

SMTP Server [report]

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1. Introduction:

In this project, we implemented SMTP(Simple Mail transfer Protocol) using python over a Secure Socket Layer (SSL) connection. Users will be able to send email to another gmail user including any attachment files like images or documents. User will also be able to see the recent emails sent to him including the document path while on gmail, the user will be able to see the content of the attachment also.

2. SMTP:

The Simple Mail Transfer Protocol (SMTP) handles sending and routing email between mail servers. Once we send the email, the email transforms into a string of code sent to the SMTP server, which processes that code to pass the message. Without the SMTP server to process the message, the message wouldn't translate.

Additionally, the SMTP server verifies that the outgoing email is from an active account. In other words, the email server checks whether an active or working email account sent the outgoing message, protecting your inbox from illegitimate email.

3. Tools / Languages used:

- Python
- Laravel (PHP)
- Flask API
- Xampp

We used laravel (Php's framework) to create an application where a user can enter his gmail login credentials and send email or receive emails. While implementation of SMTP server is done using python. To communicate data between these 2 programs, we used Flask API to send and receive data between Laravel and Python.

4. Methodology:

We used python libraries like email and easy imap to implement the SMTP server. For sending email, Mime multipart object is created using the email.mime module. If any attachments are also included, then that file is opened and its content is read in binary. The data is then set as a payload of a Mimebase Object. The attachment file is also included in the header. Finally a Secure Socket Layer (SSL) connection is made and connects to gmail SMTP server at port 65. User has to enter his email credentials to login in the SMTP server. Form validations are also used so users enter details in the correct format.

We will follow these steps to accomplish this process:

- Create an SMTP object for connection to the server.
- Log in to your account.
- Define your message headers and login credentials.
- Create a MimeMultiPart message object and attach the relevant headers to it, i.e. From, To, and Subject.
- Attach the message to the MimeMultiPart object.
- Finally, send the message.

For receiving email,easyimap library was used to connect with gmail SMTP server and we can control the amount of recently received emails we want to retrieve.

Users will also be able to see the path of the attachment if any in the email, while on gmail, users can also see file content.

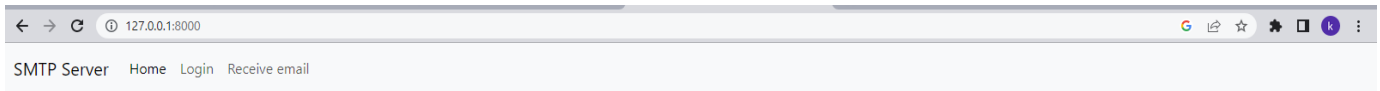
5. Features:

- User login
- User logout
- Form validation
- Input email content from user
- Send email
- Receive email

6. Setup:

1. First go to xampp and turn on Apache server and mysql
2. Then go to flask.py file and in the terminal run the command flask
–app **app** run
3. Then go to backend_smtp folder which has the laravel code.
4. Now enter the command **php artisan serve** to run the server for laravel.
5. Now enter login details and email content or attach any attachments if needed

7. Results:



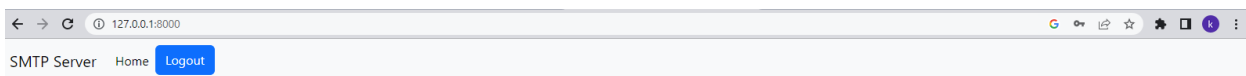
LOGIN TO SEND EMAIL

Sender email

Password

Login

After user logs in:



WELCOME TO SMTP SERVER

Receiver email

Subject

Body

Choose File No file chosen

Send email

WELCOME TO SMTP SERVER

Receiver email

kabdullah098@gmail.com

Subject

Test email

Body

Hello ok bye

Choose File Ago_reportFinal.docx

[Send email](#)

Receiving emails

• The sender email field is required.

LOGIN TO RECEIVE EMAILS

email

k200385@nu.edu.pk

Password

[Login](#)

My emails

From Student Affairs Office - Karachi Campus <studentaffairs.khi@nu.edu.pk>

To undisclosed-recipients;

Subject DECS Annual Dinner 2023 Tickets Sale Live

Body Dear All, We are thrilled to inform you that tickets for the concert at our highly anticipated Annual Dinner will be available soon. A series of extraordinary performances by Mustafa Zahid ft. ROXEN will keep you entertained for the night. Details for Ticket Sales: Starting Date: Tuesday, 09th May 2023 Venue: Cafeteria Ticket Price: Rs.3000 Terms and Conditions: • Tickets will be sold on a "First Come, First Serve" basis. • Tickets are non-refundable. • Lost, stolen, or destroyed tickets cannot be replaced. • Tickets cannot be resold - only the original buyer is allowed to use the ticket. • If a ticket is found in the possession of someone who did not buy it from us, the ticket will be considered fabricated, and the holder will not be allowed to enter the venue. • By buying this ticket you fully agree that your guardian/parents are well aware of the terms and conditions of the Annual Dinner. • Outsiders are strictly prohibited. For further queries, you may contact: Pasha: 03408394669 Fatima: 03333639820 Wahaj: 03132475602 So hurry up and grab your tickets before they run out. Only limited tickets are available! Stay tuned for further updates. Cheers, DECS -- With kind regards *Umair Abdul Qadir* Asst. Manager Student Affairs FAST - NUCES KHI *UAN:* (021) 111-128-128 *EXT: *252

Date Sun, 7 May 2023 18:38:38 +0500

From Khawaja Abdullah <kabdullah098@gmail.com>

To k20 0385 Khawaja Abdullah <k200385@nu.edu.pk>

Subject Test final

Body OK ok bye

Attachment IMG-20230507-WA0045.jpeg

Date Sun, 7 May 2023 18:32:25 +0500