Facebook chat Instant Messenger (FBCIM)

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# Personas, Actors, and Stakeholders

Samantha is a young entrepreneur who just started a small software firm in Montreal, Canada. Her software firm builds mobile applications and intermediate level web applications. Samantha mostly designs applications and outsources development related work to overseas developers. She has a team of 5 overseas developers. Samantha and her development team communicate over the phone which is a costly medium to communicate especially if a call is initiated from developers to Samantha regarding development related work. Samantha and her team of developers are looking for an Internet messaging application that allows communication in an inexpensive and secure manner. An important aspect of their communication is that they want to record communications for later references. Another important concern is sometimes Samantha or developers would need an immediate answer rather than waiting for an answer over e-mail. More often than not Samantha is out of the office meeting new clients and sometimes in remote areas where her mobile service provider does support services. Yet she still needs to contact her employees in a remote and secure manner. Samantha and her developers are Facebook users. So a Facebook messaging application would be a perfect solution for them as they are looking for a free IM application. Also they would not have to go through the Facebook registration process as they are already current users. Samantha regularly connects with people while at the computer, usually through Facebook. She’ll get in touch with friends to make plans for the evening, or sometimes just to touch base with her partner to decide on supper. She’ll sometimes let everyone know what she’s up to by post images or text to her Facebook page.

**Stakeholders**

A stakeholder is a formal or informal group of persons who:

* Share some identifiable interest in common
* Provide something of importance to the organization
* Expect something in return

3 stakeholder groups have been identified for FBICM.

1. **Users (Clients):** Users are stakeholders who actually make use of the application. The Chat application is built to assist the clients communicate in a one-to-one or one-to-many framework.
2. **Support Team:** This Stakeholder group’s implication is to provide assistance to the Users with the operation of the application. As part of support responsibilities, the Support Team logs deficiencies and pertinent information reported by users.
3. **Developers (FBCIM organization):** These Stakeholders form the team that developers, owns and manages application. These stakeholders will make modifications to the application when appropriate and as such have direct relationship with the application. Since these stakeholders also are the Owners, any impact on the application will have an effect on them.

**Actors**

* **User:** a human actor who interacts with the FBCIM System. After receiving authentication through (or using) a Facebook account, the user can open a chat window with a specific friend present in the friend list. The user (sender) can then start sending messages to the friend (other user /receiver). Communication can be initiated with any other friend (user / receiver) who is online and the chat can continue for as long as the communication link is open.
* **Restfb:** This is non-human secondary actor that the FBCIM System connects to. This secondary actor allows FBCIM System to send information to the Facebook system. It is a low level HTTP based API that supports the FBCIM System to query existing data from the Facebook system. It also allows new data to be sent to the Facebook system from FBCIM System.
* **Facebook System**: This is another non-human secondary actor, which is the primary source of information. It holds user data. It restricts unauthorized access to user’s data by providing safety measures. Facebook System supports FBCIM System to operate and fulfill its function.

# Informal Use Case

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| Send a chat message to friend |
| 1. FBCIM User launches FBCIM client application. 2. System prompts the FBCIM user to connect with Facebook. 3. FBCIM user provides required credentials for login. 4. System logs the user into his Facebook account. 5. System retrieves user’s friends and displays them. 6. FBCIM user selects the friend to chat. 7. System pops up the Chat message window. 8. FBCIM User types the required message to be sent. 9. System forwards the message to the correct recipient. |

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| Upload post to Facebook Account |
| 1. FBCIM User launches FBCIM client application. 2. System prompts the FBCIM user to connect with Facebook. 3. FBCIM user provides required credentials for login. 4. System logs the user into his Facebook account. 5. System pops up the FBCIM Messenger with user logged in. 6. FBCIM user selects the box to type the message for posting to Facebook account. 7. FBCIM User enters the message to be uploaded on Facebook account. 8. System takes the message and posts on the FBCIM User's wall. |

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| Change User Status |
| 1. FBCIM User launches FBCIM client application. 2. System prompts the FBCIM user to connect with Facebook. 3. FBCIM user provides required credentials for login. 4. System logs the user into his Facebook account. 5. System pops up the FBCIM Messenger with user logged in. 6. FBCIM user selects the status message. 7. System accepts the required status. 8. System saves the status. 9. System posts the status on the FBCIM messenger. |

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| Sending an emotion to Facebook friend |
| 1. FBCIM User launches FBCIM client application. 2. System prompts the FBCIM user to connect with facebook. 3. FBCIM user provides required credentials for login. 4. System logs the user into his facebook account. 5. System retrieves user’s friends and displays them. 6. FBCIM user selects the friend to chat. 7. System pops up the Chat message window. 8. FBCIM User selects the type of emotion to be sent to friend. 9. System accepts the selected emotion. 10. Systems forward it to recipient- friend. 11. System places an emotion on the recipient chat window. |

