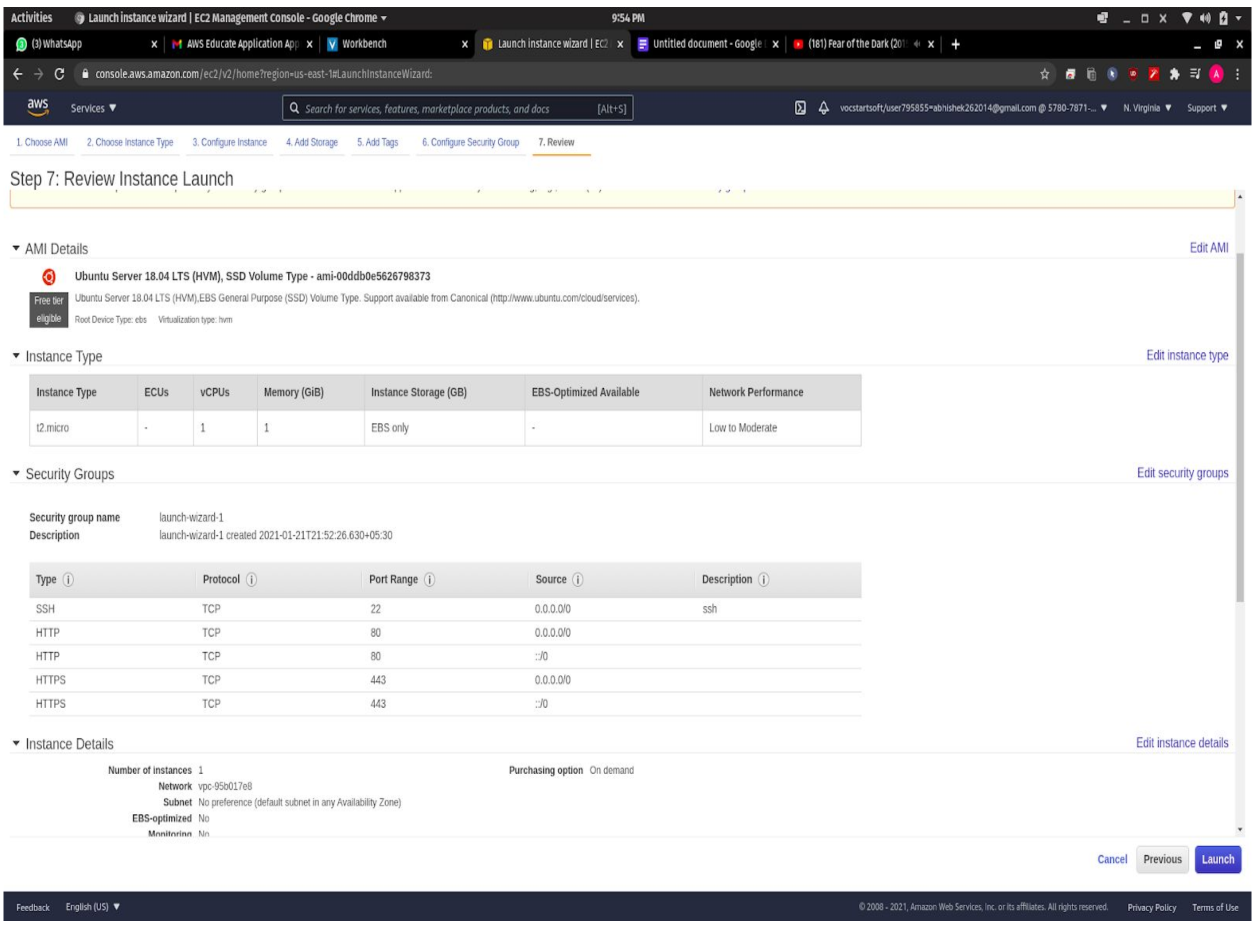
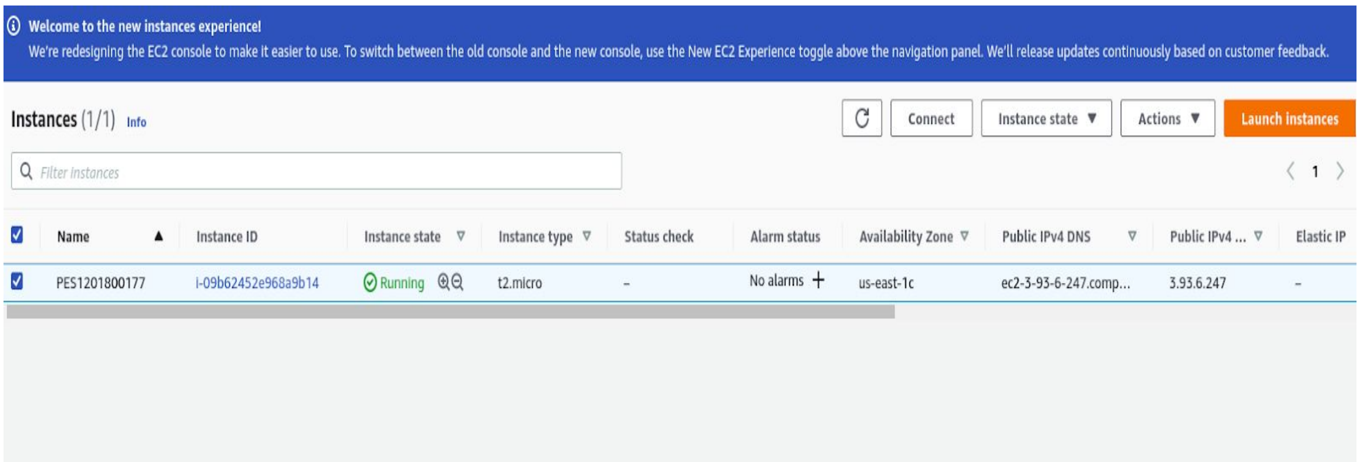
