

Nalongsone Danddank Student ID : 14958950 StarID: jf3893pd

Email: nalongsone.danddank@my.metrostate.edu

ICS 432 - 01 — Distributed and Cloud Computing Fall 2021

Lab #4 : Elastic File System

Part 1: AWS Elastic File System (EFS).

Lab report screen-shot #1:

The screenshot shows the AWS EFS console with the 'General' tab selected. Key details include:

- Performance mode: General Purpose
- Throughput mode: Bursting
- Lifecycle management: Transition into IA: 30 days since last access; Transition out of IA: On first access
- Availability zone: us-east-1a
- Automatic backups: Enabled
- Encrypted: Yes (9bd0eb7b-eb4e-4824-83cf-878f1a7cd05)
- File system state: Available

Lab report screen-shot #2:

The screenshot shows the AWS EC2 Management Console with the 'Instances' page open. It displays two instances:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
Danddank Web Server	i-05a38511178bf90a0	Stopped	t2.micro	-	No alarms	us-east-1a
DanddankLab4Insta...	i-071e72621610b467a	Running	t2.micro	-	No alarms	us-east-1a

A detailed view of instance **i-071e72621610b467a (DanddankLab4Instance1)** is shown in a modal window. The 'Details' tab is selected, displaying the following information:

Details	Security	Networking	Storage	Status checks	Monitoring	Tags
Instance ID: i-071e72621610b467a (DanddankLab4Instance1)	Public IPv4 address: 54.163.212.35 [open address]	Private IPv4 addresses: 172.31.17.6				
IPv6 address: -	Instance state: Running	Public IPv4 DNS: ec2-54-163-212-35.compute-1.amazonaws.com [open address]				
Private IPv6 DNS: -	Instance type: t2.micro	Elastic IP addresses: -				

Lab report screen-shot #3: Ignore

Lab report screen-shot #4:

```
ec2-user@ip-172-31-17-137:~$ df -h
  _|_ / Amazon Linux 2 AMI
  ___\_\_\_\_\_
https://aws.amazon.com/amazon-linux-2/
11 package(s) needed for security, out of 35 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-17-137 ~]$ df -h
Filesystem      Type     Size   Used  Avail Use% Mounted on
sysfs          sysfs      0     0     0    - /sys
proc           proc      0     0     0    - /proc
devtmpfs        devtmpfs  482M   0  482M  0% /dev
securityfs     securityfs  0     0     0    - /sys/kernel/security
tmpfs           tmpfs    492M   0  492M  0% /dev/shm
devpts          devpts    0     0     0    - /dev/pts
tmpfs           tmpfs    492M  460K 492M  1% /run
tmpfs           tmpfs    492M   0  492M  0% /sys/fs/cgroup
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/systemd
pstore          pstore    0     0     0    - /sys/fs/pstore
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/cpu,cpuacct
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/perf_event
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/cpuset
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/hugetlb
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/net_cls,net_prio
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/devices
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/memory
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/blkio
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/freezer
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/pids
/dev/xvda1       xfs      8.0G  1.5G  6.6G  19% /
hugetlbfs       hugetlbfs  0     0     0    - /dev/hugepages
systemd-1        autofs    0     0     0    - /proc/sys/fs/binfmt_misc
debugfs         debugfs   0     0     0    - /sys/kernel/debug
mqueue          mqueue    0     0     0    - /dev/mqueue
sunrpc          rpc_pipefs  0     0     0    - /var/lib/nfs/rpc_pipefs
127.0.0.1:/     nfs4      8.0E  0   8.0E  0% /mnt/efs/fs1
tmpfs           tmpfs    99M   0  99M  0% /run/user/1000
[ec2-user@ip-172-31-17-137 ~]$
```

