Purdue University

Sprint 3 Planning Document
MonsterChat Application

Team #14:
Rayten Arnold Rex, Cole Baughn, Vishal Gill, Zeyu Pan, Andrew Sytsma, Michael Young

1. Sprint Overview

For our third sprint we will be mainly focusing on switching from WiFi Direct to using bluetooth to exchange data on Android devices. And for iOS devices we will finish implementing leftover goals from the previous sprint and maybe add a few more functionalities for both devices to have a more complete MonsterChat. The three main goals of this sprint are:
1. Implement bluetooth for Android devices because WiFi Direct is not sufficient.
2. Implement the backround with the networking and GUI for seamless functionality for iOS.
3. Implement saving logs and displaying logs for iOS.

Scrum Master: Rayten Rex
Scrum Meetings/Time: MWF at 1:00 pm
Risks/Challenges:
Implementing a bluetooth based chat application is going to take extra time out of the sprint because of testing and a learning curve. We may not be able to implement the iOS side exactly as described in the design document because of a paradigm difference in the way we thought MCF would work.

2. Current Sprint Detail

User Story: As a user, I want to be able to view my past conversation(s) because I would like to be able to access information that I may have forgotten.

Task Description	Estimated Time	Owner
Write chat messages to a log (iOS)	3	Rayten
Read chat messages from a log (iOS)	5	Rayten

Acceptance Criteria: If this user story is implemented successfully, users will be able to view their past conversations to see old information they might have forgotten.
Test Case:
● When the user opens the chat logs page, a list of any pre-existing logs will appear.
● When the user clicks on a log in the list, that specific log is opened and displayed to the user.
● Logs are created for each of the chat rooms that the user has been in.

User story: As a user, I want the ability to create and/or join a private chat room because I want to chat with a specific group of people without others being able to join.

Task Description	Estimated Time	Owner
Allow user to specify a password when they create a Chat Room (Android)	2	Cole
Allow user to specify a password when they create a Chat Room (iOS)	2	Vishal
When a user tries to enter a private Chat Room prompt them for a password. (Android)	2	Cole
When a user tries to enter a private Chat Room prompt them for a password. (iOS)	2	Vishal
Create a private chat room (Android)	2	Andrew
Join a private chat room (Android)	2	Andrew
Create a private chat room (iOS).	2	Rayten
Join a private chat room (iOS).	2	Rayten

Acceptance Criteria: If this user story is implemented successfully, users will be able to create and join private chat rooms.

Test Case 1:
- A private chat room can be created by click on the create new chat room button and entering a chat room name and password.
- The new private chat room is created and the user is brought into the chat room to start a conversation.

Test Case 2:
- A private chat room is denoted by a lock symbol next to the name.
- A private chat room can be joined by clicking on it in the list of chat rooms.
- MonsterChat prompts for a password.
  - If the user enters an incorrect password, a popup is displayed to inform the user that the password is incorrect.
- The user is brought into the chat room to join the conversation.

User story: As a user, I want to be able to view private chat rooms because I want to know what private chat rooms are available to me.

Task Description	Estimated Time	Owner
Give Private Chat Rooms a symbol that denotes them as private in the Chat List. (Android)	2	Cole
Give Private Chat Rooms a symbol that denotes them as private in the Chat List. (iOS)	3	Vishal

Acceptance Criteria: If this user story is implemented successfully, the user will be able to tell which chat rooms are private and which are public.

Test Case:
- Private chat rooms can be viewed in the list of chat rooms.
- A private chat room is denoted by a lock symbol next to the name.

User story: As a developer, I want a secure method to transfer data because I do not want my users' personal information to be accessed by a third party.

Task Description	Estimated Time	Owner
Encrypt sent data (Android).	3	Andrew
Decrypt received data (Android).	3	Andrew
Encrypt sent data (iOS).	3	Zeyu
Decrypt received data (iOS).	3	Zeyu

Acceptance Criteria: If this user story is implemented successfully, messages sent by users will be encrypted to ensure that their information can not be stolen.

Test Case:
- Messages sent are encrypted.
- Messages received are decrypted.

