_code], [examination_date],
[examination_department], [status], [detail_note], [created_date], [email]
FROM [MTW].[dbo].[Reservation];
```

16. Reservations

a. Class Diagram



b. Class Specifications

Reservation Class

No	Method	Description
01	<i>Reservation()</i>	<i>Constructor of reservation class</i>
02	<i>getId()</i>	<i>Get the ID of a reservation object</i>
03	<i>setId()</i>	<i>Set the ID of a reservation object</i>
04	<i>getUser_id()</i>	<i>Get the user id of a reservation object</i>
05	<i>setUser_id()</i>	<i>Set the user id of a reservation object</i>
06	<i>getFull_name()</i>	<i>Get the full name of a reservation object</i>
07	<i>setFull_name()</i>	<i>Set the full name of a reservation object</i>
08	<i>getPhone()</i>	<i>Get the phone of a reservation object</i>
09	<i>setPhone()</i>	<i>Set the phone of a reservation object</i>
10	<i>getDob()</i>	<i>Get the date of birth of a reservation object</i>
11	<i>setDob()</i>	<i>Set the date of birth of a reservation object</i>
12	<i>isGender()</i>	<i>Get the gender of a reservation object</i>
13	<i>setGender()</i>	<i>Set the gender of a reservation object</i>
14	<i>getInsurance_code()</i>	<i>Get the Insurance code of a reservation object</i>
15	<i>setInsurance_code()</i>	<i>Set the Insurance code of a reservation object</i>
16	<i>getExam_date()</i>	<i>Get the examination date of a reservation object</i>
17	<i>setExam_date()</i>	<i>Set the examination date of a reservation object</i>
18	<i>getExam_dept()</i>	<i>Get the examination department of a reservation object</i>

19	setExam_dept()	Set the examination department of a reservation object
20	getStatus()	Get the status of a reservation object
21	setStatus()	Set the status of a reservation object
22	getDetail_note()	Get the detail note of a reservation object
23	setDetail_note()	Set the detail note of a reservation object
24	getCrated_date()	Get the create of a reservation object
25	setCrated_date()	Set the create of a reservation object
26	getEmail()	Get the email a reservation object
27	setEmail()	Set the email a reservation object

User Class

This class stores all information about a user.

No	Method	Description
01	getId()	Get the ID of a User
02	setId()	Set the ID of a User
03	getRole_id()	Get the roleID of a User to authorization
04	setRole_id()	Set the roleID of a User to authorization
05	getUsername()	Get the username of a User
06	setUsername()	Set the username of a User
07	getPassword()	Get the password of a User
08	setPassword()	Set the password of a User
09	getEmail()	Get the email address of a User
10	setEmail()	Set the email address of a User
11	getPhone()	Get the phone number of a User
12	setPhone()	Set the phone number of a User
13	getFull_name()	Get the full name of a User
14	setFull_name()	Set the full name of a User
15	getDob()	Get the date of birth of a User
16	setDob()	Set the date of birth of a User
17	isGender()	Get the value boolean to check gender of a User
18	setGender()	Set the value boolean to check gender of a User
19	getAvatar()	Get the link to the avatar of a User
20	setAvatar()	Set the link to the avatar of a User
21	getCreated_date()	Get the created date of a User
22	setCreated_date()	Set the created date of a User
23	getStatus()	Get the status of a User
24	setStatus()	Set the status of a User

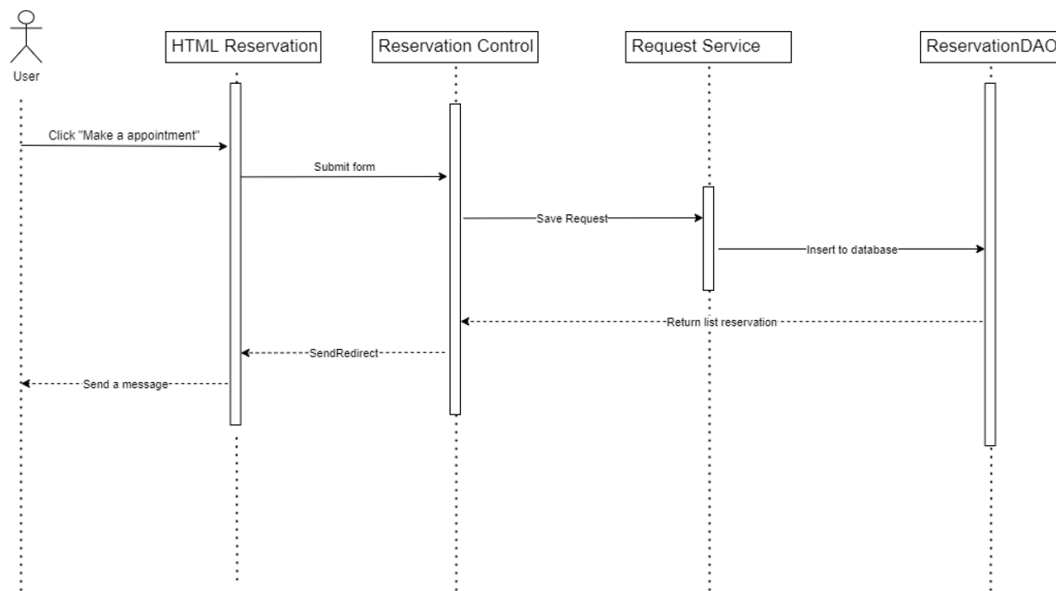
ReservationDAO Class

No	Method	Description
01	getAllReservation()	Get a list of reservation
02	insert()	Add a reservation to database

ReservationServlet Class

No	Method	Description
01	processRequest()	return reservation page
02	doGet()	Handle GET request
03	doPost()	Handle POST request

c. Sequence Diagram(s)



d. Database queries

Insert into Reservation (full_name, email, examination_date, examination_department, phone, insurance_code, detail_note, user_id, dob, gender, status, created_date)

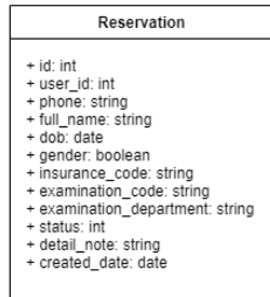
values (?,?,?,?,?,?,?,?,?,?,?,?,?);

SELECT * FROM [Reservation];

SELECT [ID], [user_id], [full_name], [phone], [dob], [gender], [insurance_code], [examination_date], [examination_department], [status], [detail_note], [created_date], [email]
FROM [MTW].[dbo].[Reservation];

17. Reservation details

a. Class Diagram



b. Class Specifications

Reservation Class

This class stores all information about a reservation.

No	Method	Description
01	Reservation()	Constructor of reservation class
02	getId()	Get the ID of a reservation object
03	setId()	Set the ID of a reservation object
04	getUser_id()	Get the user id of a reservation object
05	setUser_id()	Set the user id of a reservation object
06	getFull_name()	Get the full name of a reservation object
