**COMSATS UNIVERSITY ISLAMABAD ATTOCK CAMPUS**

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**TOCS LAB MID**

**Task 19**

**Submitted By**

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Sp21-bcs-030

**Submitted To:**

Dr. Farhan Adil

**Date**

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**Objective:**

The task perform Set up secure and scalable email servers like Postfix or Dovecot using Docker containers for internal or personal email handling.

**Activity:**  
Setting up secure and scalable email servers like Postfix and Dovecot using Docker containers can be a robust solution for internal or personal email handling. Here's a basic guide to get you started:

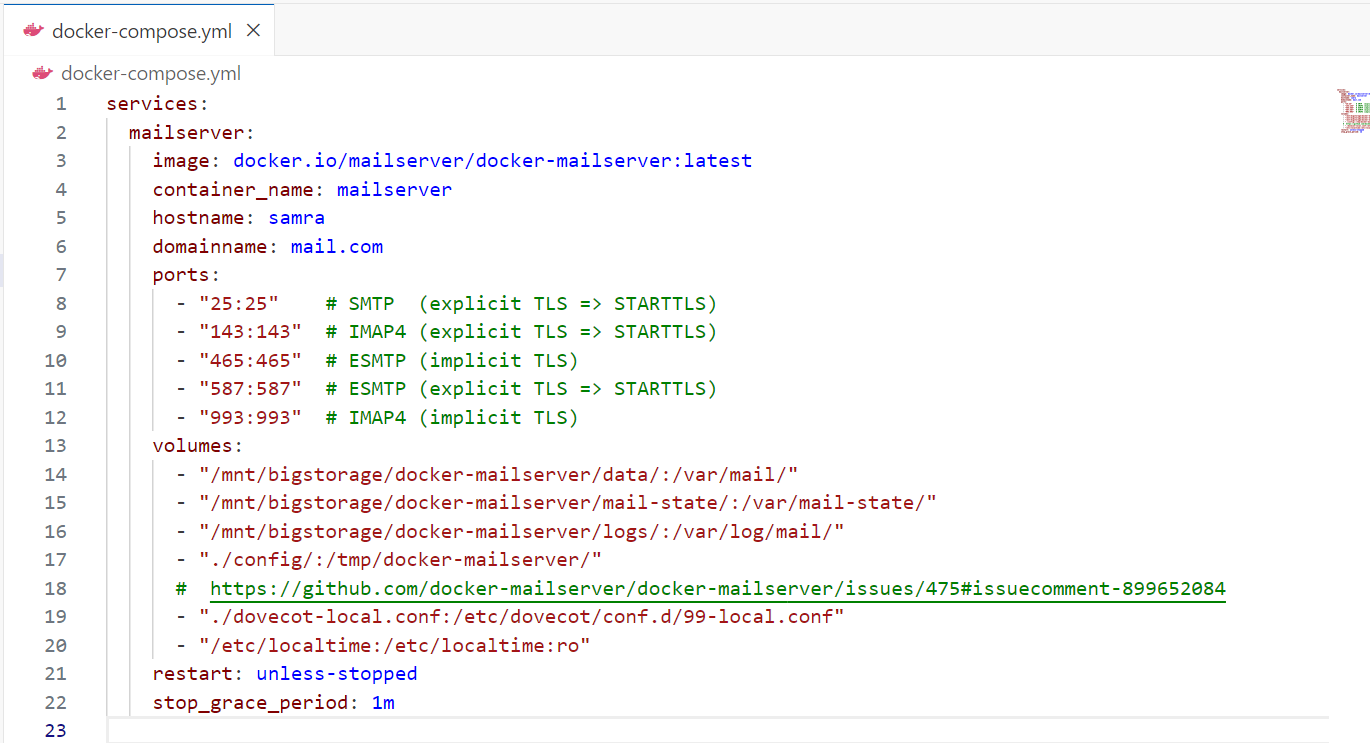
**Steps :**

1. **Install Docker and Docker Compose**: Make sure you have Docker and Docker Compose installed on your system.
2. **Create Docker Compose File**: Create a **docker-compose.yml** file to define the services you will be using.

For creating the yml file .