Lab report screen-shot #5:

```
ec2-user@ip-172-31-17-137:~$ df -h
  _|_ / Amazon Linux 2 AMI
  ___\_\_\_\_\_
https://aws.amazon.com/amazon-linux-2/
11 package(s) needed for security, out of 35 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-17-137 ~]$ df -h
Filesystem      Type     Size   Used  Avail Use% Mounted on
sysfs          sysfs      0     0     0    - /sys
proc           proc      0     0     0    - /proc
devtmpfs        devtmpfs  482M   0  482M  0% /dev
securityfs     securityfs  0     0     0    - /sys/kernel/security
tmpfs           tmpfs    492M   0  492M  0% /dev/shm
devpts          devpts    0     0     0    - /dev/pts
tmpfs           tmpfs    492M  460K 492M  1% /run
tmpfs           tmpfs    492M   0  492M  0% /sys/fs/cgroup
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/systemd
pstore          pstore    0     0     0    - /sys/fs/pstore
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/cpu,cpuacct
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/perf_event
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/cpuset
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/hugetlb
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/net_cls,net_prio
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/devices
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/memory
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/blkio
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/freezer
cgroup          cgroup    0     0     0    - /sys/fs/cgroup/pids
/dev/xvda1       xfs      8.0G  1.5G  6.6G  19% /
hugetlbfs       hugetlbfs  0     0     0    - /dev/hugepages
systemd-1        autofs    0     0     0    - /proc/sys/fs/binfmt_misc
debugfs         debugfs   0     0     0    - /sys/kernel/debug
mqueue          mqueue    0     0     0    - /dev/mqueue
sunrpc          rpc_pipefs  0     0     0    - /var/lib/nfs/rpc_pipefs
127.0.0.1:/     nfs4      8.0E  0   8.0E  0% /mnt/efs/fs1
tmpfs           tmpfs    99M   0  99M  0% /run/user/1000
[ec2-user@ip-172-31-17-137 ~]$ cat > danddank-instance-file.txt
I am a student at Metropolitan State University, and my name is Nalongsone Danddank.
Thanks for your hard work.^C
[ec2-user@ip-172-31-17-137 ~]$ ls
danddank-instance-file.txt
[ec2-user@ip-172-31-17-137 ~]$ cat danddank-instance-file.txt
I am a student at Metropolitan State University, and my name is Nalongsone Danddank.
[ec2-user@ip-172-31-17-137 ~]$
```

Lab report screen-shot #6:

```

ec2-user@ip-172-31-17-137:~ 
tmpfs      tmpfs    492M   0  492M  0% /dev/shm
devpts     devpts    0     0   0   - /dev/pts
tmpfs      tmpfs    492M  460K  492M  1% /run
tmpfs      tmpfs    492M   0  492M  0% /sys/fs/cgroup
cgroup     cgroup    0     0   0   - /sys/fs/cgroup/systemd
pstore     pstore    0     0   0   - /sys/fs/pstore
cgroup     cgroup    0     0   0   - /sys/fs/cgroup/cpu,cpuacct
cgroup     cgroup    0     0   0   - /sys/fs/cgroup/perf_event
cgroup     cgroup    0     0   0   - /sys/fs/cgroup/cpuset
cgroup     cgroup    0     0   0   - /sys/fs/cgroup/hugetlb
cgroup     cgroup    0     0   0   - /sys/fs/cgroup/net_cls,net_prio
cgroup     cgroup    0     0   0   - /sys/fs/cgroup/devices
cgroup     cgroup    0     0   0   - /sys/fs/cgroup/memory
cgroup     cgroup    0     0   0   - /sys/fs/cgroup/blkio
cgroup     cgroup    0     0   0   - /sys/fs/cgroup/freezer
cgroup     cgroup    0     0   0   - /sys/fs/cgroup/pids
/dev/xvda1  xfs     8.0G  1.5G  6.6G  19% /
hugetlbfss hugetlbfss 0     0   0   - /dev/hugepages
systemd-1   autofs    0     0   0   - /proc/sys/fs/binfmt_misc
debugfs    debugfs   0     0   0   - /sys/kernel/debug
mqueue     mqueue    0     0   0   - /dev/mqueue
sunrpc    rpc_pipefs 0     0   0   - /var/lib/nfs/rpc_pipefs
127.0.0.1:/ nfs4    8.0E   0  8.0E  0% /mnt/efs/fs1
tmpfs      tmpfs    99M   0  99M  0% /run/user/1000
[ec2-user@ip-172-31-17-137 ~]$ cat > danddank-instance-file.txt
I am a student at Metropolitan State University, and my name is Nalongsone Danddank.
Thanks for your hard work.^C
[ec2-user@ip-172-31-17-137 ~]$ ls
danddank-instance-file.txt
[ec2-user@ip-172-31-17-137 ~]$ cat danddank-instance-file.txt
I am a student at Metropolitan State University, and my name is Nalongsone Danddank.
[ec2-user@ip-172-31-17-137 ~]$ sudo cp danddank-instance-file.txt /mnt/efs/fs1
[ec2-user@ip-172-31-17-137 ~]$ ls /mnt/efs/fs1
danddank-instance-file.txt
[ec2-user@ip-172-31-17-137 ~]$ cat /mnt/efs/fs1/danddank-instance-file.txt
I am a student at Metropolitan State University, and my name is Nalongsone Danddank.
[ec2-user@ip-172-31-17-137 ~]$ 