07	setFull_name()	Set the full name of a reservation object
08	getPhone()	Get the phone of a reservation object
09	setPhone()	Set the phone of a reservation object
10	getDob()	Get the date of birth of a reservation object
11	setDob()	Set the date of birth of a reservation object
12	isGender()	Get the gender of a reservation object
13	setGender()	Set the gender of a reservation object
14	getInsurance_code()	Get the Insurance code of a reservation object
15	setInsurance_code()	Set the Insurance code of a reservation object
16	getExam_date()	Get the examination date of a reservation object
17	setExam_date()	Set the examination date of a reservation object
18	getExam_dept()	Get the examination department of a reservation object
19	setExam_dept()	Set the examination department of a reservation object
20	getStatus()	Get the status of a reservation object
21	setStatus()	Set the status of a reservation object
22	getDetail_note()	Get the detail note of a reservation object
23	setDetail_note()	Set the detail note of a reservation object

24	getCrated_date()	<i>Get the create of a reservation object</i>
25	setCrated_date()	<i>Set the create of a reservation object</i>
26	getEmail()	<i>Get the email a reservation object</i>
27	setEmail()	<i>Set the email a reservation object</i>

ReservationDAO Class

No	Method	Description
01	getAllReservation()	<i>Get a list of reservation</i>
02	insert()	<i>Add a reservation to database</i>
03	getAllReservationById()	<i>Get a list of reservation by userid</i>
04	UpdateStatusById()	<i>Update a reservation status by userid and reservation ID</i>
05	AdminUpdateStatusById()	<i>Update a reservation status by userid</i>

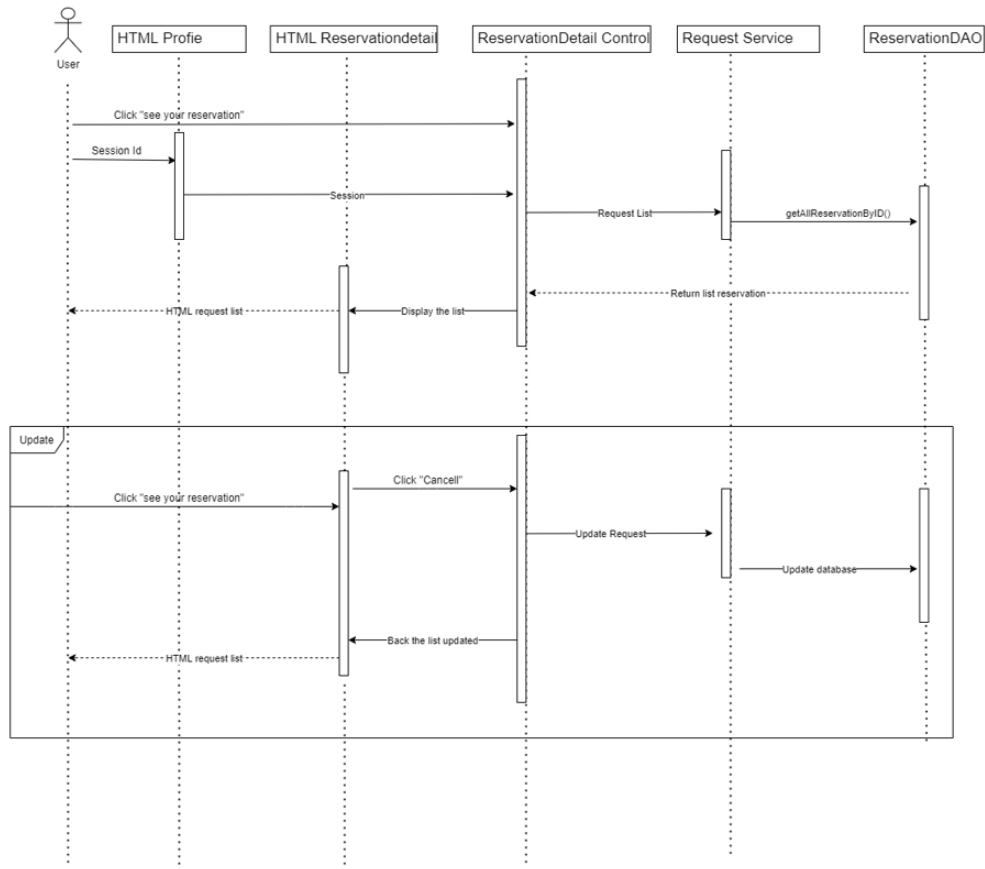
ReservationDetailServlet Class

No	Method	Description
01	processRequest()	<i>return reservation detail page</i>
02	doGet()	<i>Handle GET request</i>
03	doPost()	<i>Handle POST request</i>

CancelReservationServlet Class

No	Method	Description
01	processRequest()	<i>return reservation-list page</i>
02	doGet()	<i>Handle GET request</i>
03	doPost()	<i>Handle POST request</i>

c. Sequence Diagram(s)



d. Database queries

SELECT * FROM [Reservation] where [user_id] = ?;

Update [Reservation] set status=? where user_id = ? and ID=?;

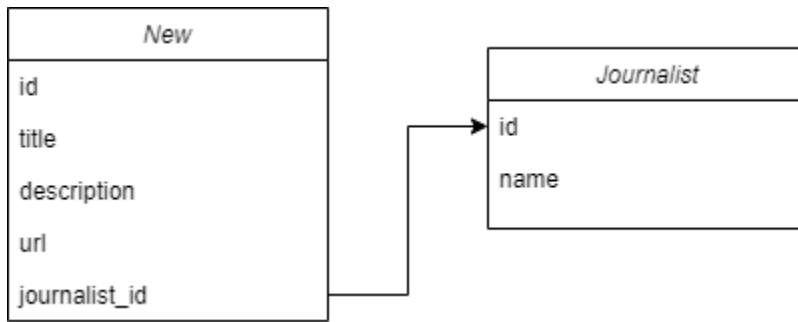
```

SELECT [ID], [user_id], [full_name], [phone], [dob], [gender], [insurance_code], [examination_date],
[examination_department], [status], [detail_note], [created_date], [email]
FROM [MTW].[dbo].[Reservation];

```

18. News list

a. Class Diagram



b. Class Specifications

News Class

No	Method	Description
01	<i>getID</i>	<i>getID</i>
02	<i>setID</i>	<i>setID</i>
03	<i>getTitle</i>	<i>getTitle</i>
04	<i>setTitle</i>	<i>setTitle</i>
05	<i>getDescription</i>	<i>getDescription</i>
06	<i>setDescription</i>	<i>setDescription</i>
07	<i>getUrl</i>	<i>getUrl</i>
08	<i>setUrl</i>	<i>setUrl</i>
09	<i>getJournal_id</i>	<i>getJournal_id</i>
10	<i>setJournal_id</i>	<i>setJournal_id</i>
11	<i>getImage</i>	<i>getImage</i>

12	<i>setImage</i>	<i>setImage</i>
13	<i>getDate_created</i>	<i>getDate_created</i>
14	<i>setDate_created</i>	<i>setDate_created</i>

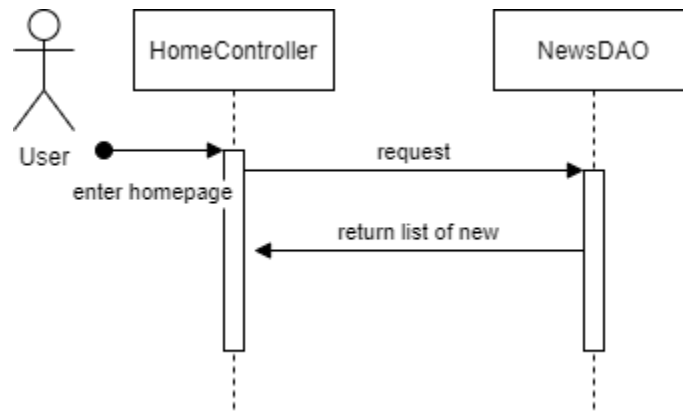
Journalist

No	Method	Description
01	<i>getID</i>	<i>getID</i>
02	<i>setID</i>	<i>setID</i>
03	<i>getName</i>	<i>getName</i>
04	<i>setName</i>	<i>setName</i>
05	<i>getImage</i>	<i>getImage</i>
06	<i>setImage</i>	<i>setImage</i>

NewsDAO

No	Method	Description
01	<i>getList</i>	<i>Get List of new</i>

c. Sequence Diagram(s)



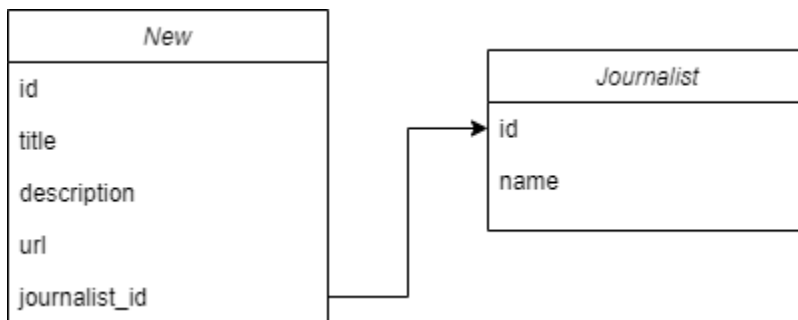
d. Database queries

SELECT n.id as 'newsID', n.title, n.url, n.description, n.image, n.date_create, j.id, j.name, j.image as 'jimage'

FROM [News] n inner join Journalist j ON n.journalist_id = j.id;

19. News details

a. Class Diagram



b. Class Specifications

News Class

No	Method	Description
01	<i>getID</i>	<i>getID</i>
02	<i>setID</i>	<i>setID</i>
03	<i>getTitle</i>	<i>getTitle</i>

04	<i>setTitle</i>	<i>setTitle</i>
05	<i>getDescription</i>	<i>getDescription</i>
06	<i>setDescription</i>	<i>setDescription</i>
07	<i>getUrl</i>	<i>getUrl</i>
08	<i>setUrl</i>	<i>setUrl</i>
09	<i>getJournal_id</i>	<i>getJournal_id</i>
10	<i>setJournal_id</i>	<i>setJournal_id</i>
11	<i>getImage</i>	<i>getImage</i>
12	<i>setImage</i>	<i>setImage</i>
13	<i>getDate_created</i>	<i>getDate_created</i>
14	<i>setDate_created</i>	<i>setDate_created</i>

Journalist

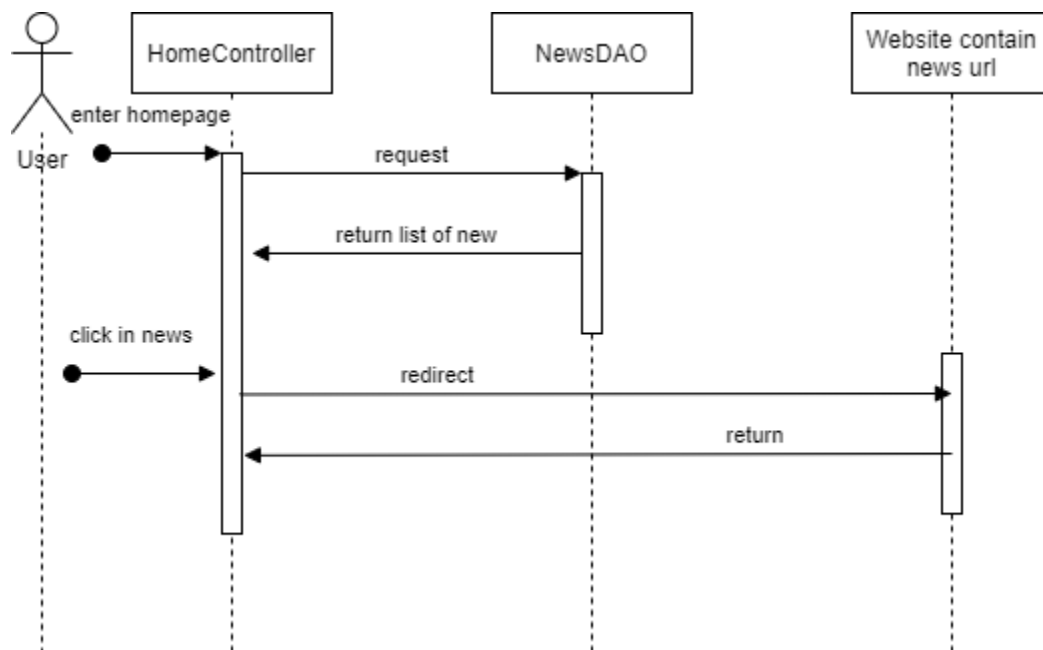
No	Method	Description
01	<i>getID</i>	<i>getID</i>
02	<i>setID</i>	<i>setID</i>
03	<i>getName</i>	<i>getName</i>

04	<i>setName</i>	<i>setName</i>
05	<i>getImage</i>	<i>getImage</i>
06	<i>setImage</i>	<i>setImage</i>

