

# Team 4 – Test Plan

## ChatChat!

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### Functional Requirement 1

As a user, I would like to sign up with my email.

#### Functional Test Cases

Test ID	1
Title	Sign up for the app
Instructions	New user clicks on the “Sign up” button
Expected Result	Create account page appears, asking for user input of username, password, and confirm password
Severity	Critical

Test ID	2
Title	Creating Profile page
Instructions	On the create profile page, fill out the chat name, upload profile image
Expected Result	Main page appears with chat name at the top of the page. New user with user information and email is added to the database
Severity	Critical

#### Equivalence Test Cases

Test ID	3
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Title	Profile without Chat name
Instructions	On the Create profile page, leave the chat name blank and click create
Expected Result	App displays a “Chat name empty” error
Severity	Important

Test ID	4
Title	Display Name too long ( > 70 characters)
Instructions	On the Create profile page, enter a display name that is longer than 70 characters and click create
Expected Result	App displays a “Display name too long” error
Severity	Workaround

#### Boundary Test cases

Test ID	5
Title	Display Name contains invalid characters
Instructions	On the Create profile page, enter a display name that has invalid characters such as emojis or symbols and click create
Expected Result	App displays a “Illegal character” error
Severity	Important

## Functional Requirement 2

As a user, I would like to sign in with my Google account.

#### Functional Test Cases

Test ID	6
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Title	Login with Google Account
Instructions	Click on “Login with Google” button
Expected Result	Google prompt appears to select account and sign in
Severity	Critical

Test ID	7
Title	Invalid Login with Google Account
Instructions	Click on “Login with Google” button. Enter wrong credentials on the google prompt that appears
Expected Result	Google prompt displays authentication error and no progress can be made on the app until authentication is successful.
Severity	Important

#### Equivalence Test Cases

Test ID	8
Title	New users trying to Login
Instructions	Click on “Login with Google” button, select google account and finish sign in.
Expected Result	Create profile page appears, asking for the display name
Severity	Important

Test ID	9
Title	Existing users logging in

Instructions	Click on “Login with Google” button, select google account and finish sign in.
Expected Result	The main page appears, with users list of existing ideas.
Severity	Important

## Functional Requirement 3

As a user, I would like to sign in with my registered account.

### Functional Test Cases

Test ID	10
Title	Sign in with valid registered account
Instructions	Click “sign in with email”, and fill all required field with correct information
Expected Result	Sign in successfully and home page appears
Severity	Critical

Test ID	11
Title	Sign in with invalid account
Instructions	Click “sign in with email”, and fill in incorrect information
Expected Result	The app hints that the information entered is incorrect and asks the user to try again
Severity	Critical

### Equivalence Test Cases

Test ID	12
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Title	Entering wrong passwords
Instructions	Click “sign in with email”, and fill in correct email and incorrect passwords
Expected Result	The app hints that the information entered is incorrect and asks the user to try again
Severity	Critical

Test ID	13
Title	Entering wrong email
Instructions	Click “sign in with email”, and fill in incorrect email
Expected Result	The app hints that the information entered is incorrect and asks the user to try again
Severity	Critical

#### Boundary Test Cases

Test ID	14
Title	Entering no email
Instructions	Click “sign in with email”, and skip the email field
Expected Result	App asks the user to enter an email address
Severity	important

Test ID	15
Title	Entering no passwords
Instructions	Click “sign in with email”, and skip the passwords field

Expected Result	App asks the user to enter a password
Severity	Critical

## Functional Requirement 4

As a user, I would like to log out and exit the app properly.

### Functional Test Cases

Test ID	16
Title	Log out the app
Instructions	Click on “My profile” item in Navigation menu, and then click “logout” button
Expected Result	The app returns to signin/signup screen
Severity	workaround

## Functional Requirement 5

As a user, I would like to change my user ID.