```

Lab report screen-shot #7:

```

ec2-user@ip-172-31-17-137:~ 
systemd-1   autofs    0     0   0   - /proc/sys/fs/binfmt_misc
debugfs    debugfs   0     0   0   - /sys/kernel/debug
mqueue     mqueue    0     0   0   - /dev/mqueue
sunrpc    rpc_pipefs 0     0   0   - /var/lib/nfs/rpc_pipefs
127.0.0.1:/ nfs4    8.0E   0  8.0E  0% /mnt/efs/fs1
tmpfs      tmpfs    99M   0  99M  0% /run/user/1000
[ec2-user@ip-172-31-17-137 ~]$ cat > danddank-instance-file.txt
I am a student at Metropolitan State University, and my name is Nalongsone Danddank.
Thanks for your hard work.^C
[ec2-user@ip-172-31-17-137 ~]$ ls
danddank-instance-file.txt
[ec2-user@ip-172-31-17-137 ~]$ cat danddank-instance-file.txt
I am a student at Metropolitan State University, and my name is Nalongsone Danddank.
[ec2-user@ip-172-31-17-137 ~]$ sudo cp danddank-instance-file.txt /mnt/efs/fs1
[ec2-user@ip-172-31-17-137 ~]$ ls /mnt/efs/fs1
danddank-instance-file.txt
[ec2-user@ip-172-31-17-137 ~]$ cat /mnt/efs/fs1/danddank-instance-file.txt
I am a student at Metropolitan State University, and my name is Nalongsone Danddank.
[ec2-user@ip-172-31-17-137 ~]$ 

```

```

ec2-user@ip-172-31-24-38:~ 
Warning: Permanently added 'ec2-3-92-1-172.compute-1.amazonaws.com,3.92.1.172' (ECDSA) to the list of known hosts.

 _|_ _|_
_| ( / Amazon Linux 2 AMI
___|\_\_|\__|_

https://aws.amazon.com/amazon-linux-2/
11 package(s) needed for security, out of 35 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-24-38 ~]$ ls /mnt/efs/fs1
danddank-instance-file.txt
[ec2-user@ip-172-31-24-38 ~]$ cat mnt/efs/fs1/danddank-instance1-file.txt
cat: mnt/efs/fs1/danddank-instance1-file.txt: No such file or directory
[ec2-user@ip-172-31-24-38 ~]$ cat mnt/efs/fs1/danddank-instance-file.txt
cat: mnt/efs/fs1/danddank-instance-file.txt: No such file or directory
[ec2-user@ip-172-31-24-38 ~]$ cat /mnt/efs/fs1/danddank-instance-file.txt
I am a student at Metropolitan State University, and my name is Nalongsone Danddank.
[ec2-user@ip-172-31-24-38 ~]$ 