NewsDAO

No	Method	Description
01	<i>getList</i>	<i>Get List of new</i>

c. Sequence Diagram(s)



d. Database queries

```

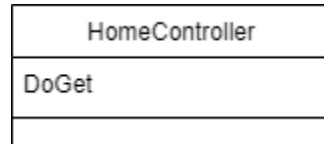
SELECT n.id as 'newsID', n.title, n.url, n.description, n.image, n.date_create, j.id, j.name, j.image as 'jimage'
FROM [News] n inner join Journalist j ON n.journalist_id = j.id;

```


20. Sliders(Full Front-End)

21. Introduction

a. Class Diagram

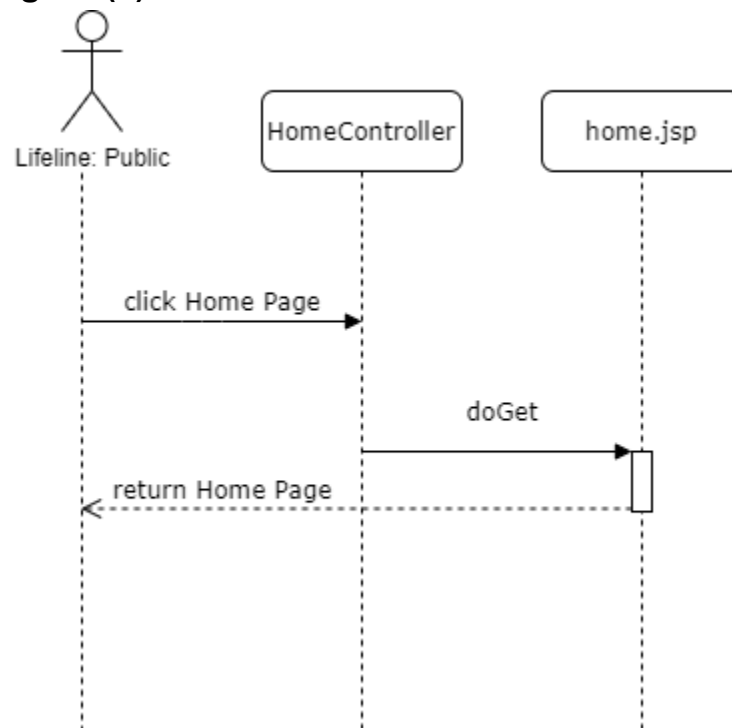


b. Class Specifications

HomeController Class

No	Method	Description
01	<i>protected void doGet(HttpServletRequest request, HttpServletResponse response)</i>	<i>getRequestDispatcher to Home.jsp to display the Home page</i>

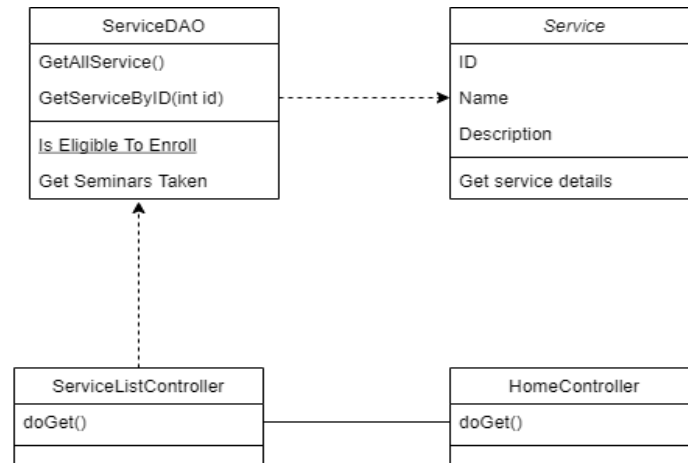
c. Sequence Diagram(s)



d. Database queries

22. Services list

a. Class Diagram



b. Class Specifications

ServiceListController Class

No	Method	Description
01	<i>protected void doGet(HttpServletRequest request, HttpServletResponse response)</i>	<i>getRequestDispatcher to service-list.jsp to display the Service page</i>

HomeController Class

No	Method	Description
01	<i>protected void doGet(HttpServletRequest request, HttpServletResponse response)</i>	<i>getRequestDispatcher to Home.jsp to display the Home page</i>

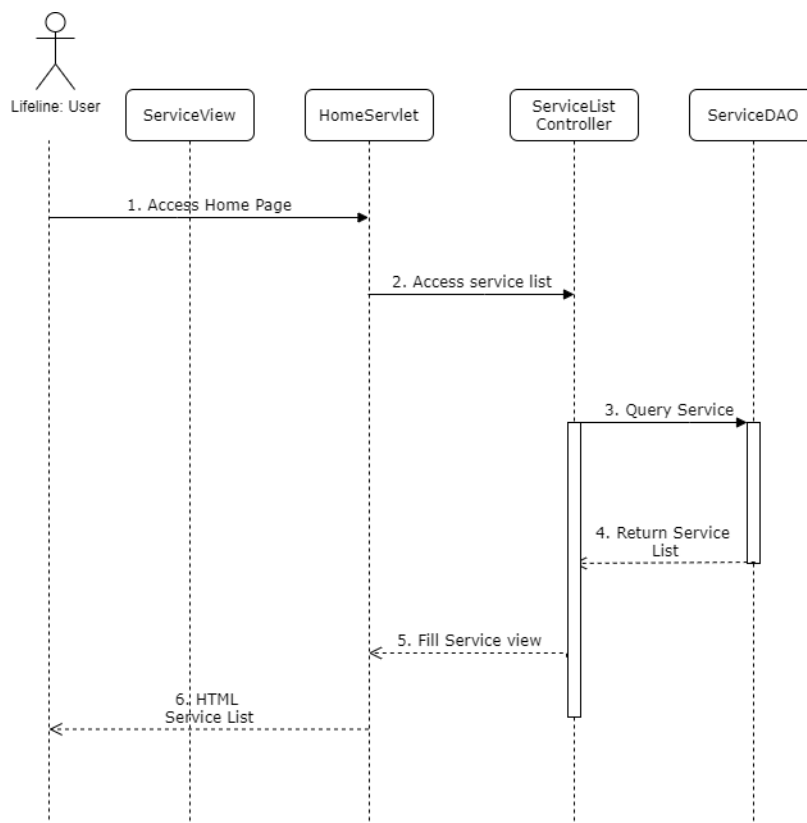
ServiceDAO Class

No	Method	Description
01	<i>GetAllService()</i>	<i>Return all list Service</i>
02	<i>GetServiceByID(int id)</i>	<i>Select a specified service by its ID, used for categorizing services in service list</i>

Service Class

No	Method	Description
01	<i>public Service()</i>	<i>Constructor of service class</i>
02	<i>getName()</i>	<i>Get the name of a Service object</i>
03	<i>setName(String name)</i>	<i>Set the name of a Service object</i>
04	<i>getId()</i>	<i>Get the ID of a service object</i>
05	<i>setId(int id)</i>	<i>Set the ID of a service object</i>
06	<i>getDescription()</i>	<i>Get the description of a service object</i>
07	<i>setDescription(String description)</i>	<i>Set the description of a service object</i>

c. Sequence Diagram(s)



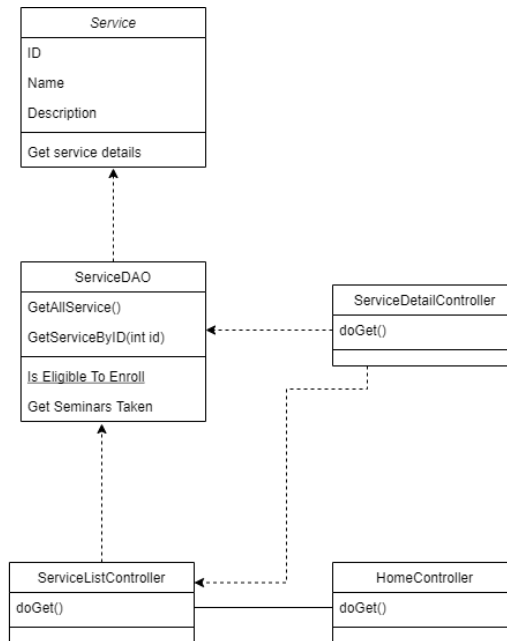
d. Database queries

SELECT * FROM SERVICE;

SELECT * FROM SERVICE WHERE ID = ?;

23. Services details

a. Class Diagram



b. Class Specifications

ServiceDetailController Class

No	Method	Description
01	<i>protected void doGet(HttpServletRequest request, HttpServletResponse response)</i>	<i>getRequestDispatcher to service-detail.jsp to display the Service detail page.</i>

ServiceListController Class

No	Method	Description
01	<i>protected void doGet(HttpServletRequest request, HttpServletResponse response)</i>	<i>getRequestDispatcher to service-list.jsp to display the Service page</i>

HomeController Class

No	Method	Description
01	<i>protected void doGet(HttpServletRequestRe quest request, HttpServletRequestResponse response)</i>	<i>getRequestDispatcher to Home.jsp to display the Home page</i>

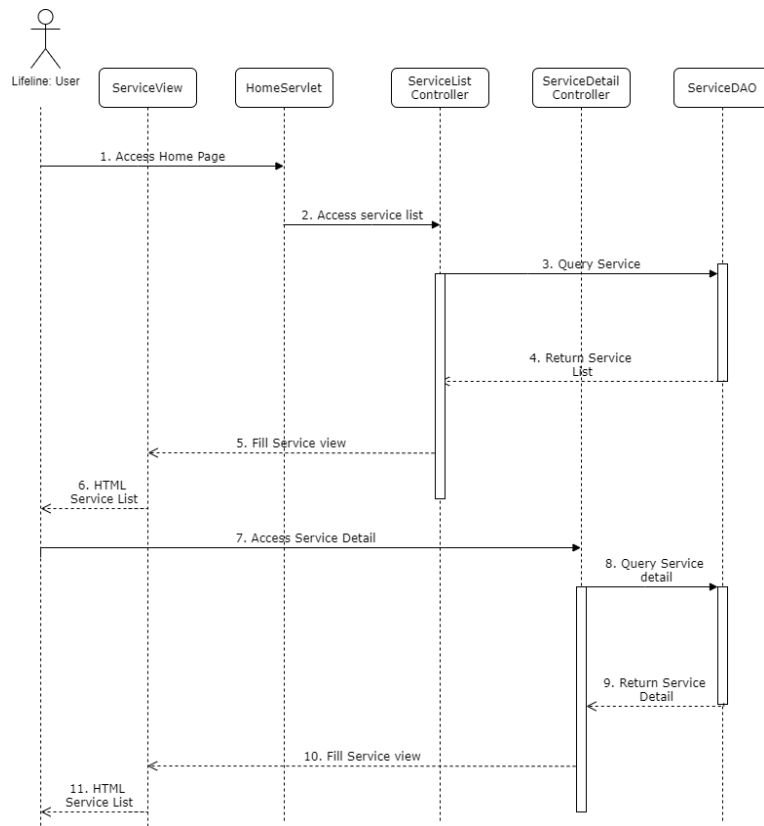
ServiceDAO Class

No	Method	Description
01	<i>GetAllService()</i>	<i>Return all list Service</i>
02	<i>GetServiceByID(int id)</i>	<i>Select a specified service by its ID, used for categorizing services in service list</i>

Service Class

No	Method	Description
01	<i>public Service()</i>	<i>Constructor of service class</i>
02	<i>getName()</i>	<i>Get the name of a Service object</i>
03	<i>setName(String name)</i>	<i>Set the name of a Service object</i>
04	<i>getId()</i>	<i>Get the ID of a service object</i>
05	<i>setId(int id)</i>	<i>Set the ID of a service object</i>
06	<i>getDescription()</i>	<i>Get the description of a service object</i>
07	<i>setDescription(String description)</i>	<i>Set the description of a service object</i>

c. Sequence Diagram(s)



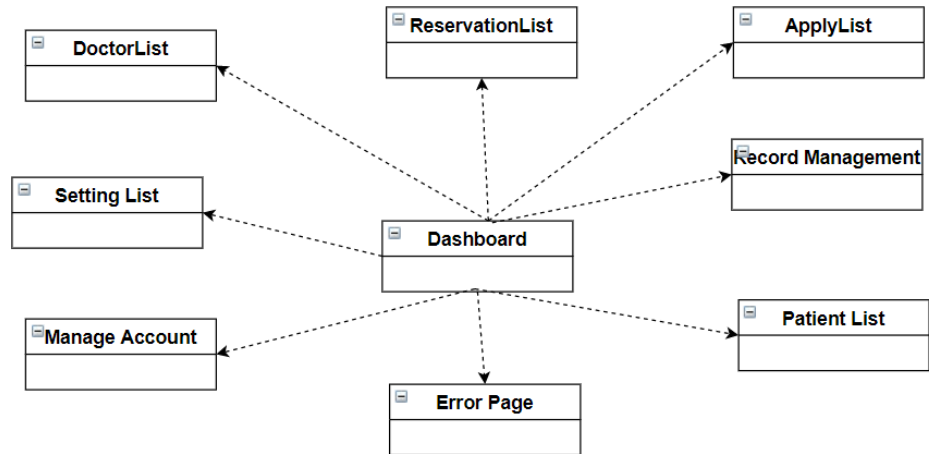
d. Database queries

SELECT * FROM SERVICE;

SELECT * FROM SERVICE WHERE ID = ?;

24. Admin dashboard

a. Class Diagram



b. Class Specifications

DashBoard Class

No	Method	Description
01	<i>doGet()</i>	<i>Method to load the jsp page out to display content for doctor/ admin easily to handle</i>

Doctor Class

No	Method	Description
01	<i>getDoctor_ID()</i>	<i>get user id</i>
02	<i>set Doctor_ID()</i>	<i>set user id</i>
03	<i>getDepts_Id()</i>	<i>get user role</i>
04	<i>setDepts_Id()</i>	<i>set user name</i>

05	<i>getRoom_number</i>	<i>get user Room_number</i>
06	<i>setRoom_number ()</i>	<i>set user Room_number</i>
07	<i>getExp_year()</i>	<i>get user Exp_year</i>
08	<i>setExp_year ()</i>	<i>set user Exp_year</i>
09	<i>getStatus()</i>	<i>get user Status</i>
10	<i>setStatus ()</i>	<i>set user Status</i>

Reservation Class

This class stores all information about a reservation.

