



Computer Engineering Department  
**Computer Networks 1(10636454)**  
**Homework #1**  
Dr. Raed Alqadi

Instructor Name: Dr. Raed Alqadi  
Academic Year: **2018/2019**  
Semester: **Summer**  
Credit Hours: **3**  
Date: Part1: **July 14**

Student Name: Ahmad  
Registration Number:  
Section: 2  
Total Project Mark:  
Project +HW Weight: **15%**

Student Grades

Part	Description	Points	ILO's		Part Grade
Part 1	Java Peer to Peer chat		<b>2</b>		
Part 2	QT Peer to Peer chat		<b>2</b>		
Student Grade (of 30)					

**Project Notes:**

- 1- Submit every part of the Program (Software on time)
- 2- Use good programming practices and style.
- 3- Read the specs of the program on the next page carefully.

## **Project: Network Programming**

In this project Peer to Peer Application that runs on a Network. In the first part, you will write it in Java and in the second part, you will write in QT

### **Project Parts (Assignments):**

1. **Part 1:** Write a UDP Peer to Peer Java application with GUI to implement chatting between any two peers. You need to specify the Local and Remote port number and IP addresses used. Use Text boxes, areas, drop-downs as you like. Make the Interface look nice. Make the socket Non-Blocking by setting a timeout on the socket
2. **Part 2:** Write a UDP Peer to Peer C++ application with GUI to implement chatting between any two peers. You need to specify the Local and Remote port number and IP addresses used. Use Text boxes, areas, drop-downs as you like. Make the Interface look nice. Use QT environment

Test your applications by making them chat with each other. Try on different machines also show that The Java and C++ apps can talk to each other

### **Optional Part:**

Extra Credit if you implement one of the following Choices:

1. Send a File by using QT from one peer to another.
2. For those who know Android Programming: Implement the Part1 also in Android device. UDP programming uses the same Datagram Sockets, but you must put the send and receive in an async task. The task can be made an inner class also to make it easier to reach the GUI.