

CMPSC 488

Requirements Review

Group Name: Remember5

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Professor: Dr. Hein Nguyen

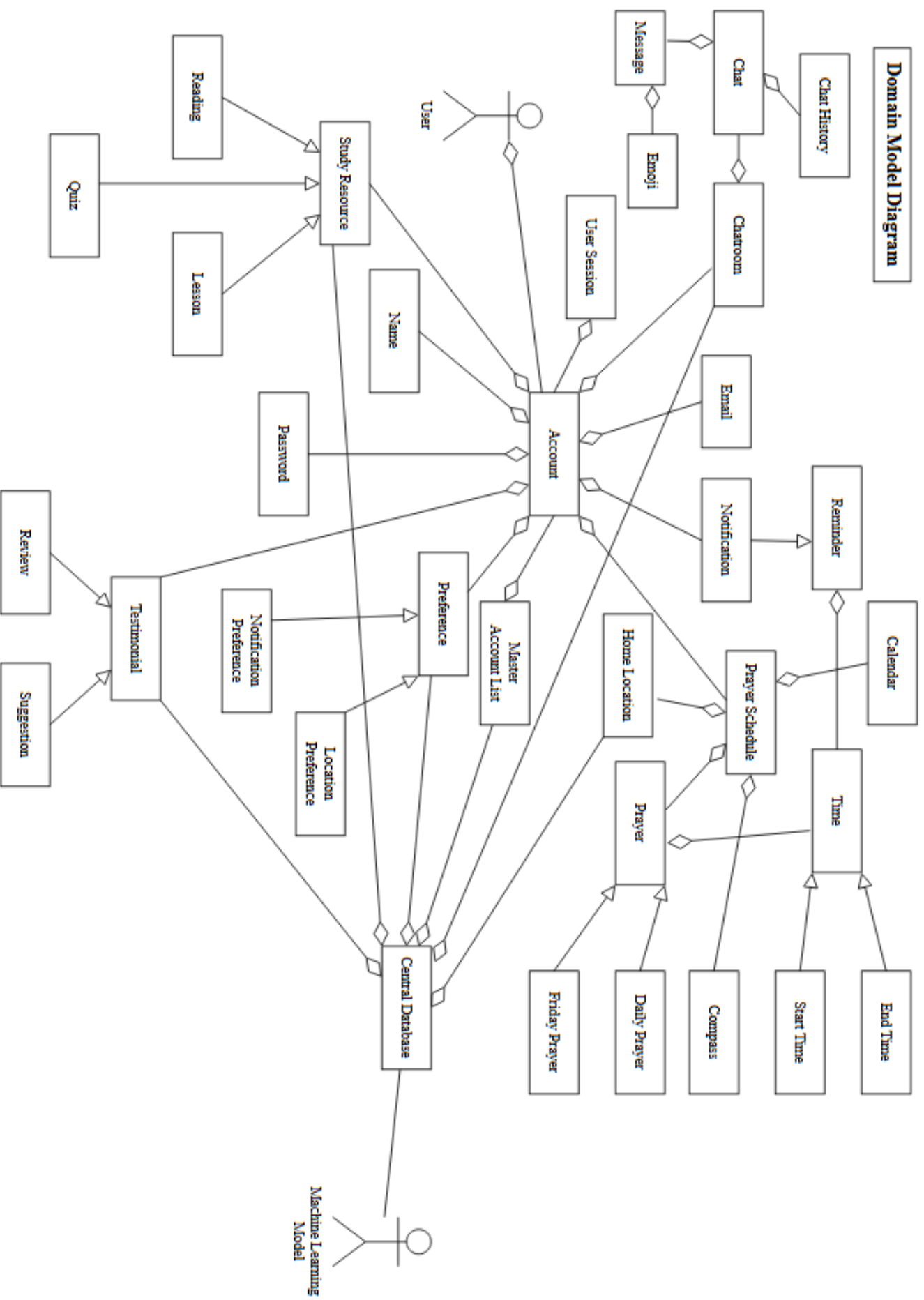
Date: 1/20/2023

High-level Requirements

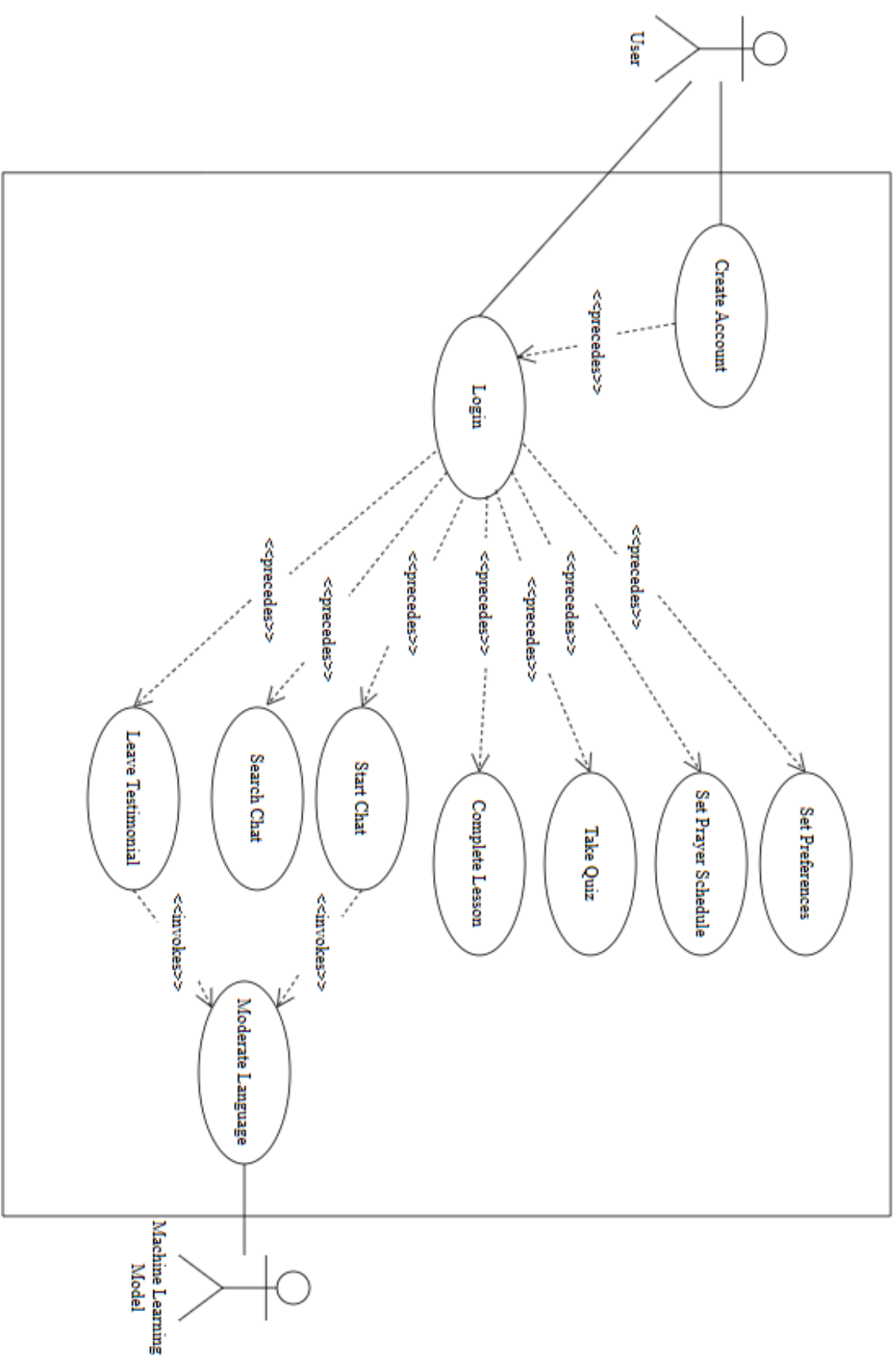
1. Remember5 will be a web-based application that will have a sufficiently flexible architecture to provide full functionality in two modes: desktop and mobile.
2. Remember5 must be able to provide reminders for the 5 daily prayers Muslims are obligated to fulfill.
 - a. The 5 timings of the daily prayers change every day based on the positioning of the sun in the sky, so these reminders must be adjusted accordingly every day.
 - b. The reminders will be sent at the starting time of the prayer as push notifications.
 - c. On Fridays, users will receive a separate notification for the special congregational afternoon prayer.
 - d. The Islamic calendar will be displayed on the Prayer page. Users will also receive notifications and reminders of Islamic holidays.
3. Remember5 will include on the prayer times page the coordinates pointing towards Mecca on the desktop version, and a compass on the mobile web version.
4. The user must be able to create a customer account, so that the system remembers the user's details (name, email, password) at login:
 - a. System shall maintain a list of accounts in its central database.
 - b. When the user logs in, his or her password and username must always be matched against the data in the master account list.
 - c. The user must be able to update any information that they provided, as well as have the option of deleting their account.
5. Remember5 at the time of a prayer, will send the user a list of people within the 5-mile distance based on the location of the other users. So that all those close by, may all pray together in congregation. All registered users' locations are set as non-discoverable by default, but the user will have the option to turn their location on.
6. Based on the list of people close to the user, the data will be collected and given to a machine learning model that will predict in advance where people might be at future prayer times.
7. The user shall have access to the chatroom by default at any time:
 - a. The user, when logged in, can send and receive messages in the chatroom.
 - b. The chatroom shall have a list of online and offline users. The chatroom will be moderated by a machine learning model checking for foul language.
 - c. The chat history will be saved in the database and will be accessible to the users in the search bar.
 - d. The chatroom will support sending and receiving files as well as provide a list of emoji to users.
8. The user shall have access to the religious studies section:
 - a. The section provides information about the religion for newly converted members, and for those that just want to learn more about the religion.
 - b. The user shall utilize the study resources to learn about the religion, such as: lessons, readings, and quizzes.
9. All account information must be stored in a central database:

