

CS408

**Test Plan
for
Android Instant Messenger**

Team 5

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1. Introduction

1.1 Objectives

This test plan for testing the Android Instant Messenger supports the following objectives:

- 1) To detail the activities required to prepare for and support the test.
- 2) To define the sources of information used to prepare the test plan.
- 3) To define the test tools and environment needed to conduct the test.

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2. Features to be Tested

The following features will be tested.

2.1 Server Side

- 1) Server connectivity through clients and between users;
- 2) New user registration;
- 3) User Login, Login status and authentication of the user, i.e. username and password;
- 4) Receive and send messages from clients;
- 5) Put information into database;
- 6) Using database to retrieve historical information
- 7) Functions provided to users such as adding friends and personal settings.

2.2 Client Side

- 1) User friendly interface usability including the stability of all buttons, tabs, and frames.
- 2) User configuration including change of profile status and pictures.

3. Features not to be Tested

3.1 Speed & Performance

In short term, the speed performance of the software is not to be concerned. While, we are mainly focused on the functionality of the software.

3.2 Robustness

Our team will only run the software on Android Platform which includes both

Virtual machine on PC or Android devices. The project currently is limited on Android Platform.

3.3 Security

Our team will try to minimize the cost for security issues.

4. Approach

4.1 Environment

The project will be tested under the environment of Android Platform with versions higher than 4.0.0. Either on mobile device or PC.

4.2 Tools needed for testing

A mobile phone supporting Android System is preferred. Eclipse with Android Plugin is optional. Also a remote server is needed.

5. Entry Criteria:

- 1) Testing environment established
- 2) Test cases prepared

6. Suspension Criteria:

- 1) Testing environment is not working due to repair
- 2) Pending defects are impractical to fix.

7. Exit Criteria:

- 1) All modules tested
- 2) All types of tests applied
- 3) All major bugs resolved

8. Test Cases

- A. Welcome 001, Login Button, Severity 1
- B. Click “login” button
- C. Software jumps to the login page

- A. Welcome 002, Register Button, Severity 1
- B. Click “register” button
- C. Software jumps to the register page

- A. client register 001, Login Button, Severity 1
- B. Click “directively login” button
- C. Software jumps to the login page

- A. client register 002, Back Button, Severity 1
- B. Click “back” button
- C. Software jumps to the welcome page

- A. client register 003, Bad Register with No Username, Severity 2
- B. Leave the “Username” blank and click “OK” button
- C. popup box appears saying “Please enter a username!”

- A. client register 004, Bad Register with Invalid Username 001, Severity 2
- B. Enter a username starting with a number
- C. popup box appears saying “username should start with an English letter”.

- A. client register 005, Bad Register with Invalid Username 002, Severity 2
- B. Enter a username with a “*” in it and click “OK” button
- C. popup box appears saying “username should contain only English letters and numbers”

- A. client register 006, Bad Register with Invalid Username 003, Severity 2
- B. Enter a username with a “-” in it and click “OK” button
- C. popup box appears saying “username should contain only English letters and numbers”

- A. client register 007, Bad Register with Invalid Username 004, Severity 2
- B. Enter a username with a “/” in it and click “OK” button
- C. popup box appears saying “username should contain only English letters and numbers”

- A. client register 008, Bad Register with Invalid Username 005, Severity 2
- B. Enter a username with a blank (“ ”) in it and click “OK” button
- C. popup box appears saying “username should contain only English letters and numbers”

- A. client register 009, Bad Register with Invalid Password 001, Severity 2
- B. Leave the password blank and click “OK” button.
- C. popup box appears saying “password length should be between 5 and 16”.

- A. client register 010, Bad Register with Invalid Password 002, Severity 2

B. Enter a password with length between 5 and 16 with a "*" in it and click "OK" button
C. popup box appears saying "username should contain only English letters and numbers".

A. client register 011, Bad Register with Invalid Password 003, Severity 2
B. Enter a password with length between 5 and 16 with a "/" in it and click "OK" button
C. popup box appears saying "username should contain only English letters and numbers".

A. client register 012, Bad Register with Invalid Password 004, Severity 2
B. Enter a password with length between 5 and 16 with a " " in it and click "OK" button
C. popup box appears saying "username should contain only English letters and numbers".

A. client register 013, Bad Register with Invalid Password 005, Severity 2
B. Enter a password with length longer than 16 and click "OK" button
C. popup box appears saying "password length should be between 5 and 16".

A. client register 014, Bad Register with Invalid Password 006, Severity 3
B. Enter a password with length 17 and click "OK" button
C. popup box appears saying "password length should be between 5 and 16".

A. client register 015, Bad Register with Invalid Password 007, Severity 3
B. Enter a password with length 4 and click "OK" button
C. popup box appears saying "password length should be between 5 and 16".

A. client register 016, Bad Register with Invalid Password Re-enter 001, Severity 2
B. Leave Re-enter password blank and click "OK" button
C. popup box appears saying "the two passwords you entered are different".