```

Lab report screen-shot #8:

```

ec2-user@ip-172-31-17-137:~ [ec2-user@ip-172-31-17-137 ~]$ ls
danddank-instance-file.txt
[ec2-user@ip-172-31-17-137 ~]$ cat danddank-instance-file.txt
I am a student at Metropolitan State University, and my name is Nalongsone Danddank.
[ec2-user@ip-172-31-17-137 ~]$ sudo cp danddank-instance-file.txt /mnt/efs/fs1
[ec2-user@ip-172-31-17-137 ~]$ ls /mnt/efs/fs1
danddank-instance-file.txt
[ec2-user@ip-172-31-17-137 ~]$ cat /mnt/efs/fs1/danddank-instance-file.txt
I am a student at Metropolitan State University, and my name is Nalongsone Danddank.
[ec2-user@ip-172-31-17-137 ~]$ ls
danddank-instance-file.txt
[ec2-user@ip-172-31-17-137 ~]$ ls /mnt/efs/fs1
danddank-instance2-file.txt danddank-instance-file.txt
[ec2-user@ip-172-31-17-137 ~]$ cat /mnt/efs/fs1/danddank-instance-file.txt
I am a student at Metropolitan State University, and my name is Nalongsone Danddank.
[ec2-user@ip-172-31-17-137 ~]$ cat /mnt/efs/fs1/danddank-instance2-file.txt
I am also a student in MetroState. And my chinese name is Wang XiaoPing.
[ec2-user@ip-172-31-17-137 ~]$ [ec2-user@ip-172-31-24-38 fs1]$ cat > danddank-instance2-file.txt
[bash: danddank-instance2-file.txt: Permission denied
[ec2-user@ip-172-31-24-38 fs1]$ sudo cat danddank-instance2-file.txt
cat: danddank-instance2-file.txt: No such file or directory
[ec2-user@ip-172-31-24-38 fs1]$ sudo cat > danddank-instance2-file.txt
[bash: danddank-instance2-file.txt: Permission denied
[ec2-user@ip-172-31-24-38 fs1]$ cd ~/
[ec2-user@ip-172-31-24-38 ~]$ ls
[ec2-user@ip-172-31-24-38 ~]$ cat > danddank-instance2-file.txt
I am also a student in MetroState. And my chinese name is Wang XiaoPing.
Thanks for reading.^C
[ec2-user@ip-172-31-24-38 ~]$ cat danddank-instance2-file.txt
I am also a student in MetroState. And my chinese name is Wang XiaoPing.
[ec2-user@ip-172-31-24-38 ~]$ sudo cp danddank-instance2-file.txt /mnt/efs/fs1
[ec2-user@ip-172-31-24-38 ~]$ ls /mnt/efs/fs1
danddank-instance2-file.txt danddank-instance-file.txt
[ec2-user@ip-172-31-24-38 ~]$ cat danddank-instance2-file.txt
I am also a student in MetroState. And my chinese name is Wang XiaoPing.
[ec2-user@ip-172-31-24-38 ~]$ [ec2-user@ip-172-31-22-197 ~]$ ls

```

Lab report screen-shot #9:

```

ec2-user@ip-172-31-22-197:~ [ec2-user@ip-172-31-22-197 ~]$ ssh -i "ec2-user@ec2-54-91-55-146.compute-1.amazonaws.com"
The authenticity of host 'ec2-54-91-55-146.compute-1.amazonaws.com (54.91.55.146)' can't be established.
ECDSA key fingerprint is SHA256:i3Yj4kaFolKZed+FepT5ERiWxNlgPlyL76pxEli+b00.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-54-91-55-146.compute-1.amazonaws.com,54.91.55.146' (ECDSA) to the list of known hosts.

 _ _|_ _ _ )
 _| ( _ /   Amazon Linux 2 AMI
 ___\_\_|___| [ec2-user@ip-172-31-22-197 ~]$ https://aws.amazon.com/amazon-linux-2/
11 package(s) needed for security, out of 35 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-22-197 ~]$ ls /mnt/sfs/fs1
ls: cannot access /mnt/sfs/fs1: No such file or directory
[ec2-user@ip-172-31-22-197 ~]$ ls /mnt/efs/fs1
danddank-instance2-file.txt danddank-instance-file.txt
[ec2-user@ip-172-31-22-197 ~]$ cat /mnt/efs/fs1/danddank-instance2-file.txt
I am also a student in MetroState. And my chinese name is Wang XiaoPing.
[ec2-user@ip-172-31-22-197 ~]$ cat /mnt/efs/fs1/danddank-instance-file.txt
I am a student at Metropolitan State University, and my name is Nalongsone Danddank.
[ec2-user@ip-172-31-22-197 ~]$ [ec2-user@ip-172-31-22-197 ~]$ 