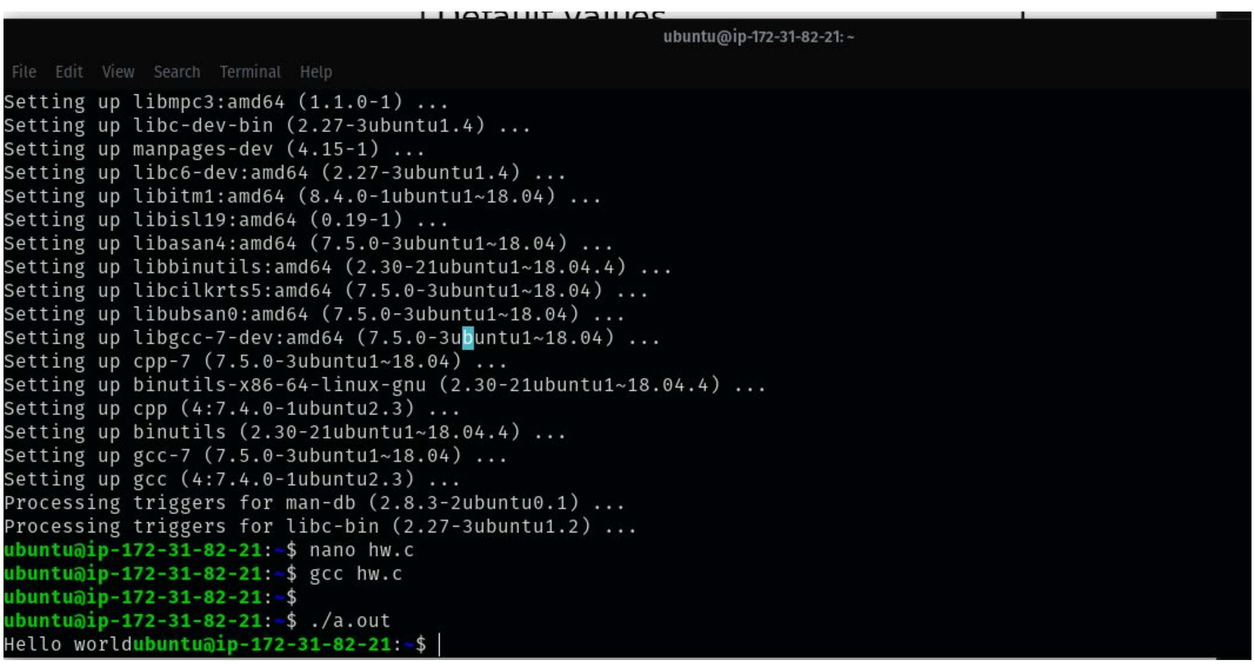
Cloud Computing Lab Week 1 : AWS, EC2, EBS and S3

