Testing and Code Inspection

Group 7

HOLLO Project

Darias Skiedra, Mateusz Wszolek, Shreyas Gaonkar, Heeba Mohammed
CS440 - Fall 2015
University of Illinois Chicago

Below is one of the test cases that were made in the entire project with detailed explanation and the end result of the test.

Test Case Identifier	Login
Test Phase	Unit Test
Test Feature	Successful logon to the application User is taken to Main Menu
Pass / Fail Criteria	User must be able to connect to the server with their credentials contained in a database
Pre-Conditions	- App is installed on the device - User has registered successfully
Test Procedure	- Open the application - Enter username and password in the login panel - System searches for User/Password combination in the databases - If credentials are a match in the database, fetch user's information - Connect to app with the users' account information
Special Requirements	- None

Result: PASS

2 Unit Tests:

Unit tests:

- Concurrent access to the User Manager (Server)
- Receiving message from a user who is not logged in (Server)
- Sending errors to users (Server)
- Log in input (Server)
- Input Field for username (Desktop Client)
- Input Field for Password (Desktop Client)
- Status updates (Desktop Client)
- User Verification (Server)
- Log-in (Android Client)
- Account Create (Android Client)
- Message sending (Android Client)

3 System Testing:

Functional Tests notes:
Completing user creation is intuitive and quite simple. The login is also quick and easy, just the way you can expect from an app. Messages are not sent when "enter" is hit, but it breaks into a new line. In order to send messages, the user must press the "send" button just like most of the text based applications. This feature can be implemented later in the future and doesn't cause the app to stop working. There are missing labels for some functionality, but most of them are quite self explanatory (for example, the status selection on the desktop client.) On the Android client the text starts in the middle of the screen.

Performance Testing notes:
1. Server works with limited number of concurrent users. Right now only one Amazon server is deployed.
2. Messages are delivered quickly and can be replied back immediately.
3. Messages to offline users are stored and sent when the user is online.
4. Messages are stored in-memory, no current system for non-volatile storage.
5. Connecting to server from clients is fairly immediate, no extensive delays noticed.
6. Changing the password or status updates is simple and quick. The users are informed if their changes made were successful or not.
7. Starting the android app or the desktop client is fast and responsive with almost no latency.
8. App sizes are relatively small without compromising the performance.

4 Code Inspection notes:
   A. Android:
      a. Some comments were not updated to reflect code
      b. Some important functionality is not currently commented
      c. Some poor-reuse of code, only small portion

   B. Desktop Application:
      a. No header comments in few of the functions
      b. Included code has absolute and not relative path for images.
      c. Debug messages in production
      d. Unfinished TODO comments
      e. Unreachable code *(Should there be steps to remove such cases?)*

   C. Server:
      a. The {} are not used consistently
      b. Indentation is not consistent
      c. Some comments were not updated to reflect code
      d. Unused code (definitions for calling and video conferences)