```

Lab report screen-shot #10:

The screenshot shows the AWS EC2 Management Console interface. A modal window at the top center displays the message "Successfully stopped i-022df32823332594e". Below this, the main "Instances (1/2) Info" table lists two instances:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Available
Danddank Web Server	i-05a38511178bf90a0	Stopped	t2.micro	-	No alarms	us-east-1
DanddankLab4Instance3	i-022df32823332594e	Stopped	t2.micro	2/2 checks passed	No alarms	us-east-1

The left sidebar contains navigation links for EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Scheduled Instances, Capacity Reservations, Images, AMIs, Elastic Block Store, Volumes, Snapshots, Lifecycle Manager, Network & Security, Security Groups, Elastic IPs, Placement Groups, and Key Pairs.

The screenshot shows the AWS CloudTrail Management Console interface. A blue banner at the top reads "Now use IAM Access Analyzer on a CloudTrail trail" with a "Learn more" link. The main area displays the "TerminateInstances" event history:

Details

Event time	AWS access key ASIAS3RJCTHPPPTDW24AT	AWS region us-east-1
User name	Source IP address 24.118.141.44	Error code -
Event name	Event ID 75ac5405-da9a-4a11-a753-1ae6ccb5e300	Read-only false
Event source	Request ID d1bf1863-4fce-401a-99f3-21e157a25a8a	

Resources referenced (2)

Resource type	Resource name	AWS Config resource timeline
AWS::EC2::Instance	i-025559b00e2faa7fc	Enable AWS Config resource recording
AWS::EC2::Instance	i-01d733b0fa3452eb4	Enable AWS Config resource recording

Event record

```
{
  "eventVersion": "1.08",
  "userIdentity": {
    "principalType": "AWSUser",
    "principalId": "AIDAJK3LWZP5T5V54Q3Q",
    "arn": "arn:aws:iam::123456789012:root",
    "accountId": "123456789012",
    "accessKeyId": "AKIAIOSFODNN7EXAMPLE",
    "sessionContext": {
      "attributes": {
        "mfaAuthenticated": "false",
        "creationDate": "2021-09-21T18:46:59Z"
      }
    }
  },
  "version": "0",
  "eventTime": "2021-09-21T18:46:59Z",
  "region": "us-east-1",
  "sourceService": "AmazonEC2",
  "sourceIPAddress": "24.118.141.44",
  "userAgent": "AmazonEC2-CLI/1.16.100.1.20210921.184659-123456789012.us-east-1",
  "account": "123456789012",
  "requestParameters": {
    "Action": "TerminateInstances",
    "DryRun": false,
    "Instances": [
      "i-025559b00e2faa7fc"
    ],
    "TerminateAtEndOfGracePeriod": false
  },
  "responseElements": null,
  "awsRegion": "us-east-1",
  "eventType": "AwsApiCall",
  "recipientAccountId": "123456789012"
}
```

Part 2: GCP Cloud Filestore.
Lab report screen-shot #11:

The screenshot shows the Google Cloud Platform Billing Overview page. On the left, a sidebar lists navigation options like Overview, Reports, Cost table, and Cost breakdown. The main area displays the **BILLING ACCOUNT OVERVIEW** with current costs (\$0.00) and forecasts (\$0.00). It includes a **Cost trend** chart from September 1, 2020, to September 30, 2021, showing actual costs peaking at \$0.00 in July 2021. A **Billing health checks** section indicates 0 critical, 1 warning, and 1 healthy issues. The **Credits** section shows a balance of \$48.11 available out of \$50.00.