Abhishek Das PES1201800177 Section : G

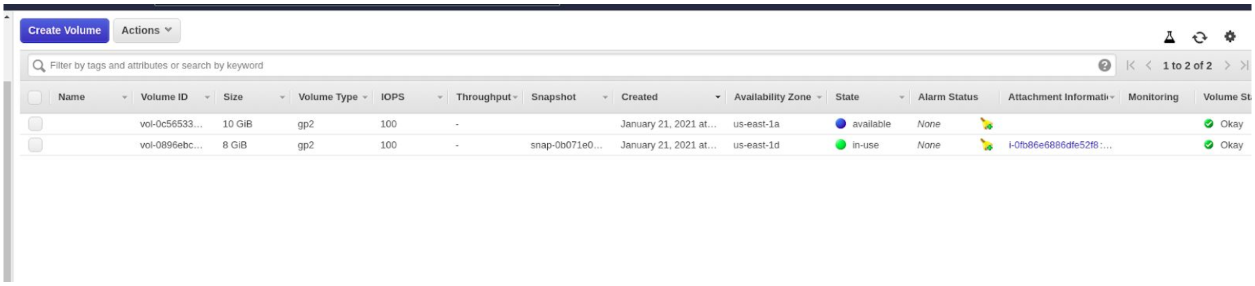
b)Understanding and creating AWS EC2(Elastic Compute) virtual machines

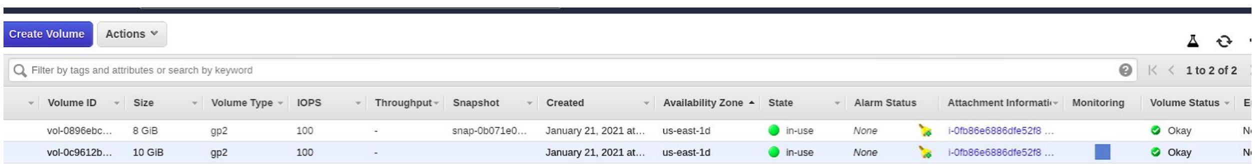



Welcome to the new instances experience!
We're redesigning the EC2 console to make it easier to use. To switch between the old console and the new console, use the New EC2 Experience toggle above the navigation panel. We'll release updates continuously based on customer feedback.
Instances (1/1) Info
Connect
Instance state
Actions
Launch instances
Filter instances
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
Public IPv4 DNS
Public IPv4 ...
Elastic IP
PES1201800177
i-09b62452e968a9b14
Running
t2.micro
No alarms
us-east-1c
ec2-3-93-6-247.comp...
3.93.6.247


ubuntu@ip-172-31-82-21: ~
File Edit View Search Terminal Help
Setting up libmpc3:amd64 (1.1.0-1) ...
Setting up libc-dev-bin (2.27-3ubuntu1.4) ...
Setting up manpages-dev (4.15-1) ...
Setting up libc6-dev:amd64 (2.27-3ubuntu1.4) ...
Setting up libitm1:amd64 (8.4.0-1ubuntu1~18.04) ...
Setting up libisl19:amd64 (0.19-1) ...
Setting up libasan4:amd64 (7.5.0-3ubuntu1~18.04) ...
Setting up libbinutils:amd64 (2.30-21ubuntu1~18.04.4) ...
Setting up libcilkrts5:amd64 (7.5.0-3ubuntu1~18.04) ...
Setting up libubsan0:amd64 (7.5.0-3ubuntu1~18.04) ...
Setting up libgcc-7-dev:amd64 (7.5.0-3ubuntu1~18.04) ...
Setting up cpp-7 (7.5.0-3ubuntu1~18.04) ...
Setting up binutils-x86-64-linux-gnu (2.30-21ubuntu1~18.04.4) ...
Setting up cpp (4:7.4.0-1ubuntu2.3) ...
Setting up binutils (2.30-21ubuntu1~18.04.4) ...
Setting up gcc-7 (7.5.0-3ubuntu1~18.04) ...
Setting up gcc (4:7.4.0-1ubuntu2.3) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
Processing triggers for libc-bin (2.27-3ubuntu1.2) ...
ubuntu@ip-172-31-82-21:~$ nano hw.c
ubuntu@ip-172-31-82-21:~$ gcc hw.c
ubuntu@ip-172-31-82-21:~$
ubuntu@ip-172-31-82-21:~$ ./a.out
Hello worldubuntu@ip-172-31-82-21:~$

c) Understanding and using AWS EBS(Elastic Block Store)