No	Method	Description
01	<i>Reservation()</i>	<i>Constructor of reservation class</i>
02	<i>getId()</i>	<i>Get the ID of a reservation object</i>
03	<i>setId()</i>	<i>Set the ID of a reservation object</i>
04	<i>getUser_id()</i>	<i>Get the user id of a reservation object</i>
05	<i>setUser_id()</i>	<i>Set the user id of a reservation object</i>
06	<i>getFull_name()</i>	<i>Get the full name of a reservation object</i>
07	<i>setFull_name()</i>	<i>Set the full name of a reservation object</i>
08	<i>getPhone()</i>	<i>Get the phone of a reservation object</i>
09	<i>setPhone()</i>	<i>Set the phone of a reservation object</i>
10	<i>getDob()</i>	<i>Get the date of birth of a reservation object</i>
11	<i>setDob()</i>	<i>Set the date of birth of a reservation object</i>
12	<i>isGender()</i>	<i>Get the gender of a reservation object</i>
13	<i>setGender()</i>	<i>Set the gender of a reservation object</i>
14	<i>getInsurance_code()</i>	<i>Get the Insurance code of a reservation object</i>
15	<i>setInsurance_code()</i>	<i>Set the Insurance code of a reservation object</i>
16	<i>getExam_date()</i>	<i>Get the examination date of a reservation object</i>
17	<i>setExam_date()</i>	<i>Set the examination date of a reservation object</i>
18	<i>getExam_dept()</i>	<i>Get the examination department of a reservation object</i>
19	<i>setExam_dept()</i>	<i>Set the examination department of a reservation object</i>
20	<i>getStatus()</i>	<i>Get the status of a reservation object</i>
21	<i>setStatus()</i>	<i>Set the status of a reservation object</i>
22	<i>getDetail_note()</i>	<i>Get the detail note of a reservation object</i>
23	<i>setDetail_note()</i>	<i>Set the detail note of a reservation object</i>
24	<i>getCrated_date()</i>	<i>Get the create of a reservation object</i>
25	<i>setCrated_date()</i>	<i>Set the create of a reservation object</i>

26	getEmail()	Get the email a reservation object
27	setEmail()	Set the email a reservation object

ReservationDAO Class

No	Method	Description
01	getAllReservation()	Get a list of reservation from database
02	insert()	Add a reservation to database
03	AdminUpdateStatus ByID()	Update the status of a reservation to database

ReservationListServlet Class

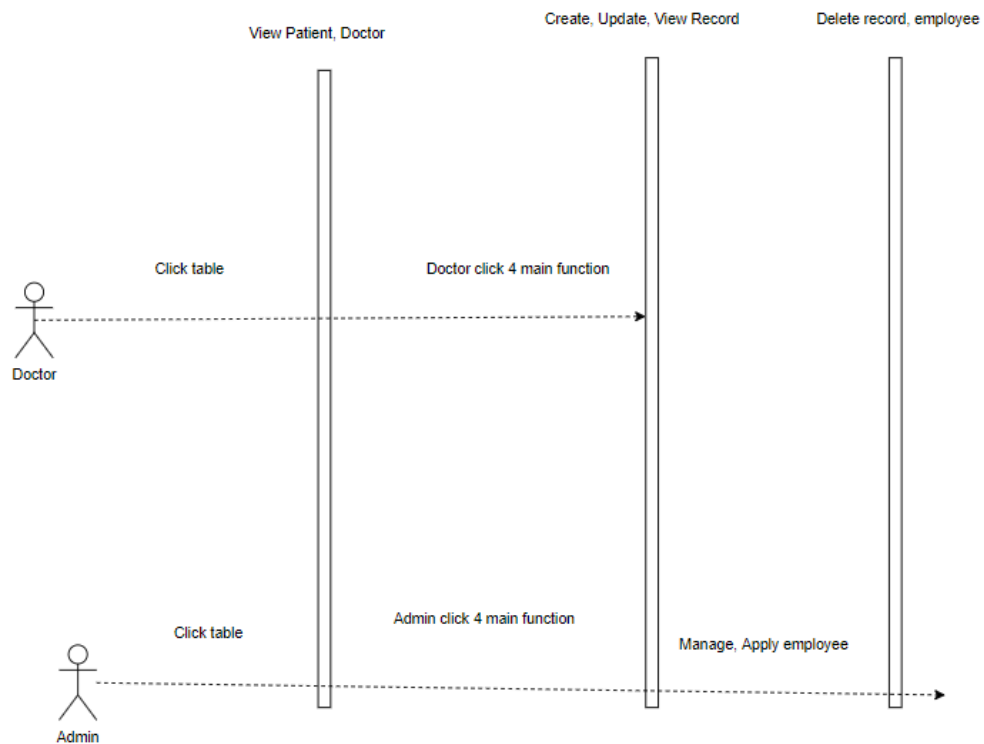
No	Method	Description
01	processRequest()	return reservation-list page
02	doGet()	Get list of all reservation
03	doPost()	Handle POST request

Patient Class

No	Method	Description
01	getID()	get patient id
02	setID()	set patient id
03	getName()	get patient name
04	setName()	set patient name
05	getAge()	get patient age
06	setAge()	set patient age
07	getPhone	get patient phone
08	setPhone	set patient phone

09	<i>getOption</i>	<i>get patient option</i>
10	<i>setOption</i>	<i>set patient option</i>
11	<i>getAddress</i>	<i>get patient address</i>
12	<i>setAddress</i>	<i>set patient address</i>
13	<i>getGender</i>	<i>get patient gender</i>
14	<i>setGender</i>	<i>set patient gender</i>
15	<i>getPatientList()</i>	<i>get all patient from database</i>

c. Sequence Diagram(s)



d. Database queries

SELECT * FROM Patient;

```

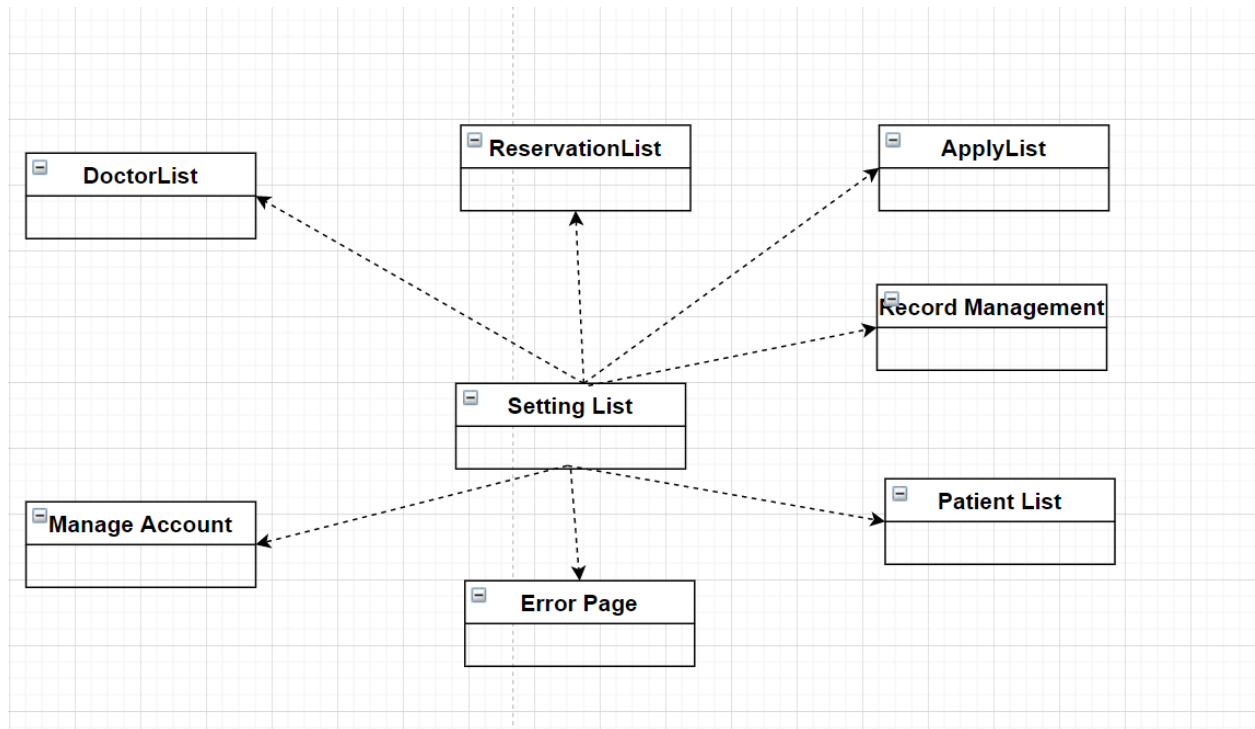
SELECT * FROM Doctor WHERE role_id = 3;
UPDATE TABLE SET role_id = 3 WHERE doctor_id = ?;
DELETE FROM MedicalRecord WHERE id = ?;
INSERT INTO MedicalRecord VALUES (?, ?, ?, ?, ?);
INSERT INTO Patient VALUES (?, ?, ?, ?);

```

25. Setting list

Setting list is a sidebar which contains many useful shortcuts for users.