- a. The central database should collect and store each individual user's preference, such as the history of selected notification and location preference, in order to provide a better service in the future.
10. The customer who uses Remember5 can post their testimonials on the web site:
- a. The user can share their experience and write suggestions for improvements.
 - b. The user's testimonials shall be moderated by a machine learning model (like the chatroom) and then saved to the central database. The user's testimonials and suggestions shall also be used in the future for further updates.
11. Remember5 must be scalable with the following specific requirements:
- a. The reminder service must be capable of maintaining user accounts for up to 50 customers in its first six months, and then a further 1,000 after that.
 - b. The reminder website must be capable of serving up to 50 simultaneous users.

Domain Model Diagram



Use Case Diagram



Use Case Texts

Set Prayer Schedule

BASIC COURSE:

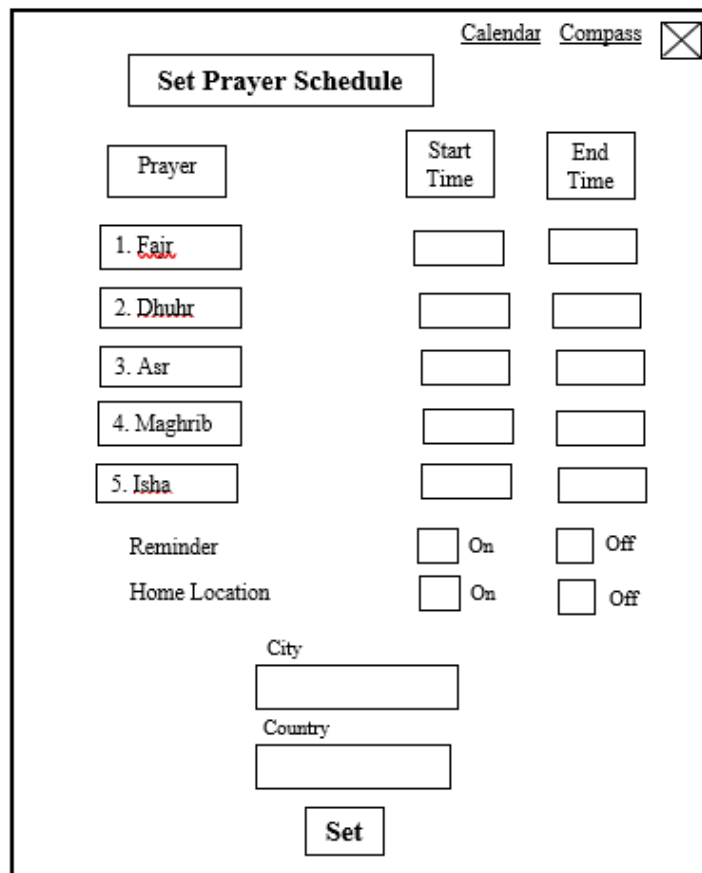
The system displays default Prayer Schedule on Prayer Schedule Page. The User enters Location (city, country) and clicks Set Button. The system retrieves requested Prayer Schedule by synchronizing with the entered Location and displays current Prayer Schedule. The User checks Home Location Box. The system saves the Home Location in Central Database.

ALTERNATE COURSES:

No matching location: The system displays “No location found” message and displays Prayer Schedule Page again.

Blank(s) in location query: The system displays “Location query is incomplete” message and displays Prayer Schedule Page again.

Home location is off: The system displays “Save changes?” message when the User leaves Prayer Schedule Page and returns to the default Prayer Schedule if No Box selected.