The screenshot shows the Google Cloud Platform Dashboard for the project "DanddankLab4Project". The dashboard features sections for **Project info** (with details like Project name: DanddankLab4Project), **API APIs** (showing requests over time), **Google Cloud Platform status** (all services normal), **Billing** (estimated charges \$0.00), **Monitoring** (options to create dashboards and set policies), and **Trace** (no data available). There are also links to **Getting Started** and **Resources**.

Lab report screen-shot #12:

The screenshot shows the Google Cloud Platform Compute Engine VM Instances page. On the left, there's a sidebar with options like Virtual machines, Instance templates, Machine images, TPUs, Committed use discounts, Migrate for Compute Eng., Storage, Disks, Snapshots, Images, Instance groups, Health checks, VM Manager, OS patch management, OS configuration management, Settings, Marketplace, and Release Notes. The main area displays a table of VM instances with one entry:

Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
ON	dandank-nfs-client-1	us-central1-a			10.128.0.3 (nic0)	35.232.131.188	SSH

Below the table are related actions: View billing report, Monitor VMs, Explore VM logs, Set up firewall rules, and Patch management. A message on the right says "Please select at least one resource." and "Select an instance".

Lab report screen-shot 13:

The screenshot shows the Google Cloud Platform Filestore Instances page. On the left, there's a sidebar with options like Instances and Backups. The main area displays a table of instances with one entry:

Instance ID	File share name	Creation time	Service tier	Location	IP address	Capacity	Labels
dandank-nfs-server	voll	Sep 25, 2021, 11:29:22 PM	BASIC_HDD	us-central1-a	10.203.240.106	1 TiB	

A message on the right says "No instances selected" and "Labels help organize your resources (e.g., cost_center=sales or env=prod)." A notification at the bottom says "dandank-nfs-server has been created".

Lab report screen-shot 14:

```
ssh.cloud.google.com
VM Instances - Compute Engine - DanddankLab4Project - Google Cloud Platform
nalongsonedanddank@danddank-nfs-client-1:~>

Created symlink /etc/systemd/system/multi-user.target.wants/rpcbind.service → /lib/systemd/system/rpcbind.service.
Created symlink /etc/systemd/system/sockets.target.wants/rpcbind.socket → /lib/systemd/system/rpcbind.socket.
Setting up python2 (2.7.16-1) ...
Setting up nfs-common (1:1.3.4-2.5+deb10u1) ...

Creating config file /etc/idmapd.conf with new version
Adding system user `statd' (UID 108) ...
Adding new user `statd' (UID 108) with group `nogroup' ...
Not creating home directory `/var/lib/nfs'.
Created symlink /etc/systemd/system/multi-user.target.wants/nfs-client.target → /lib/systemd/system/nfs-client.target.
Created symlink /etc/systemd/system/remote-fs.target.wants/nfs-client.target → /lib/systemd/system/nfs-client.target.
nfs-utils.service is a disabled or a static unit, not starting it.
Setting up libpython-stdlib:amd64 (2.7.16-1) ...
Setting up python (2.7.16-1) ...
Processing triggers for libc-bin (2.28-10) ...
Processing triggers for systemd (241-7~deb10u8) ...
Processing triggers for man-db (2.8.5-2) ...
Processing triggers for mime-support (3.62) ...
nalongsonedanddank@danddank-nfs-client-1:~$ sudo mkdir -p /mnt/danddank-nfs
nalongsonedanddank@danddank-nfs-client-1:~$ sudo ls /mnt/danddank-nfs
nalongsonedanddank@danddank-nfs-client-1:~$ 
```

