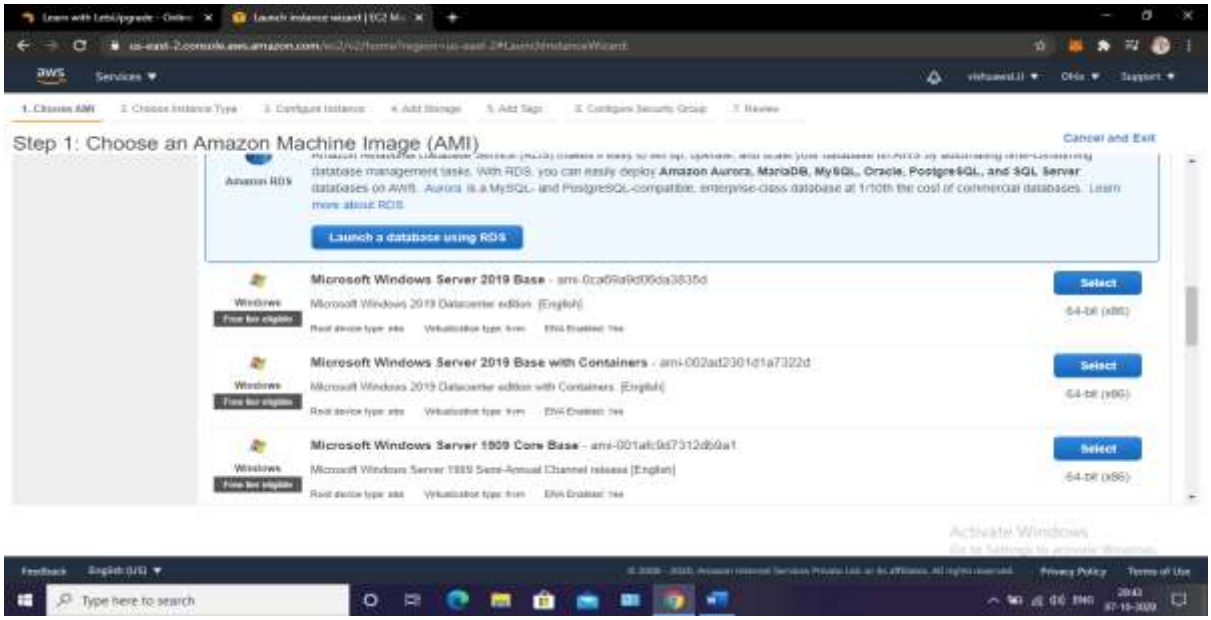
Advance AWS Projects.

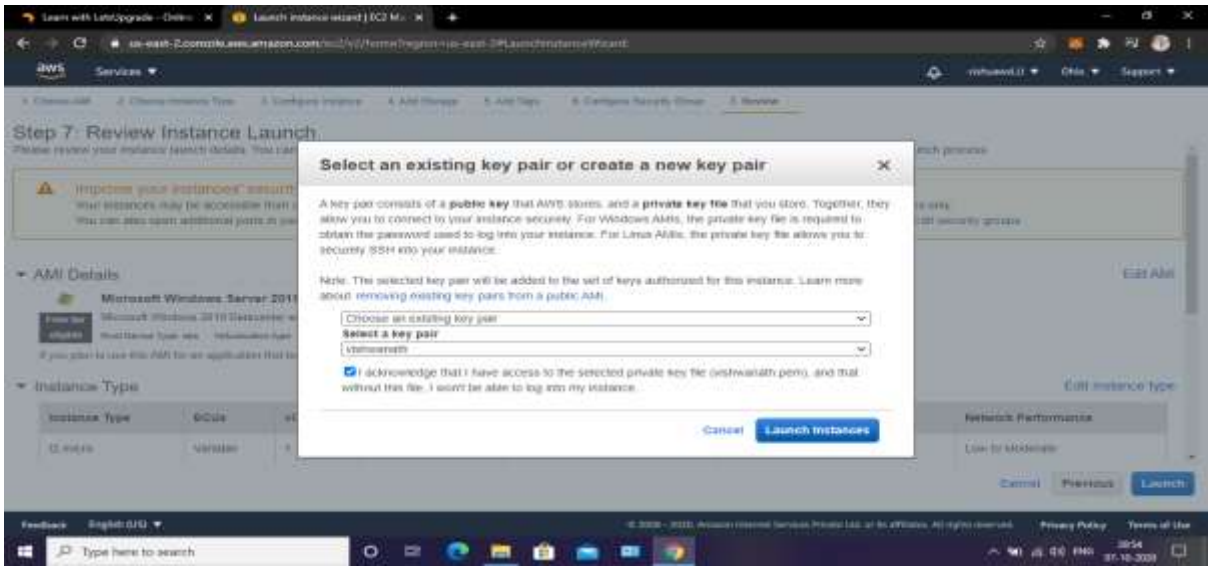
PROJECT 1:

1. Deploying a web server in Windows Instance:

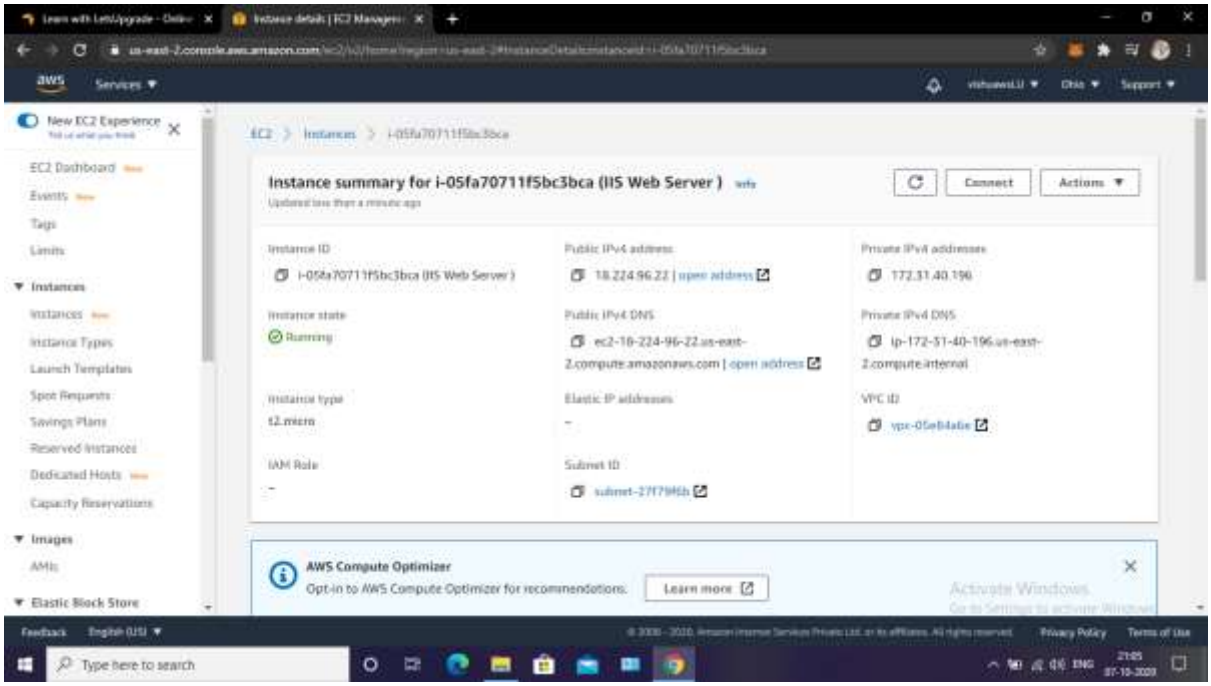
Task A: Create a windows instance using AMI: Windows Server 2019 base:



Task B: Select Keypair and launch the instance.

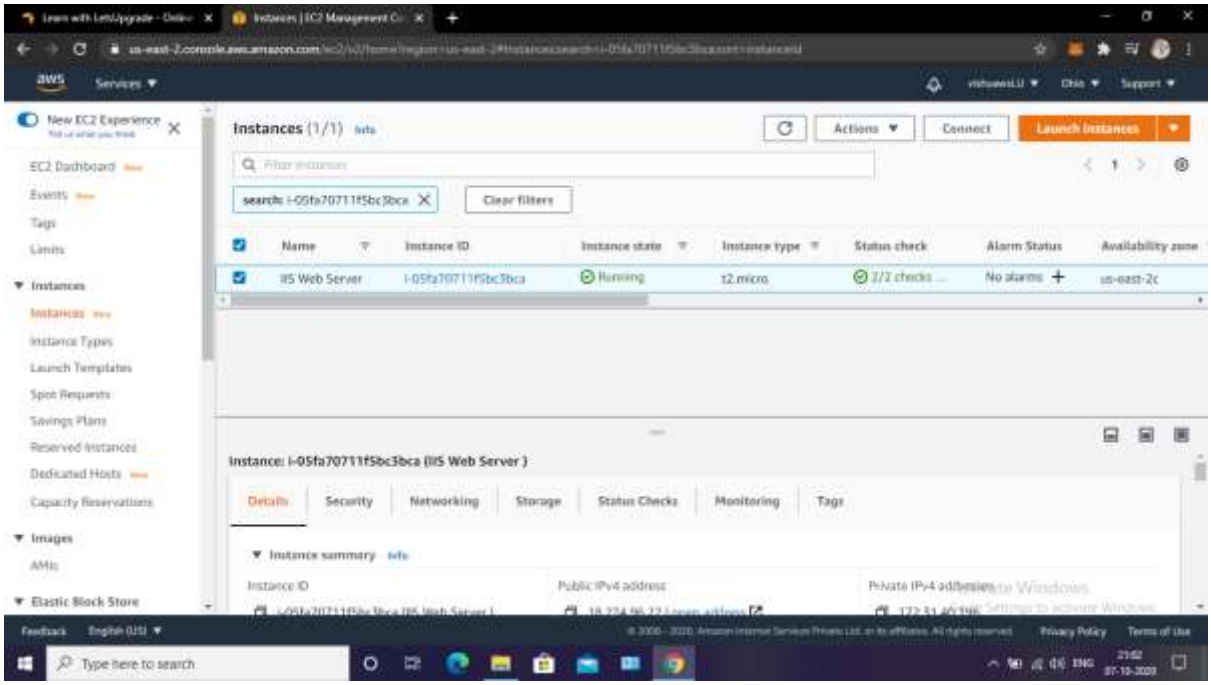


IP Address of the Instance:

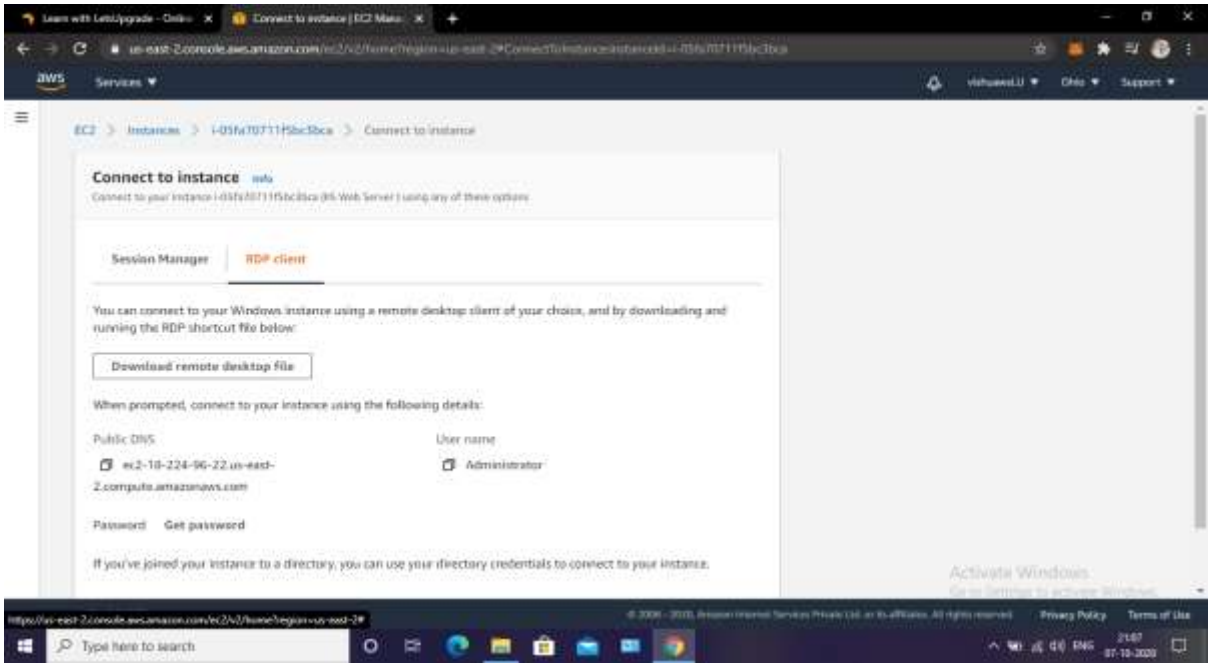


2.Launching the Server

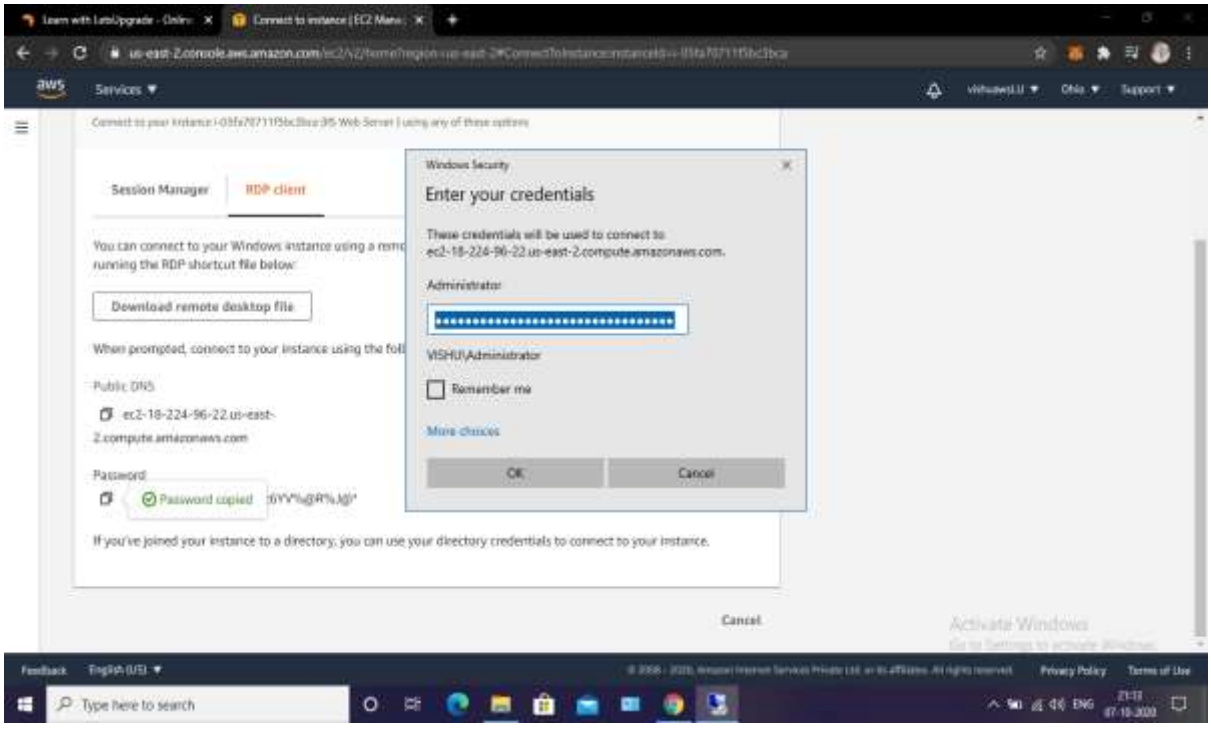
Task A: Select Instance and connect to using RDP client.



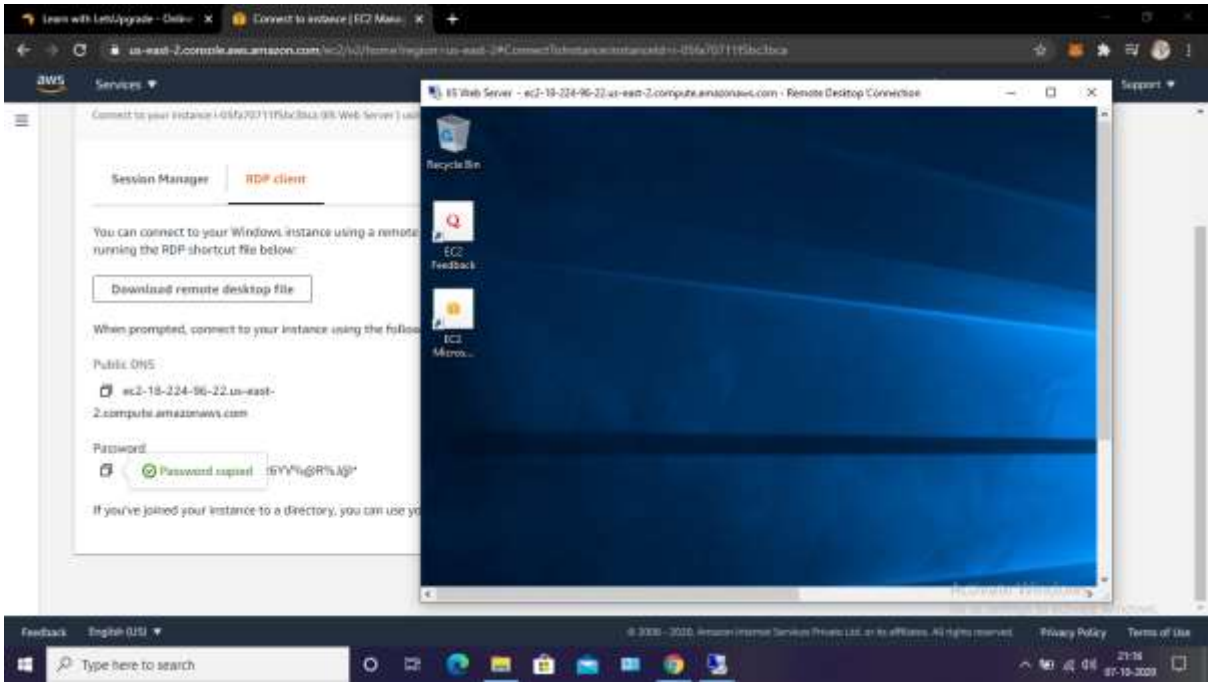
Download RDP file and Get password:



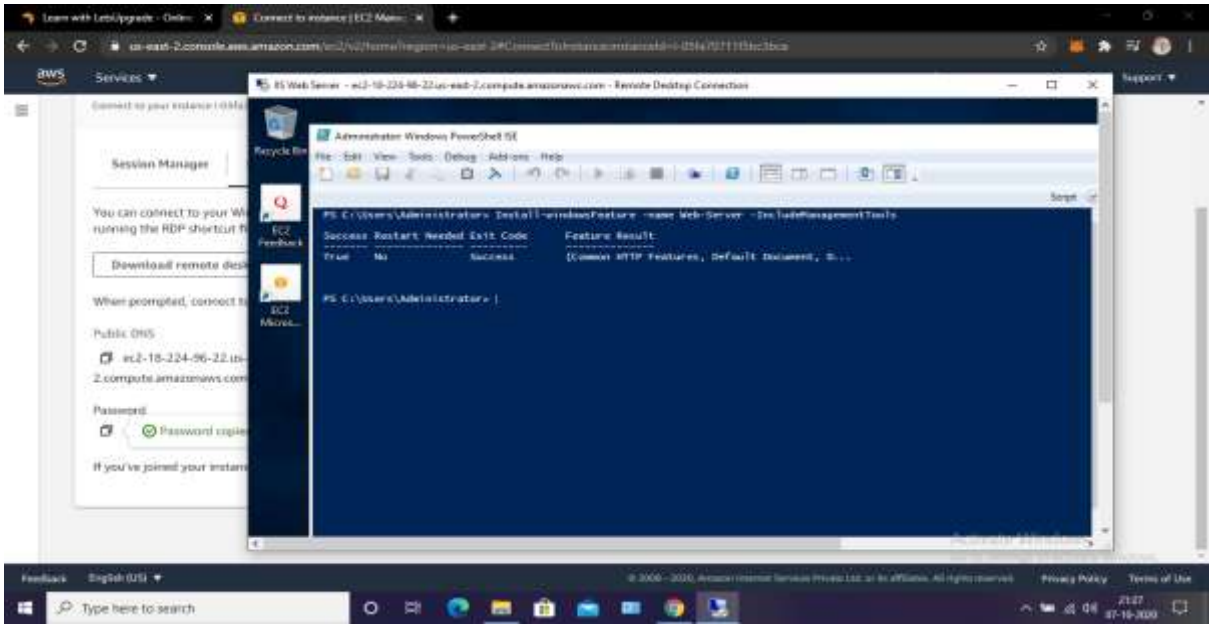
Connect RDP file With Using Get Password:



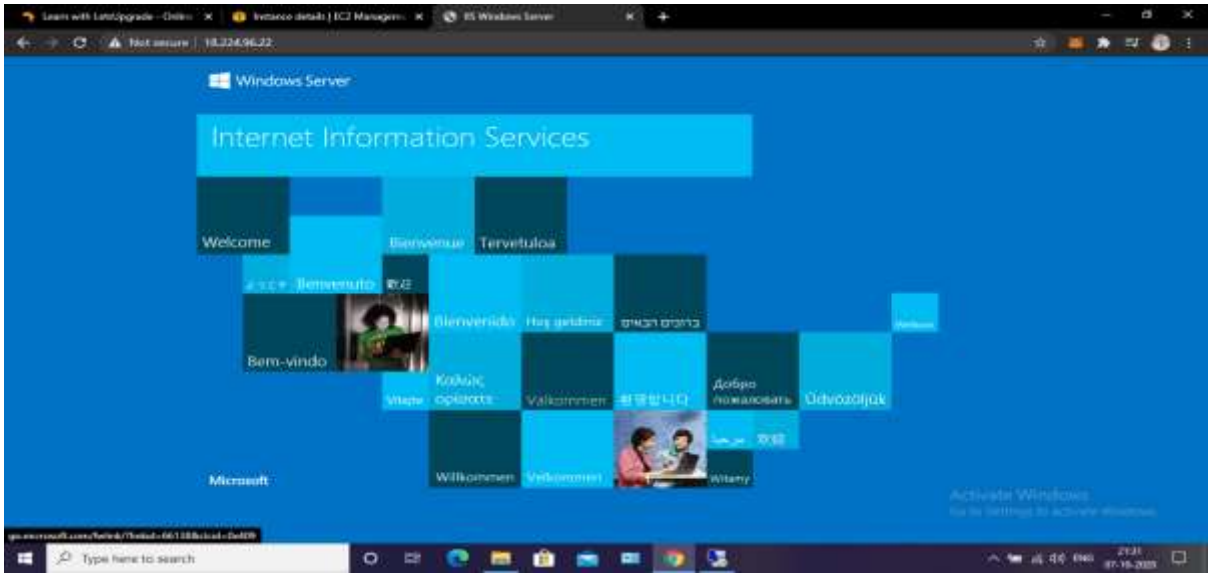
IIS Web Server:



Task B: Install IIS Web Server using with PowerShell IIS:

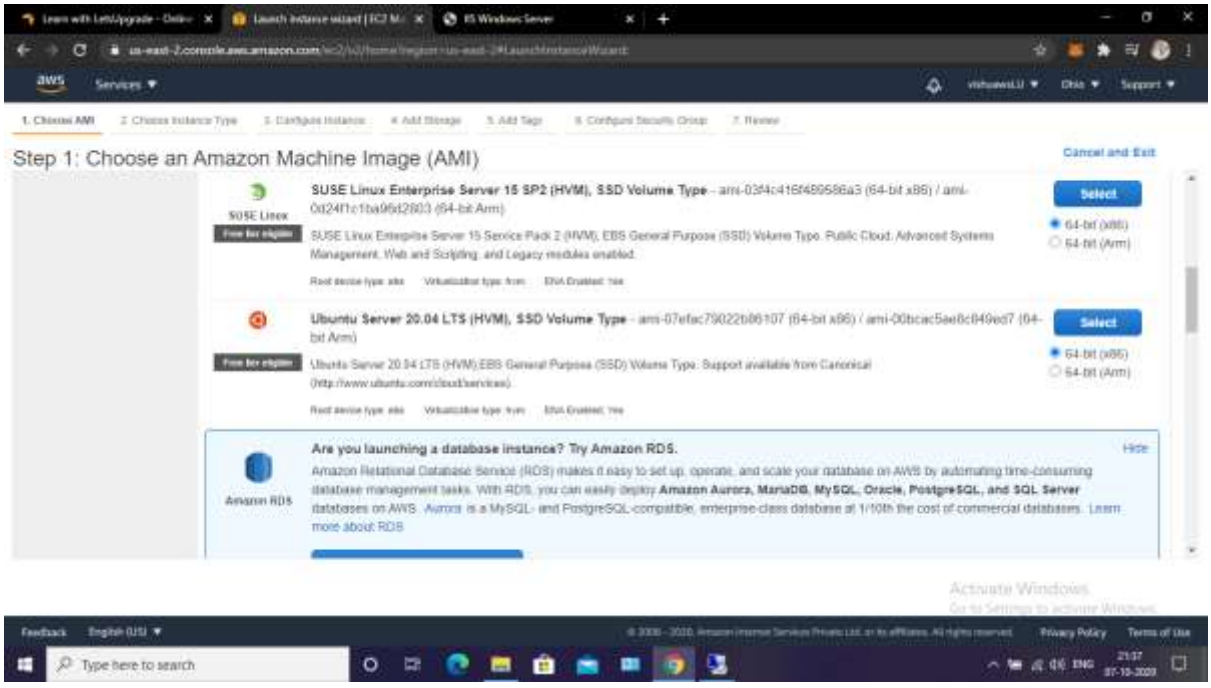


Task C: Verify Successful Installation of IIS Web Server:

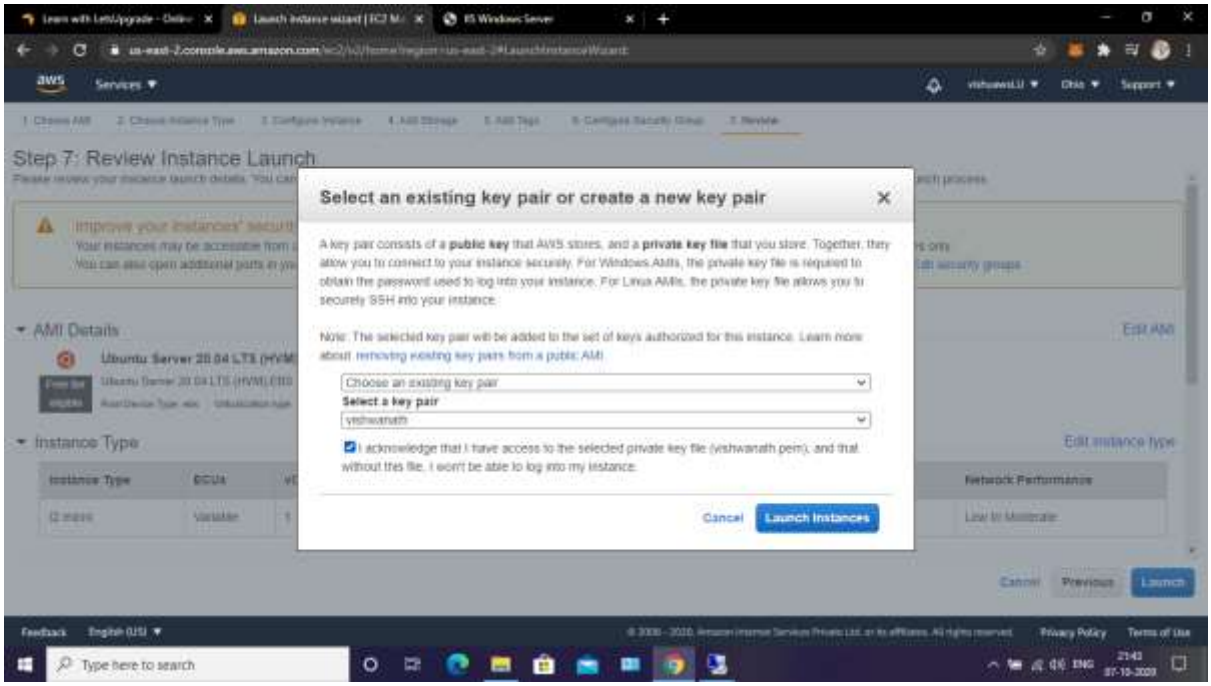


PROJECT 2:

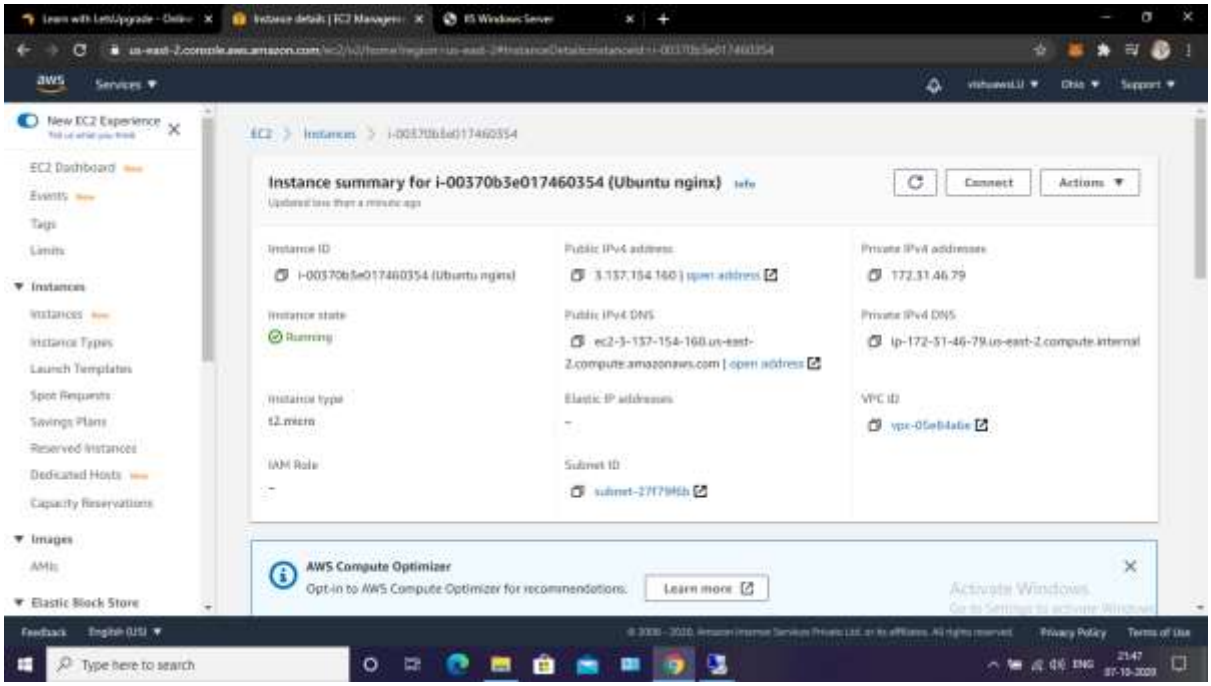
2. Deploying a Web Server in Windows Instance Ubuntu Server 20.04 LTS (HVM).



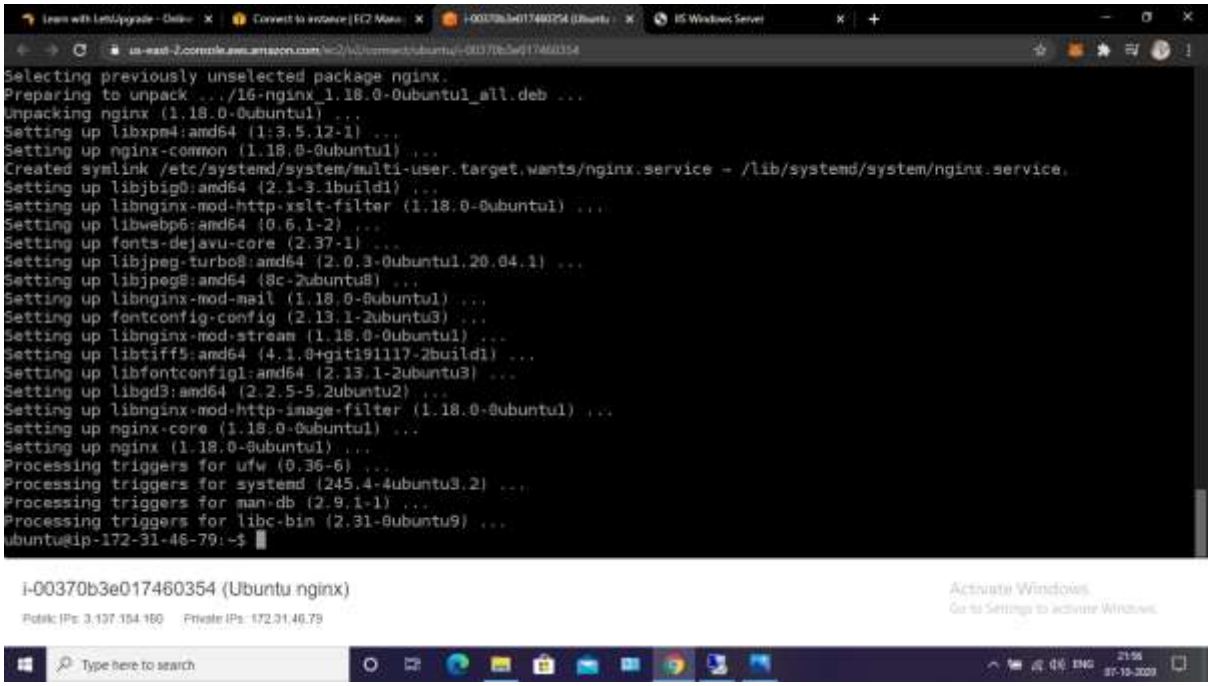
Select Keypair and Launch Ubuntu Instance:



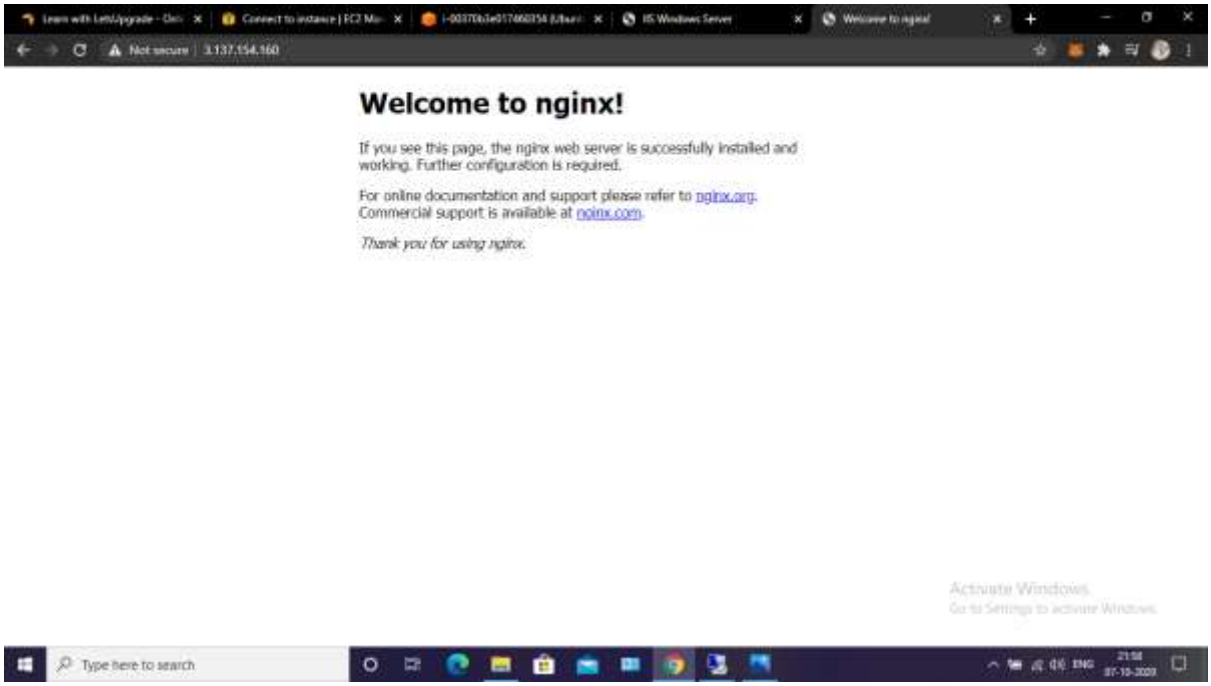
Ip Address of the instance:



Install ngnix Web Server Using bash:



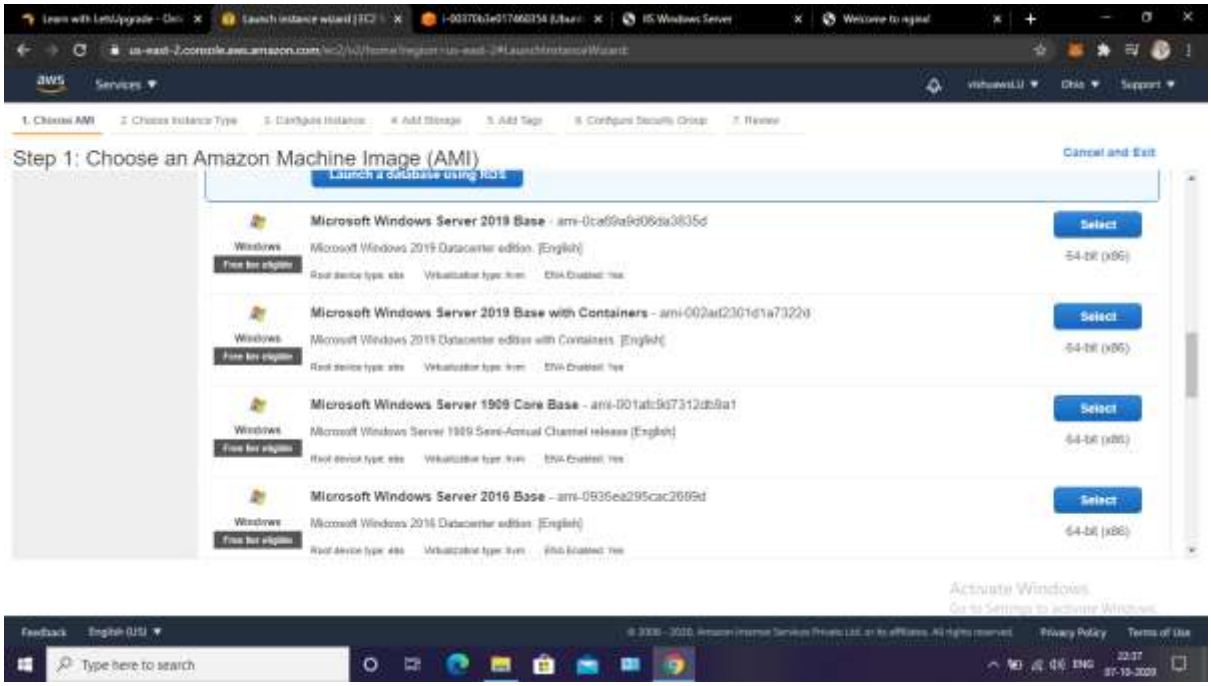
Verify Successful Installation of ngnix:



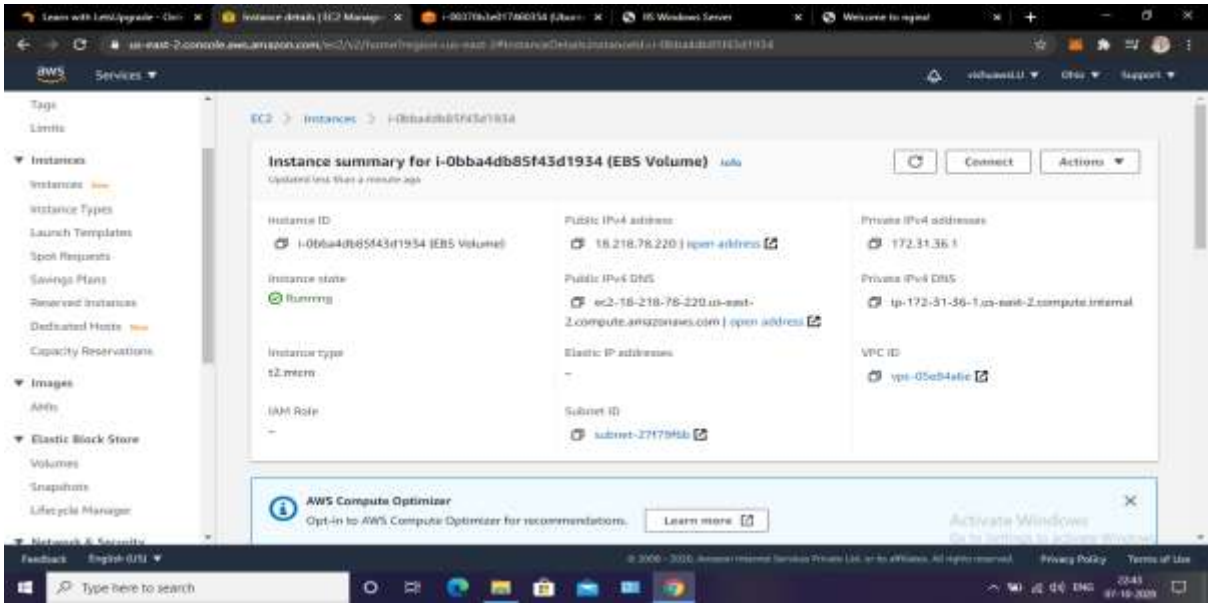
PROJECT 3:

3.Working with Storage Volumes.

