BAHRIA UNIVERSITY
(Karachi Campus)

Department of Software Engineering

ASSIGNMENT#04 – Fall 2022

Problem Based Learning

COURSE TITLE:	**Data Structures & Algorithms**	COURSE CODE:	**CSC-220**
Class:	**BSE – 3(A&B)**	Shift:	**Morning**
Course Instructor:	**ENGR. LARAIB SIDDIQUI**	Date:	**4-Jan-2023**
Due Date:	**10-Jan-2023**	Max. Points:	**5**

INSTRUCTION:
You have to complete this assignment in a group maximum of three (03) students.

[CLO-3]
Suppose a company has a wired network within its premises. Users can easy share files from their system to every other system as fast as possible. Unfortunately, the security measures of the company are insufficient. Wires can be monitored by shadowy organization who can intercepts your messages.

After doing some preliminary research, you are able to assign each wire a "risk factor" indicating the likelihood that wire is being monitored. For example, if a wire has a risk factor of zero, it is extremely unlikely to be monitored; if a wire has a risk factor of 10, it is more likely to be monitored. The smallest possible risk factor is 0; the largest possible risk factor is n.

Design and implement an efficient data structure algorithm that selects wires to send your message such that (a) every computer receives the message and (b) you minimize the total risk factor. The total risk factor is defined as the sum of the risks of all the wires you use.