# An-Najah Nation University Faculty of Engineering and Information Technology



# جامعة النجاح الوطنية كلية المندسة وتكنولوجيا المعلومات

## **Computer Engineering Department**

Networks1 (10636454)

# **Programming HW 2**

# **UDP File Transfer**

Instructor name:	Student Name:	
Dr. Eng. Saed TARAPIAH		
	: : رقم تسلسلي :Serial number	
Academic Year: 2022-2023		
Semester: Summer	Registration Number:	
Credit Hours: 3	Section:	
Date: 20/July/2023	Total Exam Mark: 15	
	Exam Weight: 15%	

Question	Points	ILO's	ILO's%	Question Grade	Required Time
Q1	15				
Student Grade					

### **Q1:** [15 points]

In this project A GUI for File Transfer Application by using UDP Socket that runs on a Network. You will Write it in Java.

Deadline: 4/August/2023 midnight

**Group members: Maximum of 2 students.** 

#### Requirements:

- 1. Using JAVA code only.
- 2. Using UDP socket class.
- 3. Use GUI for both client and server sides.
  - a. As much as you provide better GUI as much high mark you will gain.
- 4. Add all reliability functions on top of UDP to provide reliable file transfer, such as
  - a. Sequence number
  - b. Acknowledgments
  - c. timers
  - d. packets retransmission.
  - e. ......
- 5. Run the codes/ programs on two separated hosts on the network
- 6. Add statistics on real time, such as: (more statistics: more marks)
  - a. Number of sent packets
  - b. Original Size of the file
  - c. Size of already sent data
  - d. Percentage of file transfer
  - e. Number of lost packets
  - f. Number of re-transmitted packets
  - g. .....

**Good Luck**