User story: As a user, I want the ability to block/unblock the messages of other users because I do not want my chat experience ruined by other users.

Task Description	Estimated Time	Owner
Allow the user to click on a user that has sent messages and then block them. (Android)	3	Cole
Allow the user to click on a user that has sent messages and then block them. (iOS)	3	Zeyu
Allow the user to go to the Settings page and unblock users from a list of blocked users. (Android)	3	Cole
Allow the user to go to the Settings page and unblock users from a list of blocked users. (iOS)	3	Zeyu
Write blocked users to a file (Android)	2	Andrew
Read blocked users from a file (Android)	2	Andrew
Write blocked users to a file (iOS).	2	Rayten
Read blocked users from a file (iOS).	2	Rayten
Block messages from blocked users (iOS).	1	Rayten
Block messages from blocked users (Android)	1	Andrew

Acceptance Criteria: If this user story is implemented successfully, users will be able to block and unblock messages from other users, which will no longer be displayed in the chat rooms.
Test Case:
- Clicking on a message in a chat room will bring up the option to block a user.
  - The user can ignore this message or block the other user.
- Blocked users' messages no longer appear in any chat rooms.

User story: As a developer, I want to be able to receive feedback from users because I can use the feedback to better the app.

Task Description	Estimated Time	Owner
Include an 'About' option in the Settings Page that will have information about where to send feedback. (Android)	2	Cole
Include an 'About' option in the Settings Page that will have information about where to send feedback. (iOS)	2	Vishal

Acceptance Criteria: If this user story is implemented successfully, the about option will redirect the user to a screen with the information for feedback.
Test Case:
● An about page will be displayed when About is clicked in the settings page.

User story: As a user, I want to be able to send a picture because I want allow other people to see them.

Task Description	Estimated Time	Owner
Allow users to insert images above their messages. (Android)	6	Cole
Allow users to insert images above their messages. (iOS)	6	Vishal
Create a picture message (Android).	2	Andrew
Create a picture message (iOS).	2	Rayten

Acceptance Criteria: If this user story is implemented successfully, we will be able to send images across devices and display them properly.
Test Case:
● A user should be able to send a picture as a message.
● A user should be able to receive a picture as a message.

User story: As a user, I don't want pictures to clog up my chat because I do not want my chat experience to be cluttered by large images.

Task Description	Estimated Time	Owner
Limit image display to a width smaller than the message view width, to reduce clutter. (Android)	4	Cole
Limit image display to a width smaller than the message view width, to reduce clutter. (iOS)	4	Zeyu
Resize images bigger than a specified file size (Android).	6	Andrew
Resize images bigger than a specified file size (iOS).	6	Rayten

Acceptance Criteria: If this user story is implemented successfully, the size of pictures in the chat will be limited to not take up excessive space on the screen.
Test Case:
- Pictures that a user sends and receives are set to a standard size in the chat so that they do not take up excessive space.
- Pictures can be clicked to enlarge them on the screen.

User story: As a user, I want some kind of filter to minimize spam because I do not want to have my chat experience ruined by other users.

Task Description	Estimated Time	Owner
Create a spam filter (Android)	5	Andrew
Create a spam filter (iOS).	5	Rayten

Acceptance Criteria: If this user story is implemented successfully, users will not be able to send repeated messages, quickly.
Test Case:
- Sending rate of messages will be limited to a realistic amount of time.
- A user will be prevented from sending messages for a while if they are sending too many messages too quickly.
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User story: As a user, I want to be able to delete my chat logs.

Task Description	Estimated Time	Owner
Allow user to select a Log and choose to delete it. (Android)	2	Cole
Allow user to select a Log and choose to delete it. (iOS)	2	Vishal
Delete selected chat log. (Android)	1	Andrew
Delete selected chat log (iOS).	1	Zeyu

Acceptance Criteria: If this user story is implemented successfully, the user will be able to choose and delete the chat log that he/she wants deleted.

Test Case:
- A user should be able to delete a chat log from the list of logs by holding their finger down on the name of the chat log.
- An option to delete the chat log will be displayed
  - If the user chooses to delete the log, the log will be deleted.
- The chat log should not appear in the list of logs after deletion.

