

## Python script to verify disk space

**[user1@vm1 ~]\$ df -h**

Filesystem	Size	Used	Avail	Use%	Mounted on
devtmpfs	307M	0	307M	0%	/dev
tmpfs	342M	0	342M	0%	/dev/shm
tmpfs	342M	35M	307M	11%	/run
tmpfs	342M	0	342M	0%	/sys/fs/cgroup
/dev/mapper/ocivolume-root	36G	5.1G	31G	15%	/
/dev/mapper/ocivolume-oled	10G	123M	9.9G	2%	/var/oled
/dev/sda2	1014M	298M	717M	30%	/boot
/dev/sda1	100M	5.1M	95M	6%	/boot/efi
tmpfs	69M	0	69M	0%	/run/user/0
tmpfs	69M	0	69M	0%	/run/user/987
tmpfs	69M	0	69M	0%	/run/user/1003
tmpfs	69M	0	69M	0%	/run/user/1005
tmpfs	69M	0	69M	0%	/run/user/1001

**[user1@vm1 ~]\$ cat diskspace.py**

**import os**

**def getDfDescription():**

**df = os.popen("df -h /")**

**i = 0**

**while True:**

**i = i + 1**

**line = df.readline()**

**if i==1:**

**return(line.split()[0:6])**

```
def getDf():  
    df = os.popen("df -h /")  
    i = 0  
    while True:  
        i = i + 1  
        line = df.readline()  
        if i==2:  
            return(line.split()[0:6])
```

```
# Disk information
```

```
description = getDfDescription()  
disk_root = getDf()  
print(disk_root)  
print(description[0] + " : " + disk_root[0])  
print(description[1] + " : " + disk_root[1])  
print(description[2] + " : " + disk_root[2])  
print(description[3] + " : " + disk_root[3])  
print(description[4] + " : " + disk_root[4])  
print(description[5] + " : " + disk_root[5])
```

**[user1@vm1 ~]\$ python diskspace.py**

**['/dev/mapper/ocivolume-root', '36G', '5.1G', '31G', '15%', '/']**

**Filesystem : /dev/mapper/ocivolume-root**

**Size : 36G**

**Used : 5.1G**

**Avail : 31G**

**Use% : 15%**

**Mounted : /**

**Python Script to monitor disk space and send an email in case threshold reached(gmail as provider)**

**Python Script to monitor disk space usage**

**threshold = 90**

**partition = "/"df = subprocess.Popen(["df","-h"], stdout=subprocess.PIPE)**

**for line in df.stdout:**

**splitline = line.decode().split()**

**if splitline[5] == partition:**

**if int(splitline[4][: -1]) > threshold:**

### **Script :**

```
import subprocess

import smtplib

from email.mime.text import MIMEText


threshold = 90
partition = "/"


def report_via_email():
    msg = MIMEText("Server running out of disk space")
    msg["Subject"] = "Low disk space warning"
    msg["From"] = "admin@example.com"
    msg["To"] = "test@gmail.com"
    with smtplib.SMTP("smtp.gmail.com", 587) as server:
        server.ehlo()
        server.starttls()
        server.login("gmail_user","gmail_password")
        server.sendmail("admin@example.com","test@gmail.com",msg.as_string())


def check_once():
    df = subprocess.Popen(["df","-h"], stdout=subprocess.PIPE)
    for line in df.stdout:
        splitline = line.decode().split()
        if splitline[5] == partition:
            if int(splitline[4][:-1]) > threshold:
                report_via_email()
    check_once()
```