a. Class Diagram



b. Class Specifications

Doctor Class

No	Method	Description
01	<i>getDoctor_ID()</i>	<i>get user id</i>
02	<i>set Doctor_ID()</i>	<i>set user id</i>

03	<i>getDepts_Id()</i>	<i>get user role</i>
04	<i>setDepts_Id()</i>	<i>set user name</i>
05	<i>getRoom_number</i>	<i>get user Room_number</i>
06	<i>setRoom_number ()</i>	<i>set user Room_number</i>
07	<i>getExp_year()</i>	<i>get user Exp_year</i>
08	<i>setExp_year ()</i>	<i>set user Exp_year</i>
09	<i>getStatus()</i>	<i>get user Status</i>
10	<i>setStatus ()</i>	<i>set user Status</i>

Reservation Class

No	Method	Description
01	<i>Reservation()</i>	<i>Constructor of reservation class</i>
02	<i>getId()</i>	<i>Get the ID of a reservation object</i>
03	<i>setId()</i>	<i>Set the ID of a reservation object</i>
04	<i>getUser_id()</i>	<i>Get the user id of a reservation object</i>
05	<i>setUser_id()</i>	<i>Set the user id of a reservation object</i>
06	<i>getFull_name()</i>	<i>Get the full name of a reservation object</i>
07	<i>setFull_name()</i>	<i>Set the full name of a reservation object</i>
08	<i>getPhone()</i>	<i>Get the phone of a reservation object</i>
09	<i>setPhone()</i>	<i>Set the phone of a reservation object</i>
10	<i>getDob()</i>	<i>Get the date of birth of a reservation object</i>
11	<i>setDob()</i>	<i>Set the date of birth of a reservation object</i>
12	<i>isGender()</i>	<i>Get the gender of a reservation object</i>
13	<i>setGender()</i>	<i>Set the gender of a reservation object</i>
14	<i>getInsurance_code()</i>	<i>Get the Insurance code of a reservation object</i>
15	<i>setInsurance_code()</i>	<i>Set the Insurance code of a reservation object</i>
16	<i>getExam_date()</i>	<i>Get the examination date of a reservation object</i>
17	<i>setExam_date()</i>	<i>Set the examination date of a reservation object</i>
18	<i>getExam_dept()</i>	<i>Get the examination department of a reservation object</i>
19	<i>setExam_dept()</i>	<i>Set the examination department of a reservation object</i>
20	<i>getStatus()</i>	<i>Get the status of a reservation object</i>
21	<i>setStatus()</i>	<i>Set the status of a reservation object</i>

22	getDetail_note()	<i>Get the detail note of a reservation object</i>
23	setDetail_note()	<i>Set the detail note of a reservation object</i>
24	getCrated_date()	<i>Get the create of a reservation object</i>
25	setCrated_date()	<i>Set the create of a reservation object</i>
26	getEmail()	<i>Get the email a reservation object</i>
27	setEmail()	<i>Set the email a reservation object</i>

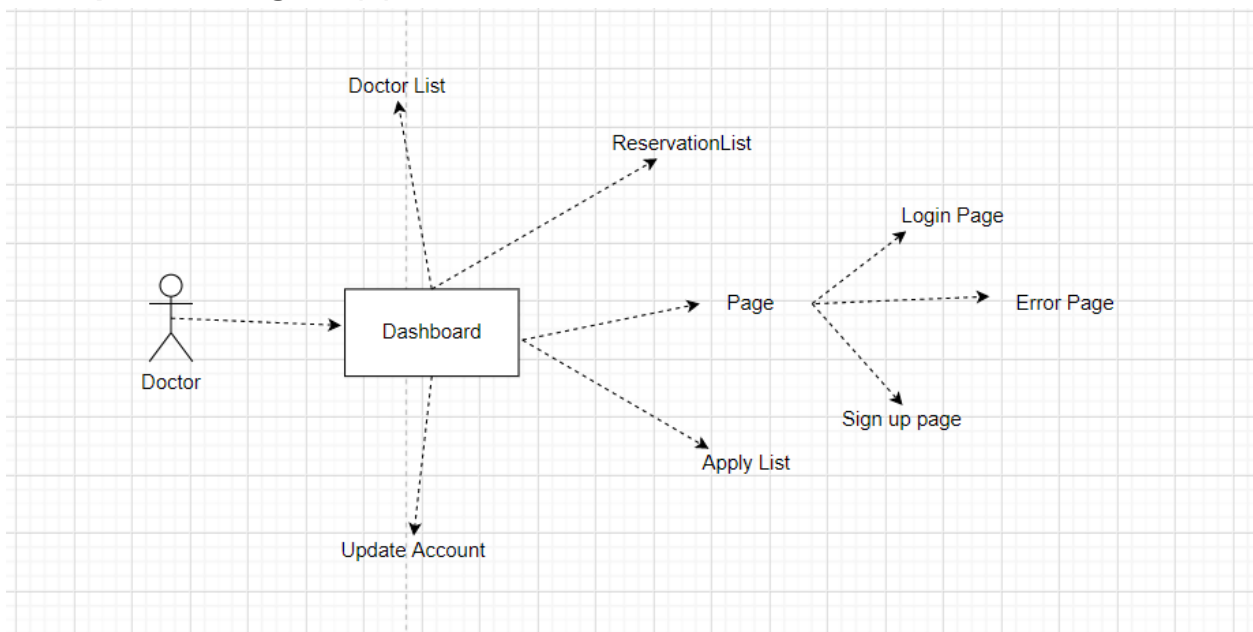
ReservationDAO Class

No	Method	Description
01	getAllReservation()	<i>Get a list of reservation from database</i>
02	insert()	<i>Add a reservation to database</i>
03	AdminUpdateStatus ByID()	<i>Update the status of a reservation to database</i>

ReservationListServlet Class

No	Method	Description
01	processRequest()	<i>return reservation-list page</i>
02	doGet()	<i>Get list of all reservation</i>
03	doPost()	<i>Handle POST request</i>

c. Sequence Diagram(s)



d. Database queries

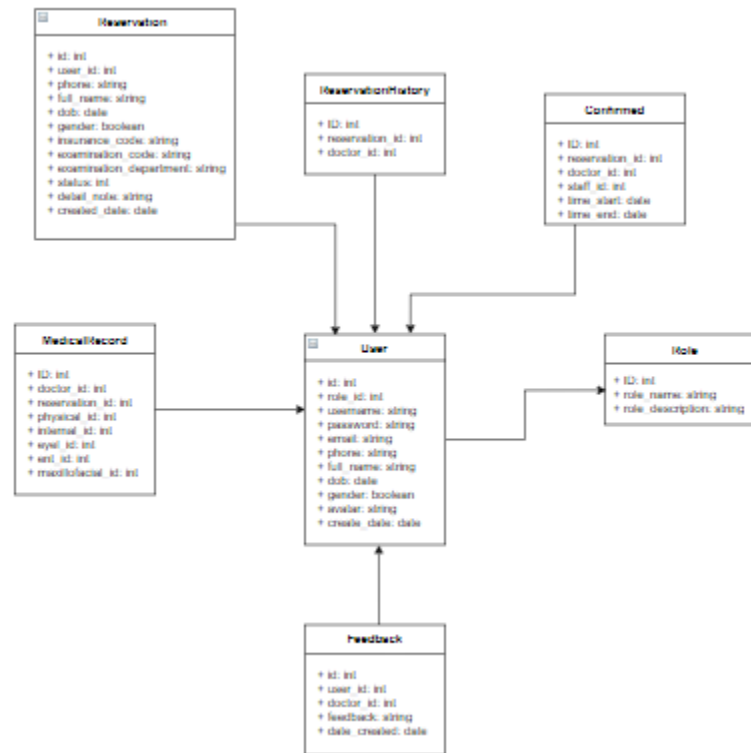
SELECT * FROM Patient;

SELECT * FROM Doctor WHERE role_id = 3;

UPDATE TABLE SET role_id = 3 WHERE doctor_id = ?;

27. User profile

a. Class Diagram



b. Class Specifications

User Class

This class stores all information about a user.

No	Method	Description
01	getId()	Get the ID of a User
02	setId()	Set the ID of a User
03	getRole_id()	Get the roleID of a User to authorization
04	setRole_id()	Set the roleID of a User to authorization
05	getUsername()	Get the username of a User
06	setUsername()	Set the username of a User
07	getPassword()	Get the password of a User
08	setPassword()	Set the password of a User
09	getEmail()	Get the email address of a User
10	setEmail()	Set the email address of a User
11	getPhone()	Get the phone number of a User
12	setPhone()	Set the phone number of a User
13	getFull_name()	Get the full name of a User
14	setFull_name()	Set the full name of a User

15	getDob()	Get the date of birth of a User
16	setDob()	Set the date of birth of a User
17	isGender()	Get the value boolean to check gender of a User
18	setGender()	Set the value boolean to check gender of a User
19	getAvatar()	Get the link to the avatar of a User
20	setAvatar()	Set the link to the avatar of a User
21	getCreated_date()	Get the created date of a User
22	setCreated_date()	Set the created date of a User
23	getStatus()	Get the status of a User
24	setStatus()	Set the status of a User

UserProfileServlet Class

This class takes the data from DAO and push it to JSP to display, as well as execute the Login function

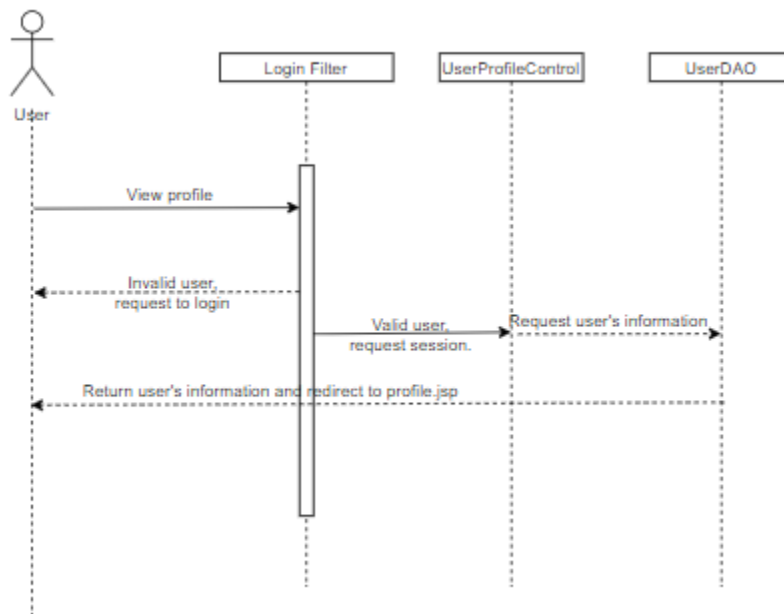
No	Method	Description
01	doGet()	This method get the information from database to display in JSP
02	doPost()	This method get the information from database to execute Function

UserDAOClass

This class perform action to Data (CRUD) in User table in database

No	Method	Description
01	getAllUser()	Get all user from database and return the list of user from the database
02	checkLogin()	For login a user to the website and return the account information of the account logging in, null if username or password does not exist
03	insert()	Use for signup a user to the website
04	checkUser()	Find a user by username and return the found user, null if the user does not exist in the database
05	changePass()	Update the password of a user
06	edit()	Update the information of a user
07	checkEmail()	Find an user by email and return the found user, null if the user does not exist in the database
08	apply()	Update a user to be a doctor role
09	deny()	Delete a user
10	getUserById()	Find a user by id return the found user, null if the user does not exist in the database

c. Sequence Diagram(s)

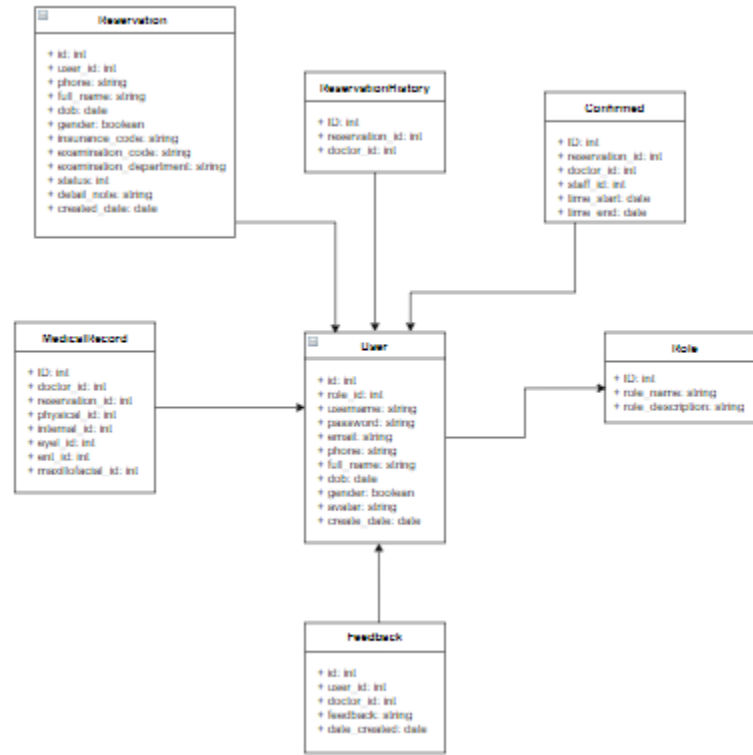


d. Database queries

SELECT * FROM [User] WHERE username = ?

28. Update user profile

a. Class Diagram



b. Class Specifications

User Class

This class stores all information about a user.