User story: As a developer, I want to delete old chat logs to minimize space usage on the phone.

Task Description	Estimated Time	Owner
Delete old chat logs. (Android)	2	Andrew
Delete old chat logs (iOS).	2	Zeyu

Acceptance Criteria: If this user story is implemented successfully, the oldest chat logs will be deleted until the total space taken up by the chat logs is under the specified amount.

Test Case:
- The oldest chat logs are deleted to free up space until the total space taken up by the chat logs is under the specified amount.

User story: As a user, I want the application to run with as little RAM usage as possible.

Task Description	Estimated Time	Owner
The Chat Room View and Log View will have a max number of displayable messages to limit RAM usage. (Android)	4	Cole
The Chat Room View and Log View will have a max number of displayable messages to limit RAM usage. (iOS)	4	Zeyu
The incoming message hashes that are used to detect duplicates in the mesh network will need to be cleared regularly. (Android)	2	Michael

Acceptance Criteria: If this user story is implemented successfully, the number of messages displayed in the chat room and log view will be limited to the max number in order to limit the RAM usage.

Test Case:
- Only the max number of messages are displayed at a time.

User story: As a user, I want to be able to use this app without excessive battery strain because I want the app to run a long time without my battery running out.

Task Description	Estimated Time	Owner
Ensure the Bluetooth adapter is turned off when not in use. (Android)	2	Michael

Acceptance Criteria: If this user story is implemented successfully, peer finding services will be set back to their original states to conserve battery.

Test Case:
- If a peer finding service is disabled prior to loading the application, it will be re-disabled after the application is closed.

User Story: As a user, I want to be able to view chat rooms because I want to know what chat rooms are available to me.

Task Description	Estimated Time	Owner
Create a Chat Rooms List window that allows the users to view the available chat rooms(Global always exists). (iOS)	6	Vishal
Convert session information into chat room names to be read by the user (iOS).	7	Zeyu

Acceptance Criteria: If this user story is implemented successfully, users will be able to view the chat rooms that are available for them to join.

Test Case:
- There is a chat rooms button on the main page
- When clicked, the user should be able to view all chat rooms within the range (approx. 200 ft.) of the device.

User Story: As a user, I want to be able to create and join chat rooms because I want to be able to chat with other users.

Task Description	Estimated Time	Owner
Add a button to Chat Rooms List that allows the user to create a chat room. (iOS)	7	Vishal

Acceptance Criteria: If this user story is implemented successfully, users will be able to create and join chat rooms.

Test Case 1:
- A chat room can be clicked on in the list of chat rooms.
- When the room is clicked on, the user is brought into the chat room to join the conversation.

Test Case 2:
- There is a button to create the new chat room on the page where the chat rooms are listed.
- When the button is clicked, there is a text field where the room name can be entered.
  - If the room name contains characters that are not letters or numbers, then a popup will inform the user that the values in the field were wrong and reset to the page where the chat rooms are listed
- A new chat room is created, and the user is put into that chat room to start a conversation.

User Story: As a user, I want to be able to send and receive messages with other Android devices because I want to communicate with others.

Task Description	Estimated Time	Owner
Remove unnecessary components of WiFi Direct.	1	Michael
Learn Android Bluetooth libraries	4	Michael
Create a server thread on each device accepting Bluetooth connections	5	Michael
Create a new thread for each peer that connects to the device.	5	Michael
Ensure that connections with devices that disconnect are closed.	4	Michael
Ensure that threads terminate properly.	4	Michael
Test range of devices using Bluetooth.	2	Michael
Test delay between messages of devices using Bluetooth.	1	Michael

Acceptance Criteria: If this user story is implemented successfully, users will be able to send and receive messages over a Bluetooth connection.

Test Case:
- Messages sent by one user will be received by all users within the chat room.

3. Remaining Backlog

Nonfunctional:

1. As a user, I want cross-platform communication because I want to be able to chat with users that have a different phone than me.(if time allows)

2. As a developer, I want easy updates because I do not want it to be difficult to push updates to the user.