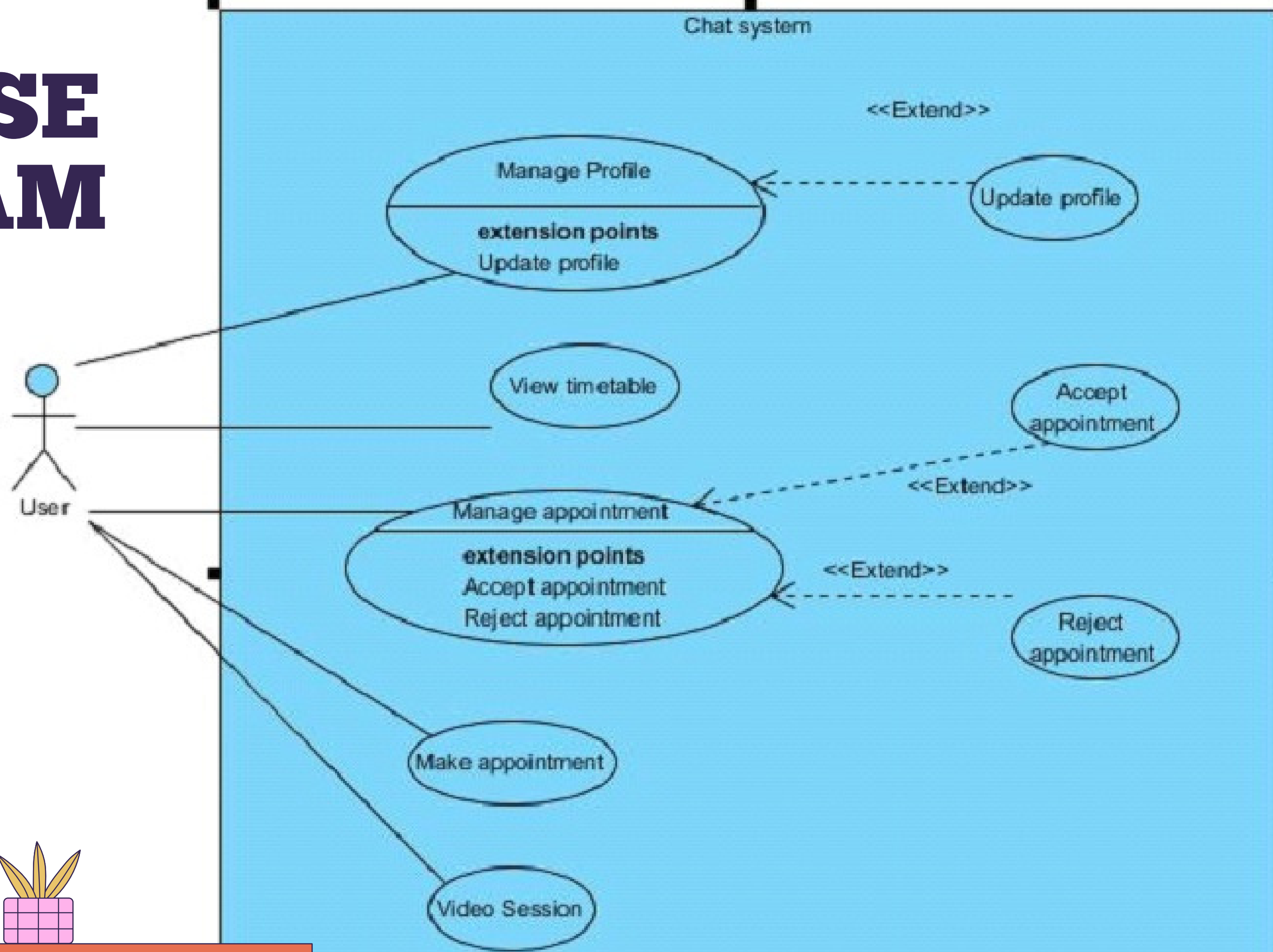


WEB CHAT SYSTEM

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USE-CASE DIAGRAM



USE CASE DESCRIPTION

Use Case ID-UC001

Feature- Manage user profile

Purpose- To enable user to manage the user profile

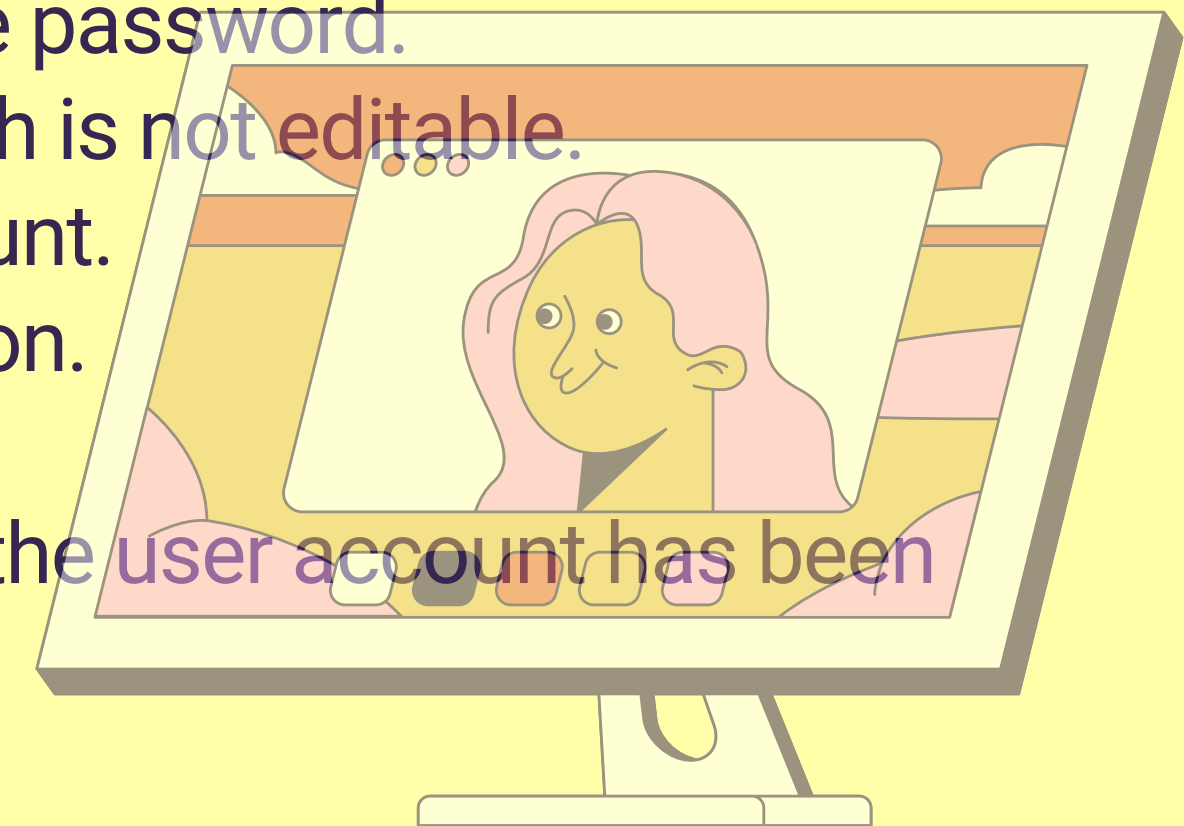
Actor- User

Trigger- User press on the account information tab in the menu or user just login into the system

Precondition- The user must login into the system

Main Flow -

1. The user click on the account information tab in the menu.
2. The system will show the user about the user information.
3. User click on the change password button to change password.
4. User can change any field except the username which is not editable.
5. User click on update button to update the user account.
6. System verifies the all the input of the user information.
7. System will update the user account.
8. System will display the message to inform user that the user account has been successfully updated .