A. client register 017, Bad Register with Invalid Password Re-enter 002, Severity 2
B. Re-enter a password that is different from the password and click "OK".
C. popup box appears saying "the two passwords you entered are different".

A. client register 018, Bad Register with Invalid Password Re-enter 003, Severity 3
B. Re-enter correct password with a " " after it and click "OK".
C. popup box appears saying "the two passwords you entered are different".

A. client register 019, Bad Register with Invalid Password Re-enter 004, Severity 3
B. Re-enter correct password missing the last character and click "OK".
C. popup box appears saying "the two passwords you entered are different".

A. client register 020, Good Register 001, Severity 2
B. Enter a valid username with any valid password and click “OK”.
C. popup box appears saying “Register Succeeds!” and the software jumps to main page.

A. client register 020, Good Register 002, Severity 2
B. Enter a valid username with any valid password of length 5 and click “OK”.
C. popup box appears saying “Register Succeeds!” and the software jumps to main page.

A. client register 021, Good Register 003, Severity 2
B. Enter a valid username with any valid password of length 16 and click “OK”.
C. popup box appears saying “Register Succeeds!” and the software jumps to main page.

A. client login 001, Back Button, Severity 1
B. Click “back” button.
C. Return to the welcome page.

A. client login 002, Register Button, Severity 1
B. Click “New User” button.
C. Jump to the register page.

A. client login 003, Login Failure with Empty Username, Severity 2
B. Leave username empty and click “Login” button.
C. Pop up dialog box saying “Please enter your username”.

A. client login 004, Login Failure with Empty Password, Severity 2
B. Leave password empty and click “Login” button.
C. Pop up dialog box saying “Please enter your password”.

A. client login 005, Login Failure with Invalid username/password Combination, Severity 3
B. Invalid username/password combination is entered and click “Login” button.
C. Pop up dialog box saying “Your username/password is invalid.”.

A. client login 006, Login Failure with Invalid password 001, Severity 4
B. Input valid username and the correct password with a “ ” after it and click “Login” button.
C. Pop up dialog box saying “Your username password is invalid”.

A. client login 007, Login Failure with Invalid password 002, Severity 4
B. input valid username and the correct password missing 1 character and click “Login”

button.

C. Pop up dialog box saying “Your username password is invalid”.

A. client login 008, Login Success, Severity 2

B. Correct username/password combination is entered and click “Login” button.

C. Login successfully and jumps to main page.

A. contacts 001, Pick a Person, Severity 2

B. Click a roll representing a person.

C. Software jumps to the according profile page.

A. client-profile 001, Back Button, Severity 1

B. Click “back” button.

C. Software jumps to the contacts page.

A. client-profile 002, Send Message Button, Severity 2

B. Click “send message” button.

C. Software jumps to according dialog page.

A. client-usrprofile 001, Change profile picture, Severity 2

B. Click on the profile picture.

C. Popup box shows multiple profile pictures for the user to choose from.

A. client-usrprofile 002, Change nickname long, Severity 3

B. Click profile name and input more than 10 characters of nickname click “done”

C. Pop up dialog box saying “Nickname too long.”.

A. client-usrprofile 003, Change nickname empty, Severity 3

B. Click profile name and input nothing and click “done”

C. Pop up dialog box saying “Nickname can’t be empty.”.

A. client-usrprofile 003, Change nickname ok, Severity 3

B. Click profile name and input non- empty nor more than 10 characters of nickname click “done”

C. Pop up dialog box saying “Nickname changed.”

A. Logout 001, Logout Success, Severity 2

B. Click “Logout” button.

C. Returns to the login page.

A. server-register 001, Bad Register with Null Username and Null Password, Severity 3

- B. Server receive Null Username and Null Password
- C. Return to Client with [register]format_error

- A. server-register 002, Bad Register with Null Username , Severity 3
- B. Server receive Null Username
- C. Return to Client with [register]format_error

- A. server-register 003, Bad Register with Null Password , Severity 2
- B. Server receive Null Password
- C. Return to Client with [register]format_error

- A. server-register 004, Bad Register with overlong Username, Severity 2
- B. Server receive a Username exceeds the maximum length
- C. Return to Client with [register]format_username

- A. server-register 005, Bad Register with overlong Password, Severity 2
- B. Server receive a Password exceeds the maximum length
- C. Return to Client with [register]format_password

- A. server-register 006, Bad Register with over short Password, Severity 2
- B. Server receive a Password shorter than requirement
- C. Return to Client with [register]format_password

- A. server-register 007, Bad Register with Password include illegal character, Severity 2
- B. Server receive a Password contain '*'
- C. Return to Client with [register]format_password

- A. server-register 008, Good Register with legal Username and Password, Severity 2
- B. Server receive a legal Username and Password
- C. Return to Client with [register]success_register

- A. server-verify 001, Bad Verify with Null Username and Null Password, Severity 2
- B. Server receive a null Username and null Password
- C. Return to Client with [verify]format_error

