Simple Mail Transfer Protocol

Introduction:

Simple Mail Transfer Protocol (SMTP) is a communication protocol used to transmit electronic mail (email) messages between servers and clients over a network. SMTP is a fundamental component of internet email transmission, enabling the exchange of emails reliably and efficiently.

Aim of SMTP:

The primary aim of SMTP is to provide a standardized method for the transmission of email messages across networks. It ensures that emails are delivered securely, reliably, and in a timely manner to their intended recipients.

Objectives of SMTP

- Reliability: SMTP aims to ensure that email messages are reliably delivered to their destinations without loss or corruption.
- Interoperability: SMTP facilitates interoperability among different email systems and platforms, enabling communication between users regardless of their email service providers.
- Security: SMTP includes mechanisms for authentication and encryption to enhance the security of email transmission, protecting sensitive information from unauthorized access.
- Efficiency: SMTP is designed to efficiently handle the transmission of email messages, optimizing network resources and minimizing latency.

Steps in SMTP Transmission

- Connection Establishment: The sending SMTP server establishes a connection with the recipient's SMTP server.
- Handshake: A handshake process occurs between the sending and receiving servers to negotiate parameters for the email transmission.
- Message Transfer: The sending server transmits the email message to the receiving server using a series of commands defined by the SMTP protocol.

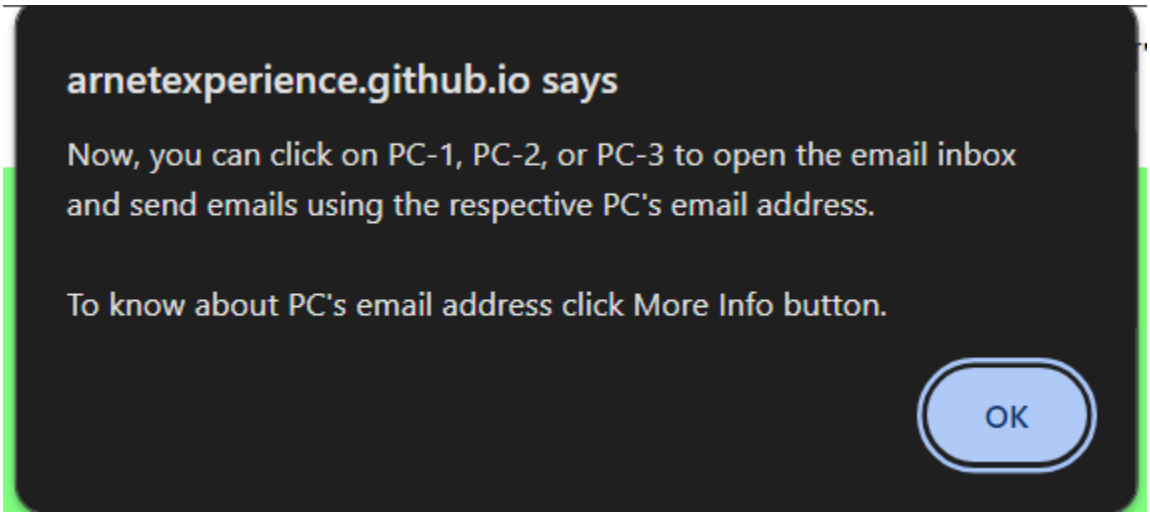
- Message Delivery: The receiving server processes the incoming email message and stores it in the recipient's mailbox for retrieval.

Conclusion:

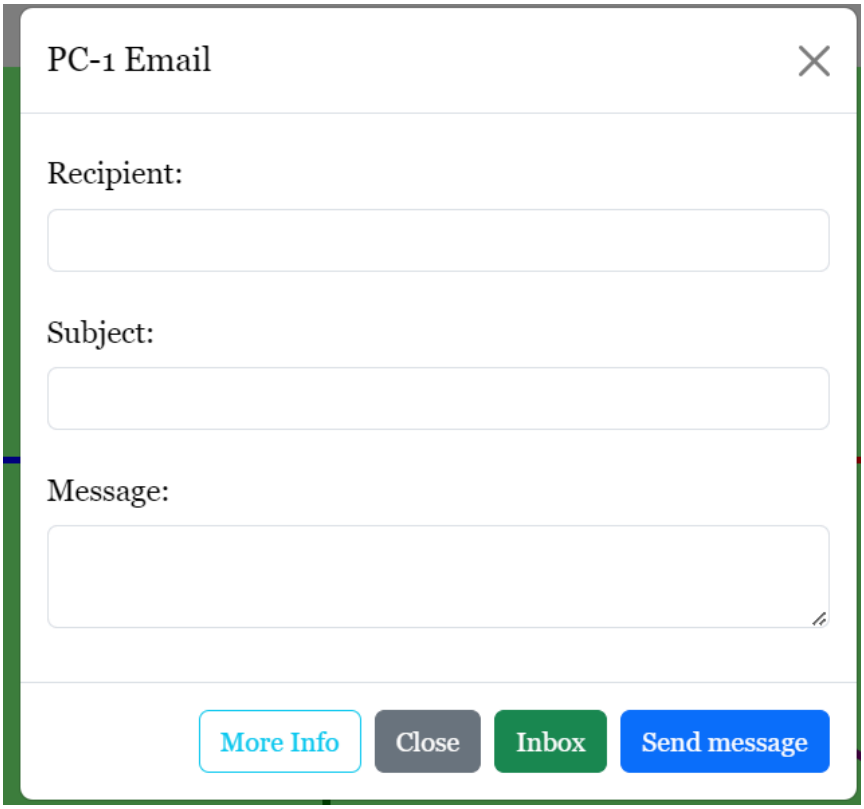
In conclusion, SMTP plays a crucial role in the transmission of email messages across the internet, providing a standardized and reliable method for exchanging electronic communications. By adhering to its principles of reliability, interoperability, security, and efficiency, SMTP enables seamless communication between users and ensures the integrity and confidentiality of email transmission.

How to Perform:

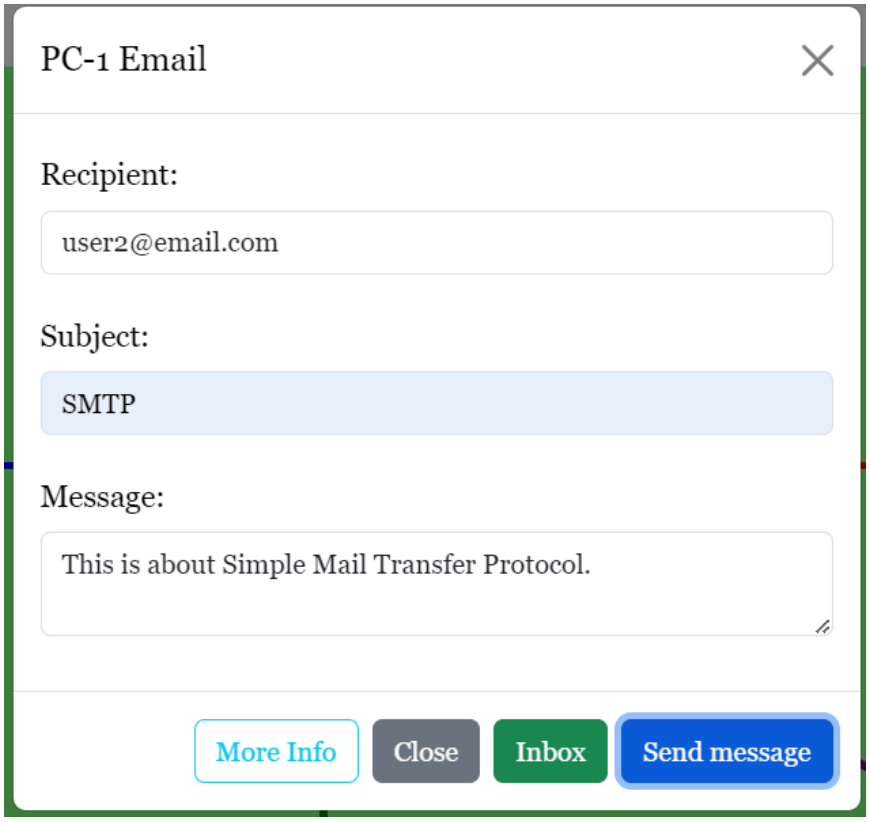
1) Click on any PC to open the email inbox and send emails using the respective PC's email address.



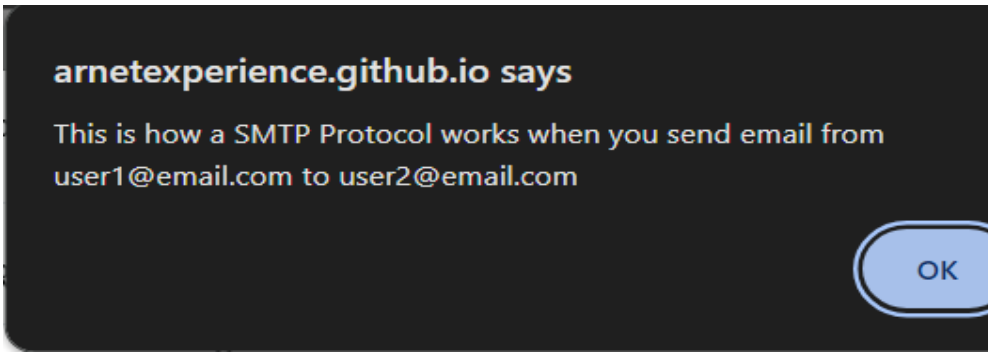
2) Say, clicked on PC-1, then
Enter Recipient email, subject, message as shown in figure,



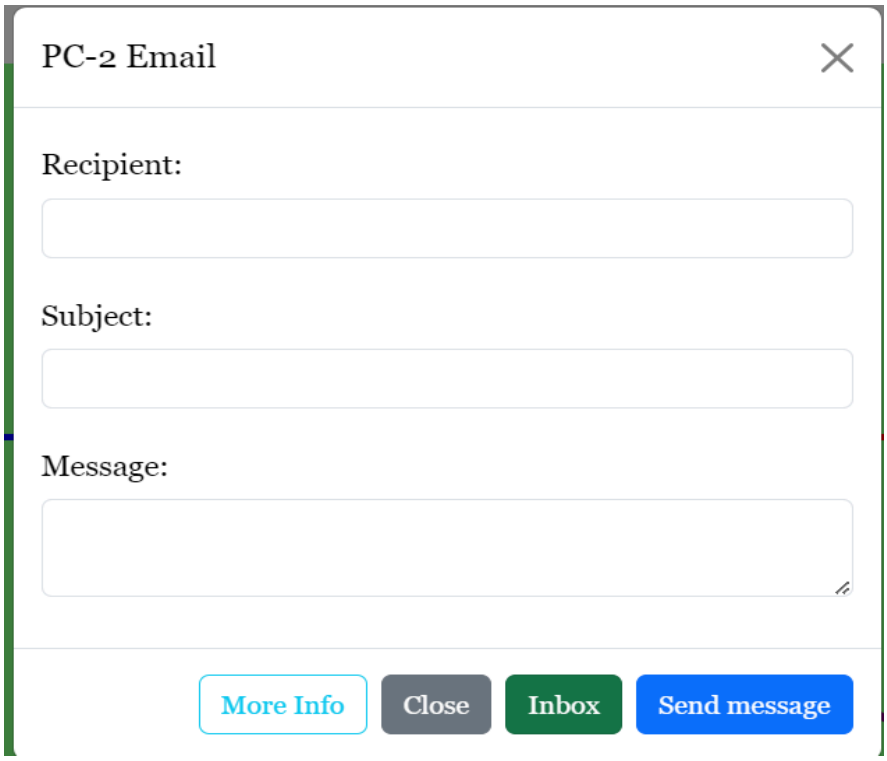
Click on Send Message Button, after packets will transfer



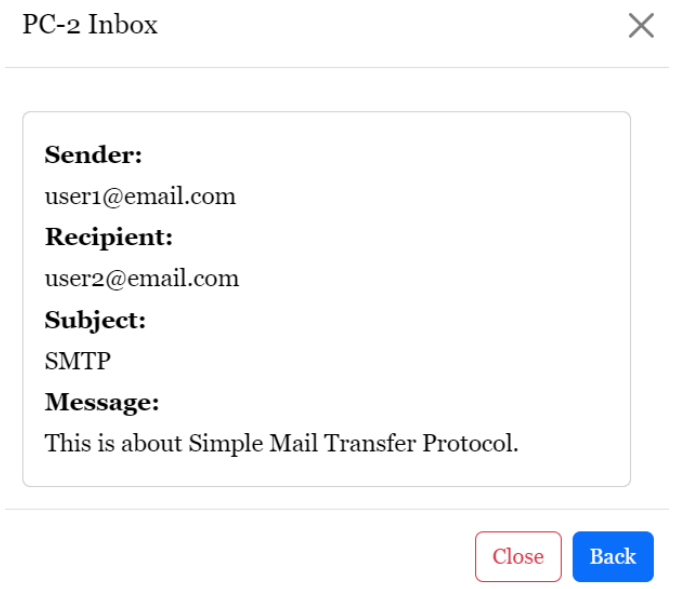
3) Pop-up message like this will be received.



4) Click on Inbox button



5) The Message sent by PC-1 will be display here



6) Click on Server to know it's IP Address and Domain Name