

VI Semester B.Tech. (CSE) | Winter Semester (2023-2024)

Computer Networks Lab (CSC307)

List of experiments for 16th Jan 2024:

1. Perform following operations:

- a. Create three programs, with two of them functioning as clients (Client1 and Client2) communicating with a common server. Client1 is responsible for sending a character to the server. The server, upon receiving the character, will decrement it to the preceding letter in the alphabet and transmit the outcome to Client2. Client2, upon receiving the letter, will print it, and subsequently, all processes will terminate.
- b. Follow the same procedure as in part (a) except that the data type of the message should be integer and the server should decrement the integer before transmitting it to client2.
- c. Next write a socket program to enable client1 to send a float value to the server. The server process should increase the value of the number it receives by a power of 1.5 and sends the result to Client2. The server should print both the value it receives and the value that it sends. Client2 should print the value it receives from the server.

2. Design and implement a comprehensive Inventory Database system with the following features:

- a. Develop a database for automobile parts comprising the following attributes: part number, part name, part price, part quantity, user account number, and a detailed part description.
- b. On the server side, create procedures to perform the following tasks:
 - i. Search for a part based on specified criteria.
 - ii. Retrieve the part name corresponding to a given part number.
 - iii. Provide information on the quantity of available parts.
 - iv. Facilitate the process of ordering a part.
- c. Implement a set of client-side commands that the server can interpret and respond to, enabling the client to make inquiries, such as
 - i. Searching for parts,
 - ii. Obtaining part details,
 - iii. Checking availability,
 - iv. Placing orders for a specific part, and

Your system should exhibit robustness in handling client request. Additionally, consider error handling in both the server procedures and client commands.

TA Details:

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