

Web Hosting on AWS EC2 with EBS Volume Backup

Launched and configured an EC2 instance to host a static website

The screenshot shows the AWS EC2 Instances page. At the top, there are navigation links for 'EC2 > Instances'. Below this is a search bar labeled 'Find Instance by attribute or tag (case-sensitive)' and a dropdown menu set to 'All states'. The main table lists two instances:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 IP
webservice	i-029ade9ba73c7d1dd	Running	t2.micro	2/2 checks passed	View alarms +	ap-south-1b	ec2-65-0-32-156.ap.so...	65.0.32.156
web-server	i-04853266ed0da30eb	Running	t2.micro	2/2 checks passed	View alarms +	ap-south-1b	-	65.1.134.188

Connected to the server using Git terminal (SSH)

```
ec2-user@ip-172-31-9-131:~$ shree@Aditiiii MINGW64 ~/Downloads
$ chmod 400 "aws-ec2-key.pem"
shree@Aditiiii MINGW64 ~/Downloads
$ ssh -i "aws-ec2-key.pem" ec2-user@ec2-65-0-32-156.ap-south-1.compute.amazonaws.com
The authenticity of host 'ec2-65-0-32-156.ap-south-1.compute.amazonaws.com (65.0.32.156)' can't be established.
ED25519 key fingerprint is SHA256:gfy+DQKpGphrKZ50tc1bU8GIwqmp2yuEs/jP7vs8BP4.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-65-0-32-156.ap-south-1.compute.amazonaws.com' (ED25519) to the List of known hosts.
'###'          Amazon Linux 2023
~~\####\      https://aws.amazon.com/linux/amazon-linux-2023
~~ \##'      ~~~~ /' 
~~ \#/'      ~~~~ /' 
~~ \#/'      ~~~~ /' 
~~ \#/'      ~~~~ /' 
[ec2-user@ip-172-31-9-131 ~]$ |
```

Installed Apache Web Server to host a default webpage

```
[ec2-user@ip-172-31-9-131:~]$ sudo yum update -y
Amazon Linux 2023 Kernel Livepatch repository
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-9-131:~]$ sudo yum install httpd -y
Last metadata expiration check: 0:00:27 ago on Wed Jun 18 12:42:21 2025.
Dependencies resolved.
=====
  Package          Architecture Version      Repository   Size
=====
Installing:
  httpd           x86_64       2.4.62-1.amzn2023    amazonlinux  48 k
Installing dependencies:
  apr             x86_64       1.7.5-1.amzn2023.0.4  amazonlinux 129 k
  apr-util        x86_64       1.6.3-1.amzn2023.0.1  amazonlinux 98 k
  generic-logos-httd noarch     18.0.0-12.amzn2023.0.3  amazonlinux 19 k
  httpd-core      x86_64       2.4.62-1.amzn2023    amazonlinux 1.4 M
  httpd-filesystem noarch     2.4.62-1.amzn2023    amazonlinux 14 k
  httpd-tools     x86_64       2.4.62-1.amzn2023    amazonlinux 81 k
  libbrotli       x86_64       1.0.9-4.amzn2023.0.2  amazonlinux 315 k
  mailcap         noarch     2.1.49-3.amzn2023.0.3  amazonlinux 33 k
Installing weak dependencies:
  apr-util-openssl x86_64     1.6.3-1.amzn2023.0.1  amazonlinux 17 k
  mod_http2       x86_64     2.0.27-1.amzn2023.0.3  amazonlinux 166 k
  mod_lua         x86_64     2.4.62-1.amzn2023    amazonlinux 61 k
=====
Transaction Summary
=====
Install 12 Packages

Total download size: 2.3 M
Installed size: 6.9 M
Downloading Packages:
(1/12): apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64.rpm 393 kB/s | 17 kB 00:00
(2/12): apr-1.7.5-1.amzn2023.0.4.x86_64.rpm 2.5 MB/s | 129 kB 00:00
(3/12): apr-util-1.6.3-1.amzn2023.0.1.x86_64.rpm 1.7 MB/s | 98 kB 00:00
(4/12): generic-logos-httd-18.0.0-12.amzn2023.0.3.noarch.rpm 898 kB/s | 19 kB 00:00
(5/12): httpd-2.4.62-1.amzn2023.x86_64.rpm 2.1 MB/s | 48 kB 00:00
(6/12): httpd-core-2.4.62-1.amzn2023.x86_64.rpm 37 MB/s | 1.4 MB 00:00
(7/12): httpd-filesystem-2.4.62-1.amzn2023.noarch.rpm 440 kB/s | 14 kB 00:00
(8/12): httpd-tools-2.4.62-1.amzn2023.x86_64.rpm 2.9 MB/s | 81 kB 00:00
(9/12): mailcap-2.1.49-3.amzn2023.0.3.noarch.rpm 1.5 MB/s | 33 kB 00:00
(10/12): libbrotli-1.0.9-4.amzn2023.0.2.x86_64.rpm 8.6 MB/s | 315 kB 00:00
(11/12): mod_http2-2.0.27-1.amzn2023.0.3.x86_64.rpm 4.6 MB/s | 166 kB 00:00
(12/12): mod_lua-2.4.62-1.amzn2023.x86_64.rpm 2.5 MB/s | 61 kB 00:00
=====
Total] 12 MB/s | 2.3 MB 00:00

Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing : 1/1
  Installing : apr-1.7.5-1.amzn2023.0.4.x86_64 1/12
  Installing : apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64 2/12
  Installing : apr-util-1.6.3-1.amzn2023.0.1.x86_64 3/12
  Installing : mailcap-2.1.49-3.amzn2023.0.3.noarch 4/12
```

```

Installing      : httpd-tools-2.4.62-1.amzn2023.x86_64          5/12
Installing      : libbrotli-1.0.9-4.amzn2023.0.2.x86_64          6/12
Running scriptlet: httpd-filesystem-2.4.62-1.amzn2023.noarch    7/12
Installing      : httpd-filesystem-2.4.62-1.amzn2023.noarch    7/12
Installing      : httpd-core-2.4.62-1.amzn2023.x86_64          8/12
Installing      : mod_http2-2.0.27-1.amzn2023.0.3.x86_64          9/12
Installing      : mod_lua-2.4.62-1.amzn2023.x86_64          10/12
Installing      : generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch 11/12
Installing      : httpd-2.4.62-1.amzn2023.x86_64          12/12
Running scriptlet: httpd-2.4.62-1.amzn2023.x86_64          12/12
Verifying       : apr-1.7.5-1.amzn2023.0.4.x86_64          1/12
Verifying       : apr-util-1.6.3-1.amzn2023.0.1.x86_64          2/12
Verifying       : apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64        3/12
Verifying       : generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch 4/12
Verifying       : httpd-2.4.62-1.amzn2023.x86_64          5/12
Verifying       : httpd-core-2.4.62-1.amzn2023.x86_64          6/12
Verifying       : httpd-filesystem-2.4.62-1.amzn2023.noarch    7/12
Verifying       : httpd-tools-2.4.62-1.amzn2023.x86_64          8/12
Verifying       : libbrotli-1.0.9-4.amzn2023.0.2.x86_64          9/12
Verifying       : mailcap-2.1.49-3.amzn2023.0.3.noarch          10/12
Verifying       : mod_http2-2.0.27-1.amzn2023.0.3.x86_64          11/12
Verifying       : mod_lua-2.4.62-1.amzn2023.x86_64          12/12

Installed:
  apr-1.7.5-1.amzn2023.0.4.x86_64      apr-util-1.6.3-1.amzn2023.0.1.x86_64
  apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64  generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch
  httpd-2.4.62-1.amzn2023.x86_64      httpd-core-2.4.62-1.amzn2023.x86_64
  httpd-filesystem-2.4.62-1.amzn2023.noarch  httpd-tools-2.4.62-1.amzn2023.x86_64
  libbrotli-1.0.9-4.amzn2023.0.2.x86_64  mailcap-2.1.49-3.amzn2023.0.3.noarch
  mod_http2-2.0.27-1.amzn2023.0.3.x86_64  mod_lua-2.4.62-1.amzn2023.x86_64

Complete!
ec2-user@ip-172-31-9-131 ~]$ sudo systemctl start httpd
ec2-user@ip-172-31-9-131 ~]$ sudo systemctl enable httpd
Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service → /usr/lib/systemd/system/httpd.service.
ec2-user@ip-172-31-9-131 ~]$ ~

