

# SMTP Manual

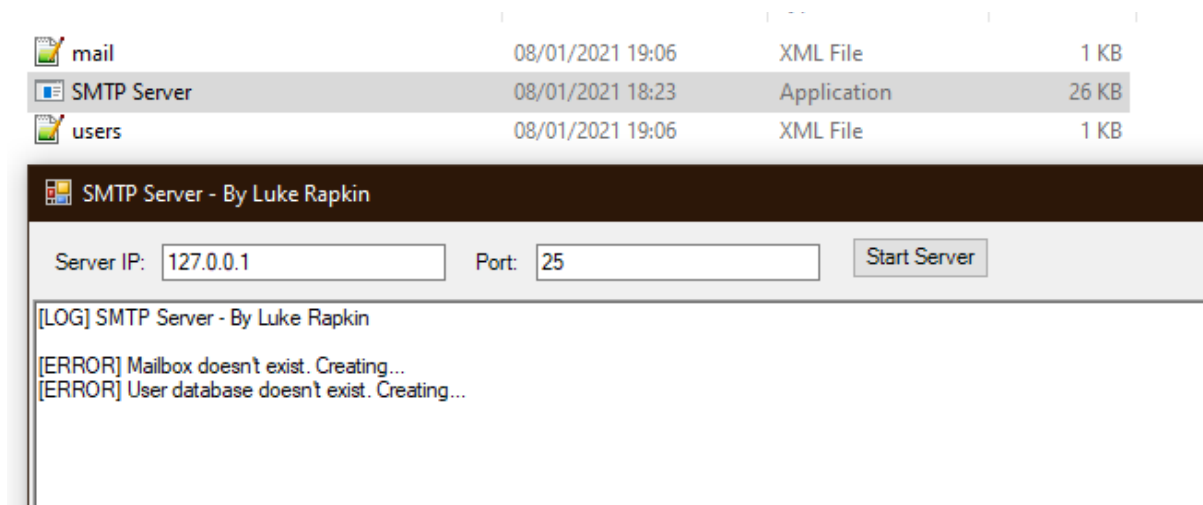
By 100527733

## 1. Running the server

To get started you need to run the server.

To do this. Navigate to Build/Server and run “SMTP Server.exe”

If this is your first time running the application the program will auto generate the user and inbox databases and prep them to be used.



You can enter the IP address and port you wish to run the server on at the top of the application.

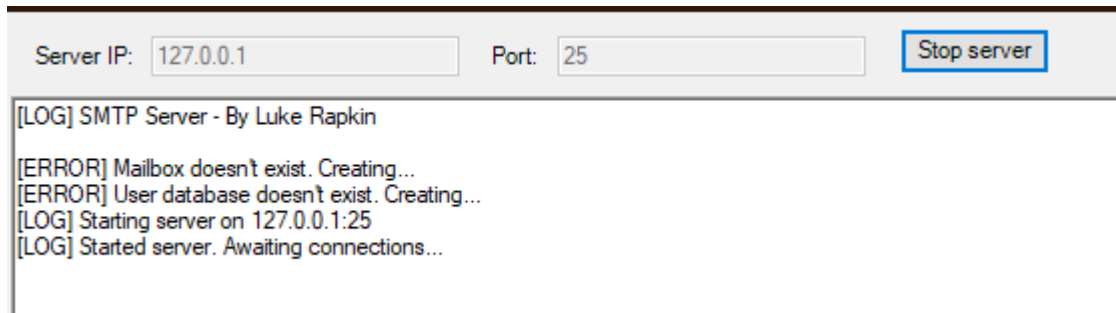
The main window of the program is the logs window. This will update as the server receives events.

At the bottom you will see the state of the server and the current time and date.

If the server is running you will see how much time have elapsed since you run it.

Click “Start Server” when you are ready to run your server.

You will see it is now awaiting connections.