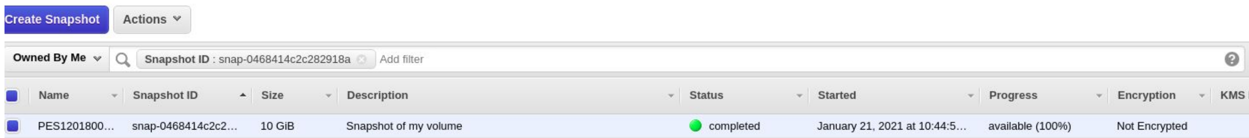


```
ubuntu@ip-172-31-25-132: ~/mnt
File  Edit  View  Search  Terminal  Help
        [-jnqvDFSV] device [blocks-count]
ubuntu@ip-172-31-25-132:/dev$ sudo mkfs -t ext3 /dev/xvdf
mke2fs 1.44.1 (24-Mar-2018)
Creating filesystem with 2621440 4k blocks and 655360 inodes
Filesystem UUID: 753f606d-a1d4-4596-867e-4ccfe93e62c3
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

ubuntu@ip-172-31-25-132:/dev$ cd
ubuntu@ip-172-31-25-132:~$ sudo mkdir /mnt
mkdir: cannot create directory '/mnt': File exists
ubuntu@ip-172-31-25-132:~$ ls
ubuntu@ip-172-31-25-132:~$ sudo mkdir mnt
ubuntu@ip-172-31-25-132:~$ sudo mount /dev/xvdf ~/mnt
ubuntu@ip-172-31-25-132:~$ cd mnt/
ubuntu@ip-172-31-25-132:~/mnt$ ls
lost+found
ubuntu@ip-172-31-25-132:~/mnt$ lsblk
NAME    MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
loop0     7:0    0 97.8M  1 loop /snap/core/10185
loop1     7:1    0 28.1M  1 loop /snap/amazon-ssm-agent/2012
xvda    202:0    0    8G  0 disk
└─xvda1 202:1    0    8G  0 part /
xvdf    202:80   0   10G  0 disk /home/ubuntu/mnt
ubuntu@ip-172-31-25-132:~/mnt$
```

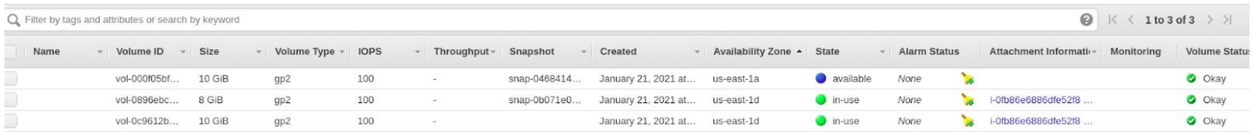
```
ubuntu@ip-172-31-25-132:~/mnt$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            476M     0  476M   0% /dev
tmpfs            98M  764K   98M   1% /run
/dev/xvda1      7.7G  1.2G  6.6G  15% /
tmpfs           490M     0  490M   0% /dev/shm
tmpfs           5.0M     0  5.0M   0% /run/lock
tmpfs           490M     0  490M   0% /sys/fs/cgroup
/dev/loop0       98M   98M     0 100% /snap/core/10185
/dev/loop1       29M   29M     0 100% /snap/amazon-ssm-agent/2012
tmpfs            98M     0   98M   0% /run/user/1000
/dev/xvdf       9.8G   23M  9.3G   1% /home/ubuntu/mnt
ubuntu@ip-172-31-25-132:~/mnt$
```