Use Case ID-UC002

Feature- User can view the timetable

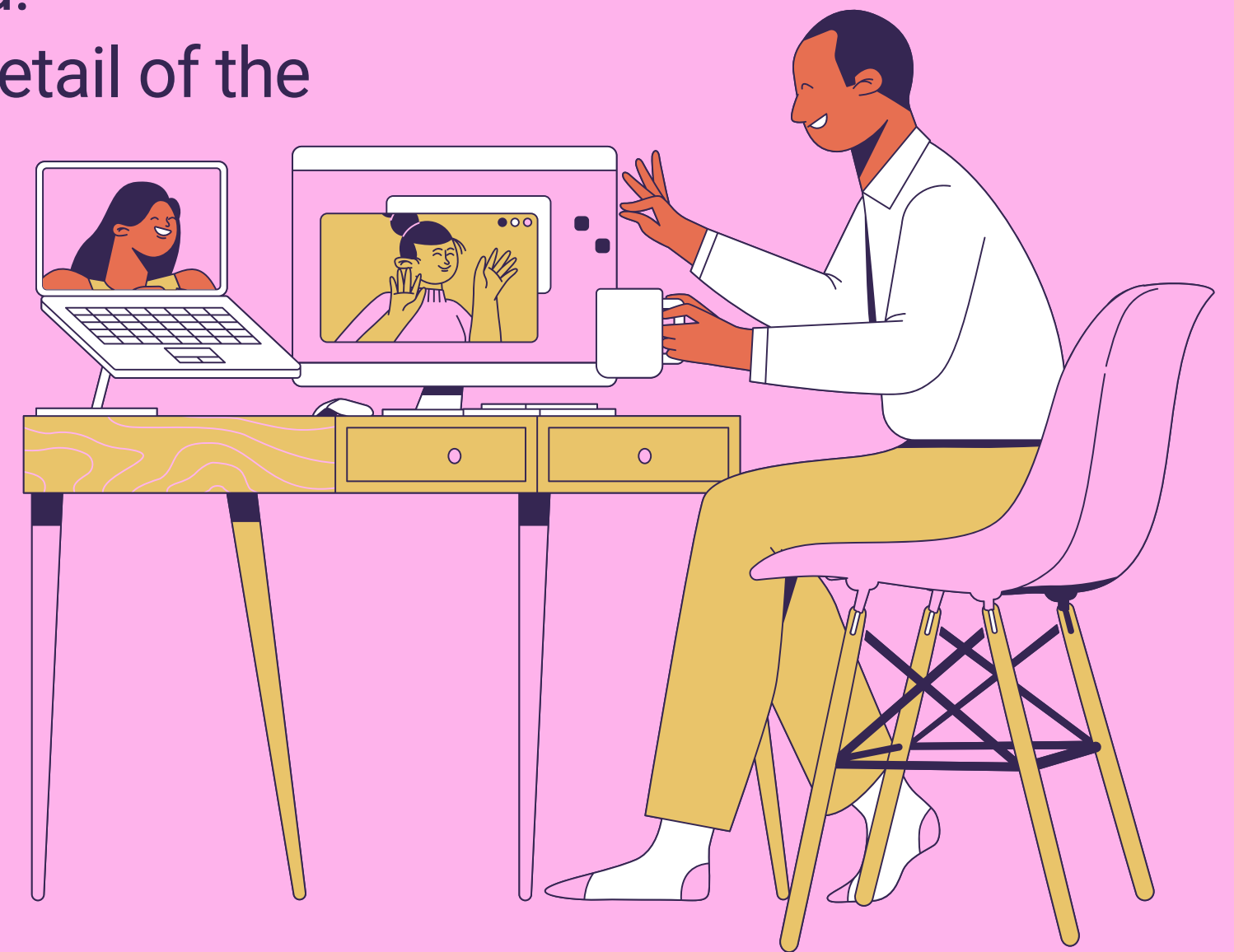
Purpose- To enable user to view the timetable for the consultation session.

Actor- User

Trigger- User click on the timetable tab in the menu.

Precondition- User must login into the system.

Main Flow -1. User click on the timetable tab in the menu.
2. The system will show the user about the detail of the upcoming appointment.



Use Case ID-UC003

Feature- Manage appointment

Purpose- To enable user to manage the appointments

Actor- User

Trigger- User click on the appointmentlist tab in the menu.

Precondition- The user must login into the system.

Main Flow - 1.The user click on the appointment tab in the menu.