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| Loading FBCIM client on start up |
| 1. FBCIM User launches FBCIM client application. 2. System prompts the FBCIM user to connect with Facebook. 3. FBCIM user provides required credentials for login. 4. System logs the user into his Facebook account. 5. FBCIM User selects the option to Load client on start up. 6. System accepts the required change. 7. System saves the changes to the load configuration file. 8. FBCIM user restarts the system. 9. Operating System loads the newly updated configuration file. 10. Operating System detects the new changes. 11. System - FBCIM Client is loaded on start up. |

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| Connections using proxy server. |
| 1. FBCIM User launches FBCIM client application. 2. System prompts the FBCIM user to connect with Facebook. 3. FBCIM user provides required credentials for login. 4. Webpage can’t be opened. 5. Click the “Start” Orb at the bottom left of your computer screen. 6. Right above the “Start” Orb, you see “Search programs and files” with the cursor placed on the input box. 7. Type “inetcpl.cpl” into the field and press “Enter” to bring up Internet Properties window. 8. On the top menu tap of Internet Properties window, select Connections. 9. Click on “LAN settings” button located at the lower\_right\_corner. A new window appears as “Local Area Network (LAN) Settings”, illustration below. 10. Check the box “Use Proxy server for your LAN. 11. Enter the Address and Proxy as show in the illustration below. 12. Finish with clicking “OK” to close all windows. 13. Start surfing to [**https://Facebook.com/login.php**](https://Facebook.com/login.php) |

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| Play sound for incoming messages. |
| 1. FBCIM User launches FBCIM client application. 2. System prompts the FBCIM user to connect with Facebook. 3. FBCIM user provides required credentials for login. 4. System logs the user into his Facebook account. 5. System pops up the FBCIM Messenger with user logged in. 6. User selects setting option. 7. Sound option will be enabled by the user from the options available. 8. System accepts and save the required setting. 9. System will produce sound soon after receiving incoming message. |

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| Play sound for outgoing messages. |
| 1. FBCIM User launches FBCIM client application. 2. System prompts the FBCIM user to connect with Facebook. 3. FBCIM user provides required credentials for login. 4. System logs the user into his Facebook account. 5. System pops up the FBCIM Messenger with user logged in. 6. User selects setting option. 7. Sound option will be enabled by the user from the options available. 8. System accepts and save the required changes made. 9. System will produce sound after any outgoing messages. |

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| Turn off the chat, go offline and hide from certain contacts |
| 1. FBCIM User launches FBCIM client application. 2. System prompts the FBCIM user to connect with Facebook. 3. FBCIM user provides required credentials for login. 4. System logs the user into his Facebook account. 5. System pops up the FBCIM Messenger with user logged in. 6. User selects setting option. 7. FBCIM provided various options to turn off chat, go offline chat. 8. Chat status is hidden from a specific contact using advanced setting available. 9. System accepts and save the required changes made. 10. System will show chat status to selected contacts only. |

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| Show chat time stamp. |
| 1. FBCIM User launches FBCIM client application. 2. System prompts the FBCIM user to connect with Facebook. 3. FBCIM user provides required credentials for login. 4. System logs the user into his Facebook account. 5. System retrieves user’s friends and displays them. 6. User selects a particular contact from contacts list. 7. FBCIM provide facility to see the time and date of chats listed in chronological order. 8. User’s location is also displayed if user is log in through smartphone. |

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| Chat history. |
| 1. FBCIM User launches FBCIM client application. 2. System prompts the FBCIM user to connect with Facebook. 3. FBCIM user provides required credentials for login. 4. System logs the user into his Facebook account. 5. System retrieves user’s friends and displays them. 6. User selects a particular contact from contacts list. 7. FBCIM displays the entire chat history for a particular user. 8. The user accesses a prior chat session. |

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| Launch Application. |
| 1. FBCIM User launches FBCIM client application. 2. System prompts the FBCIM user to connect with Facebook. 3. FBCIM user provides required credentials for login. 4. System logs the user into his Facebook account. 5. System pops up the FBCIM Messenger with user logged in. 6. System retrieves user’s friends. 7. System displays entire contacts irrespective of fact that whether contacts are online or offline. |

# UML Diagram

The figure below presents a Domain model for a simple chat application which makes use of a user’s Facebook account.



A Facebook user has a Facebook account. Within the account, the user maintains a personal profile and personalizes the account by configuring various parameters of the account.

A Facebook account includes a Wall on which the user may post various types of data including files, text, and images. The visibility and access of information are controlled by the user. The amount of data, or capacity of the account, is constrained by the Facebook account. Within the account, the Facebook user manages a list of Friends. Friends must also be Facebook users.

A communication device can be a computer, phone or other device with which the user may access his/her Facebook account. The Chat application uses the User’s login credential to access Account information. This information enables the application to (1) manage conversations between the user and Facebook friends and (2) post items to the account Wall.