

SIMPLE MAIL TRANSFER PROTOCOL (USING TCP)

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Compiling the Program

To compile the program:

```
javac Server.java
```

```
javac Client.java
```

Running the Program

In a terminal, run the Server program. While the Server is running, run the Client programs in other terminals with the correct socket address.

In the first terminal:

```
java Server <port>
```

In the other terminals, run:

```
java Client <host address> <port>
```

The client requests have to be typed by the user into the terminal when prompted (i.e., when seeing '>>').

As this is a demo of SMTP, authentication is not implemented. So you can login with just the Email ID. Three IDs have been hardcoded in the server:

- client1@example.com
- client2@example.com
- client3@example.com

Supported Commands

- **login** : Login to the mail server.
- **send** : Send an email. (You can even send a mail to yourself)
- **receive** : Checks the inbox queue for any pending emails. A single email is retrieved (if available) each time this command is used.
- **exit** : Logout and exit the program.

Screenshots

```
Windows PowerShell
PS D:\Downloads\S6\Network Programming Lab\SMTP\src> java Server 5000

.d8888b.
d88P  Y88b
Y88b.
"Y888b. .d88b. 888d888 888 888 .d88b. 888d888
  "Y88b. d8P  Y8b 888P" 888 888 d8P  Y8b 888P"
    "888 888888888 888    Y88 88P 888888888 888
Y88b  d88P Y8b.    888    Y8bd8P Y8b.    888
"Y8888P" "Y8888 888    Y88P    "Y8888 888

[client2@example.com, client3@example.com, client1@example.com]
Created server socket successfully. SMTP server listening on port 5000
Established connection with client @ 127.0.0.1:52993
Client logged in as client1@example.com
Client (client1@example.com) logged out.
Established connection with client @ 127.0.0.1:53003
Client logged in as client2@example.com
Client (client2@example.com) logged out.
|

Windows PowerShell
PS D:\Downloads\S6\Network Programming Lab\SMTP\src> java Client localhost 5000

.d8888b. 888 d8b                888
d88P  Y88b 888 Y8P                888
888    888 888                888
888      888 888 .d88b. 88888b. 888888
888      888 888 d8P  Y8b 888 "88b 888
888    888 888 888 888888888 888 888 888
Y88b  d88P 888 888 Y8b.    888 888 Y88b.
"Y8888P" 888 888 "Y8888 888 888 "Y888

Connected to SMTP server @ localhost:5000. Using local port 52993.

>> login
Email ID: client1@example.com
Logged in successfully.

>> send
To: client2@example.com
Subject: Test Email
Message: This is a sample message.
Email sent successfully.

>> exit
Logged out and connection terminated.
```

PS D:\Downloads\S6\Network Programming Lab\SMTP\src> java Client localhost 5000

```
.d8888b.  888 d8b                888
d88P  Y88b 888 Y8P                888
888    888 888                    888
888      888 888 .d88b.  88888b.  888888
888      888 888 d8P  Y8b 888 "88b 888
888    888 888 888 888888888 888 888 888
Y88b  d88P 888 888 Y8b.    888 888 Y88b.
"Y8888P"  888 888 "Y8888 888 888 "Y888
```

Connected to SMTP server @ localhost:5000. Using local port 53003.

>> login

Email ID: client2@example.com
Logged in successfully.

>> receive

From: client1@example.com
Subject: Test Email
(Mon, 3 May 2021 12:02 PM)
This is a sample message.

>> receive

Your inbox is empty.

>> exit

Logged out and connection terminated.

PS D:\Downloads\S6\Network Programming Lab\SMTP\src> |