2. System will show 3 panels to the user which is pending request, pending reply and rejected appointment.
3. User click on the pending request panel.
4. User click on the pending reply panel.
5. User click on the Rejected panel.



Use Case ID-UC004

Feature- Make appointment

Purpose- To enable user to make appointment

Actor- User

Trigger- User click on the make appointment tab in the menu.

Precondition- The user must login into the system.

Main Flow - 1. The user click on the makeappointment tab in the menu.

2. System will display an appointment template for the user to fill in.
3. System will display a list of user.
4. User need to fill in all the appointment detail in the template.
5. User submit the appointment template
6. System will verify the input of the user.
7. System will display appointment successfully made.



Use Case ID-UC005

Feature- Video session

Purpose- To enable user to have online conferencing.

Actor- User

Trigger- User click on the video session tab in the menu.

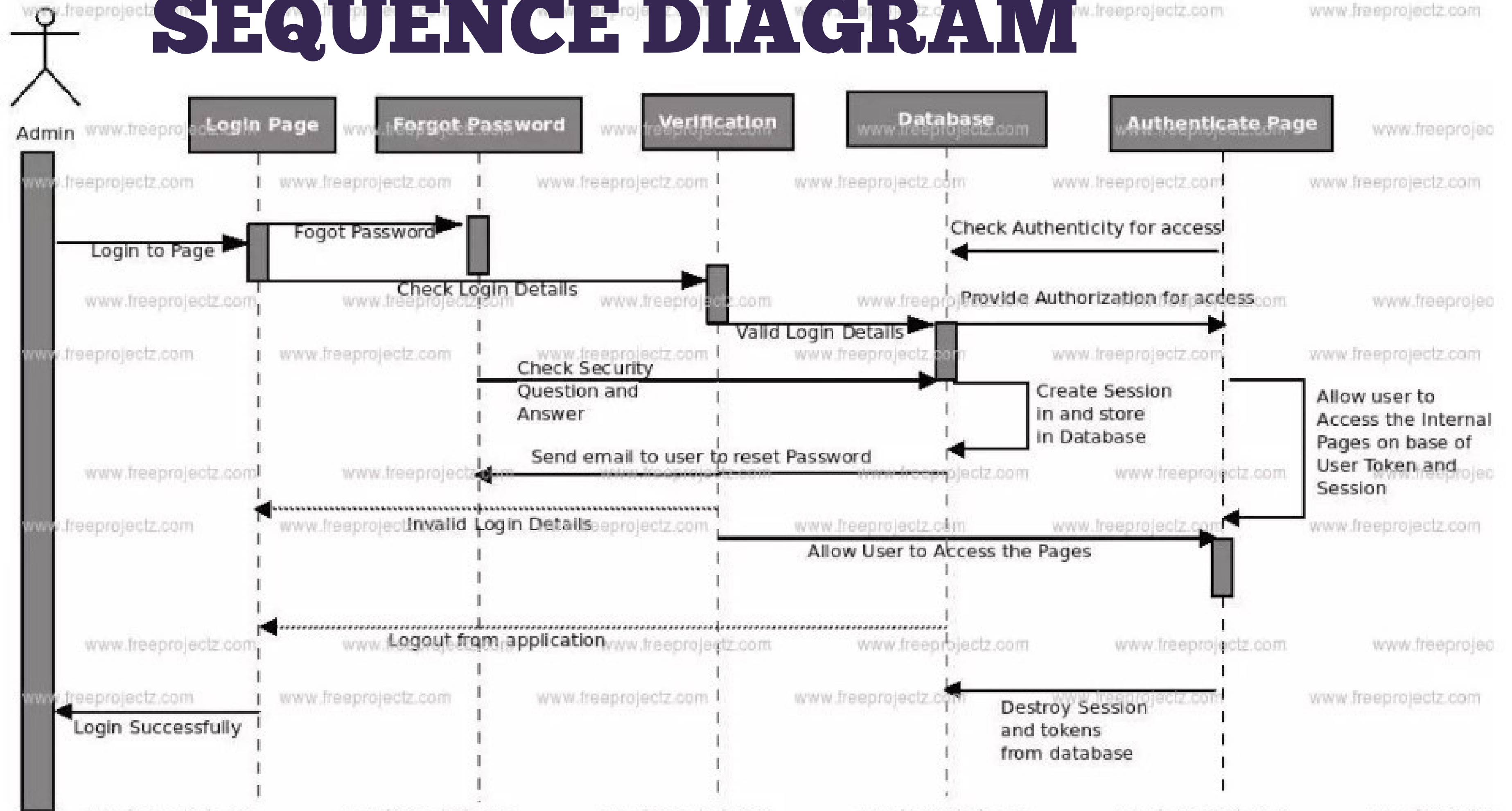
Precondition- The user must login into the system.

