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**Title:** AFCA Chat

**Project Summary:** A simple chat application with a desktop interface which allows for text and multimedia communication with a goal for decentralized end-to-end messaging. Once delivered, encrypted messages are deleted from central server.

**Project Requirements:**

Business Requirements (no business requirements)
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User Requirements				
ID	Requirement	Topic Area	Actor	Priority
US-001	As a user, I need to be able to send and receive messages to/from any other user	Messaging	End Users	Critical
US-002	As a user, I need to be able to sign up for the application application - create unique account with email and password	Authentication	End Users	Critical
US-003	As a user, I need to be able to search for other users	Messaging	End Users	Critical
US-004	As a user, I need to be able to customize my profile	Customizability	End Users	Medium
US-005	As a user, I need to be able to login to my account using my username and password from any device	Authentication	End Users	Critical
US-006	As a system admin, I need to be able to view server storage data	Reporting	Admins	High
US-007	As a user, I need to be able to reset my password with a simple UI	Authentication	End Users	High
US-008	As a system admin, I need to be able to send password reset links	Authentication	Admins	Medium

US-009	As a user, I need to be able to access and send media from my device	Messaging	End Users	High
US-010	As a user, I need to be able to create a group chat	Messaging	End Users	Low
US-011	As a bot, I need to be able to be available for users to message and interact with	AI	End Users	Low
US-012	As a user, I need to be able to see when the recipient receives/reads their messages	Messaging	End Users	Medium
US-013	As a third-party developer, I need to have access to an API to create bots that can be used by end-users	AI	Third Party Developers	Low
US-014	As a user, I need to be able to customize the app	Customizability	End Users	Low
US-015	As a user, I must be able to edit basic info on my account (change username, email, password etc)	Customizability	End Users	High

Non-Functional Requirements			
ID	Requirement	Topic Area	Priority
NFR-001	<u>Platform Constraints</u> : Messages must be end-to-end encrypted	Security	Medium
NFR-002	<u>Platform Constraints</u> : Users must be able to recover messages (transfer messages from old device to new device)	Data Management	Low
NFR-003	<u>Platform Constraints</u> : Received messages should be deleted from the server	Data Management	Critical
NFR-004	<u>Platform Constraints</u> : Server must be able to detect when a message has been received by an end user	Data Management	High
NFR-005	<u>Performance</u> : Encryption and decryption must take no more than 2 sec	Performance	High
NFR-006	<u>Platform Constraints</u> : Admins should not have access to messages sent by users	Security	Critical

## Use Cases:

- Use Case Overview:

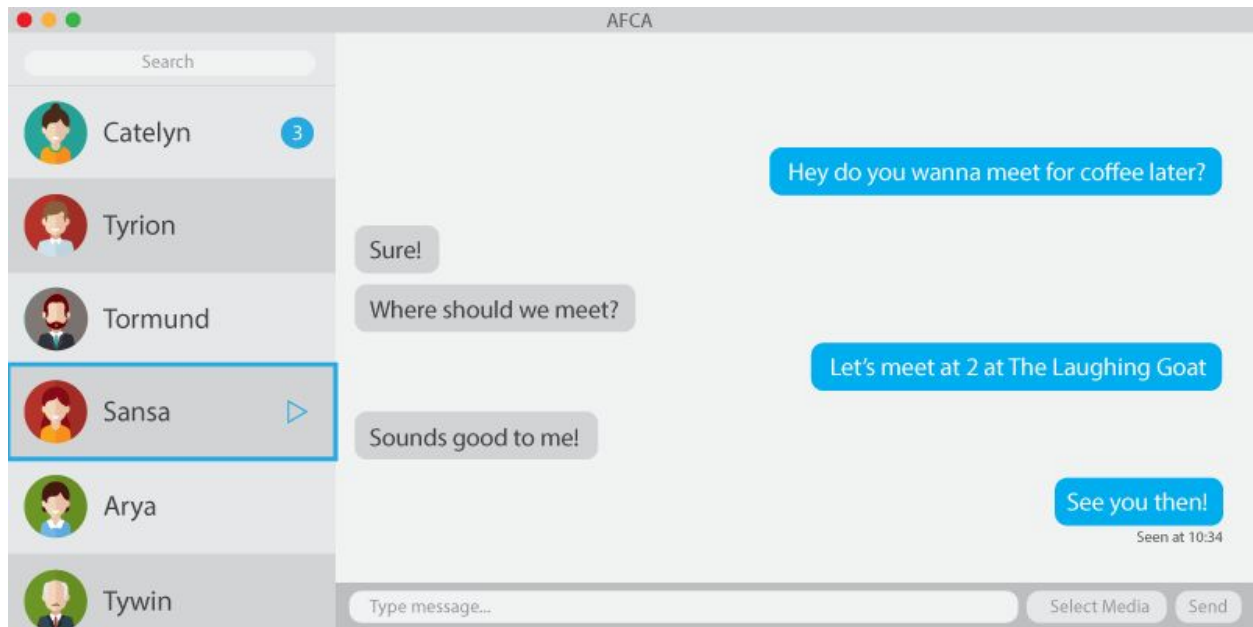
### USE CASE DIAGRAM

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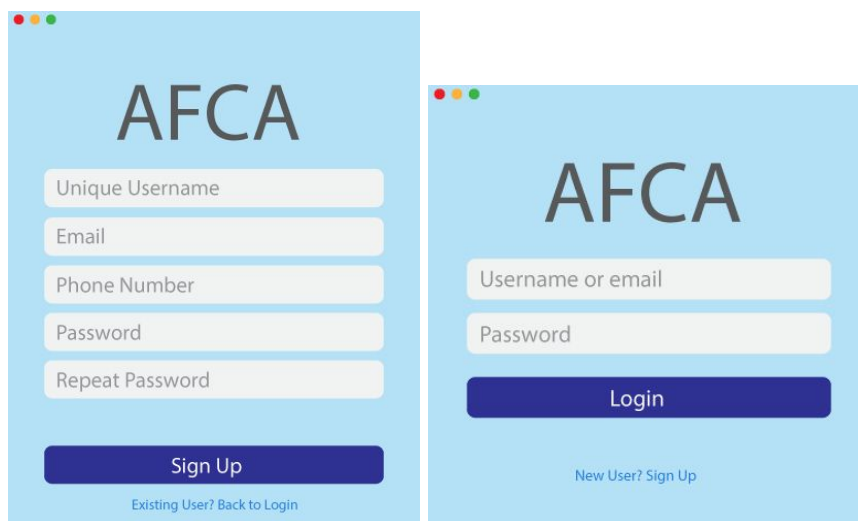


- Sub-Diagrams: none

## UI Mockups:



*Above: chat screen with conversations on left and highlighted conversation on right*



*Above: Sign up screen (left) and Login screen (right)*

## Data Storage:

We will have a MySQL server that will store all of the encrypted messages before they are delivered to their recipients.

Also table for storing user info (email, username, phone no., hashed password)

## Class Diagrams:

