



## Network Programming Course Project Demonstration Guide

Follow this guide to record your demonstration videos and submit them for evaluation. Before you begin, make sure that your environment is correctly set up and everything is functioning properly. Then, start by screen recording a video of the code and another video of the code execution (system). Follow the steps below to demonstrate your work, and remember to comment on each aspect you showcase. It is important for every student to describe their respective part.

### Code video (< 10 minutes)

1. Display the folder containing the scripts and describe its structure, highlighting the files and folders.
2. Mention whether there are any additional concepts or not.
3. Open the server code and scroll down gradually, pointing out the key sections of the code as you go along. Make sure to mention important parts, such as socket creation, file opening, establishing connections, and other relevant aspects.
4. Repeat the same process for the client code, opening it and scrolling down slowly. While scrolling, highlight the main components, such as socket creation, file handling, establishing connections, and any other significant sections.
5. Please show the code related to the additional part and provide a brief description of it.

### Code run video (< 10 minutes)

6. Open the command prompt/terminal and ensure that you are in the correct folder displayed in step 1 of the code video.
7. Start the server by executing the appropriate command in the command prompt/terminal.
8. Open three separate command prompt/terminal windows and initiate three clients, assigning each a unique name.
9. In one of the client command prompt/terminals, force stop the client by pressing Ctrl+C.
10. Start another client and establish a connection with the server, assigning it a new name.
11. First query
  1. Return to the first client and select the 'Search Headlines by Keywords' option. Use either 'bitcoin' or 'oil' as a keyword.

2. Display the results on the client screen and explain how you extracted the source name, author, and title from the data received from the API.
  3. Select one of the received headlines to retrieve its full details.
  4. Show the server-side display for any output.
  5. Navigate to the newly created JSON file and display the first 30 lines to highlight the retrieved data.
12. Second query
1. Switch to the second client and choose the “Search Headlines by Country” option. And select Australia as the country.
  2. Display the results on the client screen
  3. Select one of the received headlines to retrieve its full details.
  4. Show the server-side display for any output.
13. Third Query
1. Move to the third client and choose the "Search Headlines by Category" option. Then select "technology" as the category.
  2. Display the results on the client screen
  3. Select one of the received headlines to retrieve its full details.
14. Fourth query
1. Return to the first client and choose the “Sources by Country” option. And select Canada as the country.
  2. Display the results on the client screen
  3. Select one of the received headlines to retrieve its full details.
15. Select the "Quit" option or button in all the clients to terminate them.
16. Show the server-side display for any output.
17. Demonstrate any additional concept(s) you have incorporated. If the concept has already been demonstrated in a previous step, there is no need to demonstrate it again. Just make sure to mention it in the corresponding step where it was showcased.

**Note:** It is crucial to attach the newly generated JSON files during this demonstration.