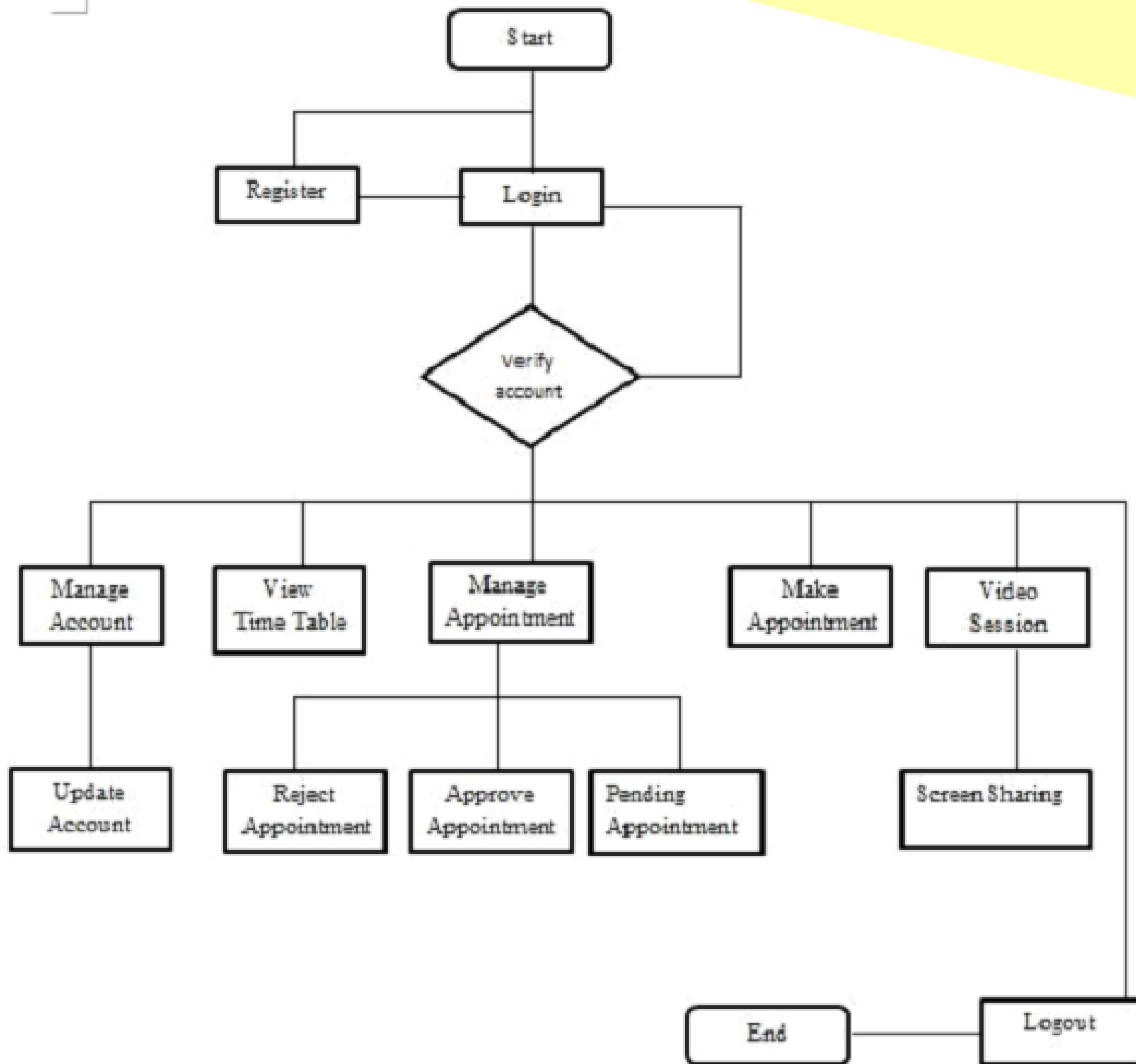
Main Flow -

1. The user click on the video session tab in the menu.
2. The system will show the video session that are available.
3. The user must click on the ready button to inform another user that he or she is available.
4. System enabled the start button to start the video session.
5. User click on the start button.
6. System will open a new popup for the video session.
7. User can start the video session but click the start button.
8. System prompts for the user video and audio input.
9. User enabled the audio and video input.
10. User click on the screen sharing button.
11. User click on the share file button
12. User can click on the text chat to sent message.



SEQUENCE DIAGRAM





ACTIVITY DIAGRAM

FLOW DESCRIPTION

1. Register

A new user has to register an account in order to use the chat system. Some particular that user have to fill in such as the Username, password, first name, last name, select the gender and role, email. The Username register for the system must be unique. After register it will direct to the login page.

2. Login