Lab report screen-shot #15:

```
ssh.cloud.google.com
Instances - Filestore - DanddankLab4Project - Google Cloud Platform
nalongsonedanddank@danddank-nfs-client-1:~>

Created symlink /etc/systemd/system/sockets.target.wants/rpcbind.socket → /lib/systemd/system/rpcbind.socket.
Setting up python2 (2.7.16-1) ...
Setting up nfs-common (1:1.3.4-2.5+deb10u1) ...

Creating config file /etc/idmapd.conf with new version
Adding system user `statd' (UID 108) ...
Adding new user `statd' (UID 108) with group `nogroup' ...
Not creating home directory `/var/lib/nfs'.
Created symlink /etc/systemd/system/multi-user.target.wants/nfs-client.target → /lib/systemd/system/nfs-client.target.
Created symlink /etc/systemd/system/remote-fs.target.wants/nfs-client.target → /lib/systemd/system/nfs-client.target.
nfs-utils.service is a disabled or a static unit, not starting it.
Setting up libpython-stdlib:amd64 (2.7.16-1) ...
Setting up python (2.7.16-1) ...
Processing triggers for libc-bin (2.28-10) ...
Processing triggers for systemd (241-7~deb10u8) ...
Processing triggers for man-db (2.8.5-2) ...
Processing triggers for mime-support (3.62) ...
nalongsonedanddank@danddank-nfs-client-1:~$ sudo mkdir -p /mnt/danddank-nfs
nalongsonedanddank@danddank-nfs-client-1:~$ sudo ls /mnt/danddank-nfs
nalongsonedanddank@danddank-nfs-client-1:~$ sudo mount 10.203.240.106:/voll /mnt/danddank-nfs
nalongsonedanddank@danddank-nfs-client-1:~$ sudo chmod go+rw /mnt/danddank-nfs
nalongsonedanddank@danddank-nfs-client-1:~$ 
```

Lab report screen-shot #16:

```
ssh.cloud.google.com
Instances - Filestore - DanddankLab4Project - Google Cloud Platform
nalongsonedanddank@danddank-nfs-client-1:~>

Creating config file /etc/idmapd.conf with new version
Adding system user `statd' (UID 108) ...
Adding new user `statd' (UID 108) with group `nogroup' ...
Not creating home directory `/var/lib/nfs'.
Created symlink /etc/systemd/system/multi-user.target.wants/nfs-client.target → /lib/systemd/system/nfs-client.target.
Created symlink /etc/systemd/system/remote-fs.target.wants/nfs-client.target → /lib/systemd/system/nfs-client.target.
nfs-utils.service is a disabled or a static unit, not starting it.
Setting up libpython-stdlib:amd64 (2.7.16-1) ...
Setting up python (2.7.16-1) ...
Processing triggers for libc-bin (2.28-10) ...
Processing triggers for systemd (241-7~deb10u8) ...
Processing triggers for man-db (2.8.5-2) ...
Processing triggers for mime-support (3.62) ...
nalongsonedanddank@danddank-nfs-client-1:~$ sudo mkdir -p /mnt/danddank-nfs
nalongsonedanddank@danddank-nfs-client-1:~$ sudo ls /mnt/danddank-nfs
nalongsonedanddank@danddank-nfs-client-1:~$ sudo mount 10.203.240.106:/voll /mnt/danddank-nfs
nalongsonedanddank@danddank-nfs-client-1:~$ sudo chmod go+rw /mnt/danddank-nfs
nalongsonedanddank@danddank-nfs-client-1:~$ cat > /mnt/danddank-nfs/danddank-instance1-file.txt
Hi, I am working on GCP. And I am going to be better and better.
^C
nalongsonedanddank@danddank-nfs-client-1:~$ cat /mnt/danddank-nfs/danddank-instance1-file.txt
Hi, I am working on GCP. And I am going to be better and better.
nalongsonedanddank@danddank-nfs-client-1:~$ 
```