The screenshot shows a web interface for an SMTP server. At the top, there are two input fields: "Server IP:" with the value "127.0.0.1" and "Port:" with the value "25". To the right of these fields is a button labeled "Start server". Below the input fields is a log area with the following text:

```
[LOG] SMTP Server - By Luke Rapkin  
[ERROR] Mailbox doesn't exist. Creating...  
[ERROR] User database doesn't exist. Creating...  
[LOG] Starting server on 127.0.0.1:25  
[LOG] Started server. Awaiting connections...
```

## 2. The user database

The user database is the main storage for accounts. Emails are stored in plaintext but passwords are hashed to keep everything secure. You will also see the accounts access token which is assigned upon registration. The client has no way of accessing this information directly.

```
<user email="test@example.net" hash="5e884898da28047151d0e56f8dc6292773603d0d6aabbdd62a11ef721d1542d8" token="bHt1Ziqqi0a+8M9IPOYQ2w==" />
```

## 3. The inbox database

The inbox database is the main storage for user’s inbox. Split up via access tokens any information that is stored here is encrypted.

The server handles the encryption and decryption of data.

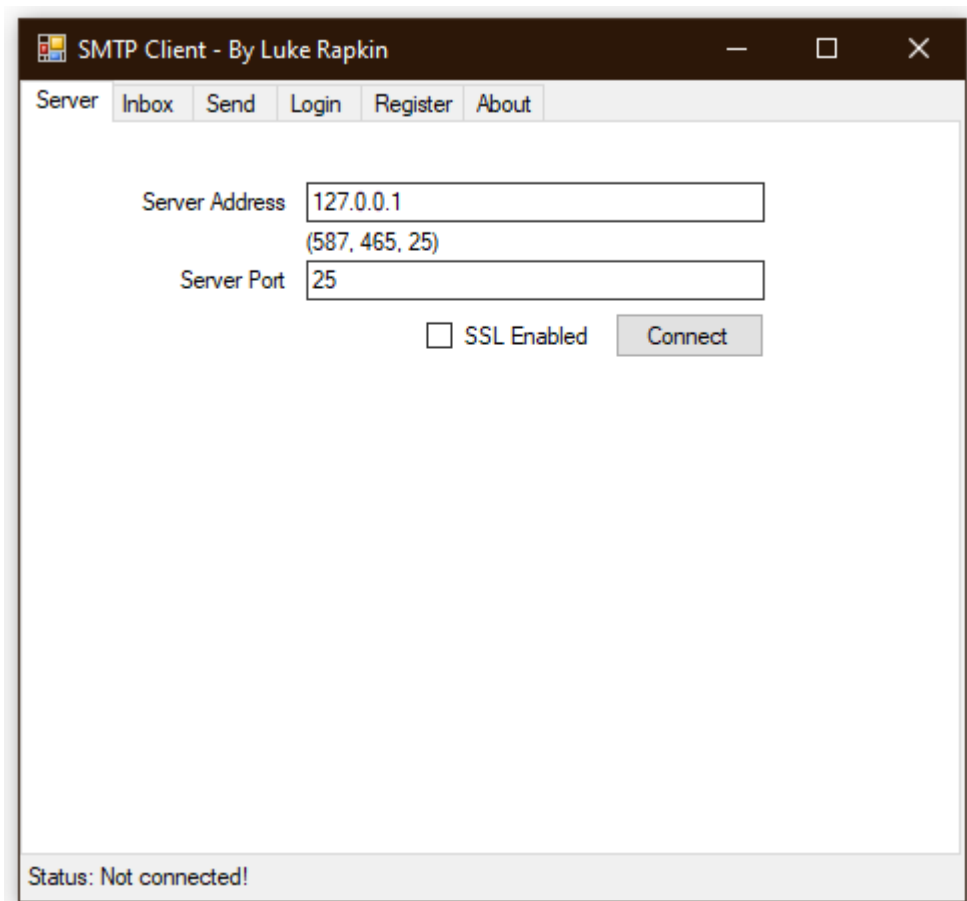
```
<inbox token="bHt1Ziqqi0a+8M9IPOYQ2w==">  
  <mail from="1zXgtKXj5yFEwvaDuT+zCIIH6l0+GaX9" to="1zXgtKXj5yFEwvaDuT+zCCjrtfHUz6II"  
</inbox>
```

## 4. Running the client

Now that you have a server running its time to get a client connected.