Create Snapshot | Actions

Owned By Me | Snapshot ID : snap-0468414c2c282918a | Add filter

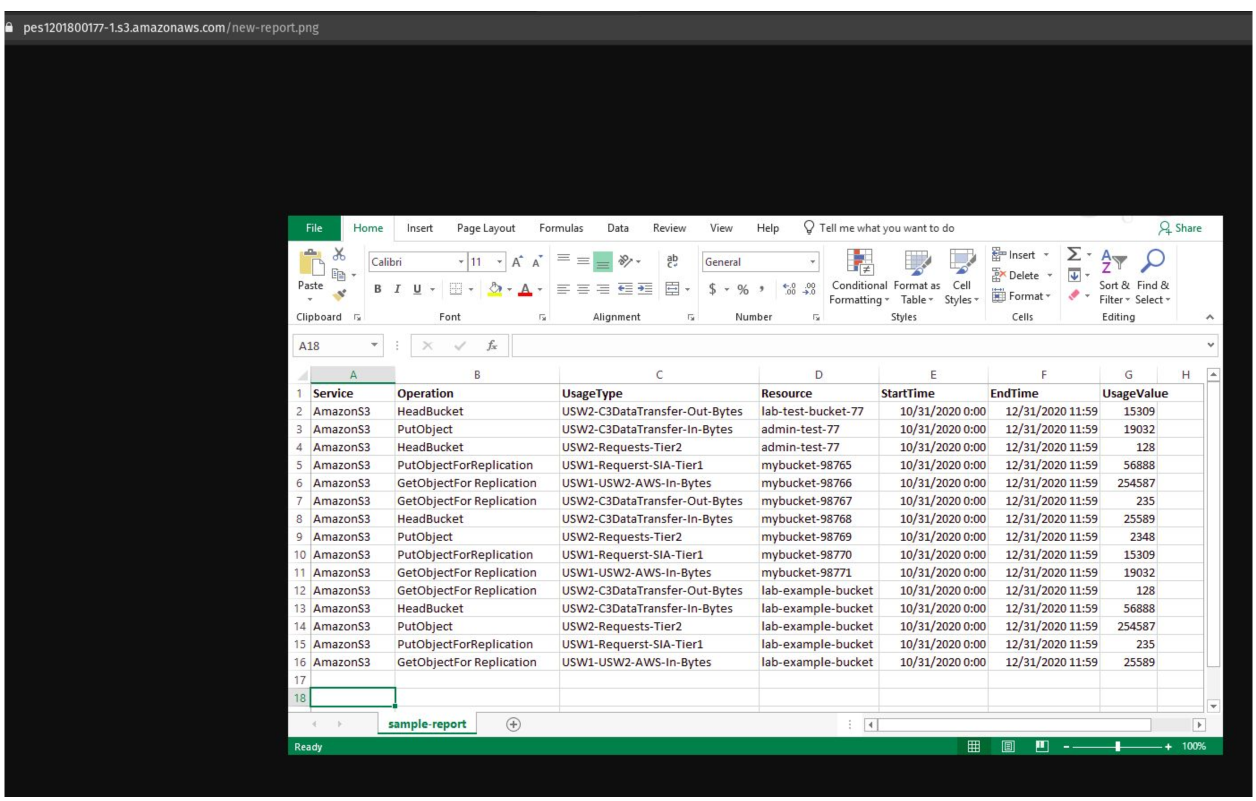
Name	Snapshot ID	Size	Description	Status	Started	Progress	Encryption	KMS K
PES1201800…	snap-0468414c2c2…	10 GiB	Snapshot of my volume	completed	January 21, 2021 at 10:44:5…	available (100%)	Not Encrypted	



Filter by tags and attributes or search by keyword | 1 to 3 of 3

Name	Volume ID	Size	Volume Type	IOPS	Throughput	Snapshot	Created	Availability Zone	State	Alarm Status	Attachment Informati	Monitoring	Volume Statu
	vol-000f05bf…	10 GiB	gp2	100	-	snap-0468414…	January 21, 2021 at…	us-east-1a	available	None			Okay
	vol-0896ebc…	8 GiB	gp2	100	-	snap-0b071e0…	January 21, 2021 at…	us-east-1d	in-use	None	i-0fb86e6886dfe52f8 …		Okay
	vol-0c9612b…	10 GiB	gp2	100	-		January 21, 2021 at…	us-east-1d	in-use	None	i-0fb86e6886dfe52f8 …		Okay