### Functional Test Cases

Test ID	17
Title	Change chat ID
Instructions	Click on “My profile” item in Navigation menu, click “edit” chat ID, enter a valid chat ID, and then click “save”
Expected Result	The edit fill appears when the user click “edit”. After user click “save”, the app goes back to profile page with new chat id updated
Severity	workaround

### Equivalence Test Cases

Test ID	18
Title	Changing to the same chat ID
Instructions	Click on “My profile” item in Navigation menu, click “edit” chat ID, <b>enter the same chat ID as the current one</b> , and then click “save”
Expected Result	App returns to profile pages with no changes
Severity	workaround

Test ID	19
Title	Changing to a invalid chat ID
Instructions	Click on “My profile” item in Navigation menu, click “edit” chat ID, <b>enter a chat id with invalid characters</b> , and then click “save”
Expected Result	App displays “invalid chat ID” error
Severity	important

#### Boundary Test Cases

Test ID	20
Title	Enter no chat ID
Instructions	Click on “My profile” item in Navigation menu, click “edit” chat ID, <b>enter no Chat ID</b> , and then click “save”
Expected Result	App displays a “Display name cannot be empty ” error
Severity	important

Test ID	21
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Title	New chat ID too long (> 70 characters)
Instructions	Click on “My profile” item in Navigation menu, click “edit” chat ID, <b>enter a 71-character-long chat ID</b> , and then click “save”
Expected Result	App displays a “chat ID too long” error
Severity	important

## Functional Requirement 6

As a user, I would like to create a chat room.

### Functional Test Cases

Test ID	22
Title	Create chat room
Instructions	Click “+” button on the homepage. After the “create chat room” page shows, enter all required information, and click “create”
Expected Result	A new chat room is created with correct information displayed
Severity	Critical

### Equivalence Test Cases

Test ID	23
Title	Creating chat room with invalid name
Instructions	Click “+” button on the homepage. After the “create chat room” page shows, <b>enter a name with invalid characters</b>
Expected Result	App displays a “illegal chat room name” error
Severity	Critical



Test ID	24
Title	Creating chat room with no description
Instructions	Click “+” button on the homepage. After the “create chat room” page shows, <b>enter no description for the chat room</b>
Expected Result	A new chat room is created with no description displayed
Severity	Workaround

Test ID	25
Title	Creating chat room with no category
Instructions	Click “+” button on the homepage. After the “create chat room” page shows, <b>choose no category for the chat room</b>
Expected Result	App displays a “please choose a category” error
Severity	Critical

#### Boundary Test Cases

Test ID	26
Title	Creating chat room with no name
Instructions	Click “+” button on the homepage. After the “create chat room” page shows, <b>enter no name for the chat room</b>
Expected Result	App displays a “please enter a name” error
Severity	Critical

Test ID	27
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Title	Creating chat room with a name that is too long
Instructions	Click “+” button on the homepage. After the “create chat room” page shows, <b>enter a 71-character-long name</b>
Expected Result	App displays a “name is too long” error
Severity	Critical

Test ID	28
Title	Creating chat room with a description that is too long
Instructions	Click “+” button on the homepage. After the “create chat room” page shows, <b>enter a 51-words-long description</b>
Expected Result	App displays a “description is too long” error
Severity	Critical

## Functional Requirement 7

As a user, I would like to join a chat room.

### Functional Test Cases

Test ID	29
Title	Join chat room
Instructions	Browse to the cat room the user want to join, click it to join
Expected Result	The user enters the chat room where he/she can read or send message
Severity	Critical

## Functional Requirement 8

As a user, I would like to browse through different topics and chat rooms under those topics.

### Functional Test Cases

Test ID	30
Title	Choose the topic the user want to see
Instructions	Scroll to the topic the user want to see, and click the topic.
Expected Result	All chat rooms under that topics now display
Severity	Critical

Test ID	31
Title	browse the chat rooms
Instructions	Browse the chat rooms by scrolling up and down
Expected Result	New chat rooms are displayed as the user scroll down
Severity	Critical

## Functional Requirement 9

As a user, I would like to get a link to reset my password in case I forgot my password.

### Functional Test Cases

Test ID	32
Title	Reset Password
Instructions	Click on “Forget Password?” link in the login page, an email will be sent to user’s email to reset password.
Expected Result	The user receives the reset password email.
Severity	Workaround

## Functional Requirement 10

As a user, I would like to search for chat rooms.