To do this navigate to Build/Client and run “SMTP.exe”

You’ll be presented by this screen

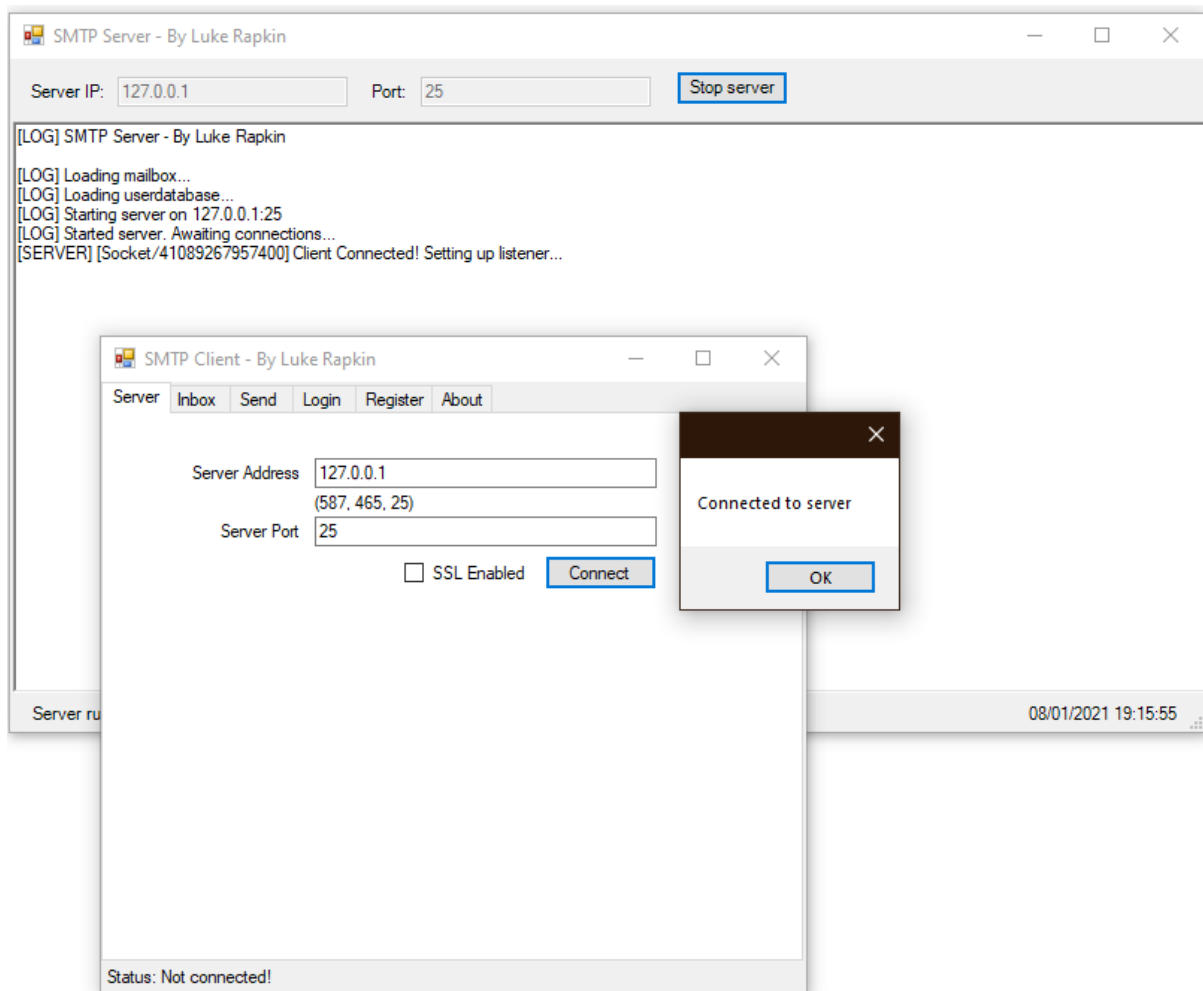


## 5. Connecting to the server

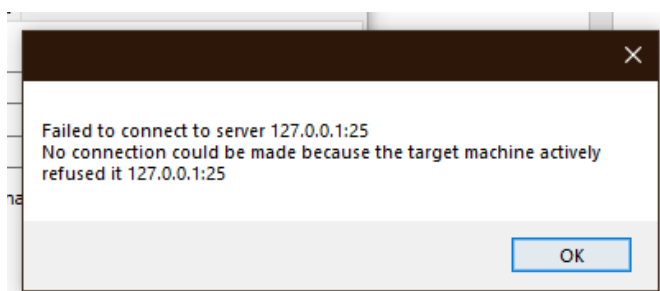
To connect to the server you **MUST** enter the same IP address and port that the server is running on. After ensuring the information is correct hit “Connect”.

If all goes well you will receive a popup saying you are connected to the server.