The GUI prototype for the 'Set Prayer Schedule' window includes a title bar with 'Calendar' and 'Compass' buttons and a close button. The main title is 'Set Prayer Schedule'. It features a table for prayer times with columns for 'Prayer', 'Start Time', and 'End Time'. The rows are for '1. Fajr', '2. Dhuhur', '3. Asr', '4. Maghrib', and '5. Isha'. Below the table are checkboxes for 'Reminder' and 'Home Location', each with 'On' and 'Off' options. At the bottom are input fields for 'City' and 'Country', and a 'Set' button.

Prayer	Start Time	End Time
1. Fajr		
2. Dhuhur		
3. Asr		
4. Maghrib		
5. Isha		

Reminder ☐ On ☐ Off
Home Location ☐ On ☐ Off

City

Country

Set

Figure 1-1. GUI Prototype for Set Prayer Schedule

Complete Lesson

BASIC COURSE:

The system displays Religious Studies Page. The User clicks Lessons Button. The system displays Lesson Topics on Lesson page. The User clicks a Lesson. The system retrieves the Lesson from Central Database and displays Lesson Material. The User completes Lesson, then clicks Completed Button. The system updates Lesson as completed in Central Database.

ALTERNATE COURSES:

Lesson Completed Button not clicked: The system displays “Complete the lesson” message and displays Lesson Page again.

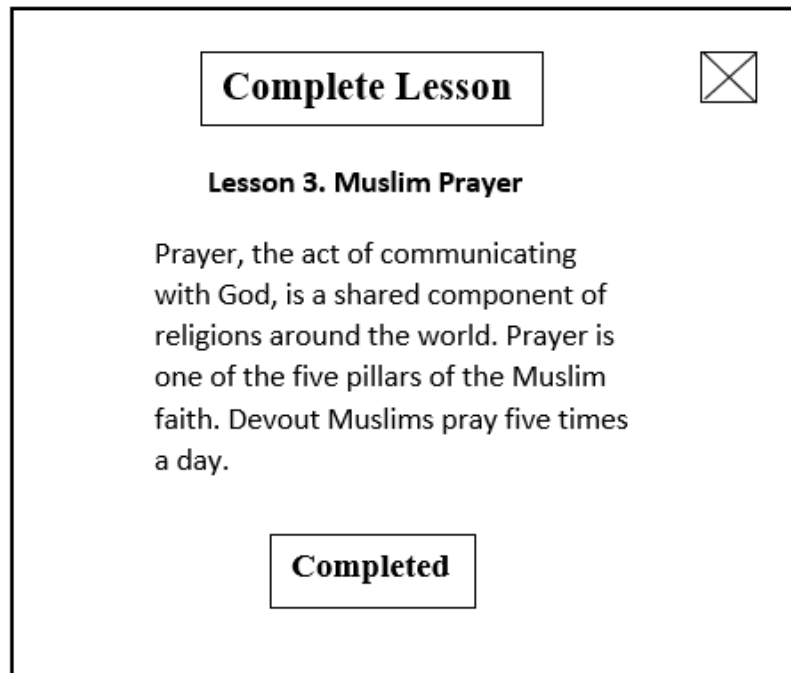


Figure 1-2. *GUI Prototype for Complete Lesson*

Take Quiz

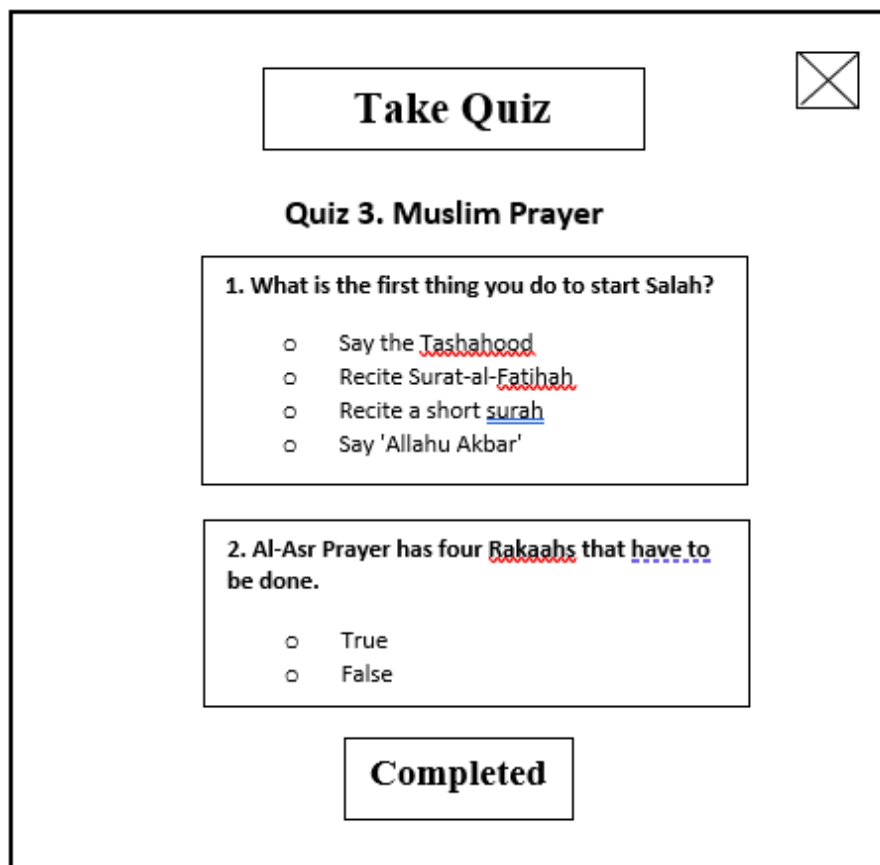
BASIC COURSE:

