2, Database

Use Mysql database in server. There are 2 tables in the database.

1) Goups

This table is used to store the information of all the groups.

SQL:

CREATE TABLE `groups` (

`num` int(11) NOT NULL AUTO_INCREMENT,

`name` varchar(45) NOT NULL,

 `creator` varchar(45) NOT NULL,

`time` varchar(45) DEFAULT NULL,

PRIMARY KEY (`num`),

UNIQUE KEY `name_UNIQUE` (`name`));

2) User

This table is used to store all the information of all users.

SQL: CREATE TABLE `users` (

`num` int(11) NOT NULL AUTO_INCREMENT,

`name` varchar(45) NOT NULL,

`password` varchar(45) NOT NULL,

PRIMARY KEY (`num`),

UNIQUE KEY `name_UNIQUE` (`name`));

3, Functions

The IM has implemented all functions and added other functions. The following is the details.

1, Two parts: Server, Client.

2, When the app is invoked, it tries to connect with the Server, and many devices can connect to the same Server.

3, As long as the app is running on the device, it tries to connect with the server once every 30 seconds, continually.

4, If it is successful, the Status changes to "Up."

5, If the network connection toggles between up and down, the app must handle it.

6, If the device is successfully connected to the Server, the Status is Up; otherwise, it is Down.

7, Connected users can join a group with a known ID to form an instant messaging (IM) group.

8, If a user has joined a group, the "Group ID is:" field shows the group name; otherwise, it shows "Not Connected." Similarly, users can Quit from a group.

9, The Buddy button shows a list of users who are actively connected to the group now.

10, Send a message to a joined group by typing in a message in the appropriate window and touching the Send button..

11, A received message is displayed in the window, along with the name/id, image and time of the sender.

12, A user can join multiple groups at the same time.

13, The user can create a group that other users can join in.

14, The creator of the group can delete his created group.

15, A user can sign up and login in.