- A. server-verify 002, Bad Verify with Null Username, Severity 2
- B. Server receive a null Username
- C. Return to Client with [verify]format_error

- A. server-verify 003, Bad Verify with Null Password, Severity 2

- B. Server receive a null Password
- C. Return to Client with [verify]format_error

- A. server-verify 004, Bad Verify with Username not in the database, Severity 2
- B. Server receive an unknown Username
- C. Return to Client with [verify]unknown_username

- A. server-verify 005, Bad Verify with not match Password, Severity 2
- B. Server receive a wrong password
- C. Return to Client with [verify]wrong_password

- A. server-verify 006, Good Verify with correct username and correct Password, Severity 2
- B. Server receive a correct set of Username and Password
- C. Return to Client with [verify]success_verify

- A. Server-messageHandler 001, Bad Empty Message, Severity 1
- B. Server receives an empty message recorded from device A to device B on the condition that A and B are in each others' friendLists
- C. Return to Client device A with [Server-messageHandler]format_message

- A. Server-messageHandler 002, Bad Lengthy Message, Severity 2
- B. Server receives a message longer than 255 characters from device A to device B on the condition that A and B are in each others' friendLists
- C. Return to Client device A with [Server-messageHandler]format_message

- A. Server-messageHandler 003, Bad Foreign Character Message, Severity 1
- B. Server receives a message which contains non-ascii characters from device A to device B on the condition that A and B are in each others' friendLists
- C. Return to Client device A with [Server-messageHandler]format_message

- A. Server-messageHandler 004, Stranger's Message, Severity 1
- B. Server receives a message "hello world" record from device A to device B on the condition that A is not in B's friendList
- C. device B is not expected to receive the message "hello world".

- A. Server-messageHandler 005, Good Message Send, Severity 1
- B. Server receives a message "hello world" recorded from device A to device B on the condition that A and B are in each others' friendLists
- C. Server saves the message in database marked as from device A to device B

- A. Server-messageHandler 006, Good Duplicate Message Send, Severity 2
- B. Server receives a message “hello world” recorded from device A to device B on the condition that A and B are in each others’ friendLists
- C. Server saves the message in database marked as from device A to device B

- A. Server-messageHandler 007, Good Message Push, Severity 1
- B. Client Device A logs in, Server receives login notification with Device A ID on the condition that A and B are in each others’ friendLists
- C. Server push messages to Client Device A according to Device A ID

- A. Server-friendList 001, Bad Friend ID Input, Severity 1
- B. Client Device A sends request to a Friend ID which does not exist in the Database
- C. Return to Client Device A, Friend does not exist

- A. Server-friendList 002, Good Friend ID Input, Severity 1
- B. Client Device A sends Request to a Friend ID which exist in the Database
- C. Update friendList Table in Database; Update friendList on Client Device A

- A. Server-friendList 003, FriendList, Severity 1
- B. Client Device A logs in
- C. Server pushes friendList of A to Client Device A

- A. Server-friendList 004, Delete Friend, Severity 1
- B. Client Device A deletes friend Device B from friendList
- C. Server removes Device B from Device A in friendList Table

- A. Server-profile 001, Bad profile request, Severity 2
- B. Client Device A sends Request to a Friend’s profile which does not exist in the Database
- C. Server Return to Client device A with [Server-profile-handler]format_message

- A. Server-profile 002, Good profile request, Severity 2
- B. Client Device A sends Request to a Friend B’s profile which exist in the Database
- C. Server pushes Profile of B to Client Device A

- A. Server-usrprofile 001,profile request, Severity 2
- B. Client Device A sends Request profile
- C. Server pushes Profile of A to Client Device A

- A. Server-usrprofile 002,profile change request, Severity 2

- B. Client Device A sends Request profile
- C. Update profile Table in Database; Update profile on Client Device A

A.client-main 001, Open Dialog Window, Severity 4

- B. Click on the specific dialog tab
- C. Dialog interface pops up

A.client-dialog 001, Input text empty, Severity 3

- B. Click on “Send” button trying to send a empty text message in the dialog window
- C. No reaction

A.client-dialog 002, Input text long 001, Severity 2

- B. Click on “Send” button trying to send a text message that is longer than 255 characters in the dialog window
- C. Pop up dialog box saying “Message too long.”.

A.client-dialog 003, Input text long 002, Severity 2

- B. Click on “Send” button trying to send a text message of length 256 in the dialog window
- C. Pop up dialog box saying “Message too long.”.

A.client-dialog 004, Valid Input text, Severity 4

- B. Click on “Send” button trying to send an non-empty text message that is no longer than 255 characters in the dialog window
- C. Dialog box displayed the message you just sent

A.client-dialog 005, Back button, Severity 2

- B. Click on “Back” button in dialog window
- C. Go back to main interface

A.client-dialog 006, Profile check, Severity 2

- B. Click on “Profile” button in dialog window or click on the profile picture in the chat box
- C. Go to the profile page of the targeted user