The user has to fill in the username and the password in order to login to the system. If the username or password is incorrect, the system will inform the user the incorrect input and request user to type in again.

3. Manage Account

After successfully login into the system, the first page occur is the profile page of the user. The user can chose to edit their account information such as changing the password or update others detail into the system.

4. View TimeTable

User can view all the upcoming consultation session that have been approved.

5. Manage Appointment

The user can check their appointment here. There are table that show the sent appointment, the pending appointment, accepted appoint and rejected appointment. User can chose to delete the appointment that have been made and haven't been approved. User can accept appointment or reject appointment that been requested. User can delete the appointment that have been rejected.

6. Make appointment

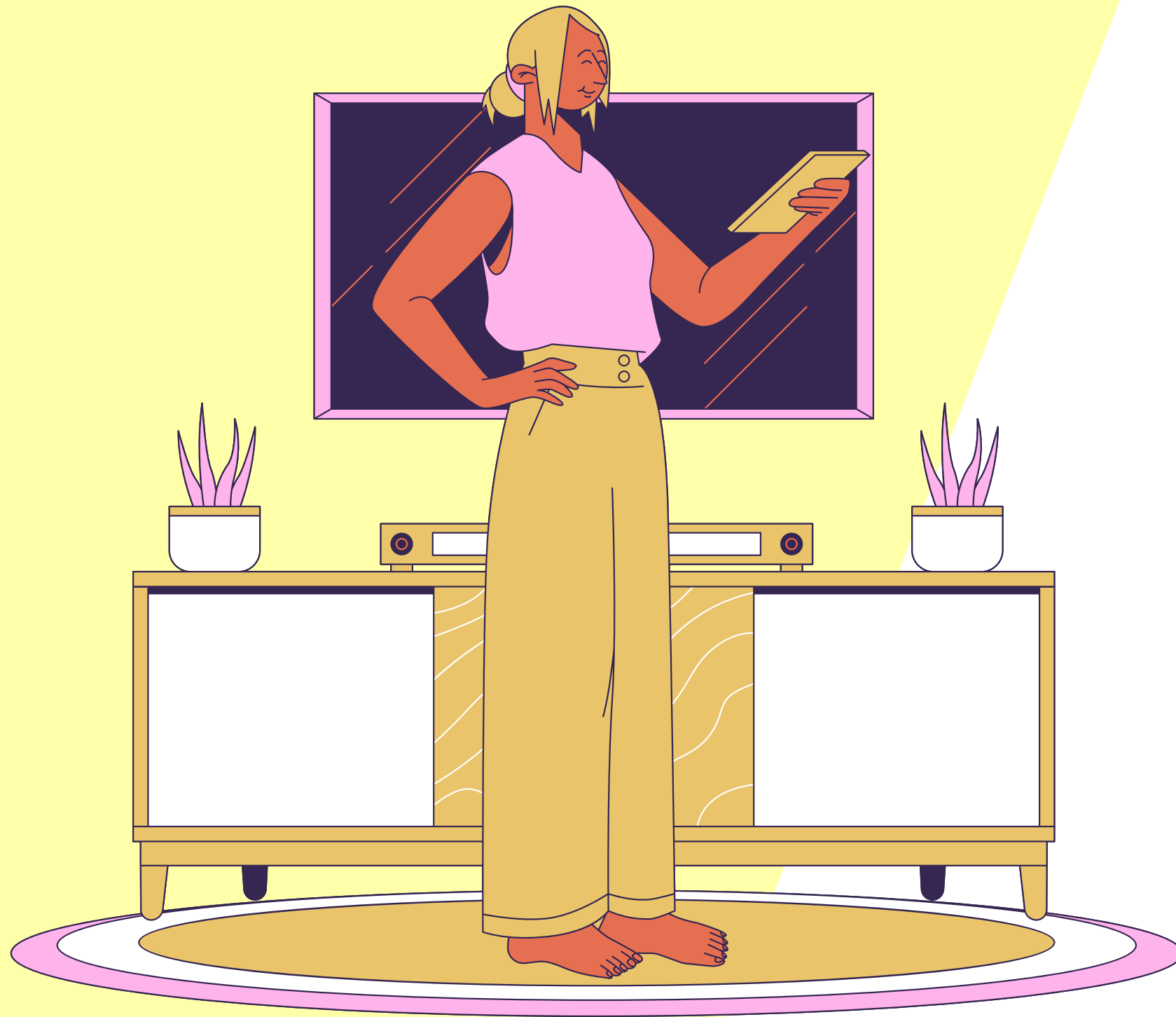
User can chose to make an appointment by filling the template provided. Some criteria have to full in are the data, time, appointment receiver, and the remarks is optional. After full in the template, the appointment can be sent.

