

Kumar Gaurav 20122065

Lab – 2 , AWS , 21 sept 2021

1. Describe SaaS

Software as a service (SaaS) allows users to connect to and use cloud-based apps over the Internet. Common examples are email, calendaring and office tools.

SaaS provides a complete software solution which you purchase on a pay-as-you-go basis from a cloud service provider. You rent the use of an app for your organisation and your users connect to it over the Internet, usually with a web browser. All of the underlying infrastructure, middleware, app software and app data are located in the service provider's data center. The service provider manages the hardware and software and with the appropriate service agreement, will ensure the availability and the security of the app and your data as well. SaaS allows your organisation to get quickly up and running with an app at minimal upfront cost.

2. List the Different Storage Services available in AWS.

1. **Amazon Simple Storage Service (Amazon S3)**
2. Amazon Glacier
3. Amazon Elastic File System (Amazon EFS)
4. Amazon Elastic Block Store (Amazon EBS)
5. Amazon EC2 Instance Storage
6. AWS Storage Gateway
7. AWS Snowball
8. Amazon CloudFront

3. Create a New EBS Volume and attach it to an EC2 and attach a file to the new

volume.



Launch Status

 **Your instances are now launching**
The following instance launches have been initiated: [i-0a12c0fffc9f336fc](#) [View launch log](#)



[Volumes](#) > Create Volume

Create Volume

 **Volume created successfully**
Volume ID [vol-042278db9a33c1c6b](#)

The screenshot shows the AWS console interface. At the top is the navigation bar with the AWS logo, "Services", and a search bar. Below this is a breadcrumb trail: "Volumes > Create Volume". The main heading is "Create Volume". A green success message states "Volume created successfully" and displays the "Volume ID" as "vol-042278db9a33c1c6b". Below the message is a table listing existing volumes. The table has columns: Name, Volume ID, Size, Volume Type, IOPS, Throughput, Snapshot, Created, Availability Zone, State, and Alarm Status. There are four rows of data. Below the table, the details for the selected volume "vol-042278db9a33c1c6b" are shown, including tabs for Description, Status Checks, Monitoring, and Tags. The Description tab is active, showing the Volume ID, Alarm status (None), Snapshot, Outposts ARN, Size (2 GiB), and Created date (September 22, 2021 at 7:55:51 PM UTC+5:30). The left sidebar contains navigation links for EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Scheduled Instances, Capacity Reservations, Images, and AMIs. The bottom of the page has a footer with "Feedback", "English (US)", and copyright information.

4. Demonstrate the backup creation using snapshot to ensure that when the file is deleted it can be retrieved back (Connect to the LINUX instance using your desktop)

The screenshot shows the AWS Management Console interface. At the top, the AWS logo and 'Services' dropdown are visible. Below the navigation bar, the breadcrumb 'Snapshots > Create Snapshot' is shown. The main heading is 'Create Snapshot'. A green success message box states 'Create Snapshot Request Succeeded' with the snapshot ID 'snap-0019773fad3eb2a55'. Below this, a table lists the created snapshot:

Name	Snapshot ID	Size	Description	Status	Started	Progress
	snap-0019773fad3e...	2 GiB	gorav snapchat	completed	September 22, 2021 at 8:06:...	available (100%)

Below the table, the details for the snapshot 'snap-0019773fad3eb2a55' are shown, including its ID, status (completed), capacity (2 GiB), volume (vol-042278db9a33c1c5b), encryption (Not Encrypted), and start time (September 22, 2021 at 8:06:25 PM UTC+5:30).