The system displays Religious Studies Page. The User clicks Take Quiz Button. The system displays Quiz Topics on Quiz page. The User clicks a Quiz. The system retrieves the Quiz from Central Database and displays Quiz Questions. The User clicks Submit Button. The system updates Quiz as completed in Central Database.

ALTERNATE COURSES:

Incomplete quiz: The system displays “Answer all questions” message and displays the Quiz again.

The user clicks Cancel Button: The system displays Quiz Topics on Quiz Page again.



The image shows a GUI prototype for a 'Take Quiz' window. The window has a title bar with a close button (X) in the top right corner. The main content area is titled 'Take Quiz' and contains the following elements:

- Quiz 3. Muslim Prayer**
- 1. What is the first thing you do to start Salah?**
 - ☐ Say the Tashahood
 - ☐ Recite Surat-al-Fatihah
 - ☐ Recite a short surah
 - ☐ Say 'Allahu Akbar'
- 2. Al-Asr Prayer has four Rakaahs that have to be done.**
 - ☐ True
 - ☐ False
- Completed**

Figure 1-3. GUI Prototype for Take Quiz

Start Chat

BASIC COURSE:

The system displays Chatroom Page. The User clicks Chat Button. The system retrieves Chat History from Central Database and displays active Chat on Chatroom Page. The User clicks Message Button and enters a Message. The User clicks Emoji Button, enters an Emoji, and clicks Send Button. The system adds Message to Pending Message Queue for moderation. The system invokes Moderate Language use case. The system stores Message in Central Database.

ALTERNATE COURSES:

No message entered: The system shows “Empty message can’t be sent” message and displays Chatroom Page again.

Foul language found: The system shows “Bad words found” message and displays Chatroom Page again.

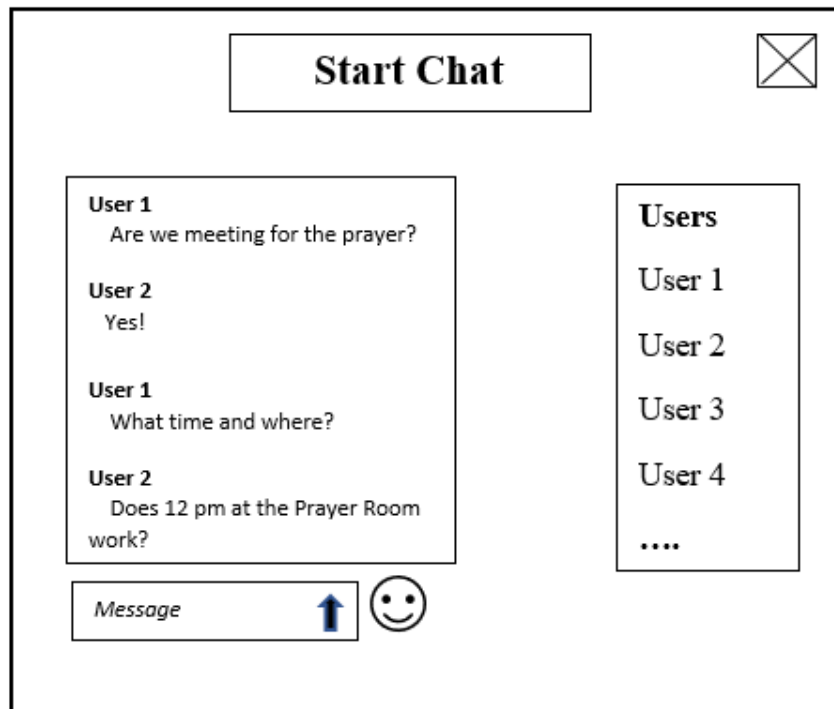


Figure 1-4. GUI Prototype for Start Chat

Search Chat

BASIC COURSE:

The system displays Chatroom Page. The User enters Search Text (a keyword or a contact) in the Search Chat Bar. The system retrieves Message(s) by accessing Message History in Central Database and determines a list of Messages that matches with Search Text. The system displays the list of matching Messages. The User clicks Message. The system displays selected Message History.

