

DS Lab9 - Fault Tolerance

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Course: SE-01

Extra screenshots

```
ubuntu@client01:~$ sudo mkdir -p /mnt/glusterfs
ubuntu@client01:~$ sudo mount -t glusterfs gfs01:/vol01 /mnt/glusterfs
ubuntu@client01:~$ df -h /mnt/glusterfs
Filesystem      Size  Used Avail Use% Mounted on
gfs01:/vol01    1020M    44M  977M   5% /mnt/glusterfs
ubuntu@client01:~$
```

```
ubuntu@gfs01:~$ sudo systemctl start glusterd
ubuntu@gfs01:~$ sudo systemctl enable glusterd
ubuntu@gfs01:~$ systemctl status glusterd
● glusterd.service - GlusterFS, a clustered file-system server
   Loaded: loaded (/lib/systemd/system/glusterd.service; enabled; vendor preset:
   Active: active (running) since Thu 2020-09-24 16:51:39 UTC; 2min 53s ago
     Docs: man:glusterd(8)
   Main PID: 2677 (glusterd)
      Tasks: 9 (limit: 1140)
    CGroup: /system.slice/glusterd.service
            └─2677 /usr/sbin/glusterd -p /var/run/glusterd.pid --log-level INFO

Sep 24 16:51:37 gfs01 systemd[1]: Starting GlusterFS, a clustered file-system se
Sep 24 16:51:39 gfs01 systemd[1]: Started GlusterFS, a clustered file-system ser
lines 1-11/11 (END)...skipping...
● glusterd.service - GlusterFS, a clustered file-system server
   Loaded: loaded (/lib/systemd/system/glusterd.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2020-09-24 16:51:39 UTC; 2min 53s ago
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Sep 24 16:51:37 gfs01 systemd[1]: Starting GlusterFS, a clustered file-system server...
Sep 24 16:51:39 gfs01 systemd[1]: Started GlusterFS, a clustered file-system server.
~
~
```

```
ubuntu@gfs02:~$ glusterfsd --version
glusterfs 7.7
Repository revision: git://git.gluster.org/glusterfs.git
Copyright (c) 2006-2016 Red Hat, Inc. <https://www.gluster.org/>
GlusterFS comes with ABSOLUTELY NO WARRANTY.
It is licensed to you under your choice of the GNU Lesser
General Public License, version 3 or any later version (LGPLv3
or later), or the GNU General Public License, version 2 (GPLv2),
in all cases as published by the Free Software Foundation.
ubuntu@gfs02:~$
```

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs	Key Name	Monitoring	Last Modified
client01	i-01238d4596c271e	t2.micro	us-east-1a	running	2/2 checks ...	None	ec2-154-72-53-125.co...	154.72.53.125	-	ozzie-ds	disabled	Sep
gfs03	i-02494e175105a1195	t2.micro	us-east-1a	running	2/2 checks ...	None	ec2-3-90-179-86.comp...	3.90.179.86	-	ozzie-ds	disabled	Sep
gfs01	i-0384441c08e3a86c5	t2.micro	us-east-1a	running	2/2 checks ...	None	ec2-54-242-98-5.comp...	54.242.98.5	-	ozzie-ds	disabled	Sep
	i-0264650259a63e437	t2.micro	us-east-1d	running	2/2 checks ...	None	ec2-54-243-104-217.co...	54.243.104.217	-	ozzie-ds	disabled	Sep
gfs02	i-0a880b035999ee39	t2.micro	us-east-1a	running	2/2 checks ...	None	ec2-3-85-198-94.comp...	3.85.198.94	-	ozzie-ds	disabled	Sep

Required screenshots

```
ubuntu@gfs01:~$ sudo gluster volume start vol01
volume start: vol01: success
ubuntu@gfs01:~$ sudo gluster volume info vol01

Volume Name: vol01
Type: Replicate
Volume ID: 548e12fd-ccb6-4caf-a834-bc5386d416d3
Status: Started
Snapshot Count: 0
Number of Bricks: 1 x 2 = 2
Transport-type: tcp
Bricks:
Brick1: gfs01:/data/brick1/vol01
Brick2: gfs02:/data/brick1/vol01
Options Reconfigured:
transport.address-family: inet
storage.fips-mode-rchecksum: on
nfs.disable: on
performance.client-io-threads: off
ubuntu@gfs01:~$
```

- output of the GlusterFS' directory content on **client** server after creating the five files

```
ubuntu@client01:~$ cd /mnt/glusterfs
ubuntu@client01:/mnt/glusterfs$ touch file{01,02,03,04,05}
ubuntu@client01:/mnt/glusterfs$ ls
file01 file02 file03 file04 file05
ubuntu@client01:/mnt/glusterfs$
```

- output of the GlusterFS' directory content on **gfs02** server after creating the five files

```
ubuntu@gfs02:~$ sudo mkdir -p /data/brick1/vol01
ubuntu@gfs02:~$ ls /data/brick1/vol01/
file01 file02 file03 file04 file05
```

- output of the GlusterFS' directory content on **gfs01** server after creating the five files

```
ubuntu@gfs01:~$ ls /data/brick1/vol01/
file01 file02 file03 file04 file05
ubuntu@gfs01:~$
```

- output of the GlusterFS' directory content on **client** server after deleting `file05` and creating `dir1`

```
ubuntu@client01:/mnt/glusterfs$ ls
dir1 file01 file02 file03 file04
ubuntu@client01:/mnt/glusterfs$
ubuntu@client01:/mnt/glusterfs$
```

- output of the GlusterFS' directory content on **gfs02** server after stopping and starting shows deleted `file05` and created `dir1`

```
Last login: Thu Sep 24 15:14:53 2020 from 188.130.155.151
ubuntu@gfs02:~$ ls /data/brick1/vol01/
dir1 file01 file02 file03 file04
ubuntu@gfs02:~$
```

- output of the GlusterFS' directory content on **gfs01** server after deleting `file05` and creating `dir1`

```
ubuntu@gfs01:~$  
ubuntu@gfs01:~$ ls /data/brick1/vol01/  
dir1  file01  file02  file03  file04  
ubuntu@gfs01:~$
```

- output of the `sudo gluster volume info vol01` command after adding the new **gfs03** server

```
ubuntu@gfs01:~$ sudo gluster volume add-brick vol01 replica 3 gfs03:/data/brick1/vol01  
volume add-brick: success  
ubuntu@gfs01:~$ sudo gluster volume info vol01  
  
Volume Name: vol01  
Type: Replicate  
Volume ID: 548e12fd-ccb6-4caf-a834-bc5386d416d3  
Status: Started  
Snapshot Count: 0  
Number of Bricks: 1 x 3 = 3  
Transport-type: tcp  
Bricks:  
Brick1: gfs01:/data/brick1/vol01  
Brick2: gfs02:/data/brick1/vol01  
Brick3: gfs03:/data/brick1/vol01  
Options Reconfigured:  
transport.address-family: inet  
storage.fips-mode-rchecksum: on  
nfs.disable: on  
performance.client-io-threads: off  
ubuntu@gfs01:~$
```