If you are running the server on the same pc you will see the log



If the server **IS NOT** running when you hit connect the application will freeze for a second or two as the program tries to send a few more heartbeats to the server just to check if it truly is offline before bringing up an error message



## 6. Registering an account

To access anything on this client you need to be logged into an account.

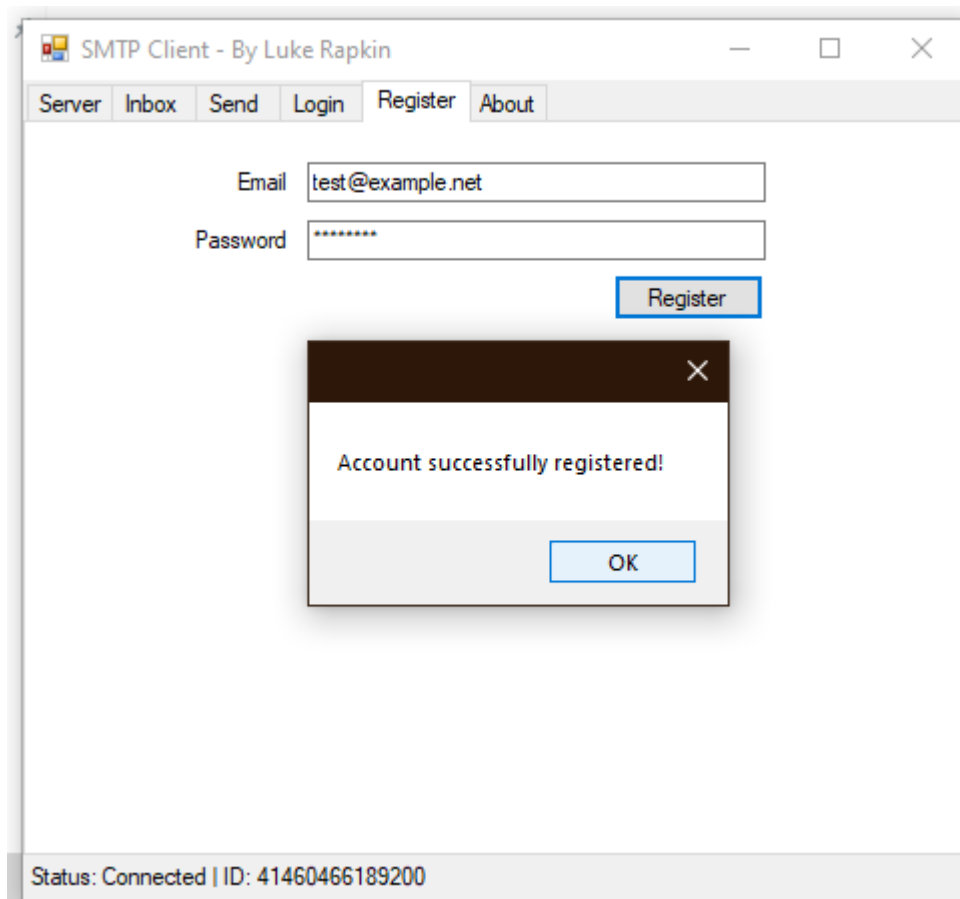
We can do this by registering one.