No	Method	Description
01	getId()	Get the ID of a User
02	setId()	Set the ID of a User
03	getRole_id()	Get the roleID of a User to authorization
04	setRole_id()	Set the roleID of a User to authorization
05	getUsername()	Get the username of a User
06	setUsername()	Set the username of a User
07	getPassword()	Get the password of a User
08	setPassword()	Set the password of a User
09	getEmail()	Get the email address of a User
10	setEmail()	Set the email address of a User
11	getPhone()	Get the phone number of a User
12	setPhone()	Set the phone number of a User
13	getFull_name()	Get the full name of a User
14	setFull_name()	Set the full name of a User
15	getDob()	Get the date of birth of a User
16	setDob()	Set the date of birth of a User
17	isGender()	Get the value boolean to check gender of a User

18	setGender()	<i>Set the value boolean to check gender of a User</i>
19	getAvatar()	<i>Get the link to the avatar of a User</i>
20	setAvatar()	<i>Set the link to the avatar of a User</i>
21	getCreated_date()	<i>Get the created date of a User</i>
22	setCreated_date()	<i>Set the created date of a User</i>
23	getStatus()	<i>Get the status of a User</i>
24	setStatus()	<i>Set the status of a User</i>

UserProfileServlet Class

This class takes the data from DAO and push it to JSP to display, as well as execute the Login function

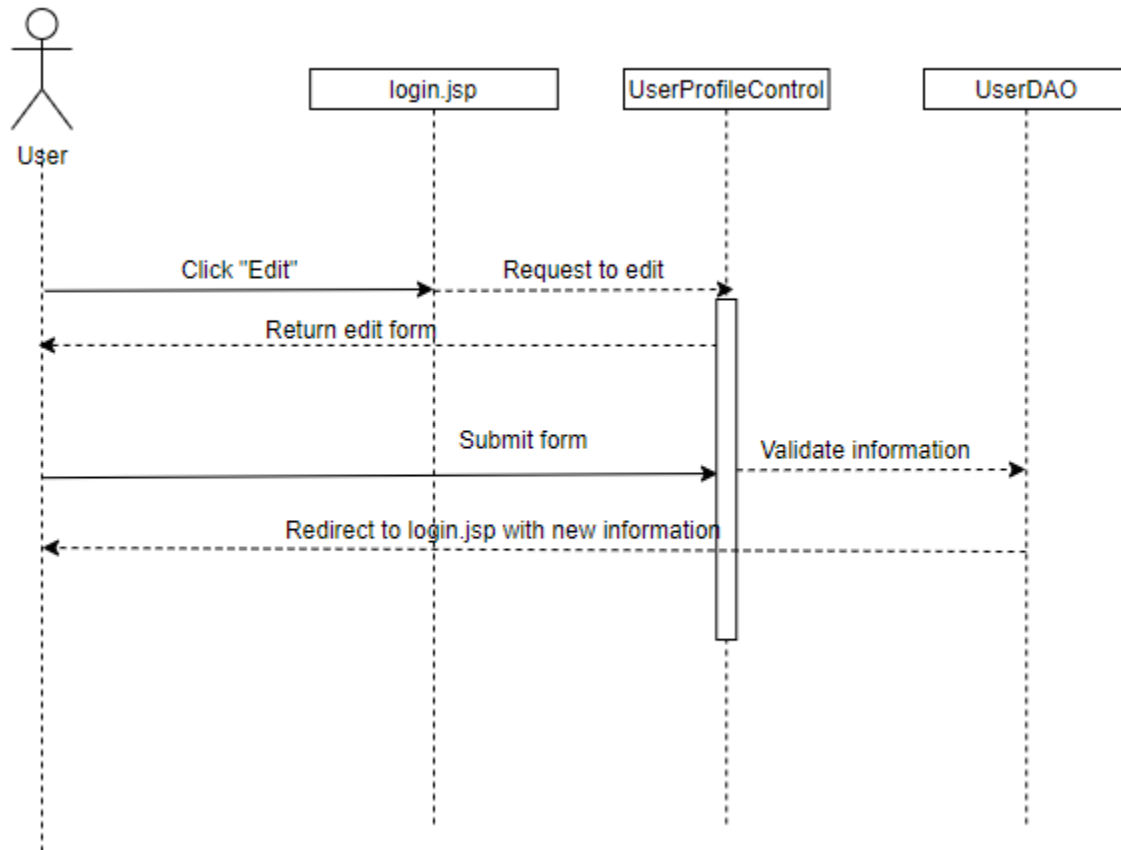
No	Method	Description
01	doGet()	<i>This method get the information from database to display in JSP</i>
02	doPost()	<i>This method get the information from database to execute Function</i>

UserDAOClass

This class perform action to Data (CRUD) in User table in database

No	Method	Description
01	getAllUser()	<i>Get all user from database and return the list of user from the database</i>
02	checkLogin()	<i>For login a user to the website and return the account information of the account logging in, null if username or password does not exist</i>
03	insert()	<i>Use for signup a user to the website</i>
04	checkUser()	<i>Find a user by username and return the found user, null if the user does not exist in the database</i>
05	changePass()	<i>Update the password of a user</i>
06	edit()	<i>Update the information of a user</i>
07	checkEmail()	<i>Find an user by email and return the found user, null if the user does not exist in the database</i>
08	apply()	<i>Update a user to be a doctor role</i>
09	deny()	<i>Delete a user</i>
10	getUserById()	<i>Find a user by id return the found user, null if the user does not exist in the database</i>

c. Sequence Diagram(s)



d. Database queries

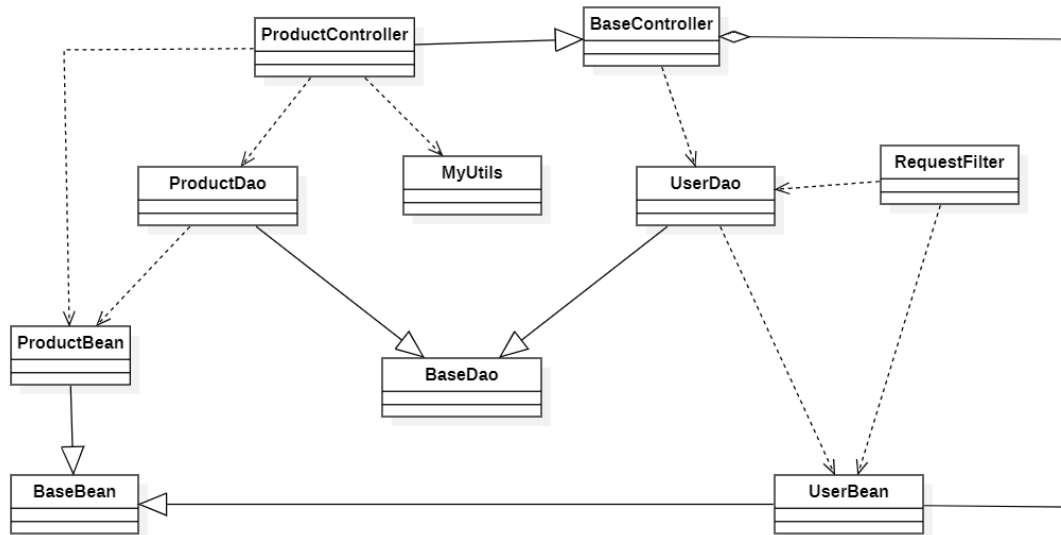
```
UPDATE [User] SET email = ?, phone = ?, full_name = ?, dob = ?, gender = ?, created_date = ?
WHERE username = ?
SELECT * FROM [User] WHERE username = ?
```

29. Jobs application

[Provide the detailed design for the function <Feature/Function Name1>. It include Class Diagram, Class Specifications, and Sequence Diagram(s)]

a. Class Diagram

[This part presents the class diagram for the relevant feature]



b. Class Specifications

[Provide the description for each class and the methods in each class, following the table format as below]

XYZ Class

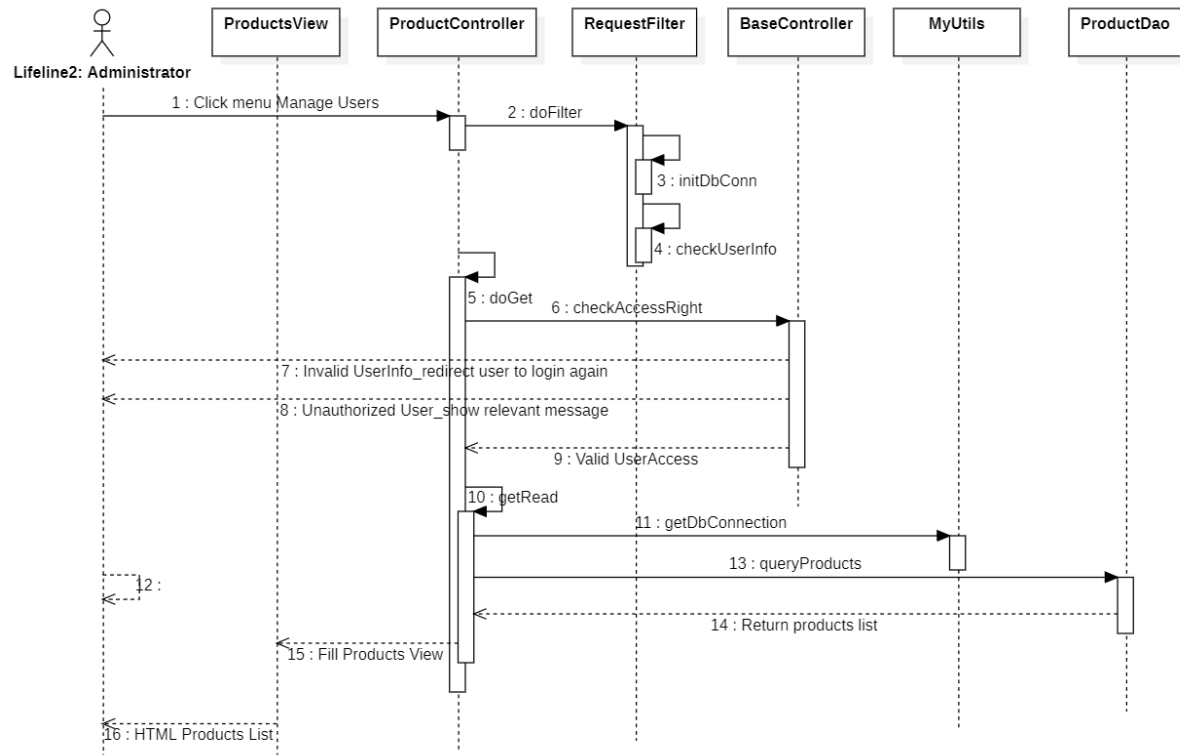
No	Method	Description
01	<method name>	<Description of the method, including the inputs, outputs & internal method processing>

ABC Class

Class Methods

No	Method	Description
01	<method name>	<Description of the method, including the inputs, outputs & internal method processing>

c. Sequence Diagram(s)



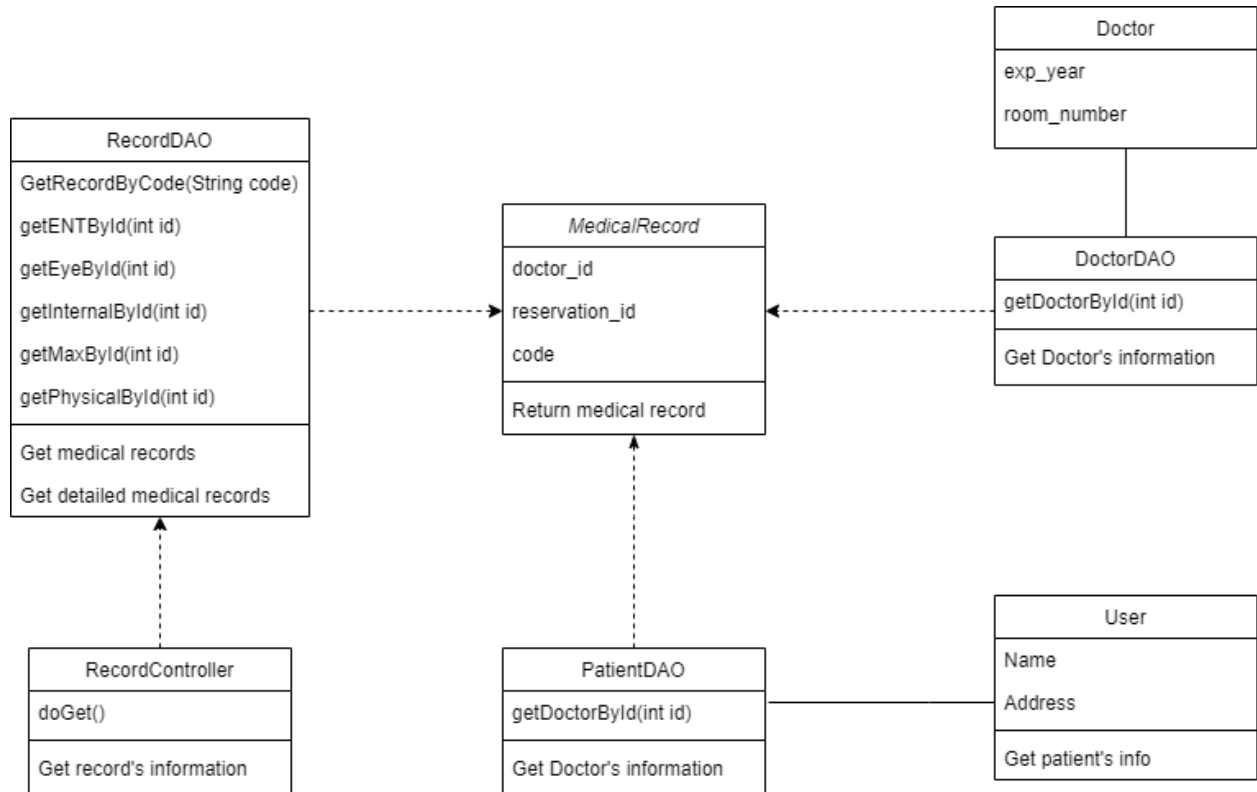
d. Database queries

[Provide the detailed SQL (select, insert, update...) which are used in implementing the function/screen]

//Trang + Hieu

30. Laboratory results

a. Class Diagram



b. Class Specifications

RecordDAO Class

No	Method	Description
01	<i>public MedicalRecord GetRecordByCode(String code)</i>	<i>Get personal Medical Record of patient from database by code.</i>
02	<i>public EntRecord getENTByld(int id)</i>	<i>Get a personal Ears Nose Throat record of a patient from the database by id.</i>
03	<i>public EyeRecord getEyeByld(int id)</i>	<i>Get personal Eyes Record of patient from database by id.</i>
04	<i>public InternalRecord getInternalByld(int id)</i>	<i>Get personal Internal Record of patient from database by id.</i>

05	<i>public MaxillofacialRecord getMaxById(int id)</i>	<i>Get personal Maxillofacial Record of patient from database by id.</i>
06	<i>public PhysicalRecord getPhysicalById(int id)</i>	<i>Get personal Physical Record of patient from database by id.</i>

MedicalRecord Class

No	Method	Description
01	<i>public MedicalRecord()</i>	<i>Constructor of medical record class</i>
02	<i>public int getId()</i>	<i>Get the ID of a medical record object</i>
03	<i>public void setId(int id)</i>	<i>Set the ID of a medical record object</i>
04	<i>public int getDoctor_id()</i>	<i>Get the doctor ID of a medical record object</i>
05	<i>public void setDoctor_id(int doctor_id)</i>	<i>Set the doctor ID of a medical record object</i>
06	<i>public int getServation_id()</i>	<i>Get the reservation ID of a medical record object</i>
07	<i>public void setServation_id(int servation_id)</i>	<i>Set the reservation ID of a medical record object</i>
08	<i>public int getPhysical_id()</i>	<i>Get the Physical ID of a medical record object</i>

09	<i>public void setPhysical_id(int physical_id)</i>	<i>Set the Physical ID of a medical record object</i>
10	<i>public int getInternal_id()</i>	<i>Get the Internal ID of a medical record object</i>
11	<i>public void setInternal_id(int internal_id)</i>	<i>Set the Internal ID of a medical record object</i>
12	<i>public int getEye_id()</i>	<i>Get the Eye ID of a medical record object</i>
13	<i>public void setEye_id(int eye_id)</i>	<i>Set the Eye ID of a medical record object</i>
