National University of Sciences & Technology
School of Electrical Engineering and Computer Science
Department of Computing

EE353: Computer Network (3+1): BSCS-11 (A & B), Fall 2023

Assignment 1	
CLO4: Design and implement solutions to overcome network unreliability (through hands-on programming)	
Maximum Marks: 25	Instructor: Dr. Muhammad Zeeshan
Announcement Date: Oct 10, 2023	Due Date: Oct 22, 2023 (11:59 pm)

Overall functional requirement:
A group of two students is required to design and code a sender/receiver program to transmit ***"Audio File"*** contents over TCP sockets using various TCP/IP stack system calls. It is required to code in GNU C on the Linux operating system only.

Sender requirements:
The following are the sender's requirements:
a) Able to open and read the contents of an audio file
b) Create segments and send them separately over TCP
c) Indicate the end of the file to the receiver
d) Close the socket once the complete file is sent

Receiver requirements:
The following are receiver requirements:
a) Able to open a new audio file
b) Receive segments from the sender and write them in a new file
c) Able to identify eof to terminate
d) Close the file and socket as well

Submission:
a) Two students can group and only one of the students in a group is required to make both the submission on LMS and Turnitin.
b) Submit a single compressed folder containing the code on LMS and also submit a Word document file containing the description and the complete code of the assignment Turnitin.
c) Copy and paste the actual code in an MS Word file, do not include screenshots of the code.
d) Submit only MS Word format file (12 font size & normal line spacing) on Turnitin and only use a white background in the document.