

1. Create an EC2 instance in US-East-1 (N. Virginia) with Linux OS and prepare it as a Web Server using AMI

The screenshot shows the AWS EC2 Instances page. The URL is `us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:instanceState=running`. The page title is "Instances (1/1) Info". There is a search bar with placeholder text "Find Instance by attribute or tag (case-sensitive)". A filter bar shows "Instance state = running". The main table has columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, and Availability zone. One row is selected: "Assignment-1" (Instance ID: i-0fa6fcdb3732a7429), which is "Running" (t3.micro), with 3/3 checks passed. Buttons at the top right include "Connect", "Actions", "Launch instances", and "All states". The left sidebar shows navigation links like "Dashboard", "Global View", "Instances", and "Instance Types".

```
sudo yum update -y
sudo yum install httpd -y
sudo systemctl start httpd
sudo systemctl enable httpd
echo "<h1>My Web Server in US-East-1</h1>" | sudo tee /var/www/html/index.html
```

Connected from the public IP of the Assignment-1 instance

The screenshot shows a web browser window with the address bar displaying "Not secure 13.217.218.187". The page content is "**My Web Server in US-East-1**". The browser toolbar includes icons for back, forward, refresh, and download.

2. Create AMI from this web server

- a.Create an AMI replica from the existing AMI of US-East-1 (N. Virginia)
- b.Copy the AMI to the az that you want to have a replica US-West-2 (Oregon)
- c.Launch a new Instance using the AMI that was created earlier on US-East-1 (N. Virginia) on US-West-2 (Oregon)

The screenshot shows the AWS EC2 Instances page. The URL in the browser is `us-west-2.console.aws.amazon.com/ec2/home?region=us-west-2#InstancesinstanceState=running`. The page title is "Instances (1) Info". There is a search bar with placeholder text "Find Instance by attribute or tag (case-sensitive)". Below it, there are two filter buttons: "Instance state = running" and "Clear filters". A dropdown menu "All states" is open. The main table has columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, and Availability. One row is visible: "Assign-1-oregon" (Instance ID: i-08d56f2aea59c9eeb), State: Running, Type: t3.micro, Status: 3/3 checks passed, Alarm status: View alarms +, Availability: us-west-2b. At the bottom, there is a button "Select an instance".

3. Create two additional EBS volumes and attach to the US-East-1 instance

- a.Create Volume size 5GB And AZ us-east-1a
- b.Create another 5GB Volume
- c. Attach the volume to the EC2 instance
- d. Both Volumes are attached

4. Delete one volume after detaching it & extend the size of the other

- a. EC2 → Volumes → Select Volume-1
- b.Actions → Detach Volume
- c.Wait until status = available
- d.Select the detached volume
- e.Actions → Delete Volume

f. Select Volume-2

g. Actions → Modify Volume

h. Change size:

i. Click Modify

The screenshot shows the AWS EC2 Volumes page. A green success message at the top states "Successfully detached volume." Below it, the "Volumes (3)" table lists three volumes: "Volume1" (vol-088350d37689b6402), "Volume2" (vol-0a6627994bcd52c06), and another unnamed volume. The "Actions" button is visible above the table.

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Source volume
Volume1	vol-088350d37689b6402	gp3	8 GiB	3000	125	snap-0881c81...	-
Volume2	vol-0a6627994bcd52c06	gp3	100 GiB	3000	125	-	-

The screenshot shows the AWS EC2 Volumes page. A green success message at the top states "Successfully deleted volume vol-0a6627994bcd52c06." Below it, the "Volumes (2)" table lists two volumes: "Volume1" (vol-088350d37689b6402) and another unnamed volume. The "Actions" button is visible above the table.

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Source volume
Volume1	vol-088350d37689b6402	gp3	8 GiB	3000	125	snap-0881c81...	-

5. Take backup of this EBS volume

- a. EC2 → Volumes
- b. Select Volume-2 (the extended volume)
- c. Actions → Create Snapshot
- d. Add name: WebServer-Backup-East-Volume

The screenshot shows the AWS CloudWatch Metrics console with the Metrics Insights dashboard selected. The top navigation bar includes links for XORNET, Chat-Gpt, First Workflow - Loki..., Full Stack Monitorin..., Xoriant SPRP, Kubernetes for the..., Student Dashboard..., Coin by Zerodha - B..., and All Bookmarks. The account ID is 4169-4676-5337 and the region is United States (N. Virginia). The user is signed in as Lokesh1234.

The main content area displays the Metrics Insights interface with the following details:

- Snapshots (3) Info**: Last updated less than a minute ago.
- Actions** button with a dropdown menu.
- Create snapshot** button.
- Owned by me** filter.
- Search** input field.
- Table Headers**: Snapshot ID, Full snapshot size, Volume size, Description, Storage tier.
- Data Rows** (3 rows):
 - Snapshot ID: snap-0e1a3f413906ea180, Full snapshot size: -, Volume size: 8 GiB, Description: Assign-1-backup, Storage tier: Standard.
 - Snapshot ID: snap-0227cbd596a89dde3, Full snapshot size: 1.68 GiB, Volume size: 8 GiB, Description: Created by CreateImage(i-...), Storage tier: Standard.
 - Snapshot ID: snap-0aed4c8c2eab8679b, Full snapshot size: 1.68 GiB, Volume size: 8 GiB, Description: Created by CreateImage(i-...), Storage tier: Standard.