```



It works!

Uploaded HTML code using the terminal and viewed the hosted webpage in the browser via public IP.

The terminal window shows the uploaded HTML code:

```
<!DOCTYPE html>
<html>
<head>
<title>My AWS Webpage</title>
</head>
<body>
<h1>Welcome to My AWS-Hosted Website!</h1>
<p>This website is hosted on an AWS EC2 instance with EBS volume backup.</p>
</body>
</html>
```

The browser window displays the webpage with the title "Welcome to My AWS-Hosted Website!" and the message "This website is hosted on an AWS EC2 instance with EBS volume backup."

Welcome to My AWS-Hosted Website!

This website is hosted on an AWS EC2 instance with EBS volume backup.

Mounted and formatted the EBS volume using terminal

```
[ec2-user@ip-172-31-9-131 ~]$ lsblk
NAME   MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda   202:0    0 8G  0 disk
└─xvda1 202:1    0 8G  0 part /
└─xvda127 259:0  0 1M  0 part
└─xvda128 259:1  0 10M 0 part /boot/efi
xvdf   202:80   0 1G  0 disk
[ec2-user@ip-172-31-9-131 ~]$ sudo mkfs -t ext4 /dev/xvdf
mke2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 262144 4k blocks and 65536 inodes
Filesystem UUID: 288c7396-5afb-456d-91aa-5a8314d995b2
Superblock backups stored on blocks:
      32768, 98304, 163840, 229376

Allocating group tables: done
Writing inode tables: done
Creating journal (8192 blocks): done
Writing superblocks and filesystem accounting information: done

[ec2-user@ip-172-31-9-131 ~]$ sudo mkdir /mnt/ebs
[ec2-user@ip-172-31-9-131 ~]$ sudo mount /dev/xvdf /mnt/ebs
[ec2-user@ip-172-31-9-131 ~]$ df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        4.0M   0  4.0M  0% /dev
tmpfs          475M   0  475M  0% /dev/shm
tmpfs          190M  464K 190M  1% /run
/dev/xvda1      8.0G  1.7G  6.3G 21% /
tmpfs          475M   0  475M  0% /tmp
/dev/xvda128    10M   1.3M  8.7M 13% /boot/efi
tmpfs          95M   0   95M  0% /run/user/1000
/dev/xvdf       974M  24K  907M  1% /mnt/ebs
[ec2-user@ip-172-31-9-131 ~]$
```

Created an EBS Snapshot from the AWS Console for backup

Snapshots (1) Info							
Owned by me		Search		Actions			
<input type="checkbox"/>	Name	Snapshot ID	Full snapshot size	Volume size	Description	Storage tier	Snapshot status
<input type="checkbox"/>	ec2-ebs-backup	snap-02c5c96182111bec2	51.5 MiB	1 GiB		Standard	Completed