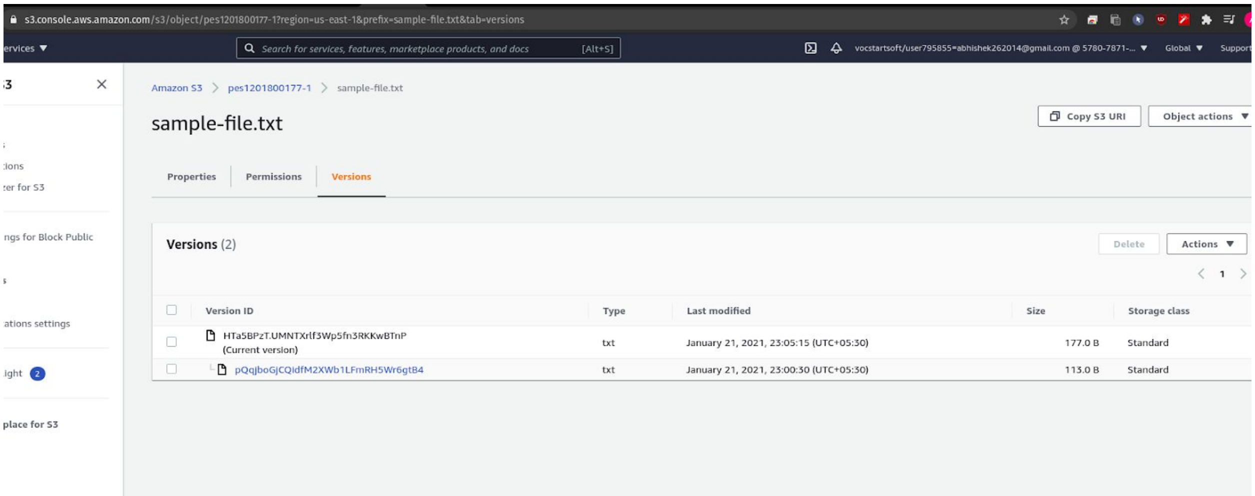
d)Object Storage using S3 Buckets



pes1201800177-1.s3.amazonaws.com/new-report.png

	Service	Operation	UsageType	Resource	StartTime	EndTime	UsageValue
2	AmazonS3	HeadBucket	USW2-C3DataTransfer-Out-Bytes	lab-test-bucket-77	10/31/2020 0:00	12/31/2020 11:59	15309
3	AmazonS3	PutObject	USW2-C3DataTransfer-In-Bytes	admin-test-77	10/31/2020 0:00	12/31/2020 11:59	19032
4	AmazonS3	HeadBucket	USW2-Requests-Tier2	admin-test-77	10/31/2020 0:00	12/31/2020 11:59	128
5	AmazonS3	PutObjectForReplication	USW1-Requerst-SIA-Tier1	mybucket-98765	10/31/2020 0:00	12/31/2020 11:59	56888
6	AmazonS3	GetObjectFor Replication	USW1-USW2-AWS-In-Bytes	mybucket-98766	10/31/2020 0:00	12/31/2020 11:59	254587
7	AmazonS3	GetObjectFor Replication	USW2-C3DataTransfer-Out-Bytes	mybucket-98767	10/31/2020 0:00	12/31/2020 11:59	235
8	AmazonS3	HeadBucket	USW2-C3DataTransfer-In-Bytes	mybucket-98768	10/31/2020 0:00	12/31/2020 11:59	25589
9	AmazonS3	PutObject	USW2-Requests-Tier2	mybucket-98769	10/31/2020 0:00	12/31/2020 11:59	2348
10	AmazonS3	PutObjectForReplication	USW1-Requerst-SIA-Tier1	mybucket-98770	10/31/2020 0:00	12/31/2020 11:59	15309
11	AmazonS3	GetObjectFor Replication	USW1-USW2-AWS-In-Bytes	mybucket-98771	10/31/2020 0:00	12/31/2020 11:59	19032
12	AmazonS3	GetObjectFor Replication	USW2-C3DataTransfer-Out-Bytes	lab-example-bucket	10/31/2020 0:00	12/31/2020 11:59	128
13	AmazonS3	HeadBucket	USW2-C3DataTransfer-In-Bytes	lab-example-bucket	10/31/2020 0:00	12/31/2020 11:59	56888
14	AmazonS3	PutObject	USW2-Requests-Tier2	lab-example-bucket	10/31/2020 0:00	12/31/2020 11:59	254587
15	AmazonS3	PutObjectForReplication	USW1-Requerst-SIA-Tier1	lab-example-bucket	10/31/2020 0:00	12/31/2020 11:59	235
16	AmazonS3	GetObjectFor Replication	USW1-USW2-AWS-In-Bytes	lab-example-bucket	10/31/2020 0:00	12/31/2020 11:59	25589

sample-report



This sample text file is used to illustrate the use of versioning in an Amazon S3 bucket.

Make it a great day!

This is version 2 of the text file!

My SRN IS PES1201800177