ALTERNATE COURSES:

Typos in search text: The system shows “No matches found” message and displays Chatroom Page again.

No search text entered: The system shows “No text entered” message and displays Chatroom Page again.

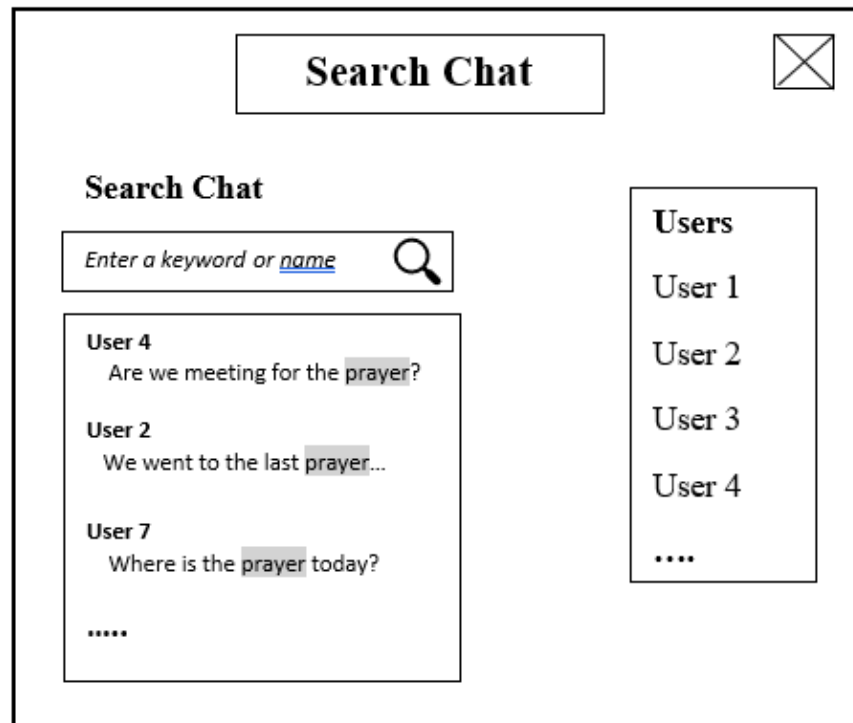
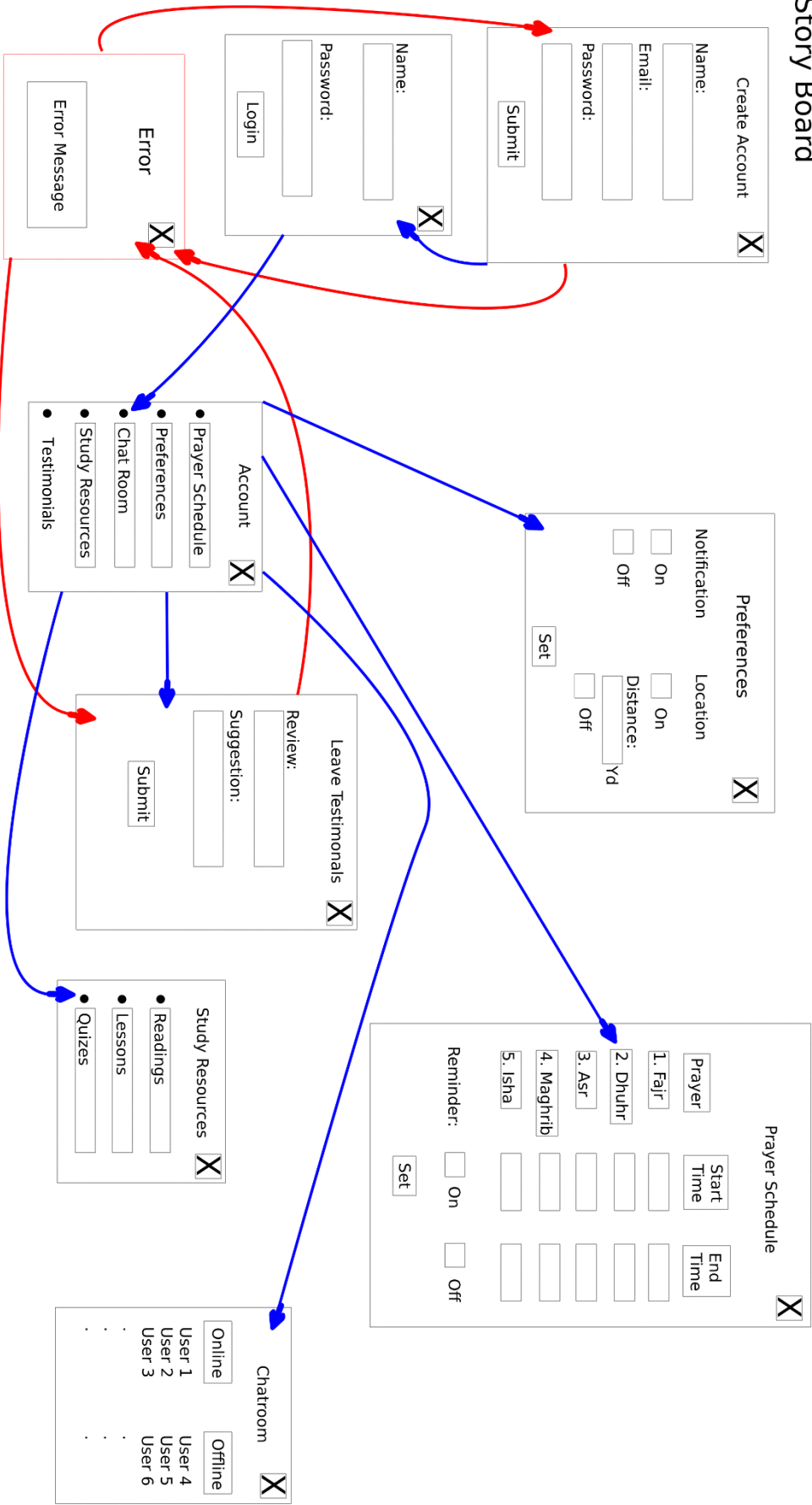