14	<i>public int getEnt_id()</i>	<i>Get the Ear Nose Throat ID of a medical record object</i>
15	<i>public void setEnt_id(int ent_id)</i>	<i>Set the Ear Nose Throat ID of a medical record object</i>
16	<i>public int getMaxillofacial_id()</i>	<i>Get the maxillofacial ID of a medical record object</i>
17	<i>public void setMaxillofacial_id(int maxillofacial_id)</i>	<i>Set the maxillofacial ID of a medical record object</i>
18	<i>public String getCode()</i>	<i>Get the code of a medical record object</i>
19	<i>public void setCode(String code)</i>	<i>Set the code of a medical record object</i>

PatientDAO Class

No	Method	Description
01	<i>public User getPatientById(int id)</i>	<i>Get patient's information from database by id</i>

DoctorDAO Class

No	Method	Description
01	<i>public Doctor getDoctorById(int id)</i>	<i>Get doctor information from database id</i>

Doctor Class

No	Method	Description
01	<i>public Doctor()</i>	<i>Constructor of doctor class</i>
02	<i>public int getId()</i>	<i>Get the ID of a doctor object</i>
03	<i>public void setId(int id)</i>	<i>Get the ID of a doctor object</i>
04	<i>public String getRoom_number()</i>	<i>Get the room number of a doctor object</i>
05	<i>public void setRoom_number(String room_number)</i>	<i>Set the room number of a doctor object</i>
06	<i>public int getExp_year()</i>	<i>Get the year experience of a doctor object</i>
07	<i>public void setExp_year(int exp_year)</i>	<i>Set the year experience of a doctor object</i>

08	<i>public int getDept_id()</i>	<i>Get the department ID of a doctor object</i>
09	<i>public void setDept_id(int dept_id)</i>	<i>Set the department ID of a doctor object</i>

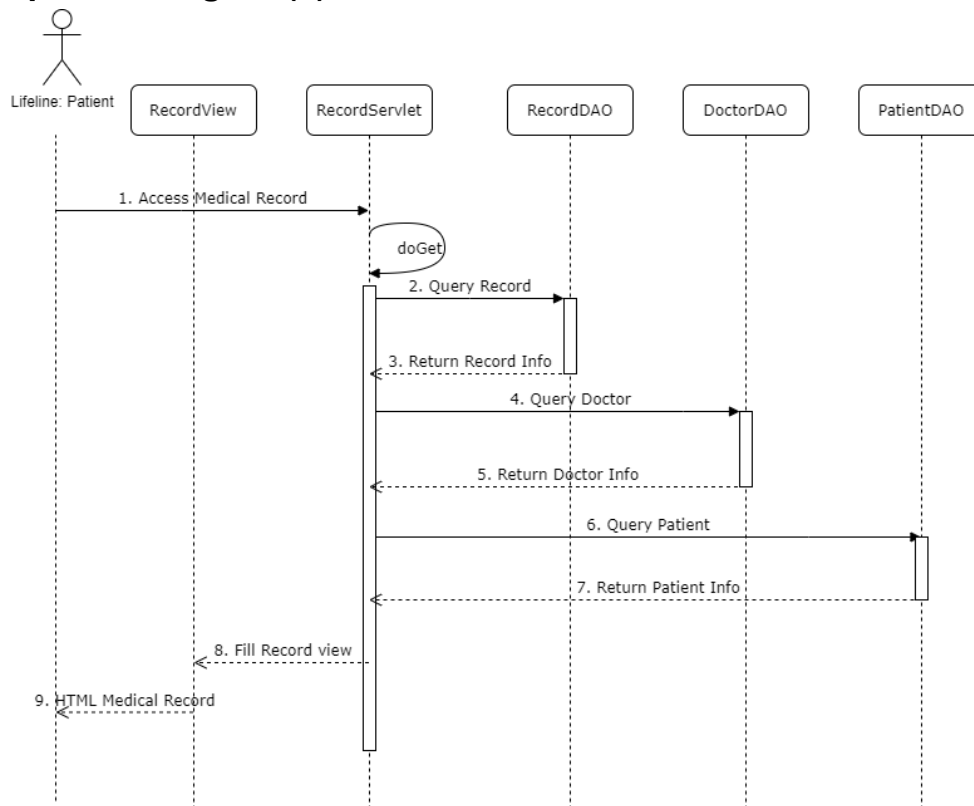
User Class

No	Method	Description
01	<i>public User()</i>	<i>Constructor of user class</i>
02	<i>public int getId()</i>	<i>Get the ID of a user object</i>
03	<i>public void setId(int id)</i>	<i>Set the ID of a user object</i>
04	<i>public int getRole_id()</i>	<i>Get the role of a user object</i>
05	<i>public void setRole_id(int role_id)</i>	<i>Set the role of a user object</i>
06	<i>public String getUsername()</i>	<i>Get the user name of a user object</i>
07	<i>public void setUsername(String username)</i>	<i>Set the user name of a user object</i>
08	<i>public String getPassword()</i>	<i>Get the password of a user object</i>
09	<i>public void setPassword(String password)</i>	<i>Set the password of a user object</i>

10	<i>public String getEmail()</i>	<i>Get the email of a user object</i>
11	<i>public void setEmail(String email)</i>	<i>Set the email of a user object</i>
12	<i>public String getPhone()</i>	<i>Get phone number of a user object</i>
13	<i>public void setPhone(String phone)</i>	<i>Set phone number of a user object</i>
14	<i>public String getFull_name()</i>	<i>Get full name of a user object</i>
15	<i>public void setFull_name(String full_name)</i>	<i>Set full name of a user object</i>
16	<i>public Date getDob()</i>	<i>Get DoB of a user object</i>
17	<i>public void setDob(Date dob)</i>	<i>Set DoB of a user object</i>
18	<i>public boolean isGender()</i>	<i>Get gender of a user object</i>
19	<i>public void setGender(boolean gender)</i>	<i>Set gender of a user object</i>
20	<i>public String getAvatar()</i>	<i>Get the avatar of a user object</i>
21	<i>public void setAvatar(String avatar)</i>	<i>Set the avatar of a user object</i>

22	<i>public Date getCreated_date()</i>	<i>Get the created date of a user object</i>
23	<i>public void setCreated_date(Date created_date)</i>	<i>Set the created date of a user object</i>

c. Sequence Diagram(s)



d. Database queries

- Get doctor information:

```
String sql = "SELECT department_id, room_number, exp_year FROM [Doctor] "
            + "WHERE [doctor_id] = ? ";
```

- Get patient information:

```
String sql = "SELECT email, phone, full_name, dob, gender, avatar, created_date FROM [User] "
            + "WHERE [id] = ? and [role_id] = 1";
```

- Get medical record:

```
String sql = "SELECT [ID]\n" +
    "      ,[doctor_id]\n" +
    "      ,[reservation_id]\n" +
    "      ,[physical_id]\n" +
    "      ,[internal_id]\n" +
    "      ,[eye_id]\n" +
    "      ,[ent_id]\n" +
    "      ,[maxillofacial_id]\n" +
    " FROM [MTW].[dbo].[MedicalRecord]"
+ "WHERE [code] = ? ";
```

- Get Ear Nose Throat record:

```
String sql = "SELECT [hearing_test]\n" +
    "      ,[nose_throat_disease]\n" +
    " FROM [MTW].[dbo].[ENTRecord]" +
    " WHERE ID = ?";
```

- Get Eyes record:

```
String sql = "SELECT [ID]\n" +
    "      ,[vision_test]\n" +
    "      ,[eye_disease]\n" +
    "      ,[eye_type]\n" +
    " FROM [MTW].[dbo].[EyeRecord]" +
    " WHERE ID = ?";
```

- Get Physical record:

```
String sql = "SELECT [ID]\n" +
    "      ,[height]\n" +
    "      ,[weight]\n" +
    "      ,[BMI]\n" +
    "      ,[pulse_rate]\n" +
    "      ,[blood_pressure]\n" +
    "      ,[physical_type]\n" +
    " FROM [MTW].[dbo].[PhysicalRecord]" +
    " WHERE ID = ?";
```

- Get Internal record:

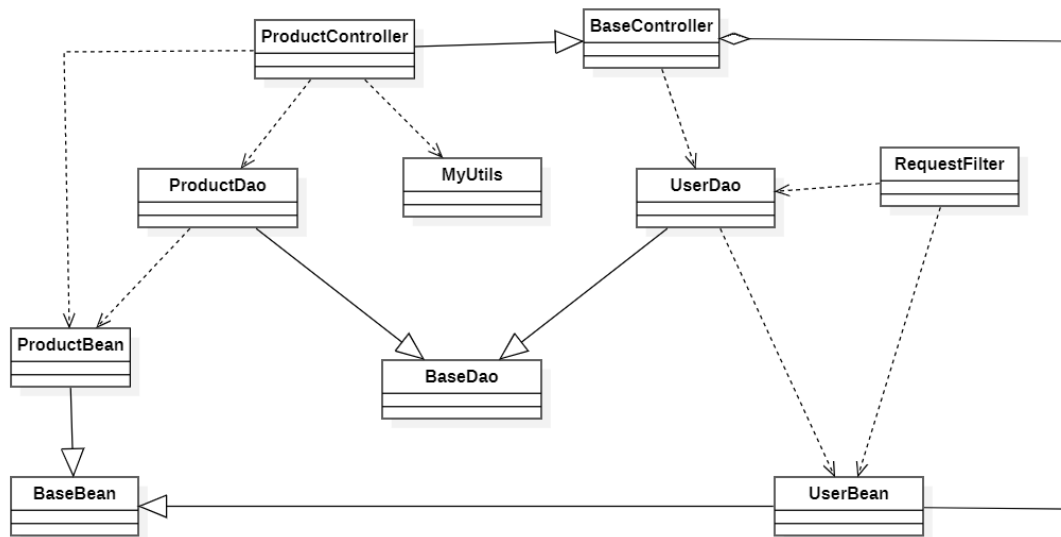
```
String sql = "SELECT [ID]\n" +
    "      ,[blood_cycle]\n" +
    "      ,[respiratory]\n" +
    "      ,[GI]\n" +
    "      ,[kidneys_unary]\n" +
    "      ,[musculoskeletal]\n" +
    "      ,[neurological]\n" +
    "      ,[neuropsychiatric]\n" +
    " FROM [MTW].[dbo].[InternalRecord]" +
    " WHERE ID = ?";
```

- Get Maxillofacial record:

```
String sql = "SELECT [ID]\n" +
            "        ,[upper_jaw]\n" +
            "        ,[lower_jaw]\n" +
            "        ,[dental_disease]\n" +
            " FROM [MTW].[dbo].[MaxillofacialRecord]" +
            " WHERE ID = ?";
```

31. Clear the reservation

a. Class Diagram



b. Class Specifications

XYZ Class

No	Method	Description
