

**Computer Technology Department  
College of Computer Studies  
De La Salle University – Manila**

**2<sup>nd</sup> Term, Academic Year 2017 – 2018  
NETWORK – Milestone Project Specifications**

Your Milestone Project is divided into 3 tasks.

**The first task** is to create an instant messaging system using socket programming with a graphical user interface. The messaging system should work in both local or remote networks, as long as there is point-to-point connectivity between the devices. The graphical user interface may be web based or desktop application based, command line is not accepted. The programming language used is advised to be either Java or Python. A central messaging server should be configurable as well as default settings for preferences should be saved. User accounts may be created by using only a username, which would expire as soon as a user logs out. Users who have logged in to the system should be able to view all currently logged on users using their interface. The initial features here would be instant messaging and a global chat. The instant messaging allows the user to select a desired recipient, which would spawn a window, where they may chat privately. The global chat in the other hand is a window where all logged on users may be able to chat with everyone.

**The second tasks** to improve the instant messaging system to include features such as group chat, chatroom (with password), and support for file transfer. The group chat function would allow the user to select a number of currently logged on users from the server and create a chatbox for them to converse, other users cannot enter a group chat unless invited. The chatroom are publicly seen chats which allows the user to communicate with other user, but would require them to enter a password first. As for the file transfer, any files should be able to be transferrable from one user to another via any of the chat windows.

**The third task** is to include a gamification of the instant messaging system where a simple multiplayer network based game is to be implemented. An example of which is battle ships, card games, rock paper scissors, and the like. It would work by allowing a user to send a game invite to another user, when accepted, both would play the game. A command may also be sent in order to stop the game. The game may be something unique as long as there is a significant level of difficulty in how the game is implemented as well as is implementing concepts with regards to the process of computer networks and communications.

The deadline for the following tasks is as follows:

Task 1 – February 19, 2018

Task 2 – March 12, 2018

Task 3 – April 2, 2018