* + First Create directory by running the command in the windows power shell or any terminal you use. ‘mkdir lab\_mid’
  + Now open this folder with any editor you used and create the

“docker-compose.yml” file in it copy the given code and paste in the yml file.

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* Content of docker-compose.yml file are.

services:

  mailserver:

    image: docker.io/mailserver/docker-mailserver:latest

    container\_name: mailserver

    hostname: samra

    domainname: mail.com

    ports:

      - "25:25"    # SMTP  (explicit TLS => STARTTLS)

      - "143:143"  # IMAP4 (explicit TLS => STARTTLS)

      - "465:465"  # ESMTP (implicit TLS)

      - "587:587"  # ESMTP (explicit TLS => STARTTLS)

      - "993:993"  # IMAP4 (implicit TLS)

    volumes:

      - "/mnt/bigstorage/docker-mailserver/data/:/var/mail/"

      - "/mnt/bigstorage/docker-mailserver/mail-state/:/var/mail-state/"

      - "/mnt/bigstorage/docker-mailserver/logs/:/var/log/mail/"

      - "./config/:/tmp/docker-mailserver/"

      #  https://github.com/docker-mailserver/docker-mailserver/issues/475#issuecomment-899652084

      - "./dovecot-local.conf:/etc/dovecot/conf.d/99-local.conf"

      - "/etc/localtime:/etc/localtime:ro"

    restart: unless-stopped

    stop\_grace\_period: 1m

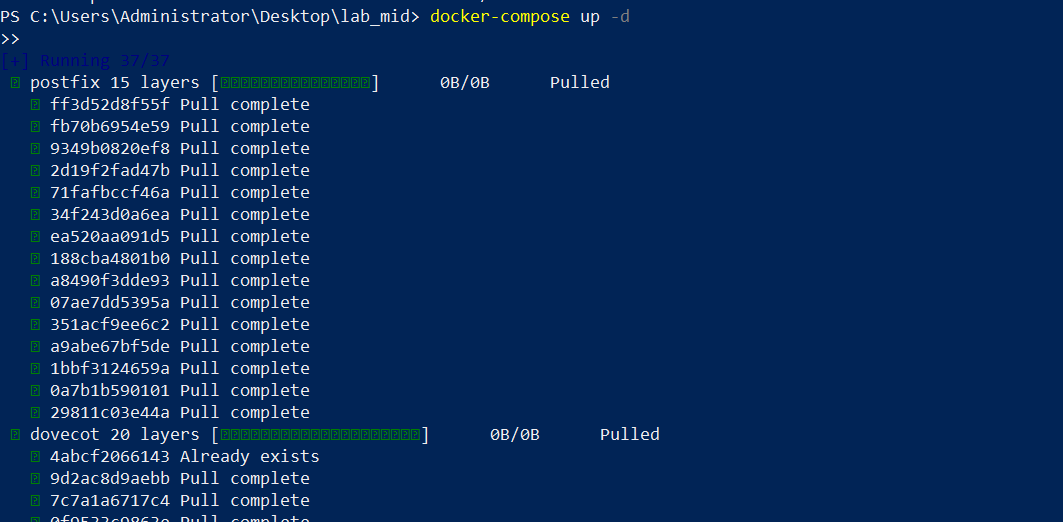
**Note:** Replace your hostname and domainname (that write in the host file ).

1. **Create User Accounts**: In the dovecot/users file, create user accounts in the following format:

“username:{PLAIN}password:1000:1000::/home/username/Maildir”

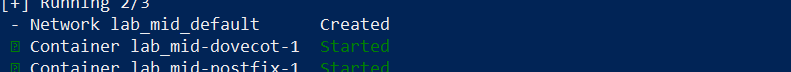
Note: Replace username and password with the desired username and password for your email account.Save all files.

1. **Build and Run:** Run ‘docker-compose up –d’ to build and start the containers in the background. As shown below.

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Wait for the completion.