01	<method name>	<Description of the method, including the inputs, outputs & internal method processing>

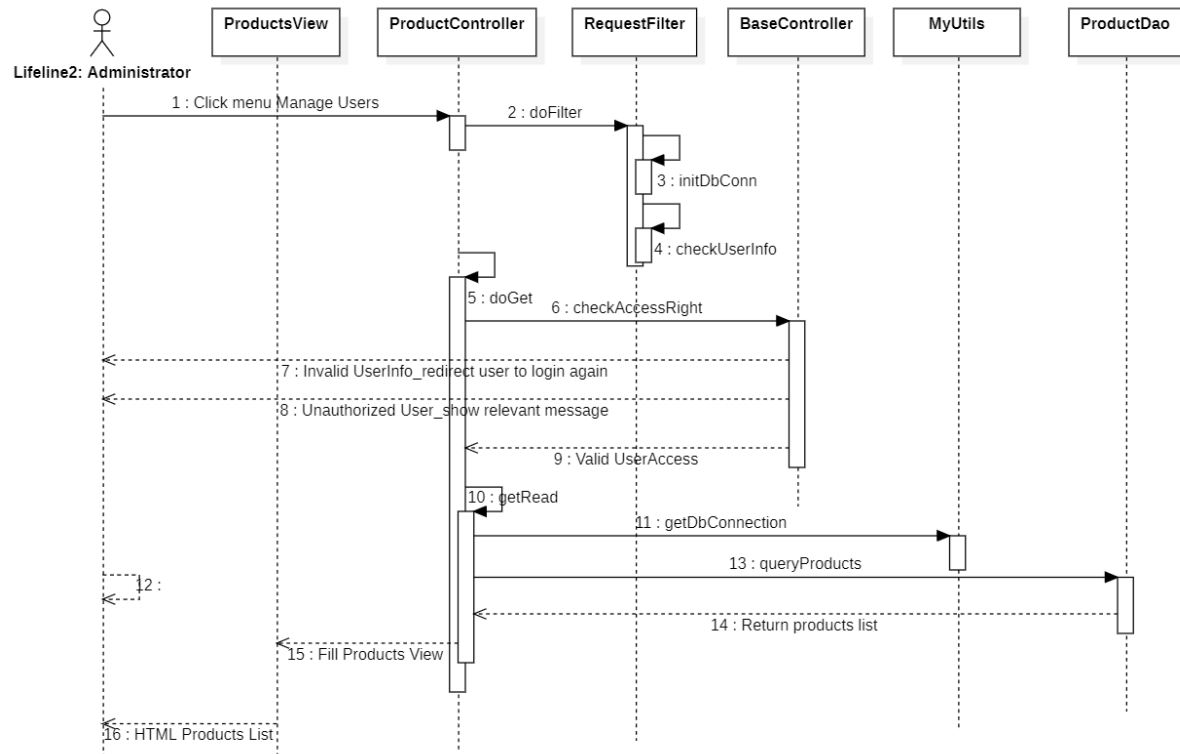
ABC Class

Class Methods

No	Method	Description
01	<method name>	<Description of the method, including the inputs, outputs & internal method processing>

c. Sequence Diagram(s)

[Provide the sequence diagram(s) for the feature, see the sample below]



d. Database queries

III. Database Tables

1. User

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	User_id	int		x	x	PK	
2	role_id	int			x	FK	Table Role
3	username	varchar(50)		x	x		
4	password	varchar(50)			x		
5	email	varchar(50)		x	x		
6	phone	varchar(50)		x	x		

7	full_name	varchar(50)			x		
8	dob	date			x		
9	gender	bit			x		
10	avatar	varchar(50)					
11	created_date	date			x		

2. Role

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Role_id	int		x	x	PK	
2	role_name	varchar(50)		x	x		
3	role_description	varchar(50)					

3. DoctorInfo

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Doctor_id	int		x	x	PK, FK1	Table User
2	Dept_id	int			x	PK, FK2	Table Department
3	room_number	int		x	x		
4	exp_year	varchar(50)			x		

4. Permission

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Permission_id	int		x	x	PK	
2	Permission_name	varchar(50)		x	x		

5. PermissionRole

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Permission_id	int			x	PK, FK1	Table Permission
2	Role_id	int			x	PK, FK2	Table Role

6. Department

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Dept_id	int		x	x	PK	

2	dept_name	varchar(50)		x	x		
3	dept_description	varchar(50)					

7. Feedback

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Fb_id	int		x	x	PK	
2	user_id	int			x	FK1	Table User
3	doctor_id	int			x	FK2	Table User
4	feedback	varchar(50)			x		
5	date_created	date			x		

8. ConfirmedSchedule

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Cf_id	int		x	x	PK	
2	Reservation_id	int		x	x	FK1	Table Reservation
3	Doctor_id	int			x	FK2	Table User
4	staff_id	int			x	FK3	Table User
5	time_start	datetime			x		
6	time_end	datetime			x		

9. Reservation

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Reservation_id	int		x	x	PK	
2	User_id	int			x	FK	Table User
3	full_name	varchar(50)			X		
4	phone	varchar(50)			X		
5	dob				X		
6	gender	bit			X		
7	insurance_code	varchar(50)			X		
8	examination_date	date			X		
9	examination_department	varchar(50)			X		
10	symptom	varchar(50)					

11	detail_note	varchar(50)					
12	created_date	date			x		

10. ReservationHistory

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	His_id	int		X	X	PK	
2	reservation_id	int		X	X	FK1	Table Reservation
3	doctor_id	int			X	FK2	Table User

11. MedicalRecord

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Rec_id	int		x	x	PK	
2	doctor_id	int			X	FK1	Table User
3	reservation_id	int		X	x	FK2	Table Reservation
4	physical_id	int		x		FK3	Table PhysicalRecord
5	internal_id	int		X		FK4	Table InternalRecord
6	eye_id	int		X		FK5	Table EyeRecord
7	ent_id	int		X		FK6	Table ENTRecord
8	maxillofacial_id	int		X		FK7	Table MaxillofacialRecord
9	code	varchar(8)			x		

12. PhysicalRecord

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Phy_id	int		x	x	PK	
2	height	float					
3	weight	float					
4	BMI	float					
5	pulse_rate	varchar(50)					
6	blood_pressure	varchar(50)					
7	physical_type	varchar(50)			x		
8	code	varchar(8)			x		

13. InternalRecord

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
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1	in_id	int		x	x	PK	
2	blood_cycle	varchar(50)					
3	respiratory	varchar(50)					
4	Gl	varchar(50)					
5	kidneys_unary	varchar(50)					
6	musculoskeletal	varchar(50)					
7	neurological	varchar(50)					
8	neuropsychiatric	varchar(50)					
9	code	varchar(8)			x		

14. EyeRecord

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Eye_id	int		x	X	PK	
2	vision_test	varchar(50)					
3	eye_disease	varchar(50)					
4	eye_type	varchar(50)			x		
5	code	varchar(8)			x		

15. ENTRecord

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Ent_id	int		x	x	PK	
2	hearing_test	varchar(50)					
3	nose_throat_disease	varchar(50)					
4	code	varchar(8)			x		

16. MaxillofacialRecord

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Max_id	int		x	x	PK	
2	upper_jaw	varchar(50)					
3	lower_jaw	varchar(50)					
4	dental_disease	varchar(50)					
5	code	varchar(8)			x		

17. BioChemicalRecord

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	id	int		x	x	PK	
2	ure	float					
3	glucose	float					
4	creatinine	float					
5	acid_uric	float					
6	protein	float					
7	cholesterol	float					
8	calcium	float					
9	ph	float					
10	code	varchar(8)			x		

18. BloodCellRecord

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	id	int		x	x	PK	
2	hc	float					
3	hemoglobin	float					
4	hematocrit	float					
5	reticulocyte	float					
6	setted_blood	float					
7	blood	float					
8	platelet	float					
9	blood_type	varchar(50)					
10	code	varchar(8)			x		

19. Journalist

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	id	int		x	x	PK	
2	name	nvarchar(200)			x		
3	image	nvarchar(2000)					

20. News

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	id	int		x	x	PK	
2	title	nvarchar(MAX)			x		
3	url	nvarchar(MAX)			x		
4	journalist_id	int			x	FK	
5	description	nvarchar(MAX)					
6	image	nvarchar(MAX)					
7	date_created	nvarchar(MAX)					

21. Patient

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	id	int		x	x	PK	
2	name	nvarchar(50)			x		
3	age	int			x		
4	address	nvarchar(50)			x		
5	option	varchar(50)			x		
6	code	varchar(50)		x	x		
7	gender	bit			x		
8	phone	varchar(50)			x		

22. Service

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
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1	id	int		x	x	PK	
2	name	varchar(100)			x		
3	description	varchar(MAX)					