

# **CS359 Computer Networks Lab**

## **Lab Exercise**

*Indian Institute of Technology, Patna*

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### **Instructions:**

**Socket Programming:** Socket programming is a way of connecting two nodes on a network to communicate with each other. One socket (node) listens on a particular port at an IP, while the other socket reaches out to the other to form a connection. The server forms the listener socket while the client reaches out to the server.

**Multithreading:** Multithreading is the ability of a program to manage its use by more than one user at a time and to even manage multiple requests by the same user without having to have multiple copies of the programming running on the computer.

### **Problem Definition:**

Write a program to create a **chat room server**, which will allow **multiple clients** to chat. Basically, you have to create a platform where multiple users can chat. For example, one user will send a message, and that user will get a response from any remaining users. Please show a demo of your system by taking screenshots at each step and submit along with the codes and report file, as you did earlier. You can solve this problem in your convenient programming language. By doing this code, you will be able to get hands-on experience in socket programming and multithreading.

**Deadline: 29/3/2022**