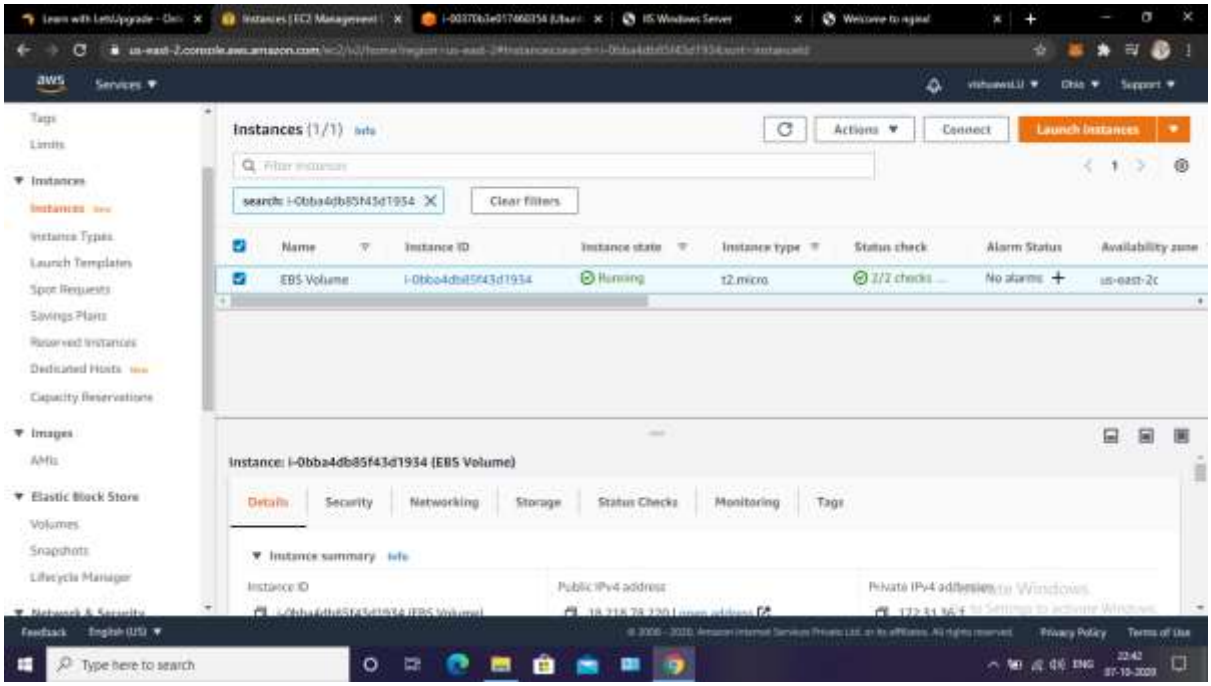
1.Create a new Windows Instance:

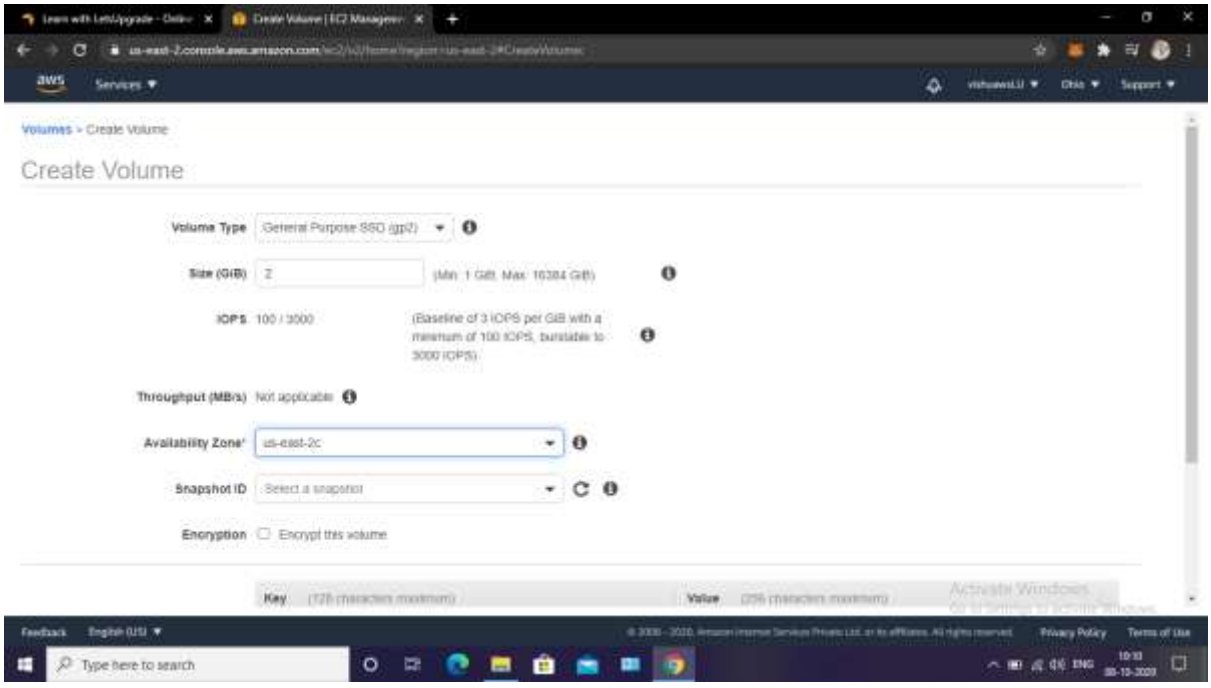


Ip Address of the Instance:

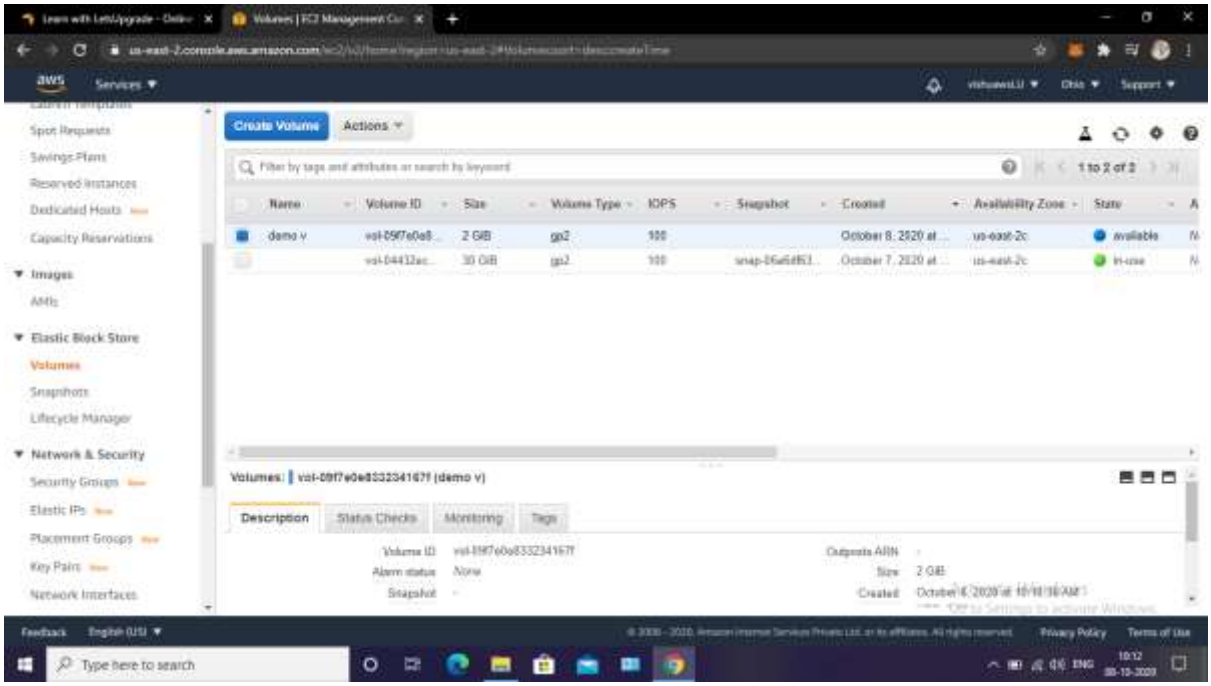


2.Create a Volume in the same region as the Windows Machine:

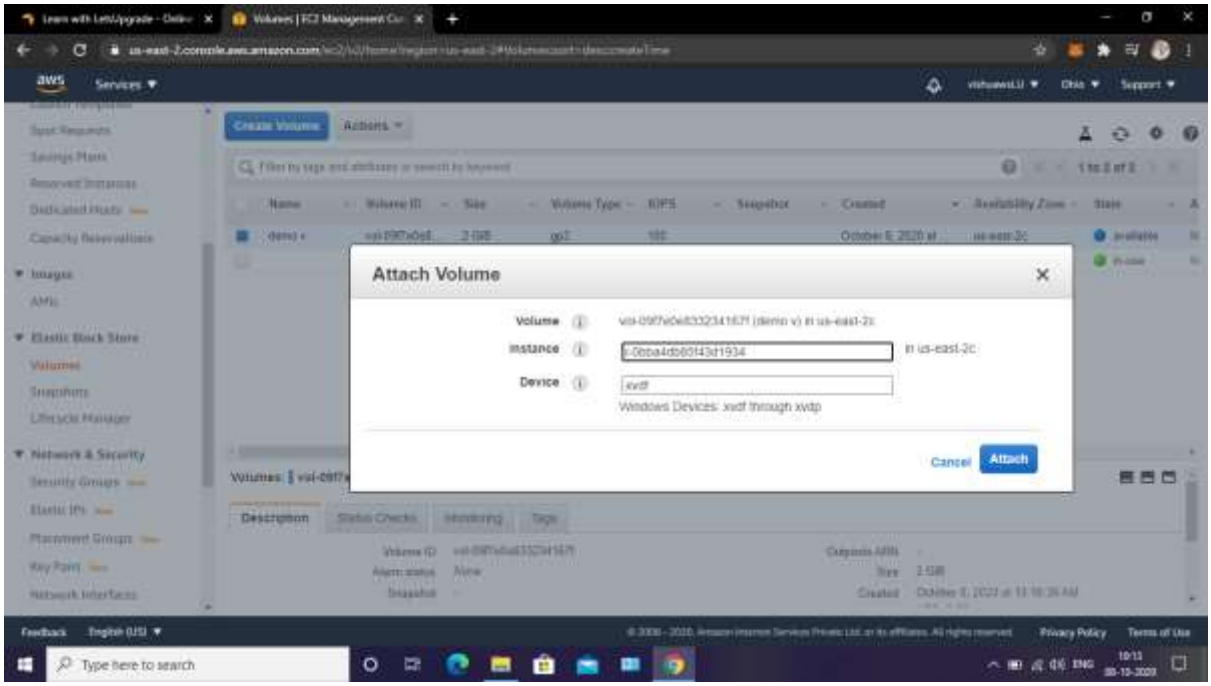




Volume Created:

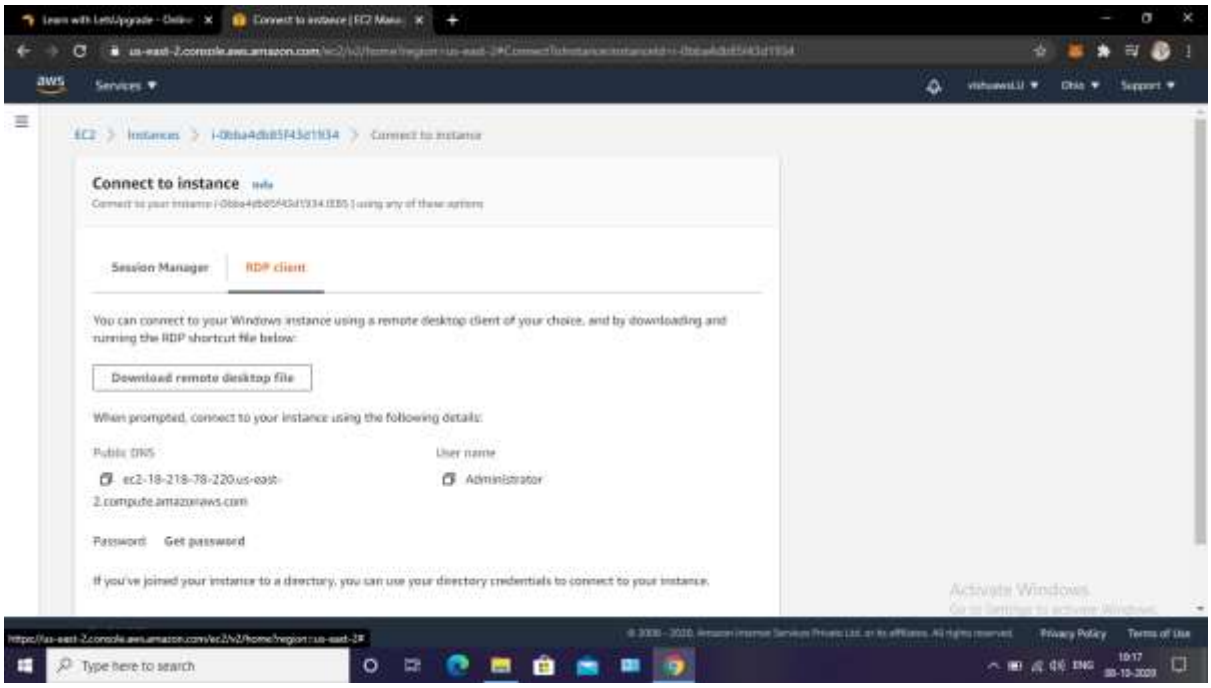


3.Attach the Volume to the Windows Machine:

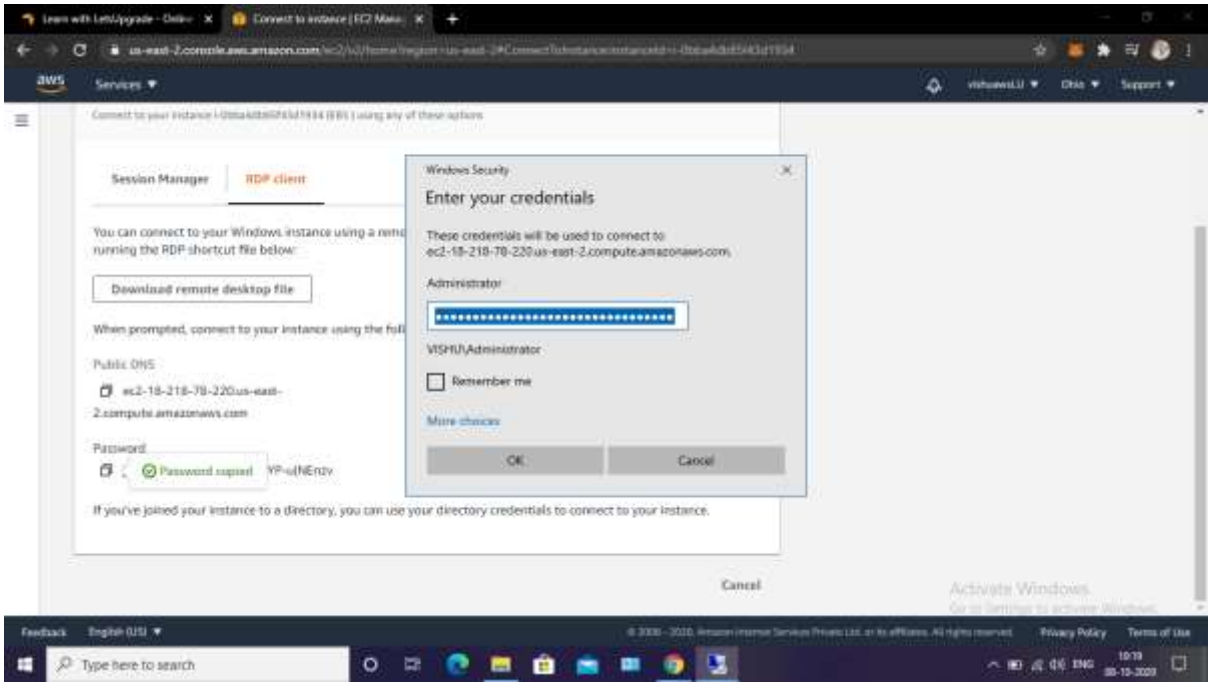


Launching the Server:

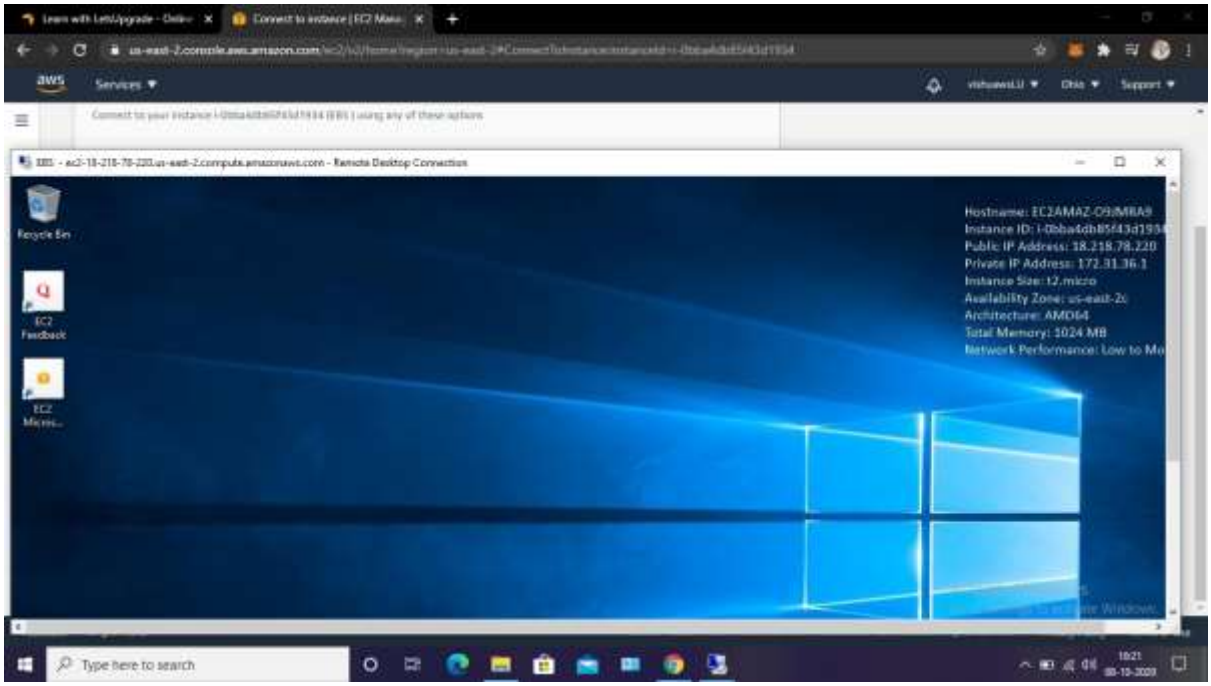
1.Download RDP file and Get Password:



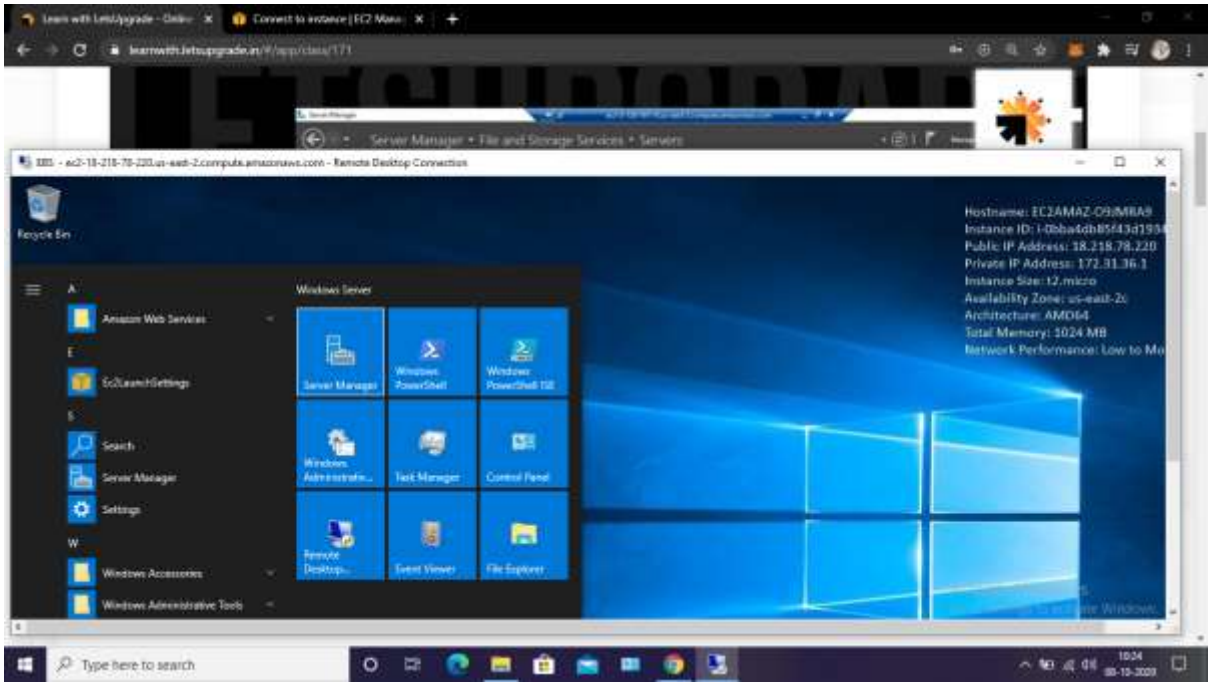
2.Connect RDP file With Using Get Password:

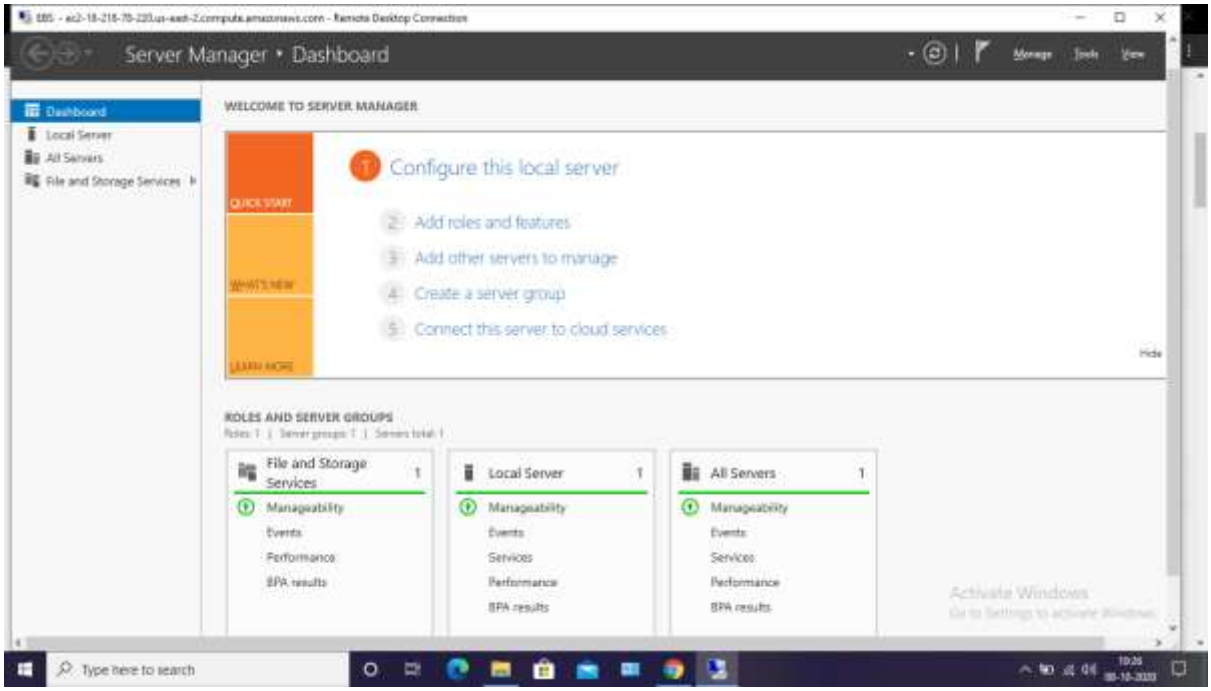


3.Open Virtual Machine Remote Desktop Connection:

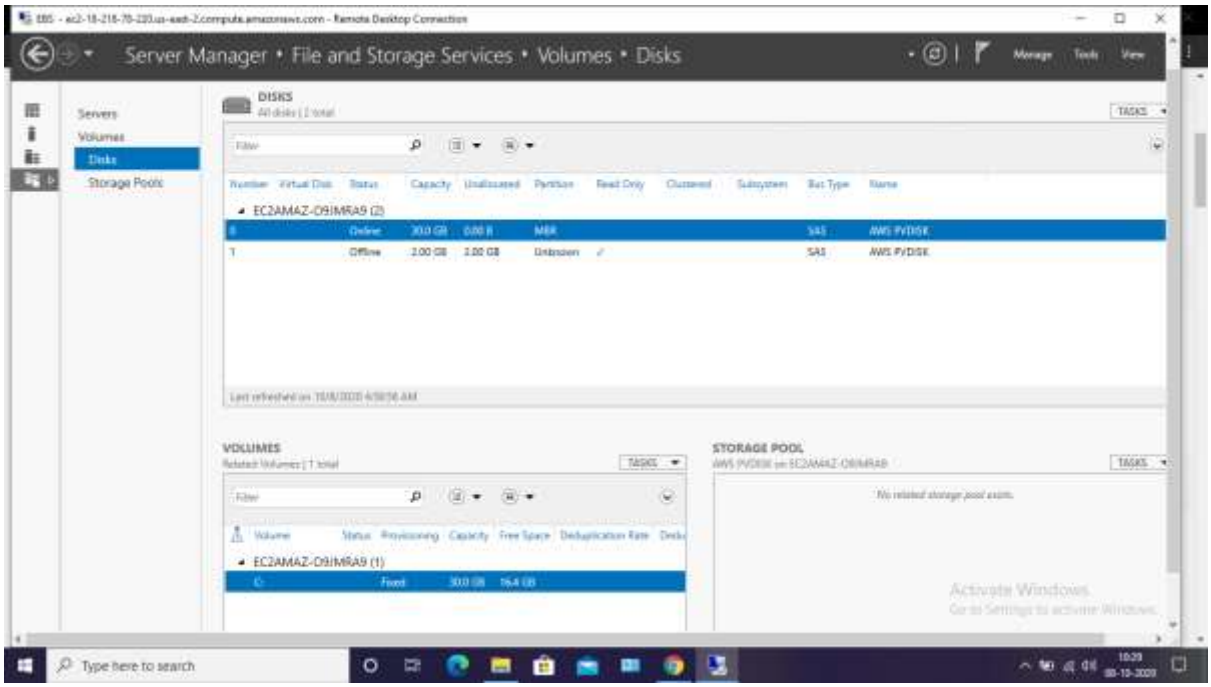


Open Server Manager:

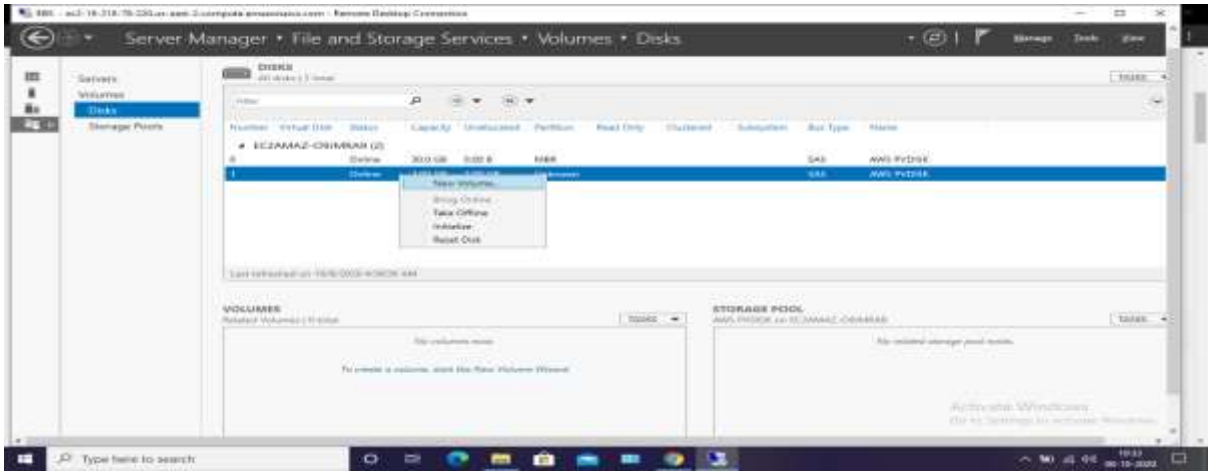


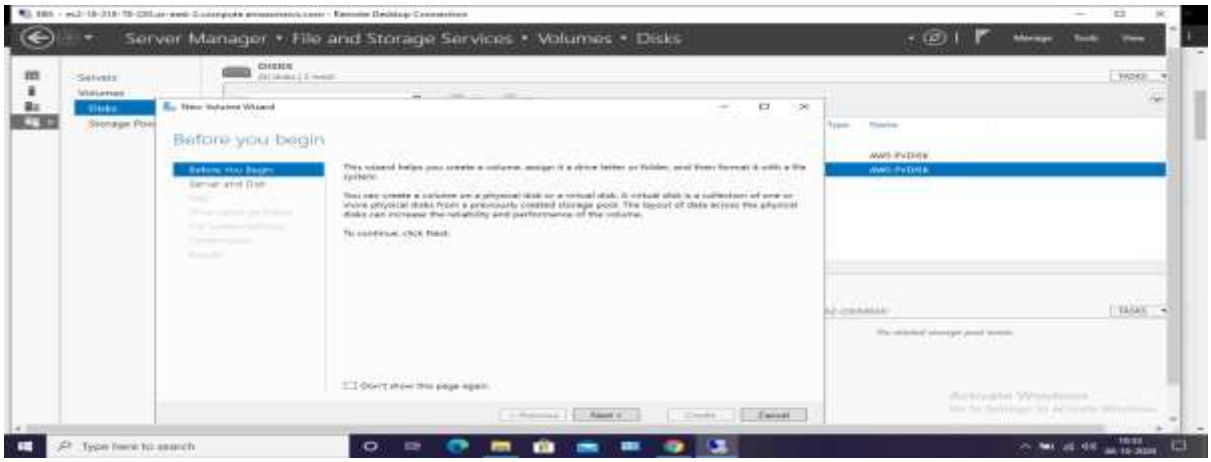


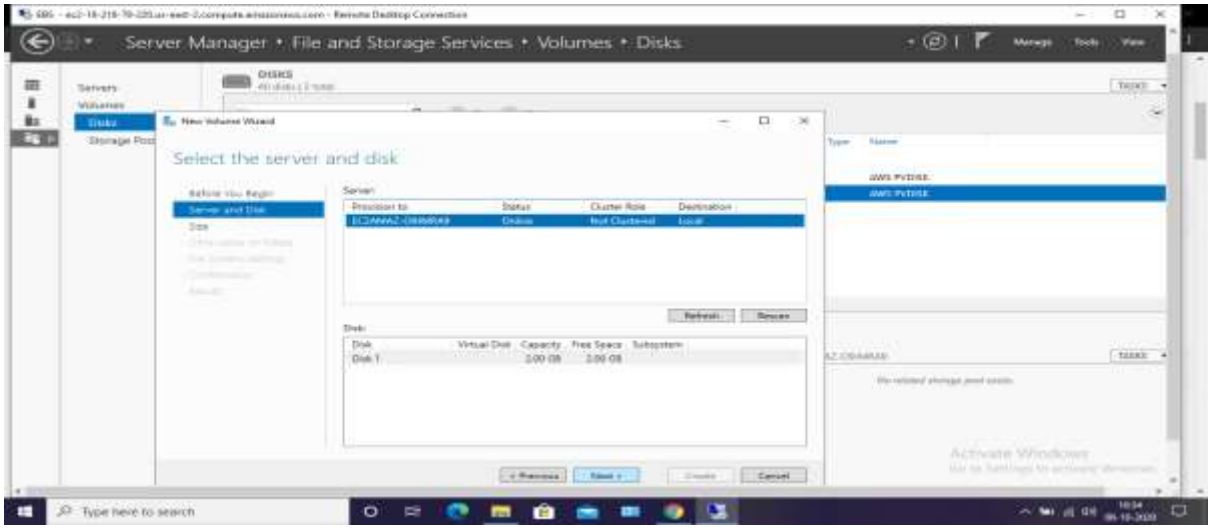
Open File and Storage Devices:

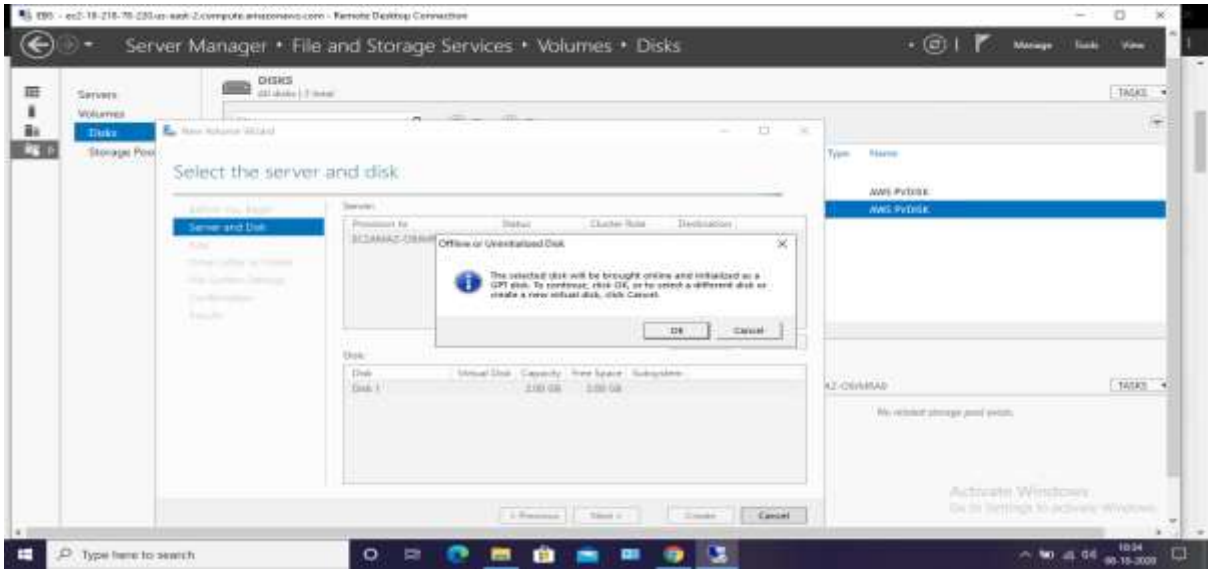


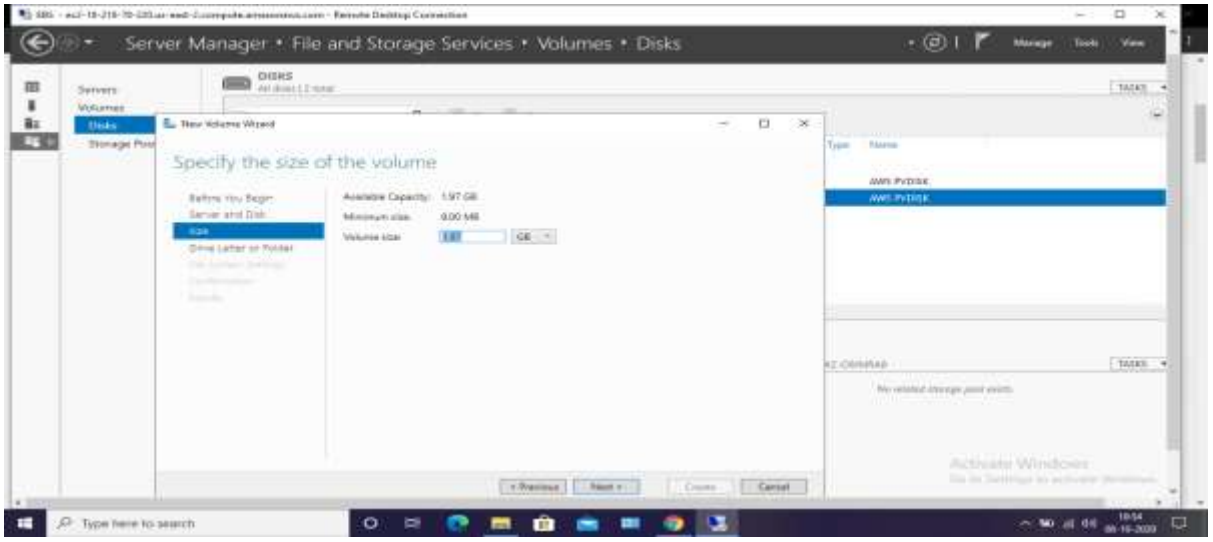
Select Volume and Bring Online:

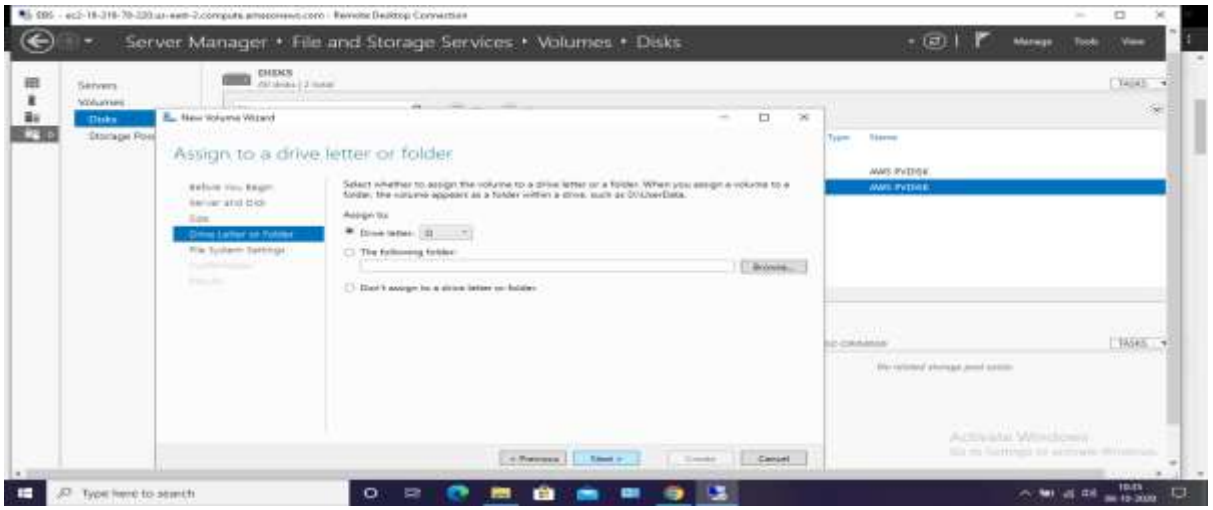


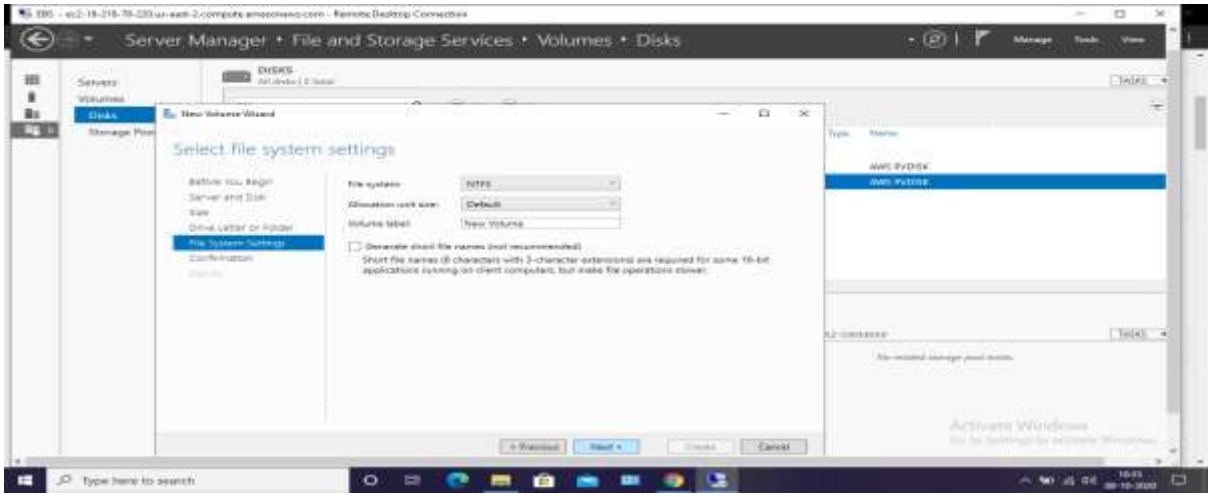


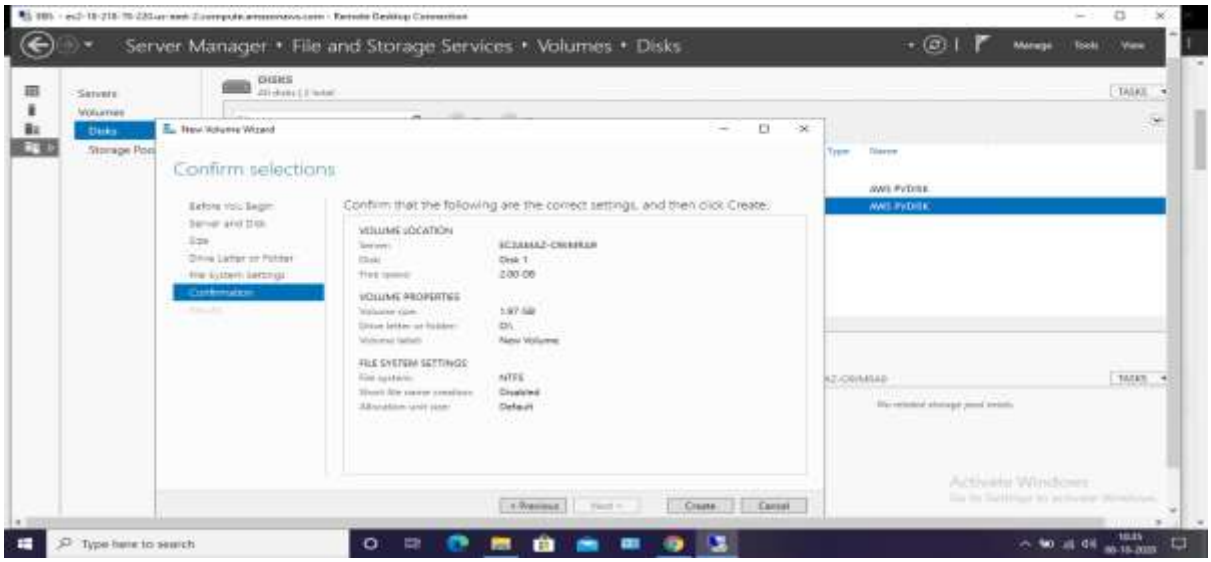


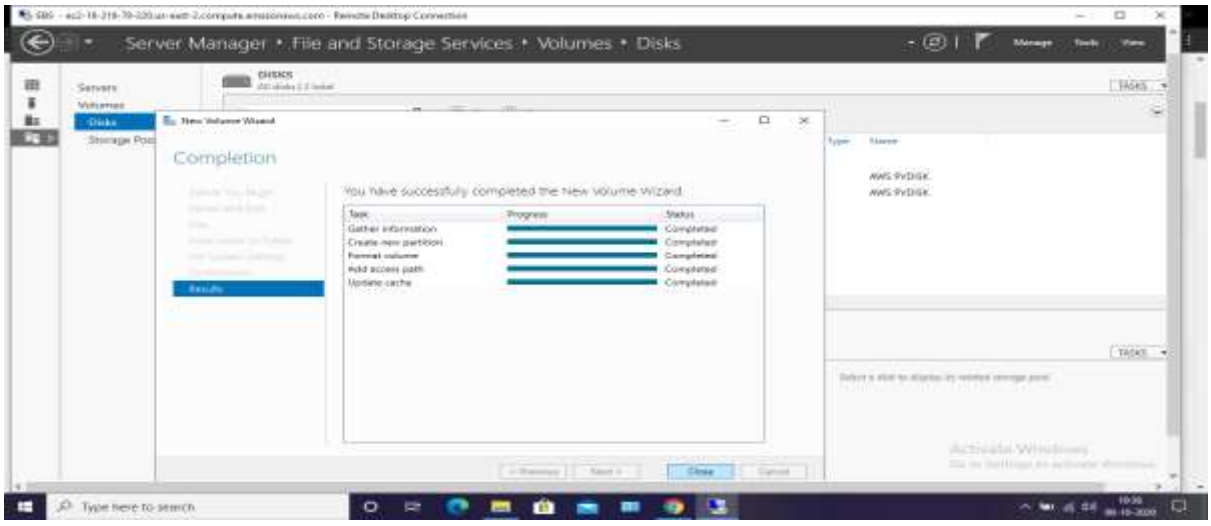

Server Manager • File and Storage Services • Volumes • Disks
Select the server and disk
Offline or Uninitialized Disk
OK
Cancel

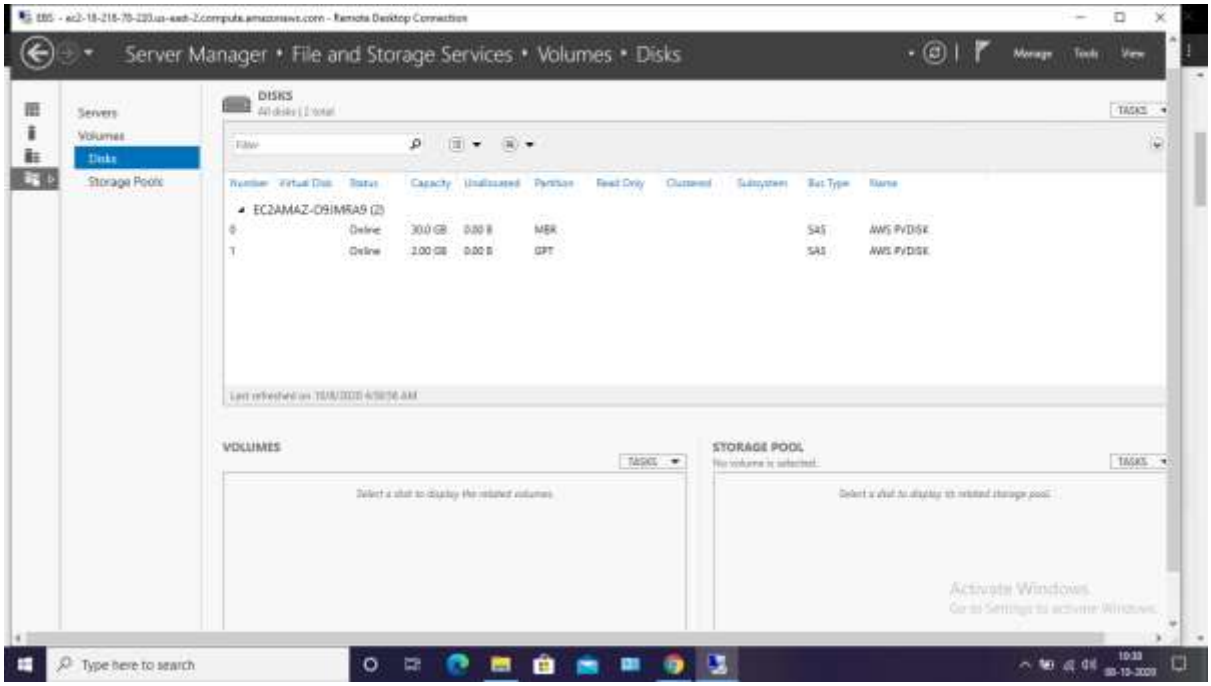

Server Manager • File and Storage Services • Volumes • Disks
New Volume Wizard
Specify the size of the volume


