

## **Data Collection Techniques**

- Focus Group
  - For initial data collection, college students will be consulted.
- Existing Documentation
  - Since there are many chat clients already in existence, those clients can be used for reference to decide features that should be included.

## **Prototyping Plan**

- Initial Prototyping
  - Initial prototypes will be graphic illustrations and drawings that cover all possible window layouts.
  - Later prototypes will be implemented using the Java Swing library and provide basic functionality, although the back-end may not be complete yet.
- Obtaining Feedback
  - Presenting the initial prototypes to users and receiving feedback on the design is enough for short-term development.
  - Once the later, functional prototypes are made, having the users chat with each other while monitoring their responses and problems with the interface will provide the most effective feedback.
- Usage of Feedback
  - If a particular unit of feedback, such as "I can't find the button to add a friend" is common, that feature should be implemented in a way that the users expect it to be.

## Scenarios

- **Chatting with a Friend on Buddy List**
  - Open chat client
  - Click on friend's username
  - Start typing message
- **Pinning a Buddy to Top of Buddy List**
  - Open the client
  - Right-Click the Buddy
  - Click "Pin Buddy"
- **Adding a Buddy**
  - Open the client
  - Click the "Network" Menu
  - Click "Add Buddy..."
  - Enter the User's Name
  - Click "Add"
- **Blocking a User**
  - Click the "Network" Menu
  - Click "Block User..."
  - Enter the User's Name
  - Click "Block"
- **Connecting to a Different Swarm**
  - Open the client
  - Click the "Network" Menu
  - Click "Change Network"
- **Changing Notification Preferences**
  - Open the client
  - Click the "Preferences" Menu
  - Click "Notifications"
- **Adding a Buddy to a Group**
  - Right-Click the Buddy
  - Click "Add Buddy to Group..."
  - Click on the Group Name
- **Adding a Group**
  - Click the "Preferences" Menu
  - Click "Add Group"
  - Type Group Name in Dialog Box
  - Click "Enter"
- **Exporting Settings**
  - Click the "Preferences" Menu
  - Click "Export Settings"
  - Have User Select Output File
  - Click "Export"
- **Importing Settings**

- Click the “Preferences” Menu
- Click “Import Settings”
- Have User Select Input File
- Click “Import”

## Focus Group Results

What functionality do you look for in a chat client?

- Easy to continue a conversation
- Fast, Minimal Lag
- Simplistic

What about notifications?

- Popup in the bottom corner
- Preference options for notification method
  - Sound, popup, size of popup
- Set notifications for individual people or circles
- Blinking to signify receiving a message (continuing conversation)
- Count of messages from buddy

What features should a buddy list have?

- Scrolling sidebar
- Pin buddies
- Groups

## Existing Documentation

Chat programs have several features in common, and people expect these, so they should be implemented.

- Buddy List
- Tabbed Interface
- Notifications
- Groups
- Blocking

Some features will not be implemented, even though they are common, due to networking limitations.

- “[friend] is typing...”
  - Since all messages will be encrypted and passed through the DHT network, there may be negative performance hits if these message types are filling the network.
  - Members of the focus group deemed the feature nice, but not necessary (and sometimes annoying).
- Status Broadcast Messages
  - When a user comes online, the client will notify the network that it has come online. In many protocols, periodic refresh messages are sent to show the client as “alive” on the network. To preserve network speed, these messages will be omitted and clients will use a “last seen” time to determine if a user is online.
  - If it is found that this system will not hamper the speed of the network significantly, it may be added in the future.

## Low-Fidelity Prototype

FileNetworkPreferences

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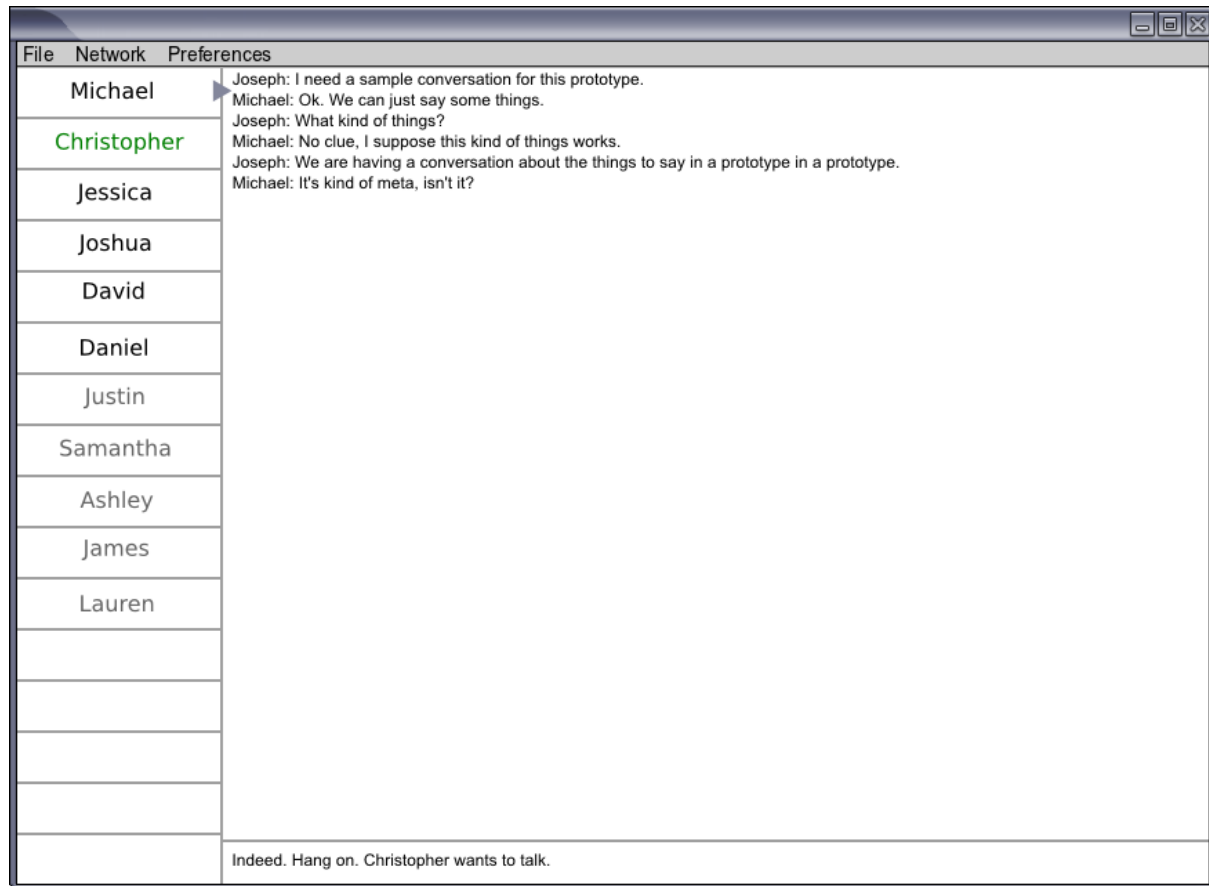
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## Updated Schedule

- ~~02/14 : Data Analysis Results and Prototyping Plan~~
- 02/23 : Prototype Demonstrations
  - Complete Interface Implementation
  - Complete Working Prototype
  - Complete Back-End
- 03/01 : User Test Plan
  - Select User Groups for Testing
- 03/13 : User Testing Begins
- 03/29 : User Testing Ends
  - Analyse Feedback
- 04/03 : Project and Supporting Documentation
  - Make Changes Based on User Responses
  - Finalise any Bugs and Features