7. Video session

User can have a video session. Some additional features such as screen sharing feature, text chat and file sharing to benefit the student have understanding toward the problem.

8. Logout

User can chose to logout from the system



COMPONENTS

Apache Web server-

Apache is one of the web servers to run for this project.

MySQL-

MySQL will be used to develop this project. MYSQL is an open source relational database management system that uses to manipulate the database.

Node.js-

Node.js is implemented to develop this project. This project will be using node as another server. Node server will be building the some feature for this project such as the webRTC, screen sharing, and file sharing feature.

Hypertext Markup Language (HTML)-

HTML will be the markup language to create this project website.
HTML is use to organize and display the content of the webpage.

Cascading Style Sheet (CSS)-

CSS is the style sheet language that will be used to along with HTML
in this project to provide better view.

JavaScript-

JavaScript is the client side language that will be used to develop this project. Some processes do not need to go through the server and can be handling by JavaScript such as simple validation or button event by writing function.

Hypertext Preprocessor (PHP)-

PHP will be selected as server side language for developed this project. The reason PHP is selected because PHP can work together with MySQL and can run on apache webserver. PHP is use to process the request from the client side reply the result to the client side.



OZEKI NG SMS Gateway-

OZEKI Ng SMS gateway is used as a SMS gateway because it free for trial. OZEKI also help to automatically sent the schedule SMS from the database. Furthermore Ozeki Ng SMS gateway also can connect with MYSQL database with the help of the ODBC drivers.

RTCMulticonnection WebRTC library-

RtcMulticonnection API is used because it is open source. It offered API that easy to learn and used. Furthermore, it also able to support and build the screen sharing.



SOFTWARE DEPLOYMENT

Setup and Installation-

1. Download and install the XAMPP CONTROL PANEL to use apache server and MYSQL
2. Download And install the 'node.js' to do the video sessions.
3. Install the RTCMulticonnection API in node.js.
4. Download the Netbeans IDE and choose HTML 5 and PHP.
5. Download the OZEKING SMS Gateway and all the supported connectors.
6. Configure SMS Gateway to the device
7. Connect the gateway to MYSQL database.
8. Write the HTML code for the various pages and connect it to the database