**Create successfully.**

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* Now your container will be up and running.
* Now lets test out our container, to check it its working fine or not.
* Go to the docker desktop application and click on your container, then go to the Exec tab. Once there, we need to add accounts so we can communicate. We will add accounts and then assign aliases to the emails so that the server knows which user the incoming mail is meant for. setup email add <email> <password>
* Run the command :  
   ‘docker exec -it mailserver bash’
* And paste the following emails and aliases according to you

Setup email add [samra@mail.com](mailto:samra@mail.com) samra

Setup email add [test@mail.com](mailto:test@mail.com) test

Setup alias add [samra@gmail.com](mailto:samra@gmail.com) [samra@mail.com](mailto:samra@mail.com)

Setup alias add [test@gmail.com](mailto:test@gmail.com) [test@mail.com](mailto:test@mail.com)

**Verify email accounts:** Once inside the container's shell, you can use Dovecot's doveadm command to list the configured email accounts:

‘ doveadm user '\*' ‘

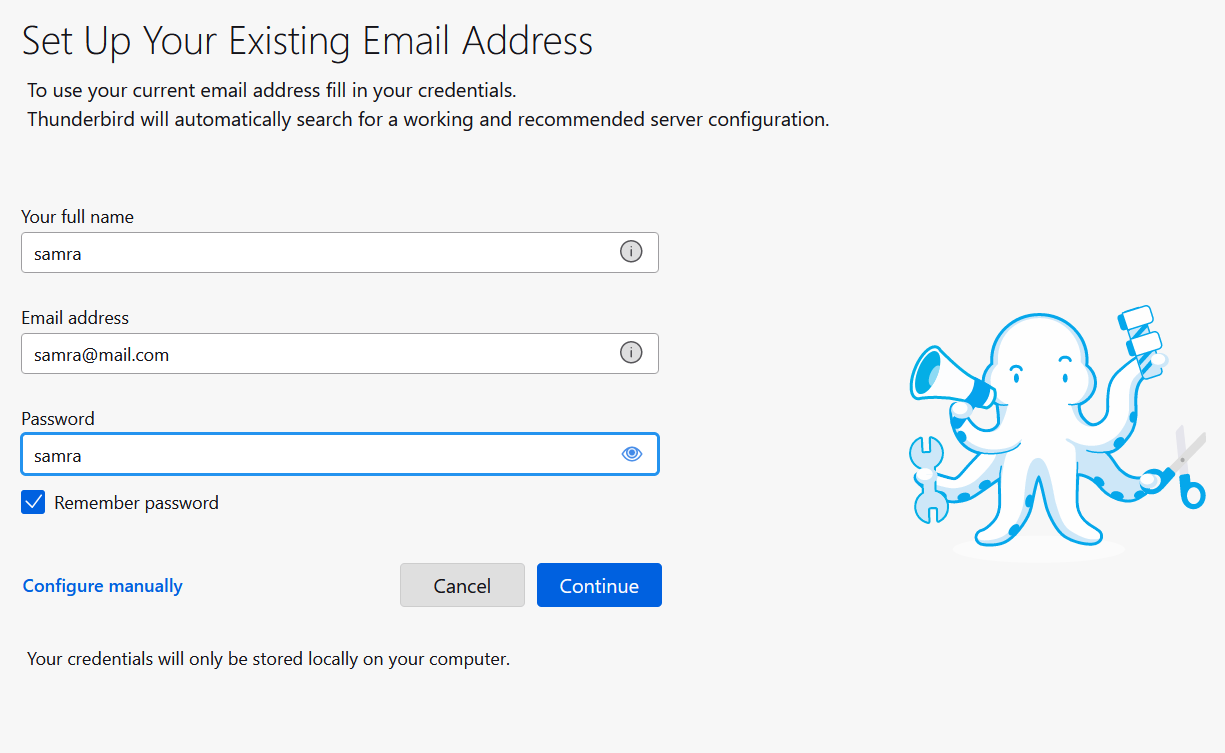
**Verify email aliases**: You can also use the Dovecot **doveadm** command to list the configured email aliases:

‘ doveadm alias list ‘

1. **Testing:** Test your email setup by configuring an email client (e.g., Thunderbird, Outlook) to connect to your server using IMAP (port 143) and SMTP (port 25).

* For this Install the thunderbird from the website <https://portableapps.com/apps/internet/thunderbird_portable>
* And login with your email address and information that declared in the configuration files.
* Here in hostname, write it as follows: hostname.domainname. The hostname should be the same as configured in the docker-compose.yaml file.

In the thunderbird.

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The configuration is successfully done for personal email handling.