lab.
Objective: Schedule a script to run daily at 5:00 PM that automates checking disk space usage for the root file system and sends an email alert if usage exceeds a specified threshold (10%).

1-script to run daily at 5:00 PM that automates checking disk space usage for the root file system and sends an email alert if usage exceeds a specified threshold (10%).

```bash
#!/bin/bash

# Set threshold (10%)
THRESHOLD=10

# Email to send alerts
EMAIL="ahmed.software200@gmail.com"
SUBJECT="Disk Usage Warning: Root Filesystem"
MESSAGE="Warning: The disk usage for the root filesystem has exceeded $THRESHOLD%. Current usage is at $USAGE%."
# Get the current disk usage of the root file system
USAGE=$(df / | awk 'NR==2 {print $5}' | sed 's/%//')

# Check if usage exceeds the threshold
if [ "$USAGE" -gt "$THRESHOLD" ]; then

    echo -e "To: $EMAIL\nSubject: Disk Space Alert\n\nDisk usage alert: Root filesystem usage is ${USAGE}%, exceeding the threshold of ${THRESHOLD}%." \
    | msmtp --debug --from=default -t
fi
~
~
```

2- **install msmtp:**
   Use the SMTP protocol to send emails:
 This means that msmtp is a tool that uses the SMTP protocol to send emails. After installing it, you can configure it to work with your email service (like Gmail) for sending emails.

3-create file ~/.msmstp

is a configuration file for **msmtp** to set up email sending. It contains details like:

- SMTP server (e.g., smtp.gmail.com)
- Port (e.g., 587)
- Username and app password (for Gmail with 2FA)

- TLS settings for secure connection

```
defaults
auth            on
tls             on
tls_trust_file /etc/ssl/certs/ca-certificates.crt
logfile         ~/.msmtp.log


account         default
host            smtp.gmail.com
port            587
from            ahmedmahelove1@gmail.com
user            ahmedmahelove1@gmail.com
password        ************
~
```

5-Schedule

To set up a **cron job** to run a command or script at 5 PM, use this:

```
# m h  dom mon dow   command
0 17 * * * /home/ahmed/script.sh
```

6-email

ahmedmahelove1@gmail.com   3:38 PM (38 minutes ago)

to me ▾

Disk usage alert: Root filesystem usage is 51%, exceeding the threshold of 10%.