Lab report screen-shot #17:

```

Created symlink /etc/systemd/system/remote-fs.target.wants/nfs-client.target → /lib/systemd/system/mnt/fargate
nfs-utils.service is a disabled or a static unit, not starting it.
Setting up libpython-stdlib:amd64 (2.7.16-1) ...
Setting up python (2.7.16-1) ...
Processing triggers for libc-bin (2.28-10) ...
Processing triggers for systemd (241-7~deb10u8) ...
Processing triggers for man-db (2.8.5-2) ...
Processing triggers for mime-support (3.62) ...
nalongsone_danddank@danddank-nfs-client-1:~$ sudo mkdir -p /mnt/danddank-nfs
nalongsone_danddank@danddank-nfs-client-1:~$ sudo ls /mnt
danddank-nfs
nalongsone_danddank@danddank-nfs-client-1:~$ sudo mount 10.203.240.106:/vol1 /mnt/danddank-nfs
nalongsone_danddank@danddank-nfs-client-1:~$ sudo chmod go+rw /mnt/danddank-nfs
nalongsone_danddank@danddank-nfs-client-1:~$ cat > /mnt/danddank-nfs/danddank-instance1-file.txt
Hi, I am working on GCP. And I am going to be better and better.
^C
nalongsone_danddank@danddank-nfs-client-1:~$ cat /mnt/danddank-nfs/danddank-instance1-file.txt
Hi, I am working on GCP. And I am going to be better and better.
nalongsone_danddank@danddank-nfs-client-1:~$ 

Processing triggers for man-db (2.8.5-2) ...
Processing triggers for mime-support (3.62) ...
nalongsone_danddank@danddank-nfs-client-2:~$ sudo ls /mnt
danddank-nfs
nalongsone_danddank@danddank-nfs-client-2:~$ ls /mnt
danddank-nfs
nalongsone_danddank@danddank-nfs-client-2:~$ sudo mount 35.232.75.155:/vol1 /mnt/danddank-nfs
^C
nalongsone_danddank@danddank-nfs-client-2:~$ sudo mount 10.203.240.106:/vol1 /mnt/danddank-nfs
nalongsone_danddank@danddank-nfs-client-2:~$ sudo chmod go+rw /mnt/danddank-nfs
nalongsone_danddank@danddank-nfs-client-2:~$ sudo ls /mnt/danddank-nfs
danddank-instance1-file.txt lost+found
nalongsone_danddank@danddank-nfs-client-2:~$ sudo cat /mnt/danddank-nfs/danddank-instance1-file.txt
Hi, I am working on GCP. And I am going to be better and better.
nalongsone_danddank@danddank-nfs-client-2:~$ 

```

Lab report screen-shot #18:

The screenshot shows the Google Cloud Platform Compute Engine interface. On the left, there's a sidebar with options like Compute Engine, Virtual machines, Storage, and Instance groups. The main area is titled "VM instances" and shows two instances listed under the "INSTANCES" tab:

Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
Up	danddank-nfs-client-1	us-central1-a			10.128.0.3 (nic0)	None	SSH
Up	danddank-nfs-client-2	us-central1-a			10.128.0.4 (nic0)	None	SSH

Below the table, there are "Related actions" buttons for viewing billing reports, monitoring VMs, exploring logs, setting up firewall rules, and managing patches. A message at the bottom says "Instances stopped".

Google Cloud Platform DanddankLab4Project Search products and resources

Filestore Instances CREATE INSTANCE HIDE INFO PANEL

Instances Backups

An instance is a fully managed network-attached storage system you can use with your Google Compute Engine and Kubernetes Engine instances. [Learn more](#)

Filter Enter property name or value

Instance ID	File share name	Creation time	Service tier	Location	IP address	Capacity	Labels
danddank-nfs-server	voll	Sep 25, 2021, 11:29:22 PM	BASIC_HDD	us-central1-a	10.203.240.106	1 TiB	

No instances selected

Labels help organize your resources (e.g., cost_center:sales or env:prod).

No instances selected.

The screenshot shows the Google Cloud Platform Filestore Instances page. On the left, there's a sidebar with 'Filestore' and two tabs: 'Instances' (which is selected) and 'Backups'. The main area has a heading 'Instances' with a 'CREATE INSTANCE' button. Below it, a note says 'An instance is a fully managed network-attached storage system you can use with your Google Compute Engine and Kubernetes Engine instances.' followed by a 'Learn more' link. A 'Filter' input field is present. A table lists one instance: 'danddank-nfs-server' with file share name 'voll', created on Sep 25, 2021, at 11:29:22 PM, using BASIC_HDD service tier, located in us-central1-a, with IP address 10.203.240.106 and 1 TiB capacity. To the right, there's a section for labels with a note 'Labels help organize your resources (e.g., cost_center:sales or env:prod.)' and a message 'No instances selected.'