

```

import psutil
import subprocess
import smtplib
from email.mime.multipart import MIMEMultipart
from email.mime.text import MIMEText

def check_disk_space_and_send_alert():
    def check_disk_space():
        command = "df -h | awk '$6 == \"/\" {print $5}'"
        result = subprocess.run(command, shell=True, stdout=subprocess.PIPE,
stderr=subprocess.PIPE)
        output = result.stdout.decode().strip()
        return output

    def get_system_ip():
        result = subprocess.run(['hostname', '-I'], stdout=subprocess.PIPE,
stderr=subprocess.PIPE)
        output = result.stdout.decode().strip()
        return output

    usage_percentage = check_disk_space()

    if int(usage_percentage[:-1]) >= 20:
        send_disk_space_alert_email(usage_percentage, get_system_ip())

def check_cpu_usage_and_send_alert():
    cpu_usage = psutil.cpu_percent(interval=1)
    if cpu_usage >= 20:
        send_cpu_usage_alert_email(cpu_usage)

def check_memory_usage_and_send_alert():
    memory_usage = psutil.virtual_memory().percent
    if memory_usage >= 20:
        send_memory_usage_alert_email(memory_usage)

def send_disk_space_alert_email(usage_percentage, system_ip):
    try:
        mail_content = f"""
        Hello Ubuy,

        Disk space used : {usage_percentage}.

        System IP Address: {system_ip}

```

Please take appropriate action to free up disk space.

Thanks & Regards,  
Abhimanyu Singh  
AWS Administrator  
'''

```
sender_address = "abhimanyu.kumar@ubuy.com"  
sender_password = "ovpvnqiozfxweeey"  
receiver_address = ['abhimanyu.kumar@ubuy.com']
```

```
message = MIMEMultipart()  
message['From'] = sender_address  
message['To'] = ", ".join(receiver_address)  
message['Subject'] = 'Disk Space Alert ubuy-newdomain-web'  
message.attach(MIMEText(mail_content, 'plain'))
```

```
session = smtplib.SMTP('smtp.gmail.com', 587)  
session.starttls()  
session.login(sender_address, sender_password)
```

```
text = message.as_string()  
session.sendmail(sender_address, receiver_address, text)  
session.quit()  
print('[+] Disk space alert email has been sent')
```

```
except Exception as e:  
    print(e)
```

```
def send_cpu_usage_alert_email(cpu_usage):
```

```
    try:  
        mail_content = f"  
        Hello Ubuy,
```

```
        CPU usage is high: {cpu_usage}%.
```

```
        Please investigate and take necessary actions.
```

```
        Thanks & Regards,  
        Abhimanyu Singh  
        AWS Administrator  
        '''
```

```
sender_address = "abhimanyu.kumar@ubuy.com"
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```

sender_password = "ovpvnqiozfxweeey"
receiver_address = ['abhimanyu.kumar@ubuy.com']

message = MIMEMultipart()
message['From'] = sender_address
message['To'] = ", ".join(receiver_address)
message['Subject'] = 'High CPU Usage Alert'
message.attach(MIMEText(mail_content, 'plain'))

session = smtplib.SMTP('smtp.gmail.com', 587)
session.starttls()
session.login(sender_address, sender_password)
text = message.as_string()
session.sendmail(sender_address, receiver_address, text)
session.quit()
print('[+] CPU usage alert email has been sent')

except Exception as e:
    print(e)

def send_memory_usage_alert_email(memory_usage):
    try:
        mail_content = f"""
        Hello Ubuy,

        Memory usage is high: {memory_usage}%.

        Please investigate and take necessary actions.

        Thanks & Regards,
        Abhimanyu Singh
        AWS Administrator
        """
        sender_address = "abhimanyu.kumar@ubuy.com"
        sender_password = "ovpvnqiozfxweeey"
        receiver_address = ['abhimanyu.kumar@ubuy.com']

        message = MIMEMultipart()
        message['From'] = sender_address
        message['To'] = ", ".join(receiver_address)
        message['Subject'] = 'High Memory Usage Alert'
        message.attach(MIMEText(mail_content, 'plain'))

        session = smtplib.SMTP('smtp.gmail.com', 587)

```

```
session.starttls()
session.login(sender_address, sender_password)

text = message.as_string()
session.sendmail(sender_address, receiver_address, text)
session.quit()
print('[+] Memory usage alert email has been sent')
```

```
except Exception as e:
    print(e)
```

```
# Call functions to check health metrics and send alerts
check_disk_space_and_send_alert()
check_cpu_usage_and_send_alert()
check_memory_usage_and_send_alert()
```