← → ↻ https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#InstanceDetails:instanceId=i-0a12c0ffc9f336fc

Apps Analytics Vidhya Machine Learning christ university Mail Inbox (2,832) - gn7... Google Translate Knowledge Pro | Lo... Classes Other bookmarks Reading list

aws Services Search for services, features, marketplace products, and docs [Alt+S] voclabs/user1593585=Kumar_Gaurav @ 3557-5076-8032 N. Virginia Support

New EC2 Experience Learn more

EC2 Dashboard
EC2 Global View
Events
Tags
Limits

Instances
Instances **New**
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances **New**
Dedicated Hosts
Scheduled Instances
Capacity Reservations

Images
AMIs

Elastic Block Store

Feedback English (US) © 2008 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences

EC2 > Instances > i-0a12c0ffc9f336fc

Instance summary for i-0a12c0ffc9f336fc

Updated less than a minute ago

Instance ID: i-0a12c0ffc9f336fc

Public IPv4 address: 54.158.166.208 | [open address](#)

Private IPv4 addresses: 172.31.84.153

IPv6 address: -

Instance state: **Running**

Public IPv4 DNS: ec2-54-158-166-208.compute-1.amazonaws.com | [open address](#)

Private IPv4 DNS: ip-172-31-84-153.ec2.internal

Instance type: t2.micro

VPC ID: vpc-03fcd457b7c8f873 | [open address](#)

AWS Compute Optimizer finding: **⚠ User: arn:aws:sts::355750768032:assumed-role/voclabs/user1593585=Kumar_Gaurav is not authorized to perform: compute-optimizer:GetEnrollmentStatus on resource: *** [Retry](#)

IAM Role: -

Subnet ID: subnet-083228d9830ae5af7 | [open address](#)

Details Security Networking Storage Status checks Monitoring Tags

```
ec2-user@ip-172-31-84-153:~  
login as: ec2-user  
Authenticating with public key "imported-openssh-key"  
  
  _ | _ | _ )  
  _ | ( _ | /  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-172-31-84-153 ~]$
```

```
[ec2-user@ip-172-31-84-153 gorav]$ df -h  
Filesystem      Size  Used Avail Use% Mounted on  
devtmpfs        482M   0  482M   0% /dev  
tmpfs           492M   0  492M   0% /dev/shm  
tmpfs           492M 460K  492M   1% /run  
tmpfs           492M   0  492M   0% /sys/fs/cgroup  
/dev/xvda1      8.0G  1.5G   6.6G  19% /  
tmpfs           99M   0   99M   0% /run/user/1000  
tmpfs           99M   0   99M   0% /run/user/0  
[ec2-user@ip-172-31-84-153 gorav]$
```

```
[ec2-user@ip-172-31-84-153 home]$ ls
ec2-user
[ec2-user@ip-172-31-84-153 home]$ cd ec2-user/
[ec2-user@ip-172-31-84-153 ~]$ mkdir gorav
[ec2-user@ip-172-31-84-153 ~]$ ls
gorav
```

```
[ec2-user@ip-172-31-84-153 ~]$ cd gorav/
[ec2-user@ip-172-31-84-153 gorav]$ nano gaurav.txt
[ec2-user@ip-172-31-84-153 gorav]$ cat gaurav.txt
I am good boy
[ec2-user@ip-172-31-84-153 gorav]$ df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        482M   0  482M   0% /dev
tmpfs           492M   0  492M   0% /dev/shm
tmpfs           492M  460K  492M   1% /run
tmpfs           492M   0  492M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.5G  6.6G  19% /
tmpfs           99M   0   99M   0% /run/user/1000
tmpfs           99M   0   99M   0% /run/user/0
[ec2-user@ip-172-31-84-153 gorav]$ sudo mkfs -t ext3/dev/sdf
```

Usage:

```
mkfs [options] [-t <type>] [fs-options] <device> [<size>]
```

Make a Linux filesystem.

Options:

```
-t, --type=<type>  filesystem type; when unspecified, ext2 is used
fs-options         parameters for the real filesystem builder
<device>          path to the device to be used
<size>            number of blocks to be used on the device
-V, --verbose      explain what is being done;
                   specifying -V more than once will cause a dry-run
-V, --version      display version information and exit;
                   -V as --version must be the only option
-h, --help         display this help text and exit
```

For more details see mkfs(8).

```
[ec2-user@ip-172-31-84-153 gorav]$ ls
gaurav.txt
[ec2-user@ip-172-31-84-153 gorav]$ sudo mkdir /mnt/data-store2
```