### Functional Test Cases

Test ID	33
Title	Search chat rooms
Instructions	Tap on search bar, enter chat room’s name and choose a topic to search for.
Expected Result	The chat room that matches the input will be displayed in the page.
Severity	Critical

### Equivalence Test Cases

Test ID	34
Title	Chat room name contains invalid characters
Instructions	In the Search page, enter a chat room name that has invalid characters such as emojis or symbols and click search
Expected Result	App displays a “illegal character” error
Severity	Critical

## Boundary Test Cases

Test ID	35
Title	No chat room name
Instructions	On the search page, leave chat room name blank and click search
Expected Result	App displays a “chat room name cannot be empty ” error
Severity	Important

Test ID	36
Title	Search chat room without selecting topics
Instructions	On the search page, enter a chat room name and click search without selecting a topic.
Expected Result	App displays a “No topic is chosen” error
Severity	important

## Functional Requirement 11

As a user, I would like to give feedback to the developers through email in the app.

### Functional Test Cases

Test ID	37
Title	Give feedback
Instructions	Go to profile page and click “leave feedback” button, a text input box will pop out and enter feedback to developers and click “send” button.
Expected Result	The feedback from users will be sent to the developers through email.
Severity	Workaround

### Equivalence Test Cases

Test ID	38
Title	Feedback content contains invalid characters
Instructions	When entering the feedback, some invalid inputs are typed such as emoji.
Expected Result	App displays a “illegal character” error when the user is trying to submit the feedback
Severity	Workaround

### Boundary Test Cases

Test ID	39
Title	Send Empty Feedback
Instructions	Users try to submit an empty feedback.
Expected Result	App displays a “Feedback cannot be empty ” error
Severity	Workaround

## Functional Requirement 12

As a user, I would like to send messages in the chat room.

### Functional Test Cases

Test ID	40
Title	Send message
Instructions	Tap on text input bar on the chat room page and send out a message.
Expected Result	The message is sent to the database and then displayed on the chat room.
Severity	Critical

### Equivalence Test Cases

Test ID	41
Title	Messages contain invalid characters
Instructions	On the chat room page, send out messages that contains invalid characters such as emojis.
Expected Result	App displays a “illegal character” error
Severity	Important

### Boundary Test Cases

Test ID	42
Title	Send empty message
Instructions	On the chat room, send an empty message.
Expected Result	App displays “message cannot be empty” error.
Severity	Important

Test ID	43
Title	Messages too long (> 200 words.)
Instructions	On the chat room, send out a message that exceeds 200 words.
Expected Result	App displays a “Message too long” error
Severity	Important

## Functional Requirement 13

As a user, I would like to browse through the chat history.

## Functional Test Cases

Test ID	44
Title	Browse chat history
Instructions	On the chat room page, scroll up
Expected Result	The previous messages from other users will be displayed in the chat room
Severity	Important

Test ID	45
Title	Check latest messages
Instructions	On the chat room page, scroll down to the bottom..
Expected Result	Since the messages are displayed in time order, the latest message from other users will always be in the bottom of the chat room page.
Severity	Important

## Boundary Test Cases

Test ID	46
Title	Keep scrolling up
Instructions	On the chat room page, keep scrolling up to check for older history.
Expected Result	Since only certain amount of chat history will be saved in the back-end database, if the user reaches the top, a “you have reached the oldest chat history” message box will be displayed,
Severity	Workaround



## Functional Requirement 14

As a user, I would like to receive other users' messages in real-time.

### Functional Test Cases

Test ID	47
Title	Receive message
Instructions	While one user is entering a chat room waiting for messages, another user goes to the same chat room and send a message.
Expected Result	The message from another user will be displayed on the screen of all users that entered the chat room.
Severity	Critical

### Equivalence Test Cases

Test ID	48
Title	Receive message of an invalid input
Instructions	On the chat room page, a user tries to send out an invalid input message.
Expected Result	App displays "invalid input" to that user and all the other users in the same chat room shouldn't see that message.
Severity	Important

Test ID	49
Title	Receive message from another chat room
Instructions	A user x sends out a message in chat room A, and another user y is in chat room B.
Expected Result	The user y is not supposed to see the message from user x since they are in different chat room.
Severity	Important

## Functional Requirement 15

As a user, I would like to upload a profile picture.

### Functional Test Cases

Test ID	50
Title	Upload a profile picture
Instructions	Click on “upload a profile picture” on the profile page and choose a picture to upload.
Expected Result	The picture is uploaded into the back-end database and the picture will be displayed on the user’s profile page.
Severity	Workaround

### Equivalence Test Cases

Test ID	51
Title	Upload a non-picture file
Instructions	When choosing a file to upload, choose a non-picture file such as a txt file.
Expected Result	App displays a “The choosing file is not a picture” error
Severity	Workaround

## Boundary Test Cases

Test ID	52
Title	Upload an empty file
Instructions	When choosing a file to upload, choose nothing and click submit button,
Expected Result	App displays a “Please choose a file ” error
Severity	Workaround

Test ID	53
Title	Picture file too large
Instructions	When choosing a file to upload, choose a picture file that is too large( >1 mb).
Expected Result	App displays a “Size of picture too large” error
Severity	Workaround

## Functional Requirement 16

As a user, I would like to change my profile picture.