To do this navigate to the register tab

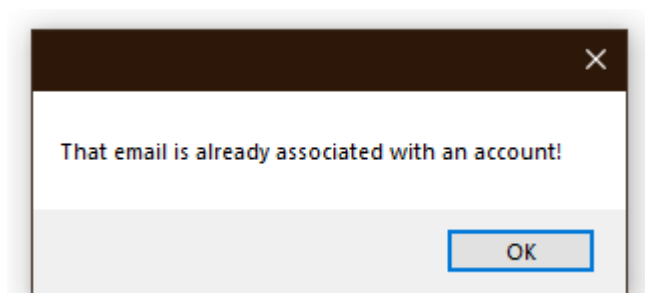
Enter in your desired email and desired password (don't worry the password is shown as asterisks)

When you are happy hit register

If all goes well your account will be registered



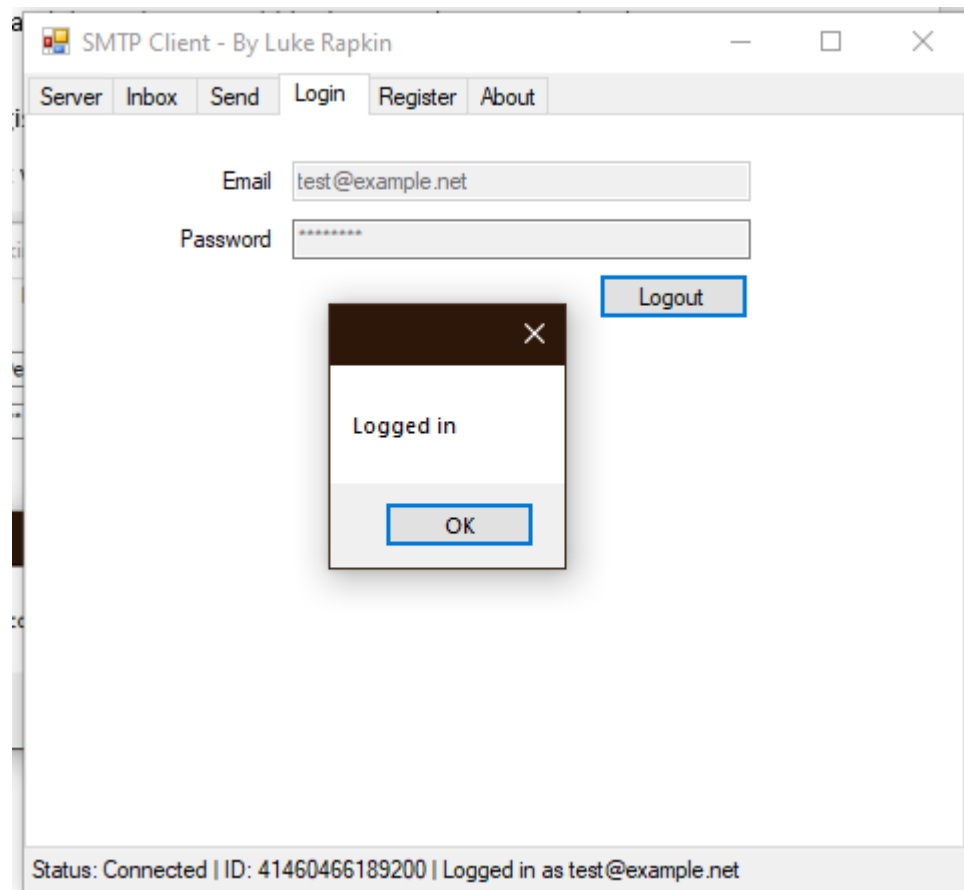
If the account already exists it will tell you that the email is associated with an account already.



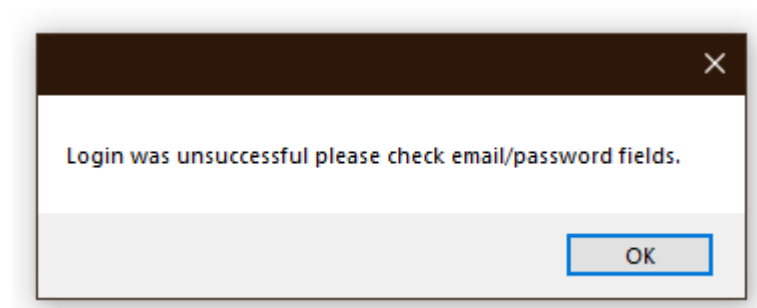
## 7. Logging into an account

To login navigate to the login tab and enter in the details you used to register.

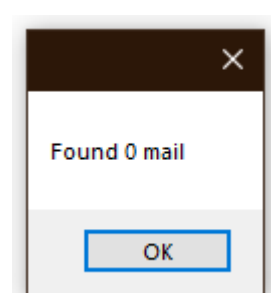
If you log in successfully you will see this window



If there was an error with logging in you will get a popup message telling you what went wrong.

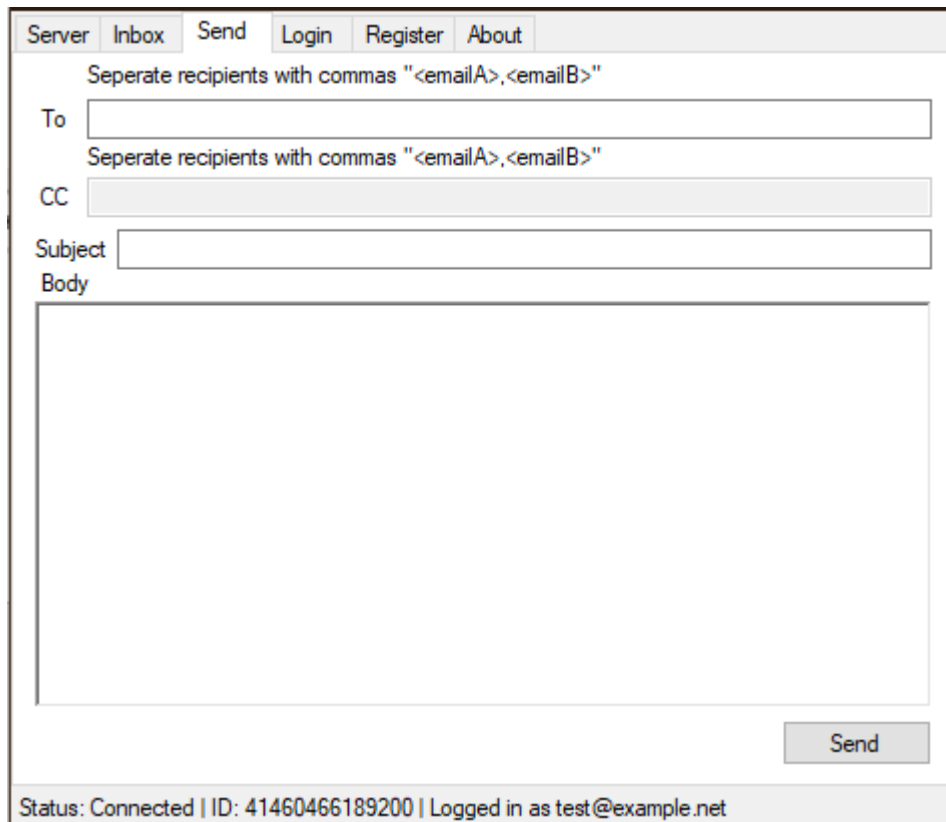


If login was successful after clicking ok, you will receive a popup with the current amount of mail in your inbox.



