

Mid Semester Assignment Spring Semester,

Date: 13/04 /2020

Course: SRS Instructor : AASMA KHAN

Program: BS(SE). Note: Attempt all question.

Total Marks: 30

Name : Abdullah

ID : 12406

- Attempt all questions.
- Question NO:1

MCQS

1.D

2.E

3.A

4.B

5.A

6.C

7.D

8.B

9.C

10.D 11.A , 12.B ,13.C, 14.A, 15.D

Question NO:2

Android instant Messaging application is one of easiest way to chat within organization through LAN. No active internet connection is required. The only thing, which required is recipient IP address and you will be able to connect to other member through LAN. It can help you to talk to your colleague even both do not have active internet connection. As it is based on LAN (local area network), which connect different client to each other through server. So we have used the same concept here we are connecting two clients to server by providing the IP addresses. In the currently available applications, the file sharing and messaging is not secure due to the use of internet channel they are using, also these applications use the basic encryption algorithms which are just encrypt file title so these problem lead to a new system which is proposed here.

Constraints for Android Instant messenger:

Android Instant messenger operate within a Local Area network, so it has many constraints, which are given below:

1. Local Area Network: The main idea of this application was to reduce the security breaches and many other securities related problems occurring in the daily used messenger applications.
2. Profile: Almost every messenger application somehow required identity verification, so our application also need to verify individual by making a profile either using social media login, or through IP (Internet Protocol) address.

Question 3.1:

A. System Requirement:

1. Android device: LAN Messenger needs to be install on some android device. The required device need to have at least 512MB of Random access memory, so that it can run smoothly when it is running.
2. LAN: Local area network is required for the system to operate within, we were try to make the system to just run on LAN (Local area network) and keeping the organizational needs in mind.
3. IP Address or Profile: The application initially needs to have some sort of verification of user, whom it will be used by. So before going to chat with someone, it is required to have verified account either using his/her IP address, or using some sort of social media login mechanism.
4. Storage for Installation (At least 30MB): Every application needs some sort of storage to be installed in, so does the LAN messenger. The application size is about 20 MB, but some extra storage will also be required to have database module install for information storage.

User Requirements:

1. **Messaging:** In the very beginning the user needs to either make his/her profile or they can directly send a message by entering the recipient IP address. Once they are connect they send and receive message like other messenger application, but this needs to be done in Local Area network.
2. **File Sharing:** File Sharing one of the most important module, sometime organization needs some sort of secure way to share the confidential files, so that was not possible in ordinary messenger applications, because most of the chat applications work on internet, and are always at risk, because of the intruders can leak, or cheat some confidential information. Sharing files through LAN messenger lowered that risk and provided a confident way of sharing confidential.
3. **Video and audio Calling:** This is another challenging requirement in the user requirement group, because every messenger application has some sort of calling and VOIP (Voice over internet protocol).
4. **Group chat:** Users can make a group and chat in the group, admin can also add user by IP address if someone have not account to connect.

Question 3.1:

B. Functional Requirements: Functional Requirement are requirements which define a function of a system or system module, where a function is a specification of behavior between response and user action.

1. Private and public chat
2. User Registration
3. Chat history
4. Chat backup

Non-Functional Requirements: Non-Functional requirements are requirements which user does not demand for, but are necessary to important for the smooth work of the system or application.

1. Unlimited messaging
2. Requires IP or Email address to connect to his peer.
3. Accessible
4. Backing UP Chat History:

Question 3 Part 2: Use case diagram:

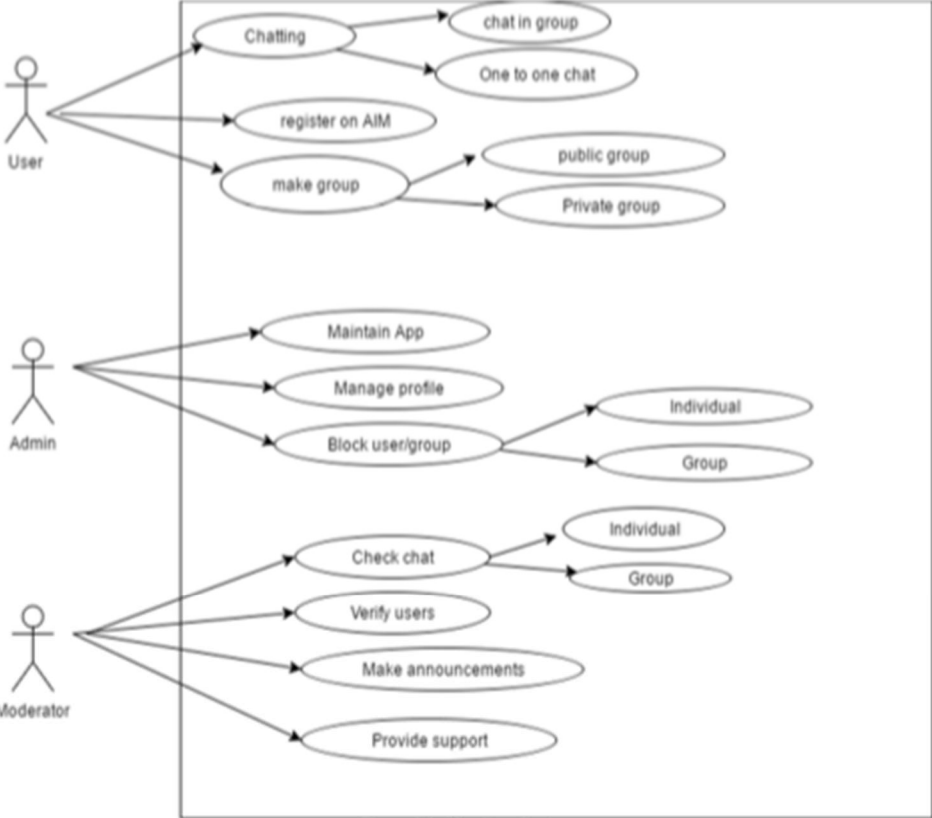


Figure 2.1: Use Case Design