### Functional Test Cases

Test ID	54
Title	Changing profile picture
Instructions	Click on “My profile” item in Navigation menu, click on “upload” new profile picture, upload a valid new profile picture, and then click “save”
Expected Result	The uploading UI appears when the user click ”upload”. After user click “save”, the app goes back to profile page with the uploaded new profile pictures
Severity	Workaround

#### Equivalence Test Cases

Test ID	55
Title	Changing profile picture using a non-picture file
Instructions	Click on “My profile” item in Navigation menu, click on “upload” new profile picture and choose a <b>non-picture file</b> to upload, and then click “save”
Expected Result	App displays a “Not a picture” error
Severity	Workaround

#### Boundary Test Cases

Test ID	56
Title	New profile picture too long (>1MB)
Instructions	Click on “My profile” item in Navigation menu, click on “upload” new profile picture and choose a <b>1MB</b> picture to upload, and then click “save”
Expected Result	App displays a “Picture too large” error
Severity	Workaround

Test ID	57
Title	No image has been chosen
Instructions	Click on “My profile” item in Navigation menu, click on “upload” new profile picture and without choosing any image, click “save”
Expected Result	App displays a “Please choose a file” error
Severity	Workaround

## Functional Requirement 17

As a user, I would like to see who sends the message(display icon and chat ID) in a chat room.

### Functional Test Cases

Test ID	58
Title	View the messages with the icon and chat ID associated with that user in a chat room
Instructions	Exist in a chat room
Expected Result	Whenever a user send a message, display the message with the user’s icon and chat ID
Severity	Important

### Equivalence Test Cases

Test ID	59
Title	View the messages with an icon that is not associated with that user in a chat room
Instructions	Exist in a chat room
Expected Result	Whenever a user send a message, display the message with an icon that is not associated with that user
Severity	Important

## Boundary Test Cases

Test ID	60
Title	View the messages without the icon in a chat room
Instructions	Exist in a chat room
Expected Result	Whenever a user send a message, display the message without the user's icon
Severity	Important

Test ID	61
Title	chat ID too long (> 20 characters)
Instructions	Exist in a chat room
Expected Result	A user with a <b>21-character-long name</b> send messages, display the first 20 characters of that user's name and a "..." at the end as the chat ID of this user to display
Severity	Workaround

## Functional Requirement 18

As a user, I would like to see the number of users that added the chat room into their favorite lists on the chat room page.

### Functional Test Cases

Test ID	62
Title	Display number of favorites
Instructions	Navigates to certain topic page
Expected Result	Every chat room under that topic displays the number of favorites it received
Severity	workaround

## Boundary Test Cases

Test ID	63
Title	Normal favorite number
Instructions	Navigates to certain topic page containing chat rooms with 0 - 999 favorites
Expected Result	App displays favorite number correctly
Severity	Workaround

Test ID	64
Title	Very large favorite number
Instructions	Navigates to certain topic page containing chat rooms with >999 favorites
Expected Result	App displays a “999+” instead of exact number
Severity	Workaround

## Functional Requirement 19

As a user, I would like to see my current chat room’s information.

### Functional Test Cases

Test ID	65
Title	Display chat room information
Instructions	In a chat room, click “more information” icon
Expected Result	Detailed information about a chat room is displayed
Severity	workaround

## Boundary Test Cases

Test ID	66
Title	Display information of chat room where no description is set
Instructions	In a chat room without description, click “more information” icon
Expected Result	App displays all other information correctly
Severity	Workaround

Test ID	67
Title	Display information of chat room where description is 50-word-long
Instructions	In a chat room without 50-word-long description, click “more information” icon
Expected Result	App displays all information correctly
Severity	Workaround

## Functional Requirement 20

As a user, I would like to add a chat room to my favorite list.