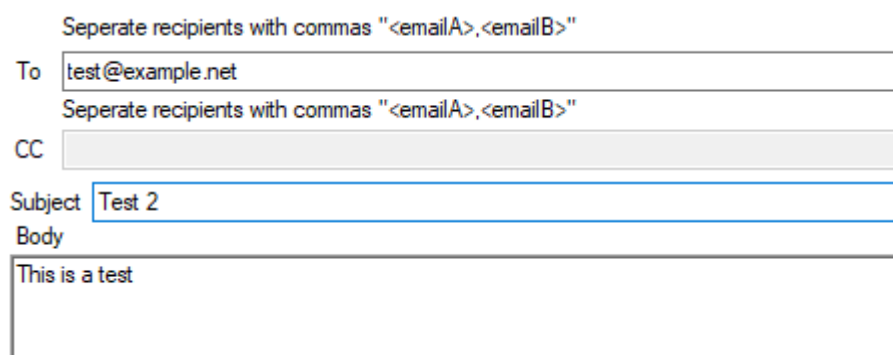
## 8. Send an email

To send an email, after connecting to the server and logging in head to the “Send tab”  
You will see all the components in here are now active and able to be interacted with  
(Forwarding has been disabled due to time constraints)



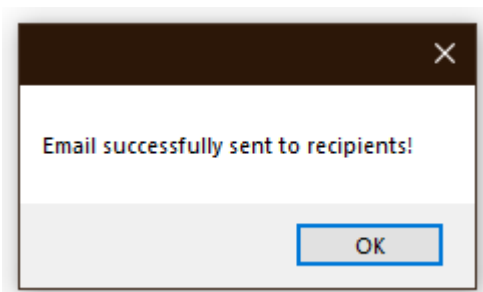
The screenshot shows the 'Send' tab of an email client. At the top, there are navigation tabs: 'Server', 'Inbox', 'Send' (selected), 'Login', 'Register', and 'About'. Below the tabs, there is a text input field for the 'To' field with the placeholder text 'Seperate recipients with commas "<emailA>,<emailB>"'. Below this is a 'CC' field with the same placeholder text. There is a 'Subject' field and a 'Body' field. A 'Send' button is located at the bottom right of the form. At the bottom of the window, a status bar displays: 'Status: Connected | ID: 41460466189200 | Logged in as test@example.net'.

Simply enter the email you wish to send your email too. If you want to send to more then 1 email separate emails with commas ‘,’



This screenshot shows the 'Send' tab with sample data entered. The 'To' field contains 'test@example.net'. The 'CC' field is empty. The 'Subject' field contains 'Test 2'. The 'Body' field contains 'This is a test'.

Hit send and you'll get this popup if everything went well



## 9. See your inbox

You sent an email, fantastic.

(Replying, forwarding and deleting emails has been disabled for time constraints)

Now make sure you are logged into an account that has emails in its inbox and navigate to the inbox tab

Server | **Inbox** | Send | Login | Register | About

Inbox | Refresh

From:

To:

CC:

Delete | Forward | Reply

Any oncoming emails will be listed here, Select the email and the details will be filled out

Server | **Inbox** | Send | Login | Register | About

Inbox | Refresh

Hello world

Test 2

From: manual@test.com

To: test@example.net

CC: no one.

Test 2

This is a test

Delete | Forward | Reply

Status: Connected | ID: 41904884814500 | Logged in as test@example.net