Figure 1-5. *GUI Prototype for Search Chat*

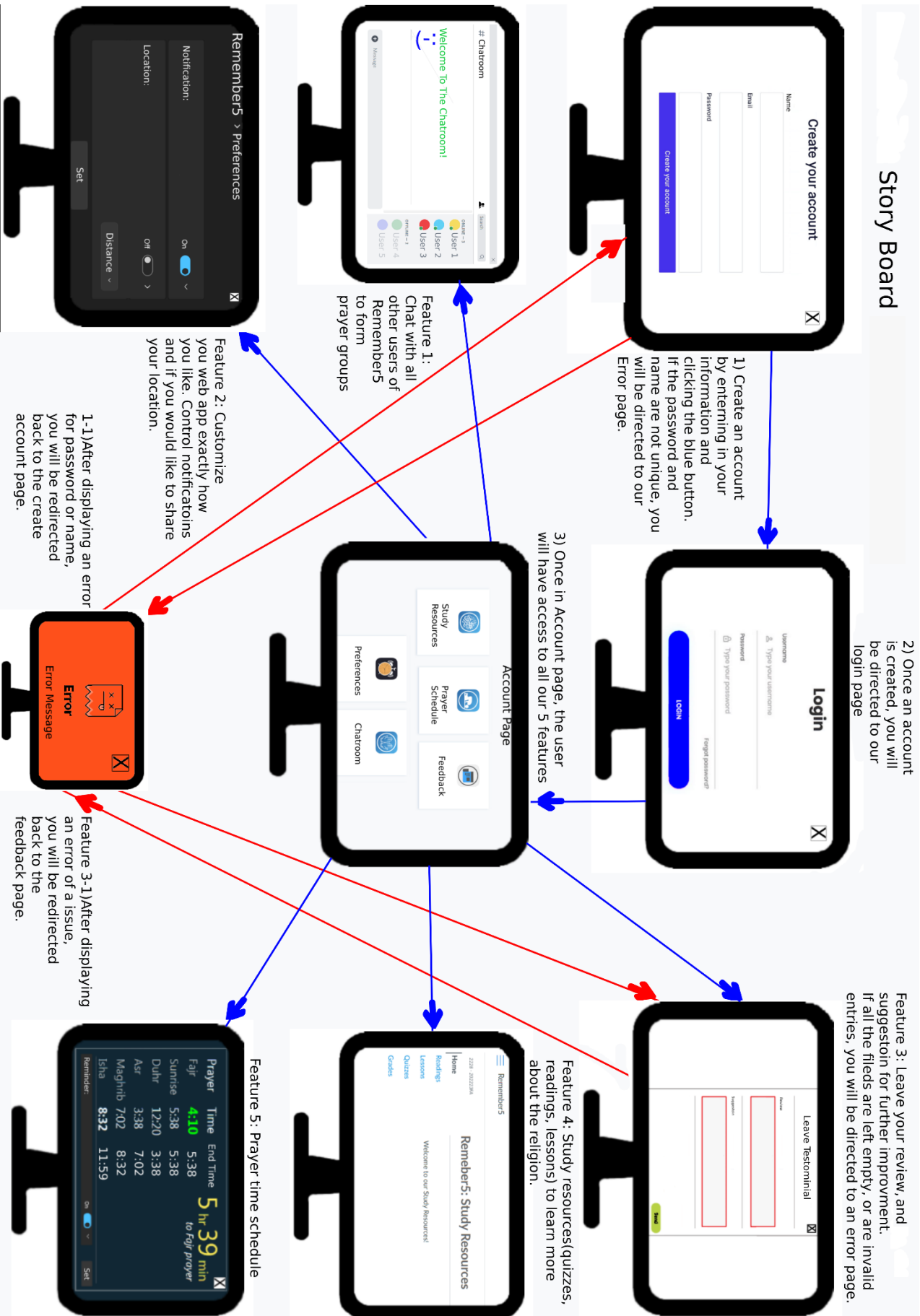
Story Board 1

Story Board



Story Board 2

Story Board

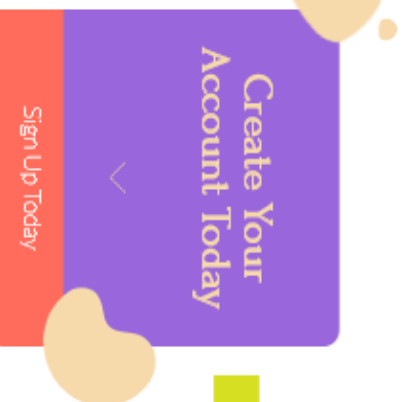




Remembers

STORYBOARD

Story Board 3



Page 0

Remember5:

- Stay ahead of time and focus on what is important.
- Receive daily reminders and notifications to never miss the prayer time



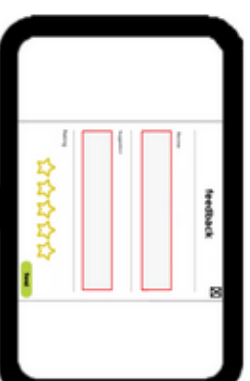
Page 1

Easy sign up: Enter your name, email and password and click Create Account Button



Page 2

Login in seconds with your username and password. Or use our Forget Password feature



Page 3

While enjoying our website, write a review and suggestions as well as provide your 5-star rating.



Page 4