### Functional Test Cases

Test ID	68
Title	Add button works when tapped
Instructions	Click on the chatroom info, tap the button named “Add to favorite”
Expected Result	A pop-up message will show up, and users’ favorite list on homepage is updated
Severity	Important



### Equivalence Test Cases

Test ID	69
Title	Add same chat room twice or more
Instructions	In the chatroom that is already in the user's favorite list, click on “add to favorite”
Expected Result	App displays a “chatroom is added already” error
Severity	Important

### Boundary Test Cases

Test ID	70
Title	User can only add 10 chatrooms to favorite
Instructions	Click on the chatroom info, tap the button named “Add to favorite” when user have 10 favorite chat room already
Expected Result	App displays a “Unable to add new chatroom to favorite list” error
Severity	Workaround

## Functional Requirement 21

As a user, I would like to see a list of my favorite chat rooms.

### Functional Test Cases

Test ID	71
Title	View favorite list
Instructions	Go to profile page
Expected Result	Display a list of chat rooms added by the user on the user profile page.
Severity	Important

## Boundary Test Cases

Test ID	72
Title	No favorite room added
Instructions	Go to the profile page
Expected Result	Display a “no favorite chat room” message on the profile page.
Severity	Workaround

## Functional Requirement 22

As a user, I would like to remove a chat room from my favorite list.

### Functional Test Cases

Test ID	73
Title	Remove button functionality
Instructions	Check favorite list on homepage or open the user profile page. Perform a long click on individual card view to remove chatroom from list
Expected Result	An alert window will pop up for confirmation.Chat Room should be removed when press “Yes”
Severity	Important

Test ID	74
Title	Remove correct chatroom from list

Instructions	Check favorite list on homepage or open the user profile page. Perform a long click on individual card view to remove chatroom from list
Expected Result	No other chat rooms should be removed when trying to remove specific chatroom
Severity	Important

## Functional Requirement 23

As a user, I would like to reset my password.

### Functional Test Cases

Test ID	75
Title	Reset password
Instructions	Click on “My profile” item in Navigation menu, click “reset password”, and enter a new password
Expected Result	A new password is set
Severity	important

### Equivalence Test Cases

Test ID	76
Title	Reset to a password containing invalid characters
Instructions	Click on “My profile” item in Navigation menu, click “reset password”, and enter a password containing invalid character
Expected Result	App displays a “illegal character” error
Severity	Important

Test ID	77
Title	Reset to a password that is the same as the previous one
Instructions	Click on “My profile” item in Navigation menu, click “reset password”, and enter a password that is the same as the previous one
Expected Result	App displays a “no empty password” error
Severity	Important

#### Boundary Test Cases

Test ID	78
Title	Reset to an empty password
Instructions	Click on “My profile” item in Navigation menu, click “reset password”, and enter no password
Expected Result	App displays a “Display name cannot be empty ” error
Severity	Important

Test ID	79
Title	Reset to an empty password
Instructions	Click on “My profile” item in Navigation menu, click “reset password”, and enter a very long password
Expected Result	App displays a “password too long” error
Severity	Important

## Functional Requirement 24

As a user, I would like to access others profile page through chat room

### Functional Test Cases

Test ID	80
Title	View profile page
Instructions	On the chat room page, tap on a user's profile picture.
Expected Result	Display the selected user's profile page.
Severity	Workaround

## Functional Requirement 25

As a user, I would like to view others' profile pictures in their profile pages

### Functional Test Cases

Test ID	81
Title	View profile pictures on the other users' profile pages
Instructions	On a user's profile page, click on the icon of that user
Expected Result	Display a new layer for profile picture and display the correct picture of that user
Severity	Workaround

### Equivalence Test Cases

Test ID	82
Title	No profile picture is uploaded by the user

Instructions	On a user's profile page, click on the icon of that user
Expected Result	Display a new layer for profile picture and display the default picture for users who have not uploaded profile pictures
Severity	Workaround

## Functional Requirement 26

As a user, I would like to view other users' favorite lists on their profile pages.

### Functional Test Cases

Test ID	83
Title	View other users' favorite lists on their profile pages.
Instructions	Go to a user's profile page
Expected Result	Display a list of chat rooms added by the user on the user's profile page
Severity	Workaround

### Boundary Test Cases

Test ID	84
Title	That user has no favorite room added
Instructions	Go to a user's profile page who doesn't add any chat room to favorite
Expected Result	Display a "no favorite chat room" message on the user's profile page.
Severity	Workaround