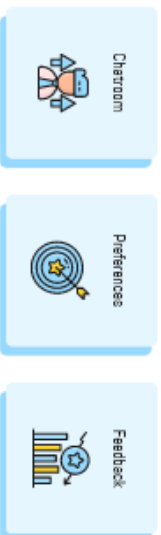
Oops! ~~Errors~~ happen filling in fields. No worries! Just type it in again.



Remember5

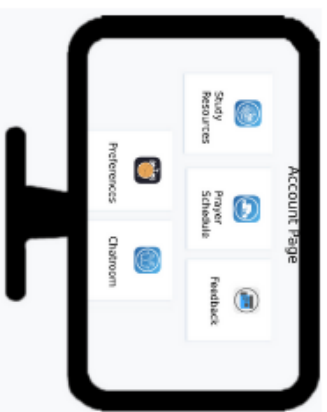
STORY BOARD

READY TO EXPLORE ALL FUNCTIONALITY?



Page 5

A breeze to navigate Account Page



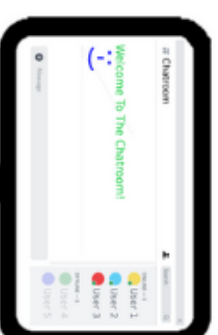
Page 6

Go with default Preferences or personalize Remember5 with offered options



Page 7

No need to memorize prayer times any more. Prayer Schedule keeps track of time for you and sends regular reminders



Page 8

Talk to your friends and set up prayer groups in our Chatroom



Page 9

Brush up on your knowledge of Islamic religion and learn more with our Study Resources Page with lessons, readings and quizzes of your choice