Server Manager • File and Storage Services • Volumes • Disks
New Volume Wizard
Assign to a drive letter or folder

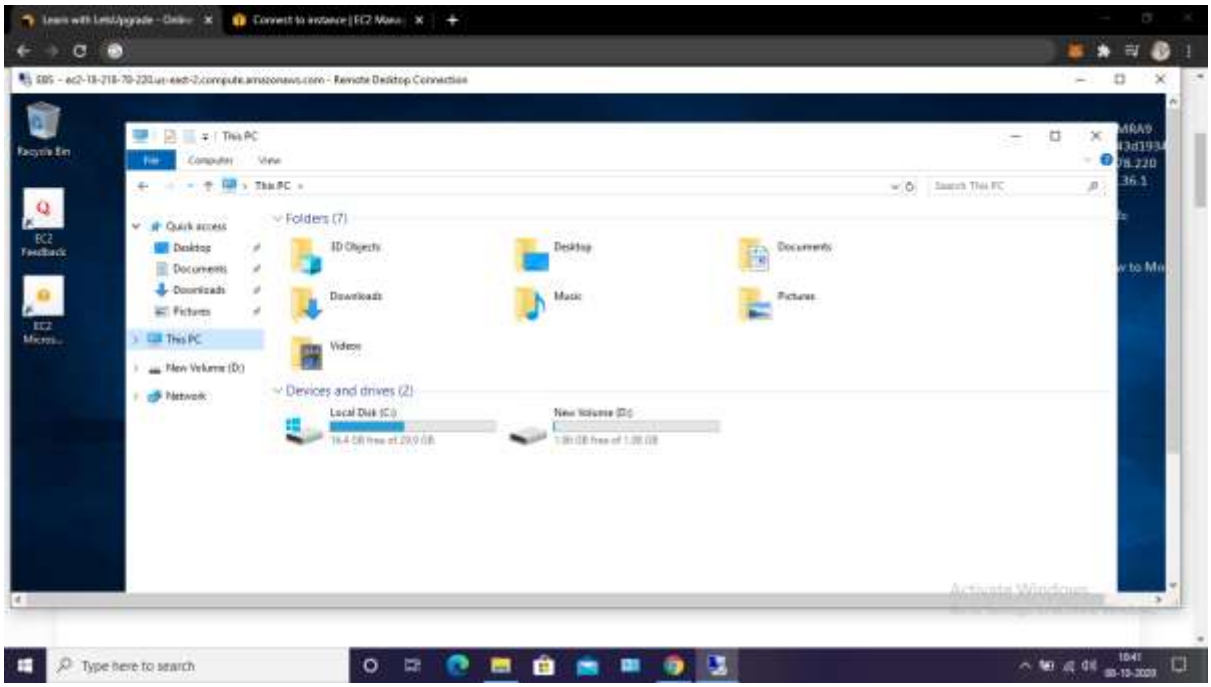

Server Manager • File and Storage Services • Volumes • Disks
Select file system settings
Type here to search


Server Manager • File and Storage Services • Volumes • Disks
Confirm selections
Confirm that the following are the correct settings, and then click Create.
Type here to search


Server Manager • File and Storage Services • Volumes • Disks
Completion
You have successfully completed the New Volume Wizard.
Type here to search



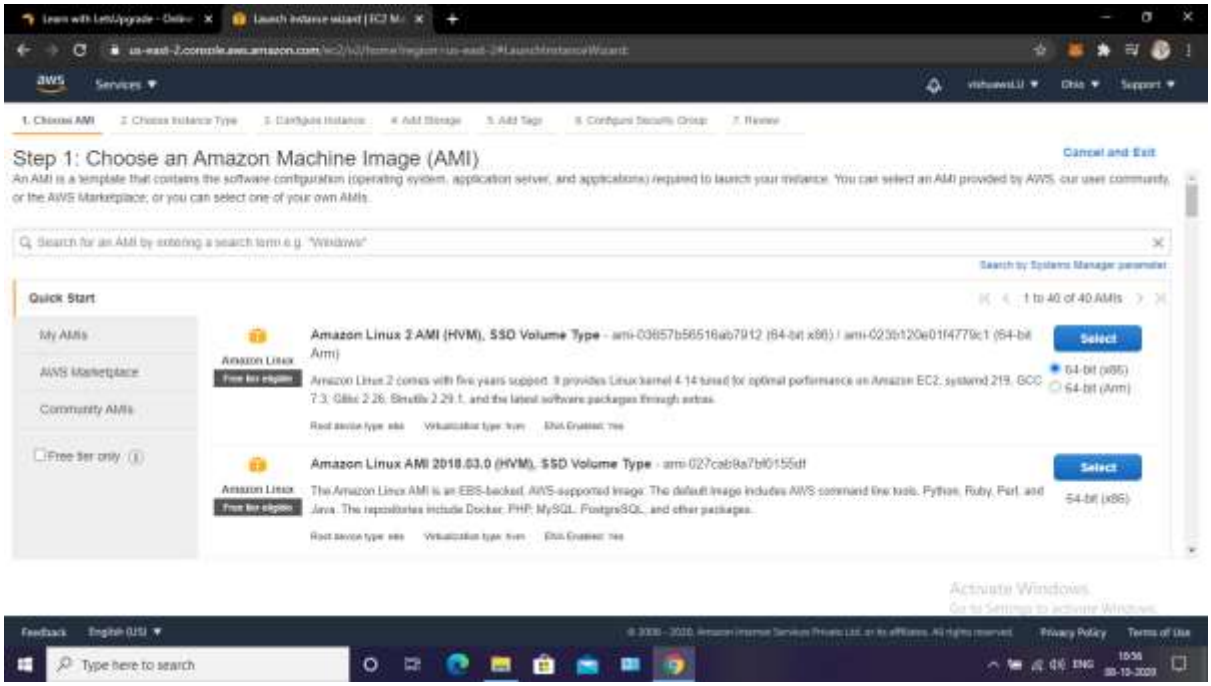
Verify New Volume:



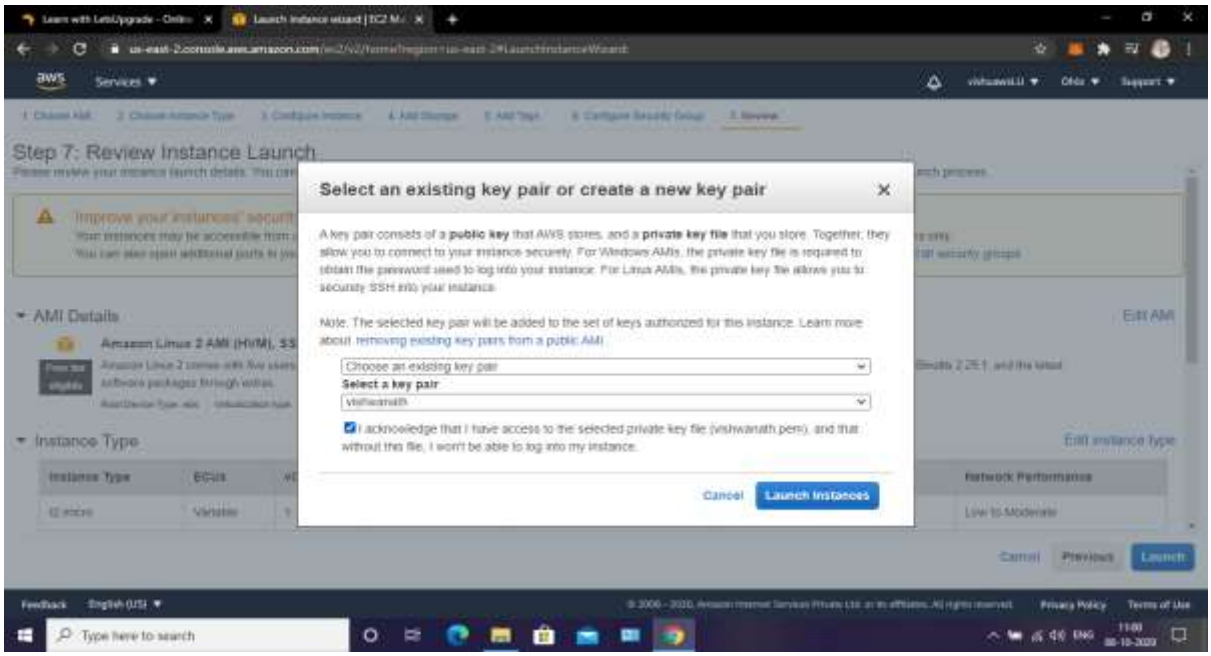
PROJECT 4:

4. Working with Elastic IP's.

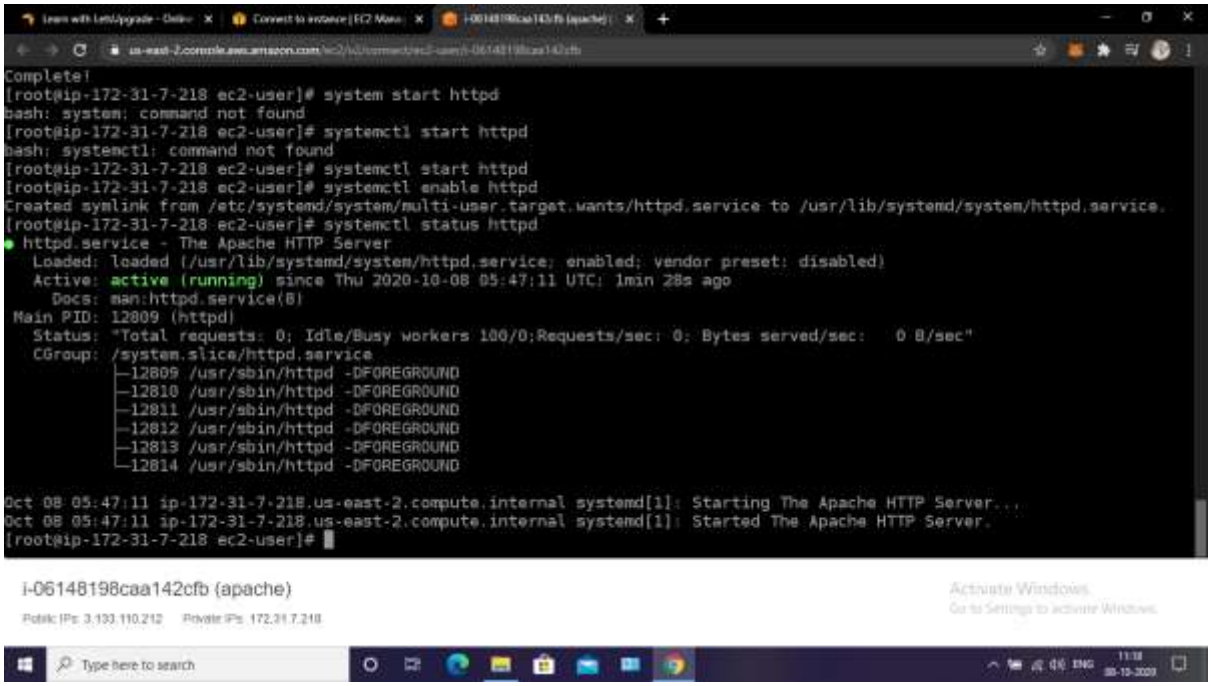
1.Install a Linux Instance (Apache Server):



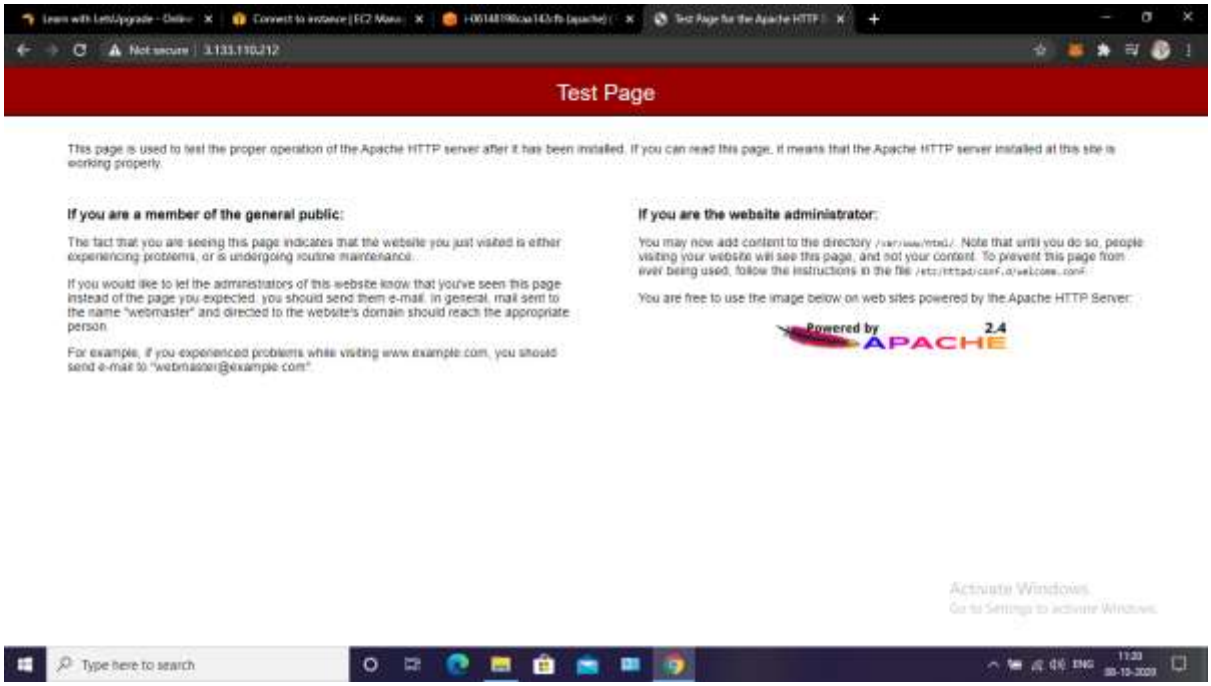
2.Select Keypair and Launch Instance:



3.Check Web Server is Active (Running):

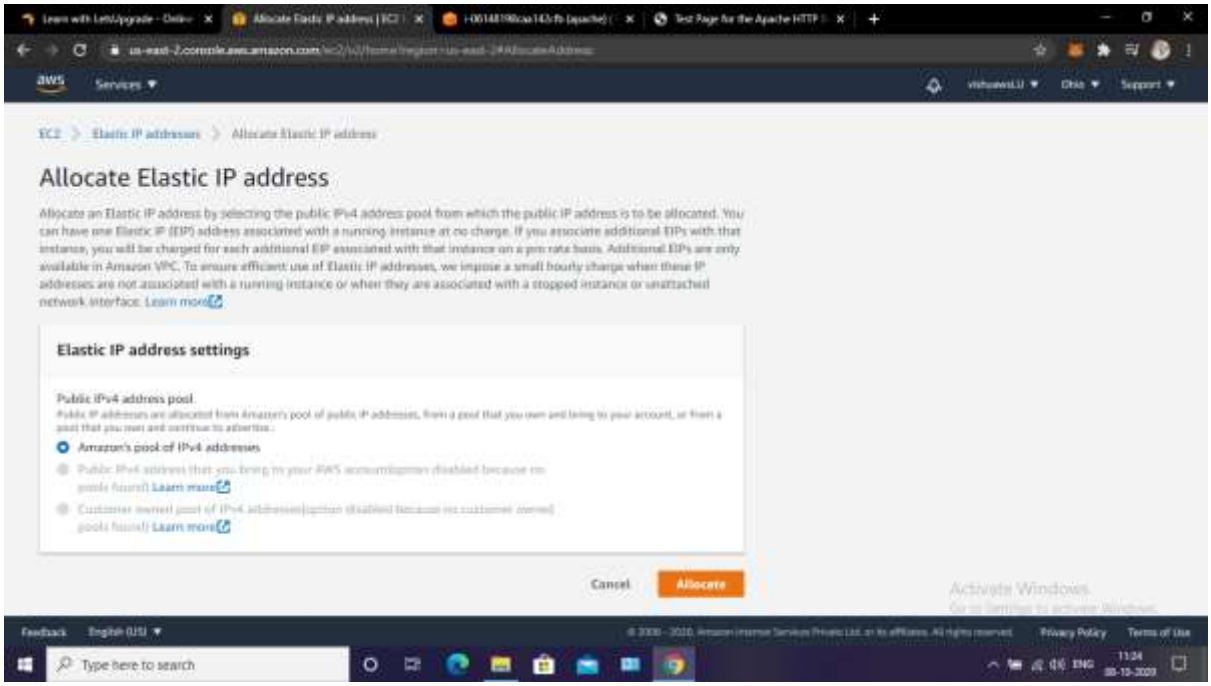


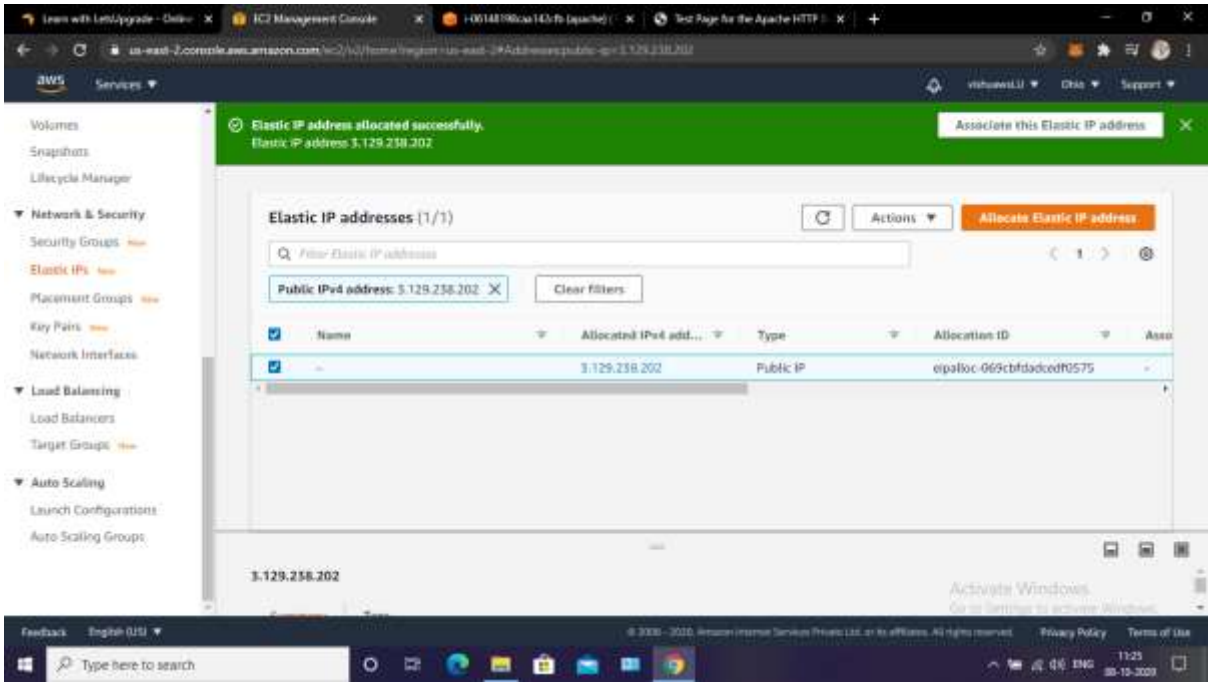
4.After Check Apache Test Page:

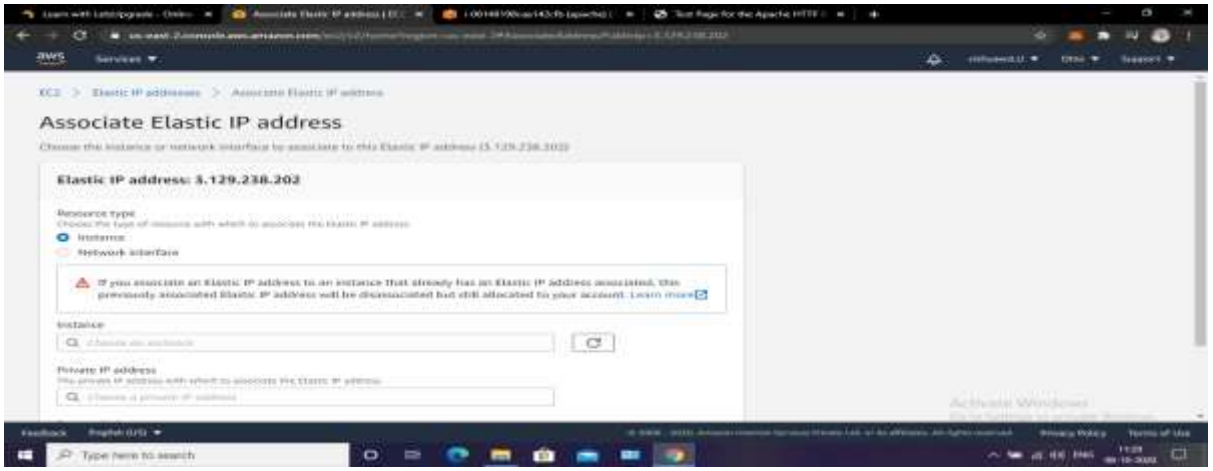


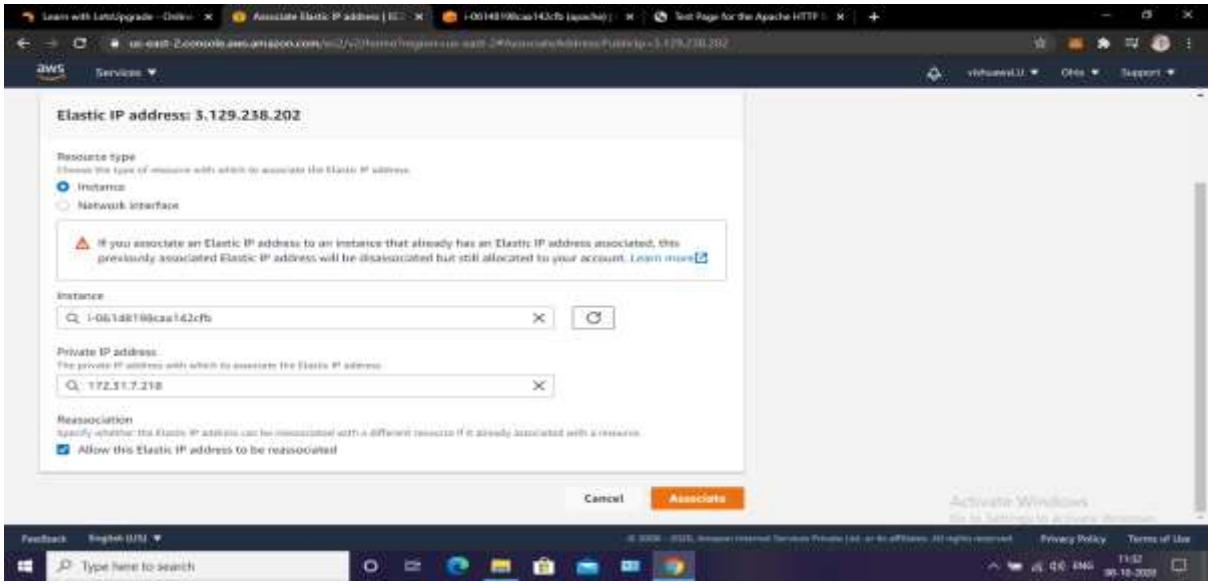
Elastic IP’s

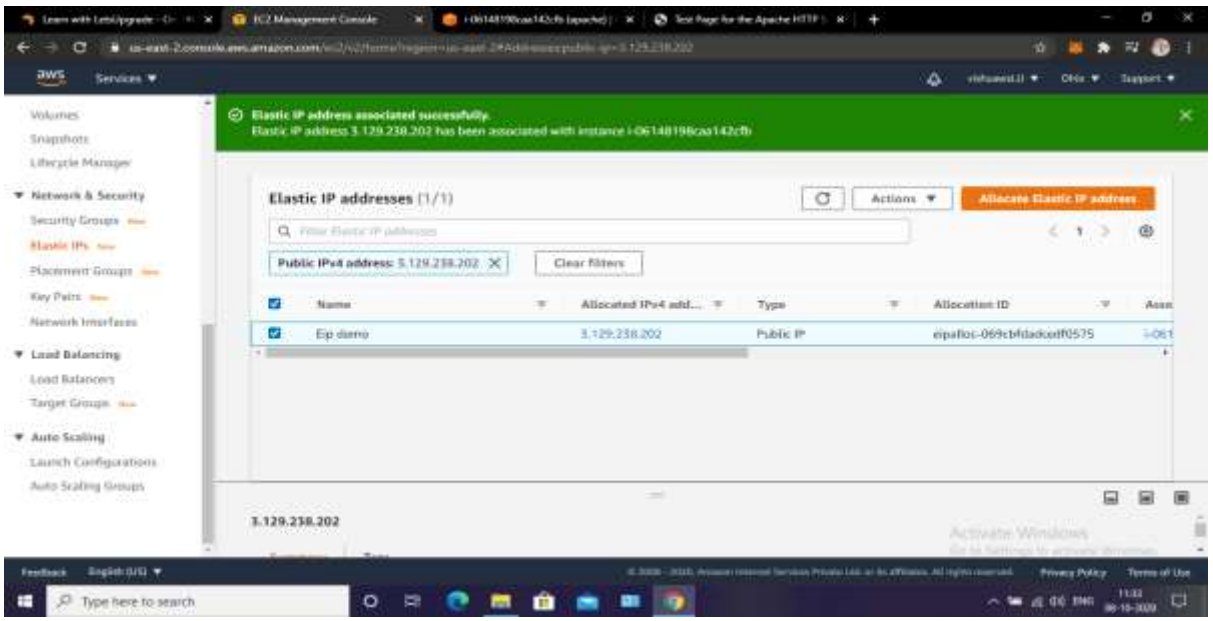
Allocate Elastic IP Address:



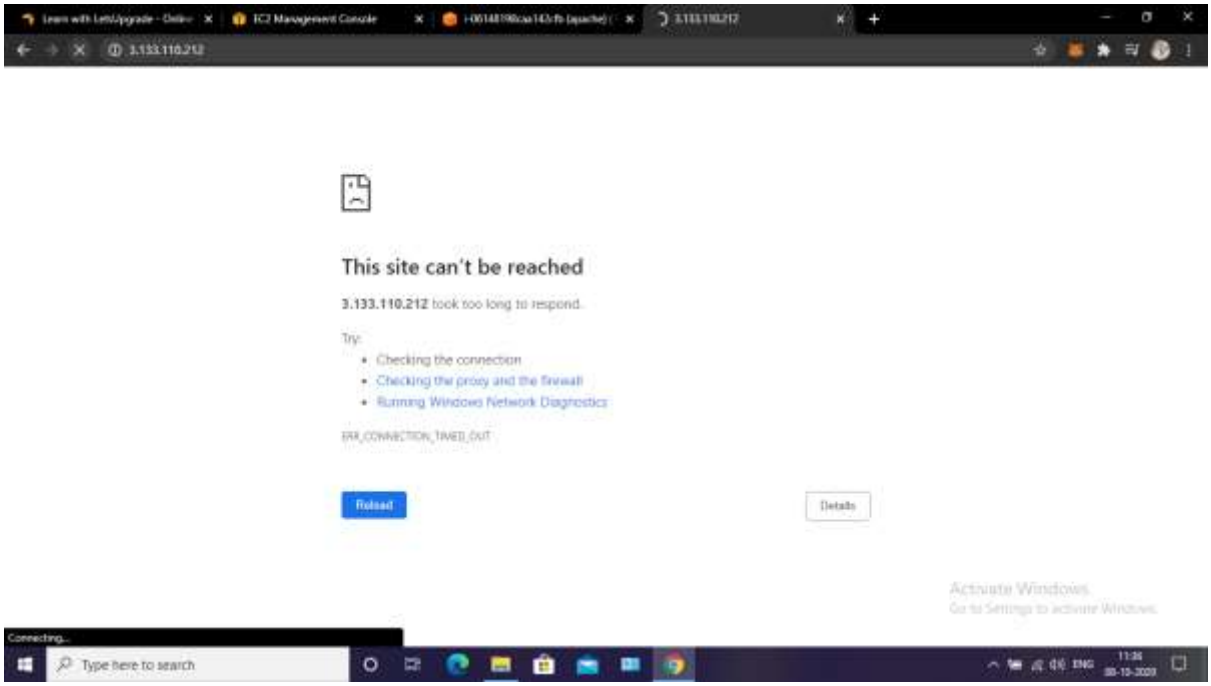



Associate Elastic IP address
Elastic IP address: 3.129.238.202
Resource type
Instance
Network interface
If you associate an Elastic IP address to an instance that already has an Elastic IP address associated, this previously associated Elastic IP address will be disassociated but still allocated to your account. Learn more
Instance
Private IP address

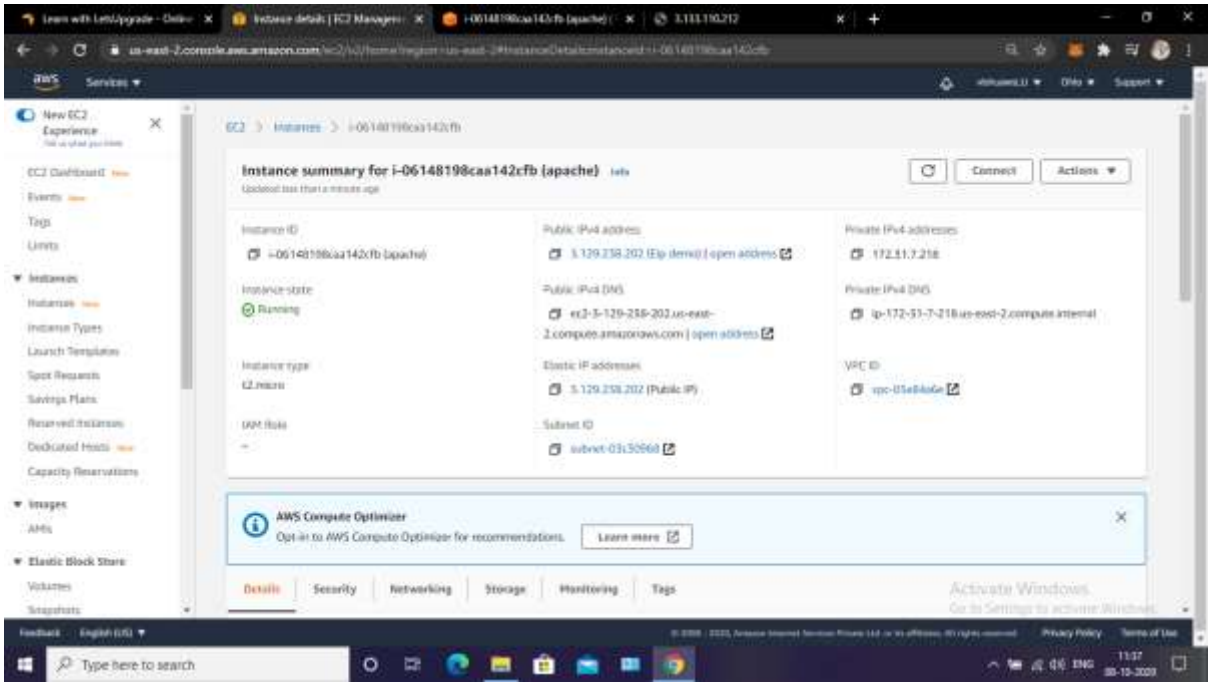

Elastic IP address: 3.129.238.202
Resource type
Instance
Network interface
If you associate an Elastic IP address to an instance that already has an Elastic IP address associated, this previously associated Elastic IP address will be disassociated but still allocated to your account. Learn more
Instance
i-06148198caa142cfb
Private IP address
172.31.7.218
Reassociation
Allow this Elastic IP address to be reassociated
Cancel
Associate


Elastic IP address associated successfully.
Elastic IP address 3.129.238.202 has been associated with instance i-06148198caa142cfb
Elastic IP addresses (1/1)
Actions
Allocate Elastic IP address
Public IPv4 address: 3.129.238.202
Clear filters
Name
Allocated IPv4 add...
Type
Allocation ID
Eip demo
3.129.238.202
Public IP
eipalloc-069cbfdadcedf0575
3.129.238.202

After Allocation of Elastic IP:

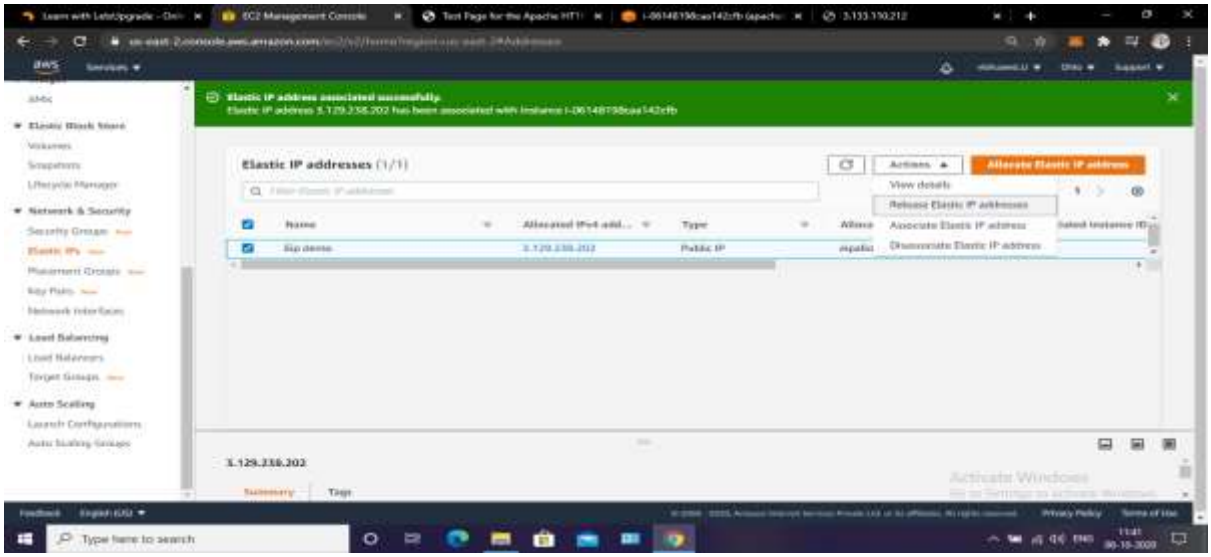


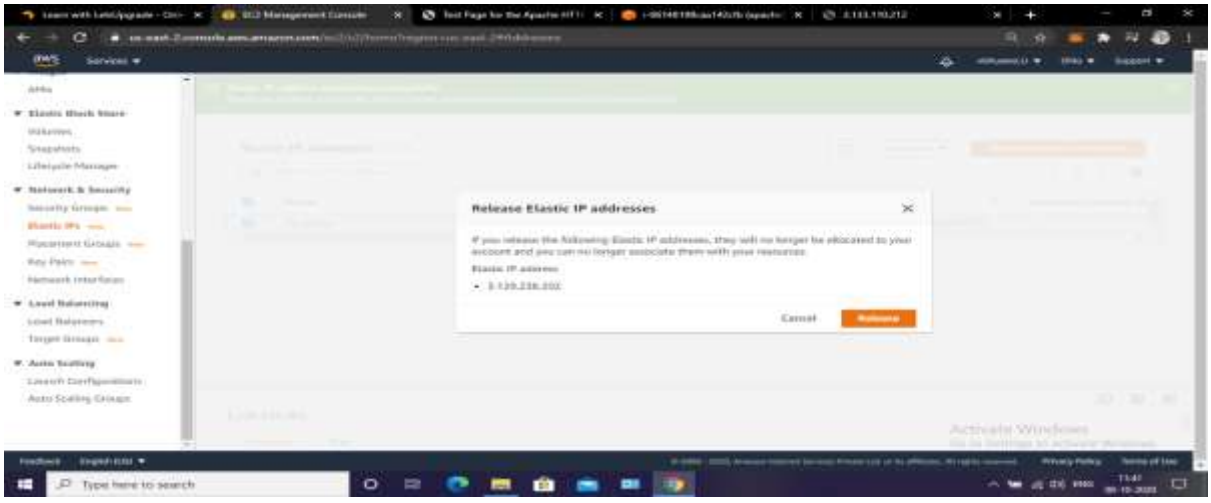
Change the IP Address:



Apache Server Page:

Release Elastic Ip Address:

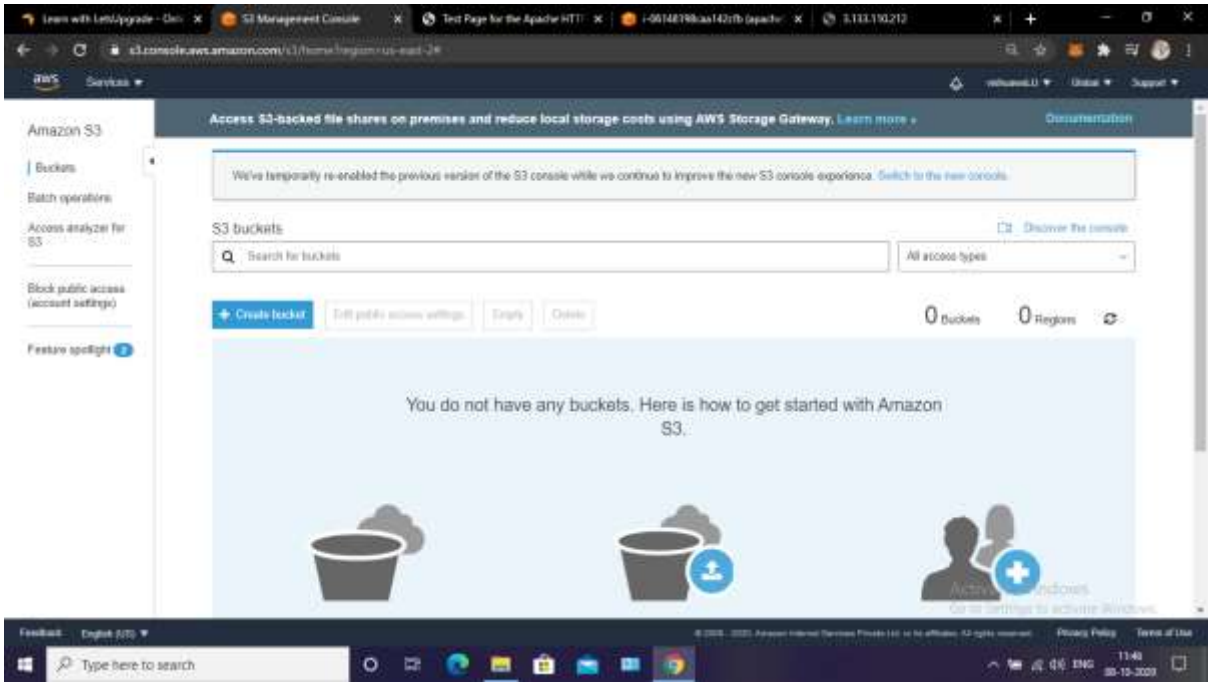




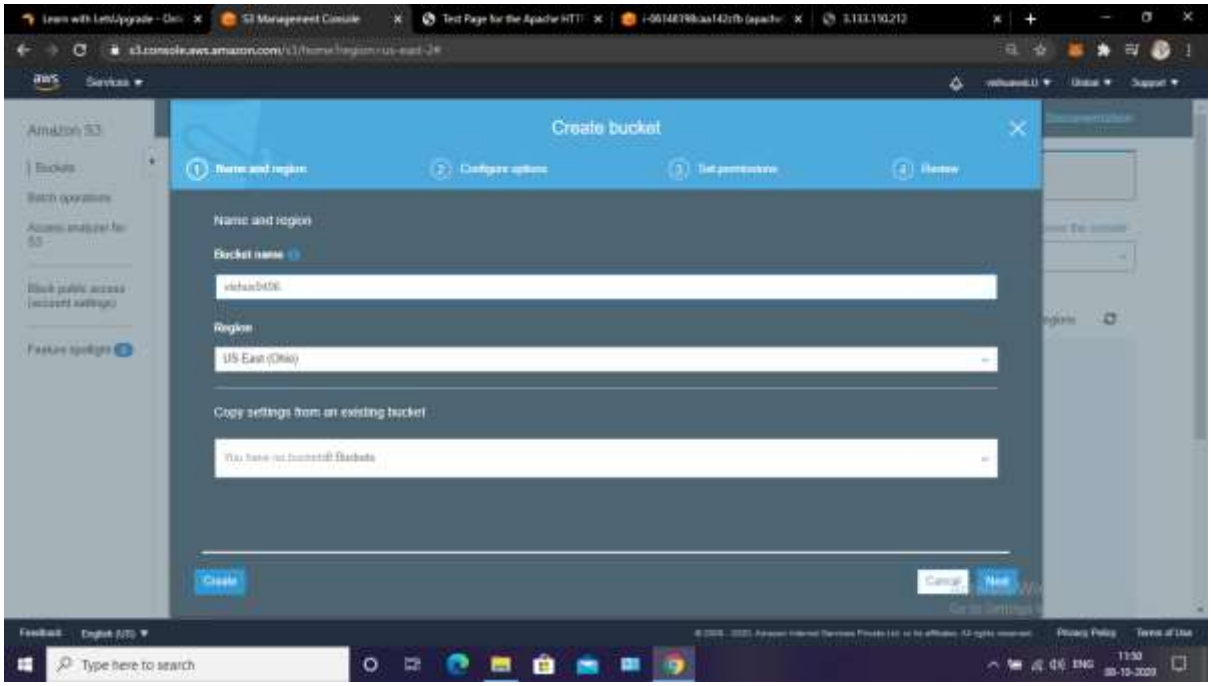
PROJECT 5:

5.Working with S3:

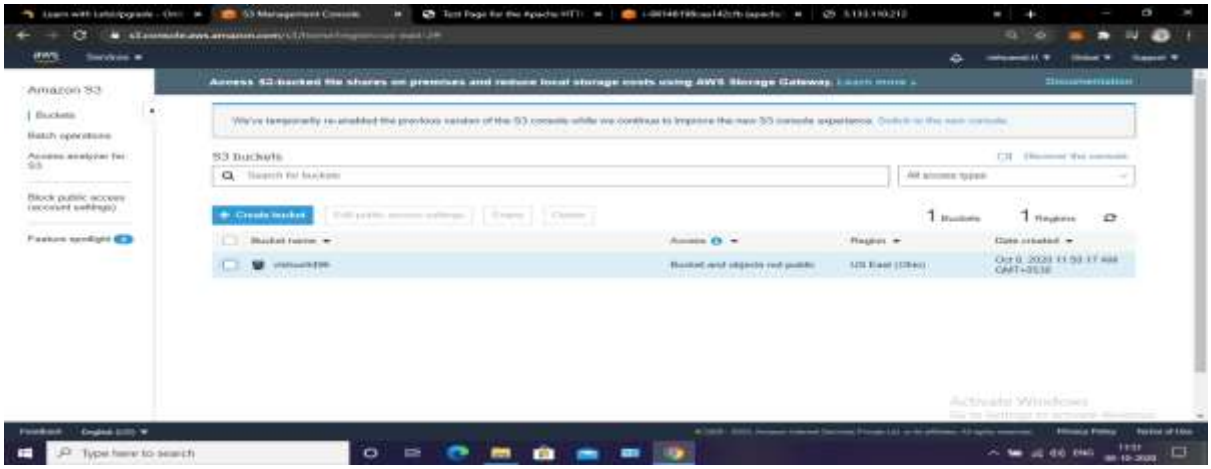
1.Open Amazon S3:



2.Create Bucket:

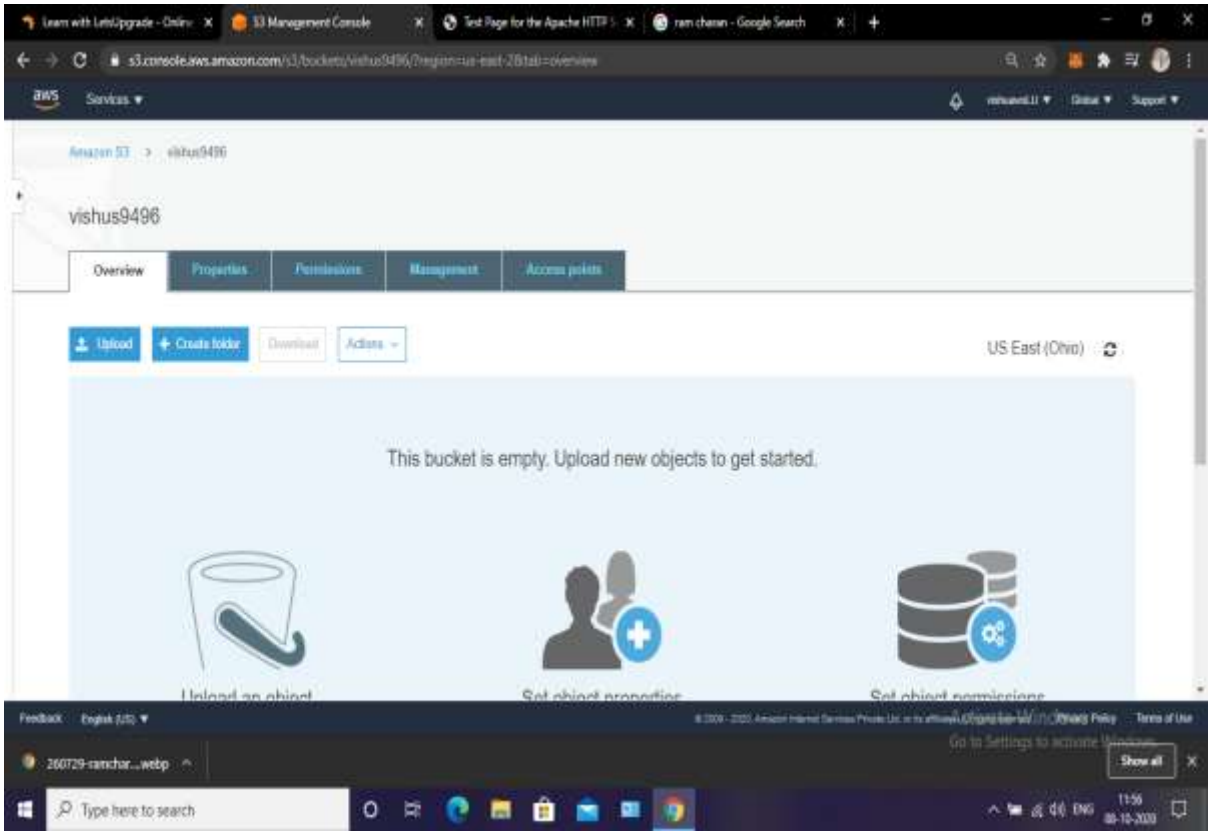


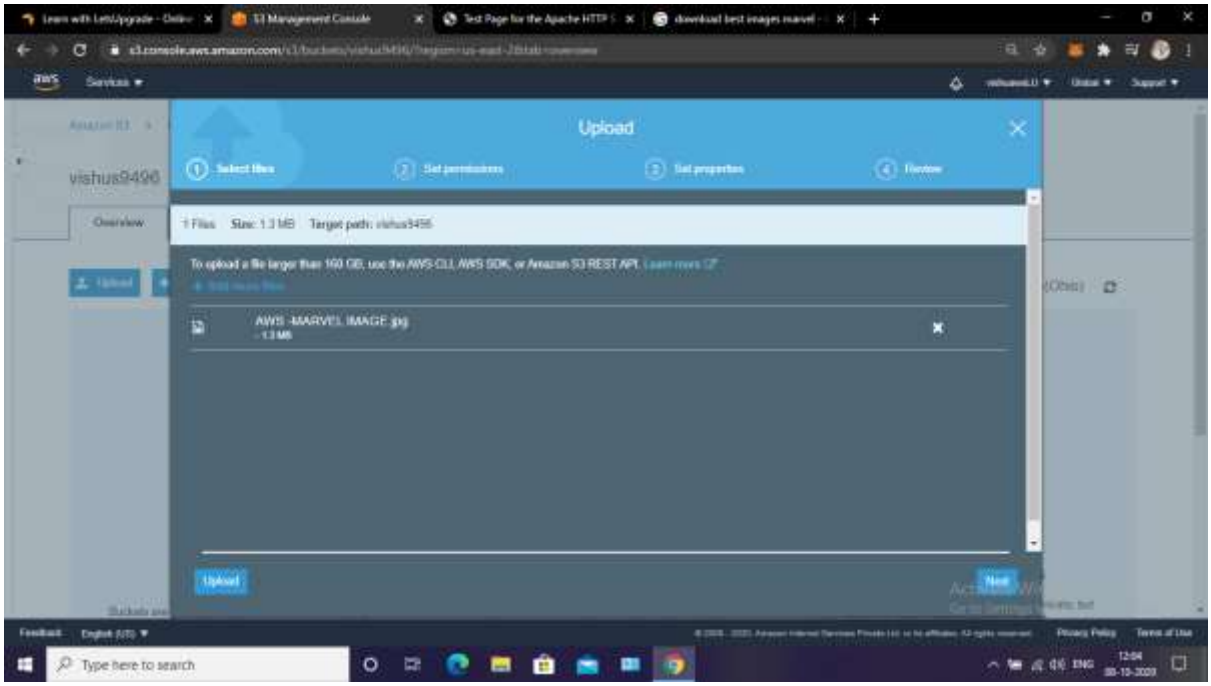
3.Bucket Created:

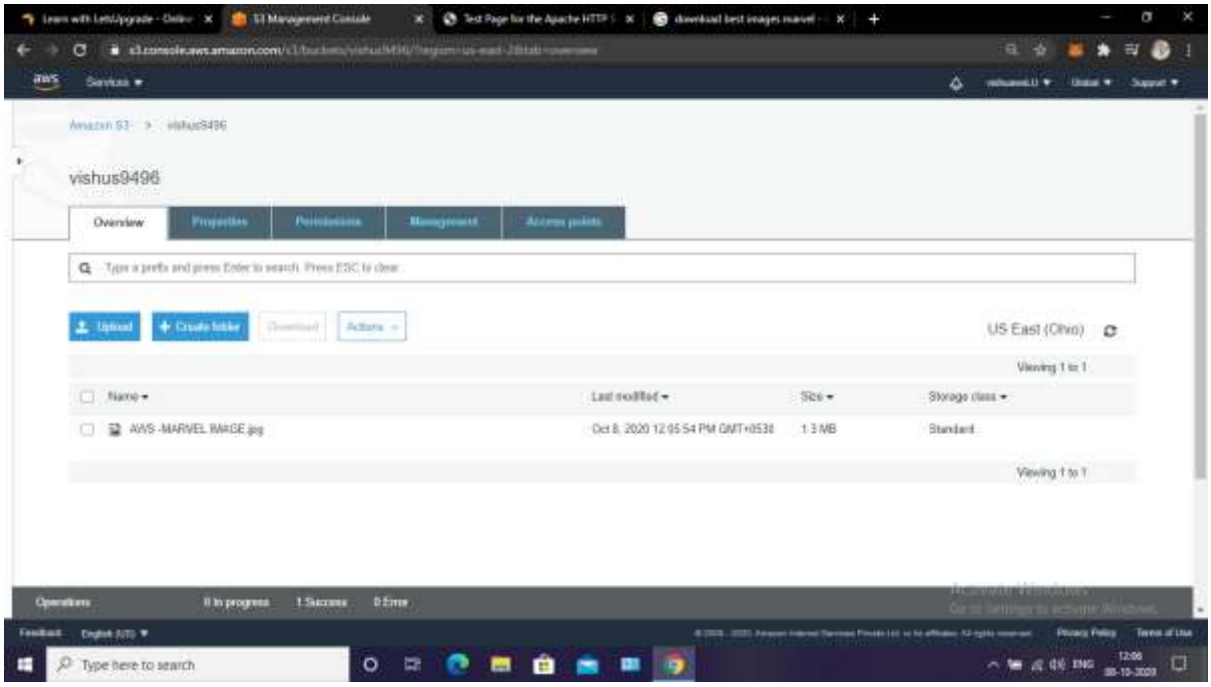


A.Working with S3-jpg:

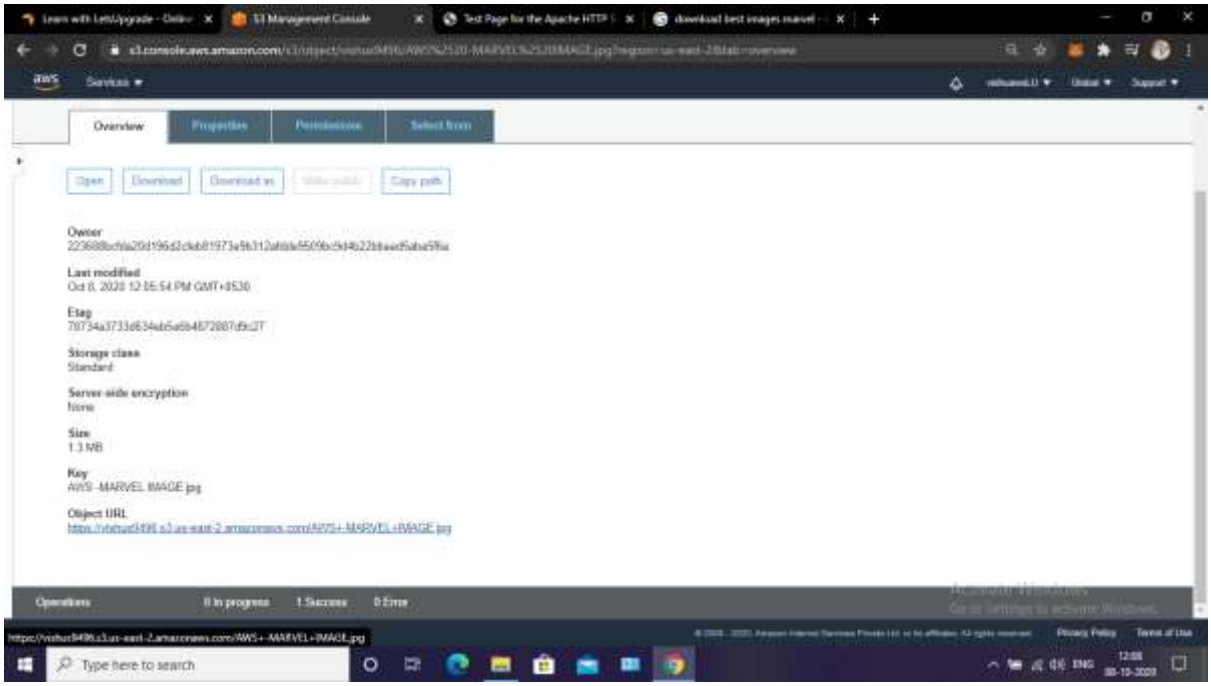
1.Upload jpg File:

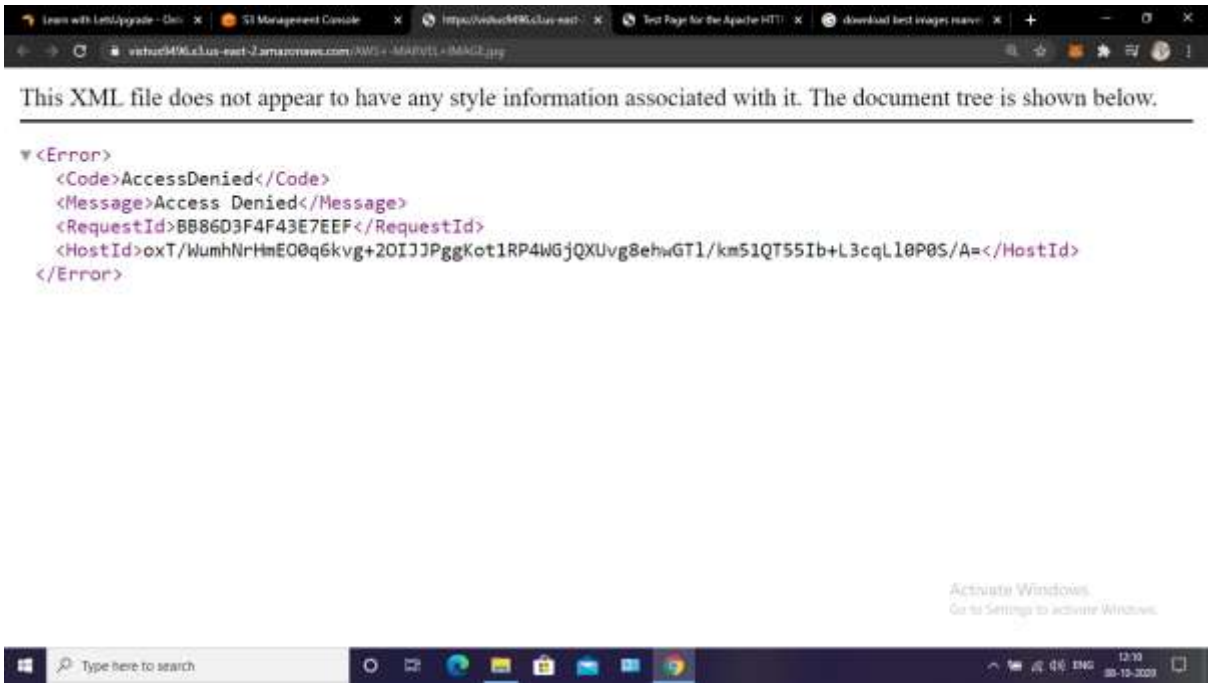



Upload
vishus9496
AWS -MARVEL IMAGE.jpg
Upload
Next
Type here to search

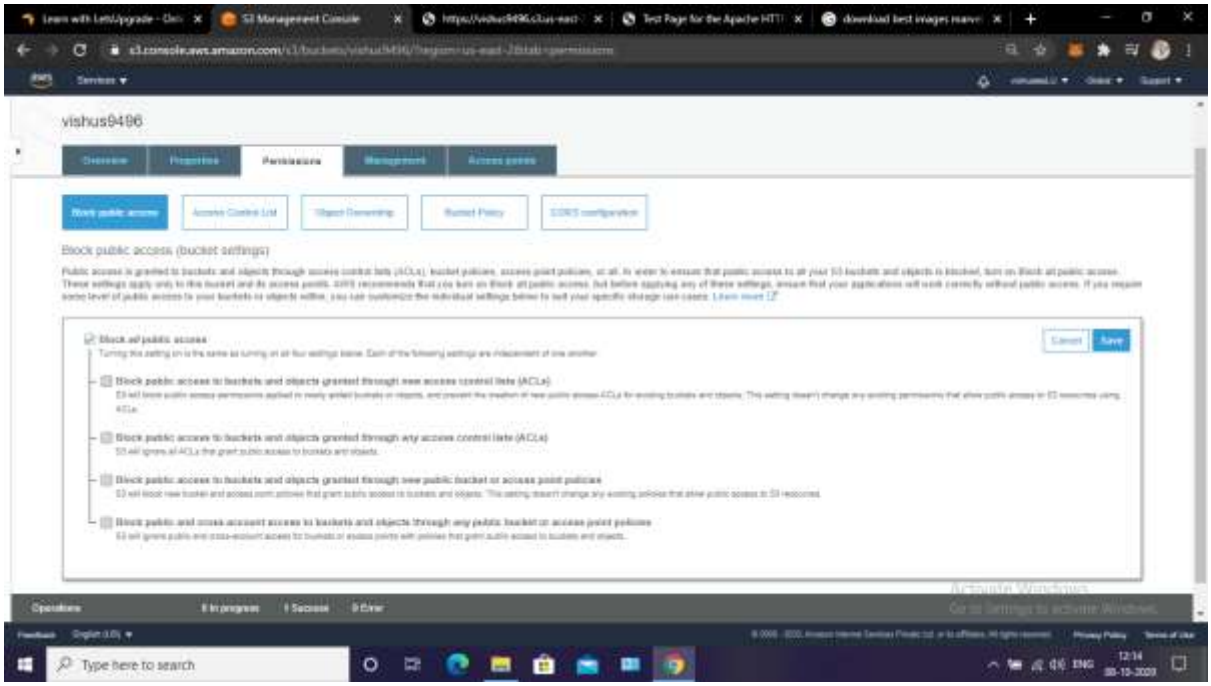

vishus9496
Overview
Upload
Create folder
US East (Ohio)
Name
Last modified
Size
Storage class
AWS -MARVEL IMAGE.jpg
Oct 8, 2020 12:05:54 PM GMT+0530
1.3 MB
Standard
Operations
0 In progress
1 Success
0 Error
Type here to search

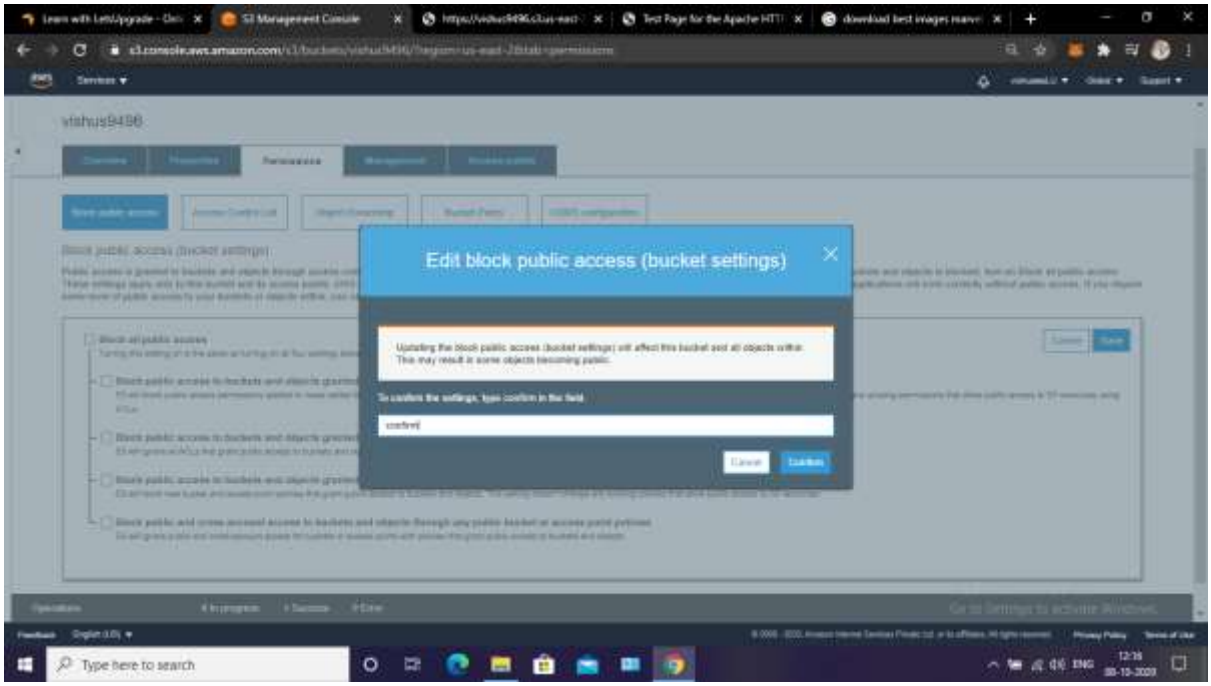
2.Copy URL and Paste it Browser It Shows Access Denied:



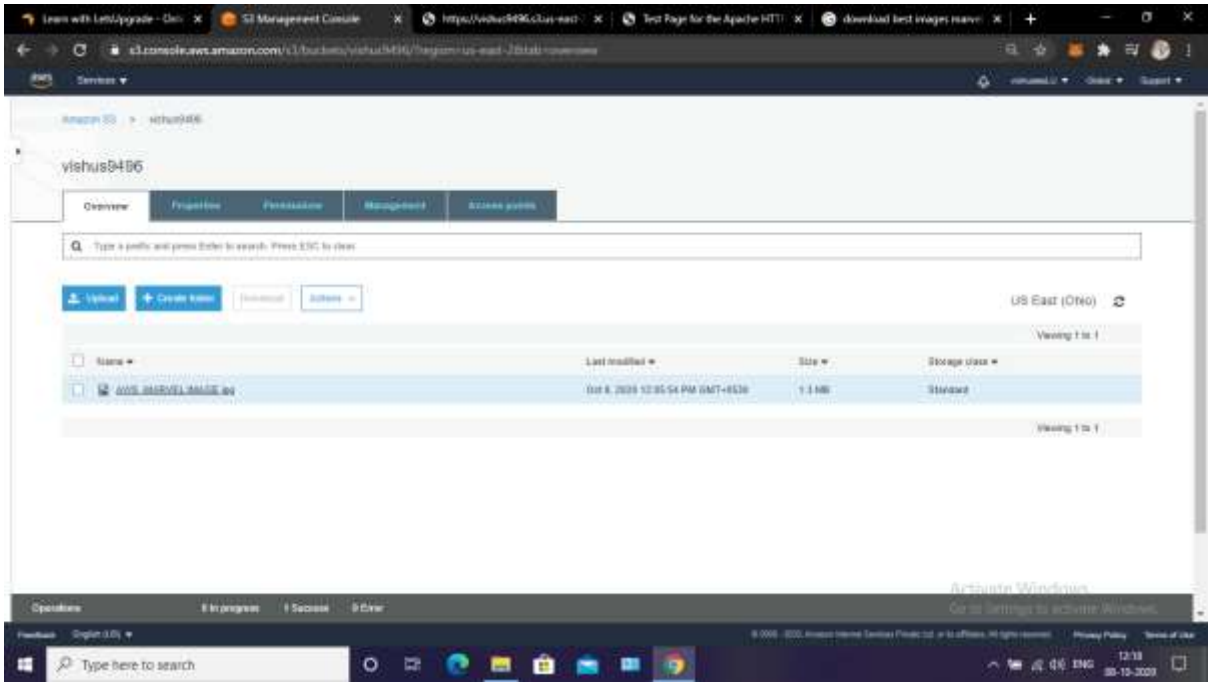


3.Edit Permissions and Confirm:





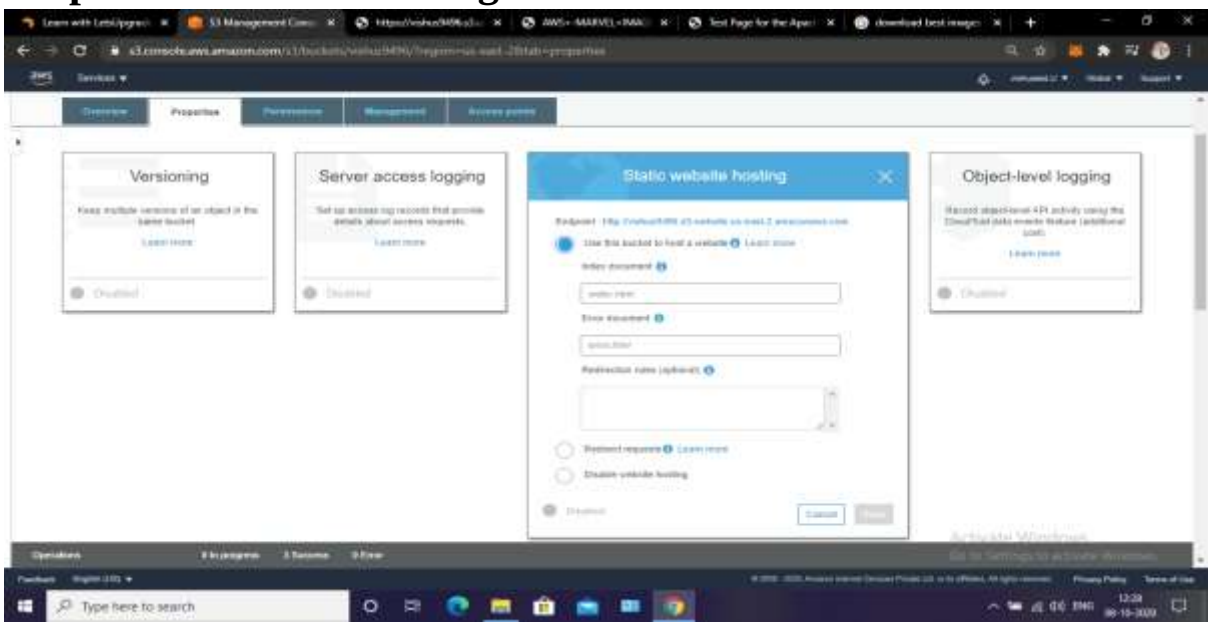
4.Our jpg Make Public



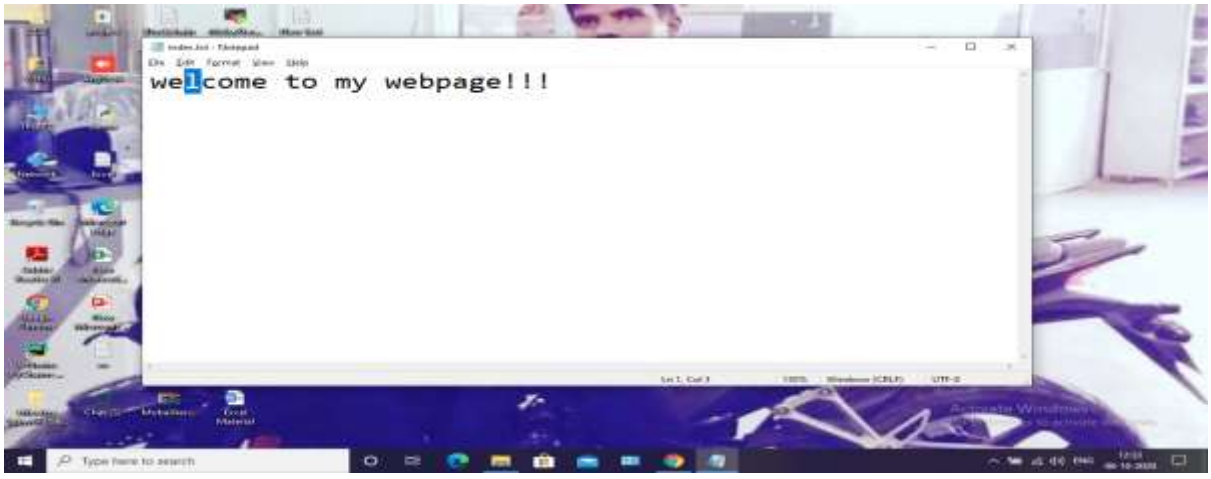
5.Now Verify Your jpg:

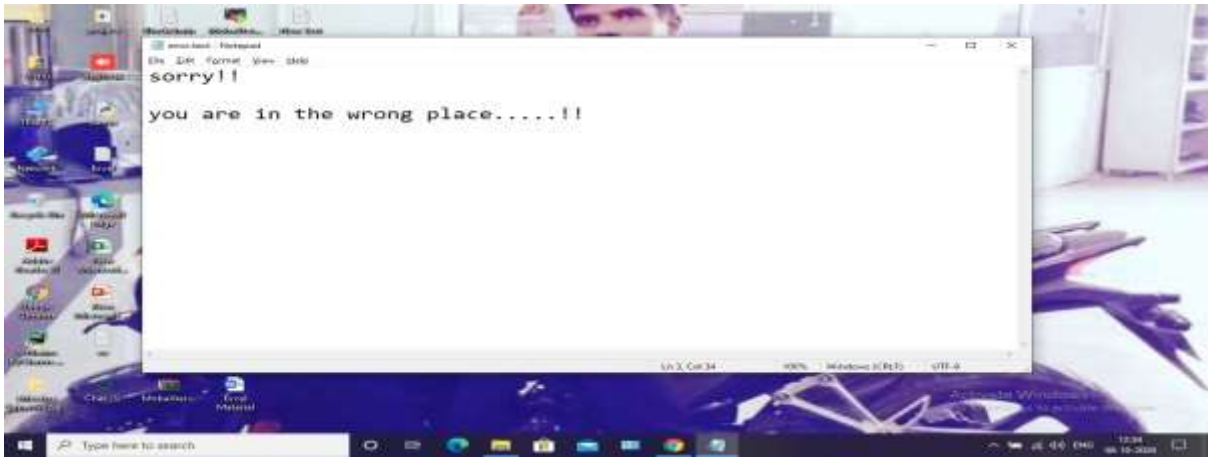
B. Working with Static Web Hosting:

1.Open Static Web Hosting:

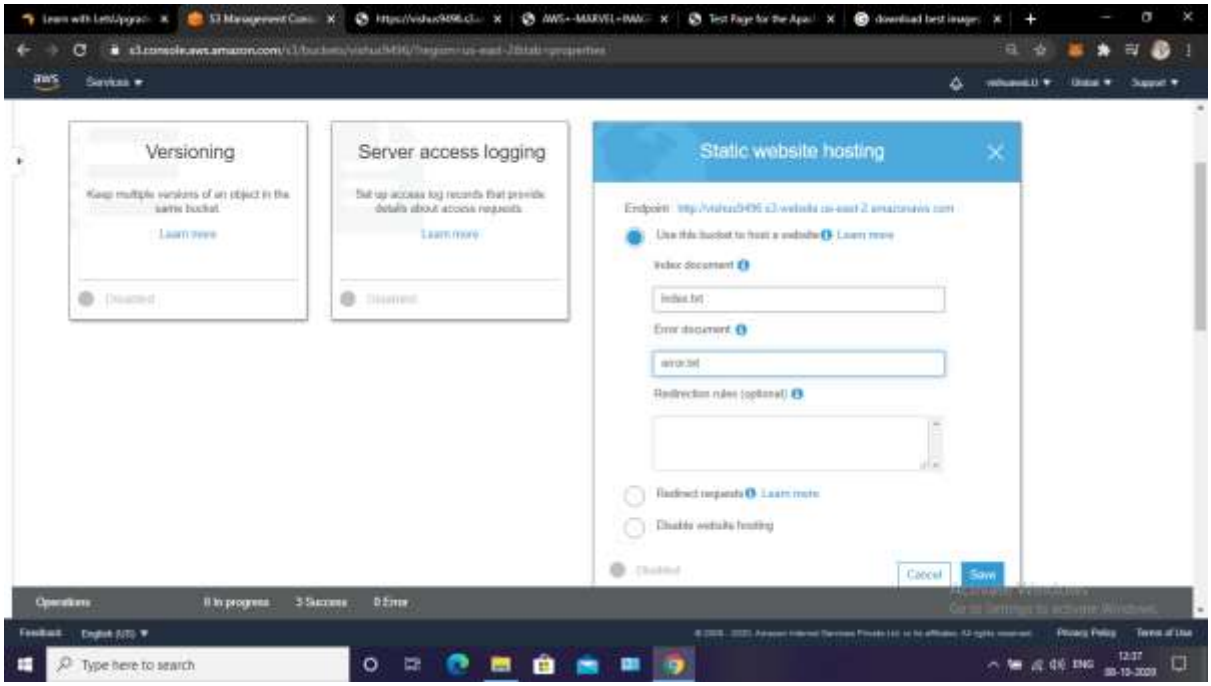


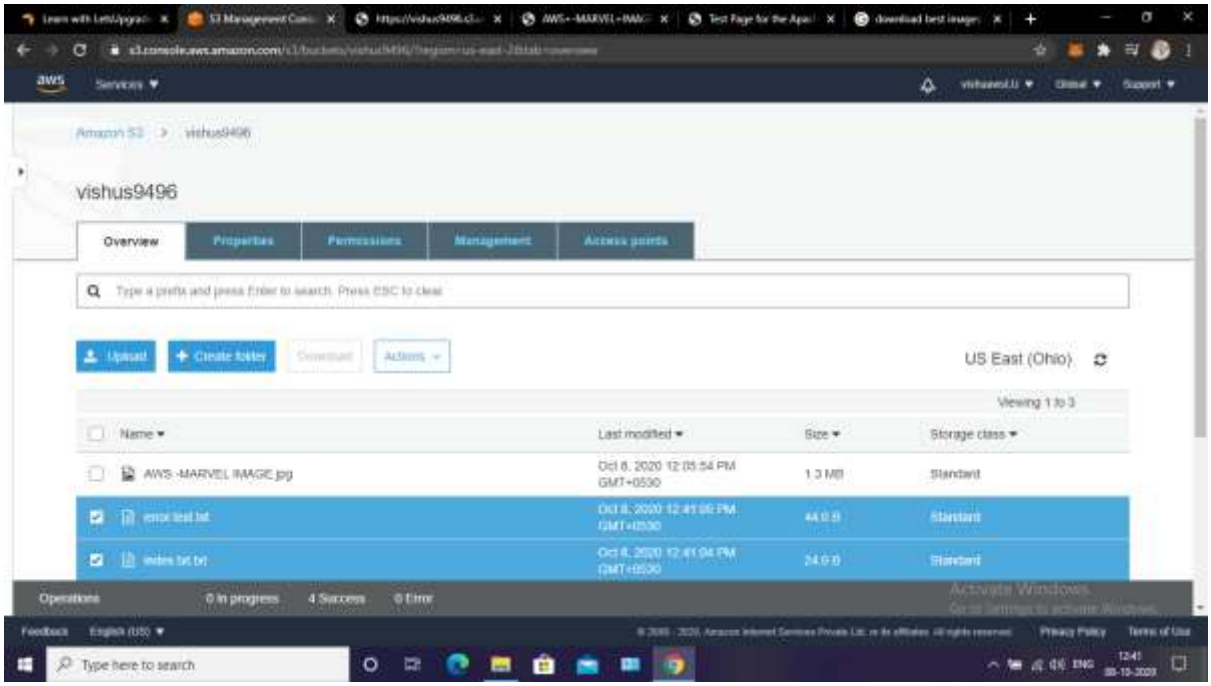
2.Create Two Text Files:



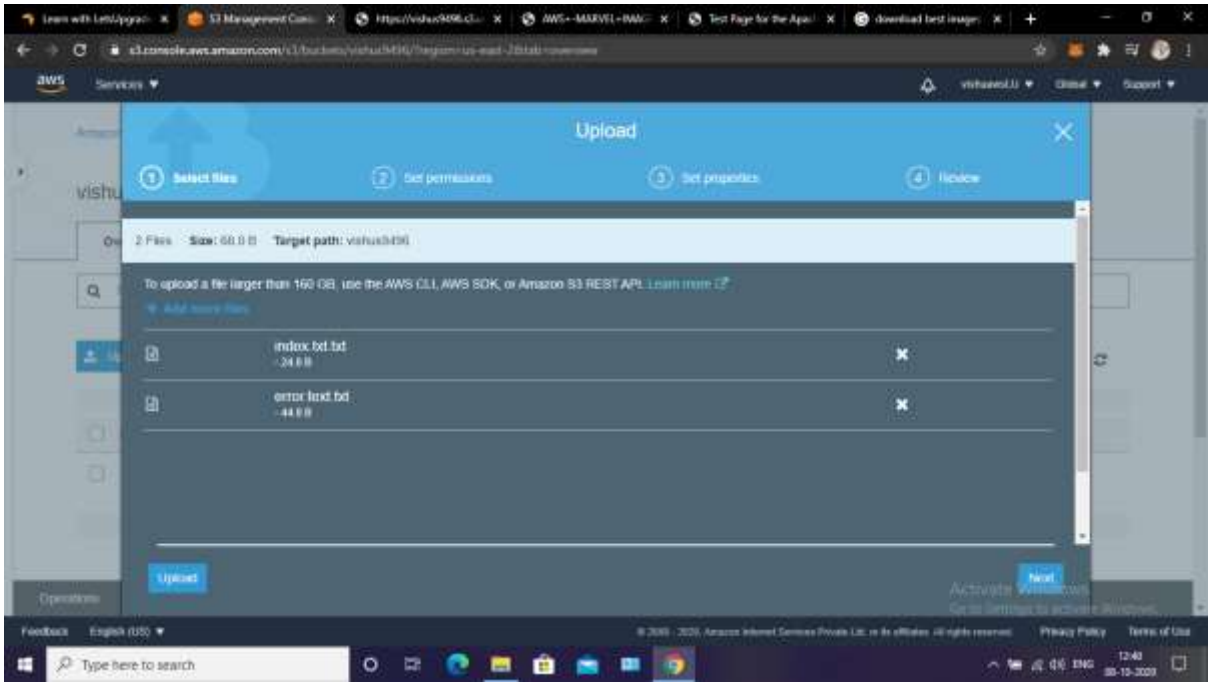


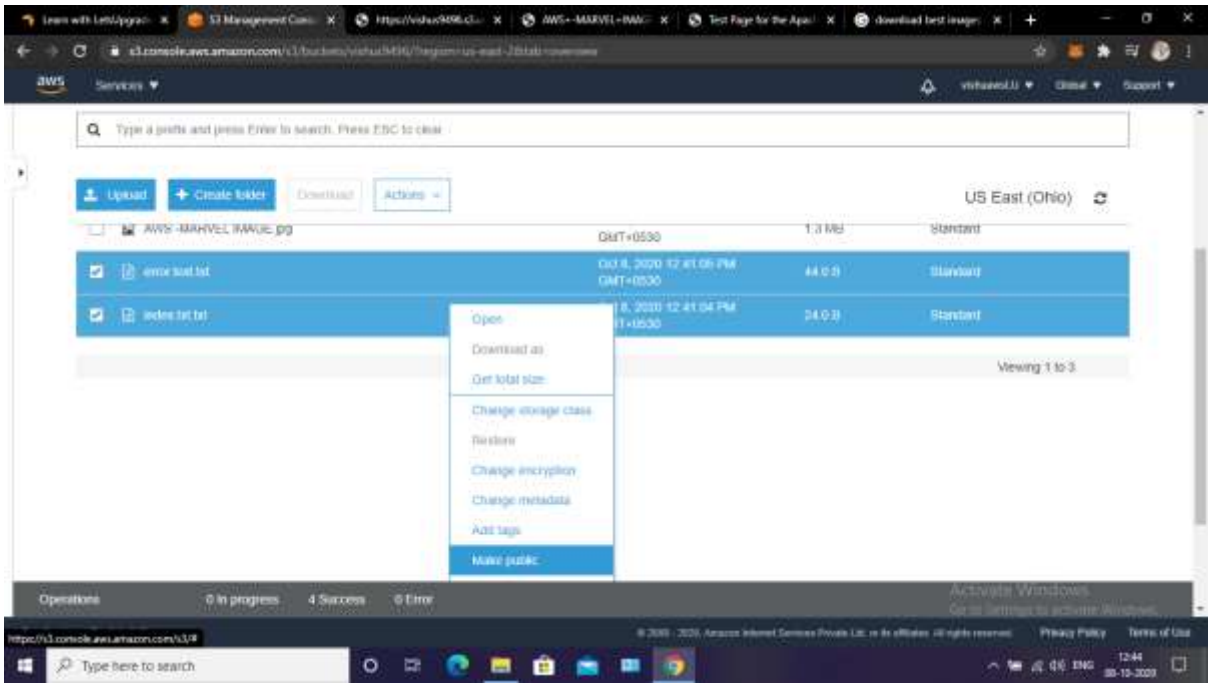
3.Files Save in Static Web Hosting:



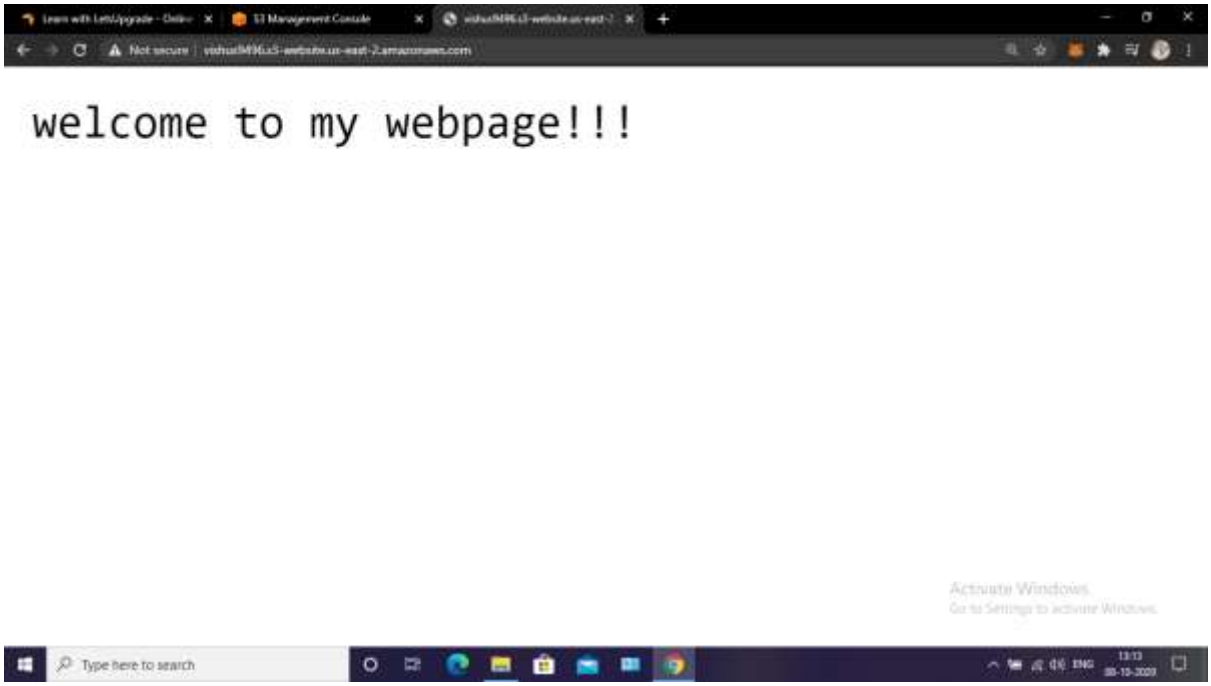


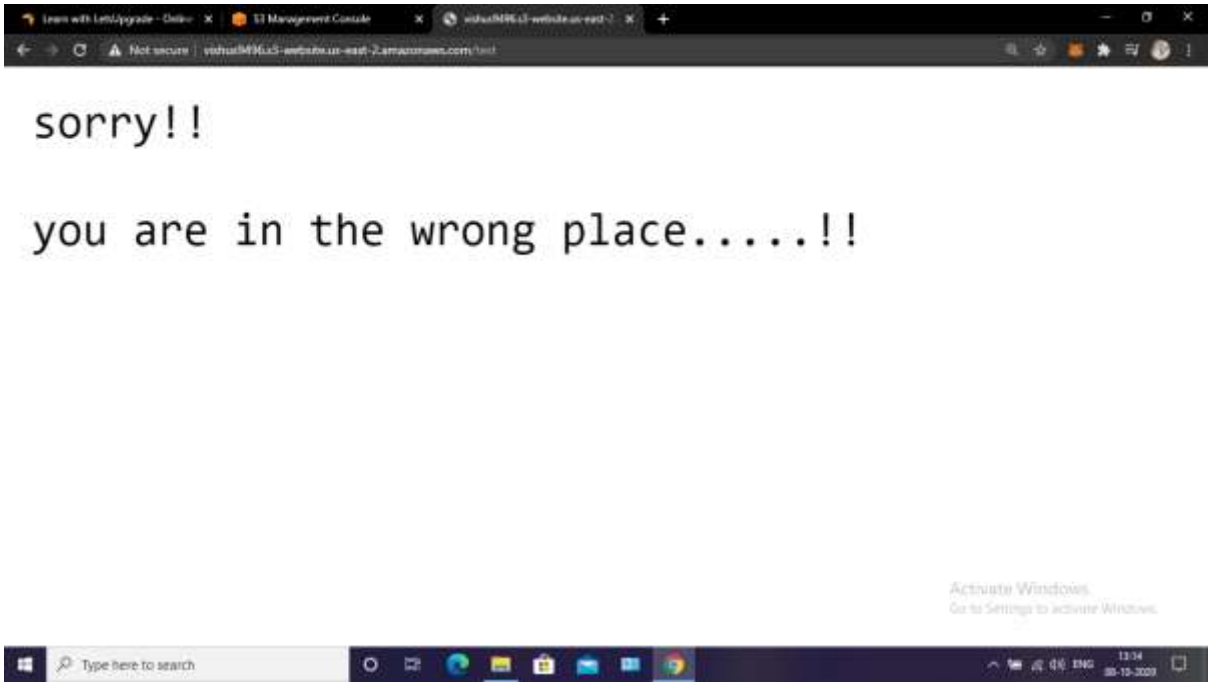
4.Upload Files and Make Public:





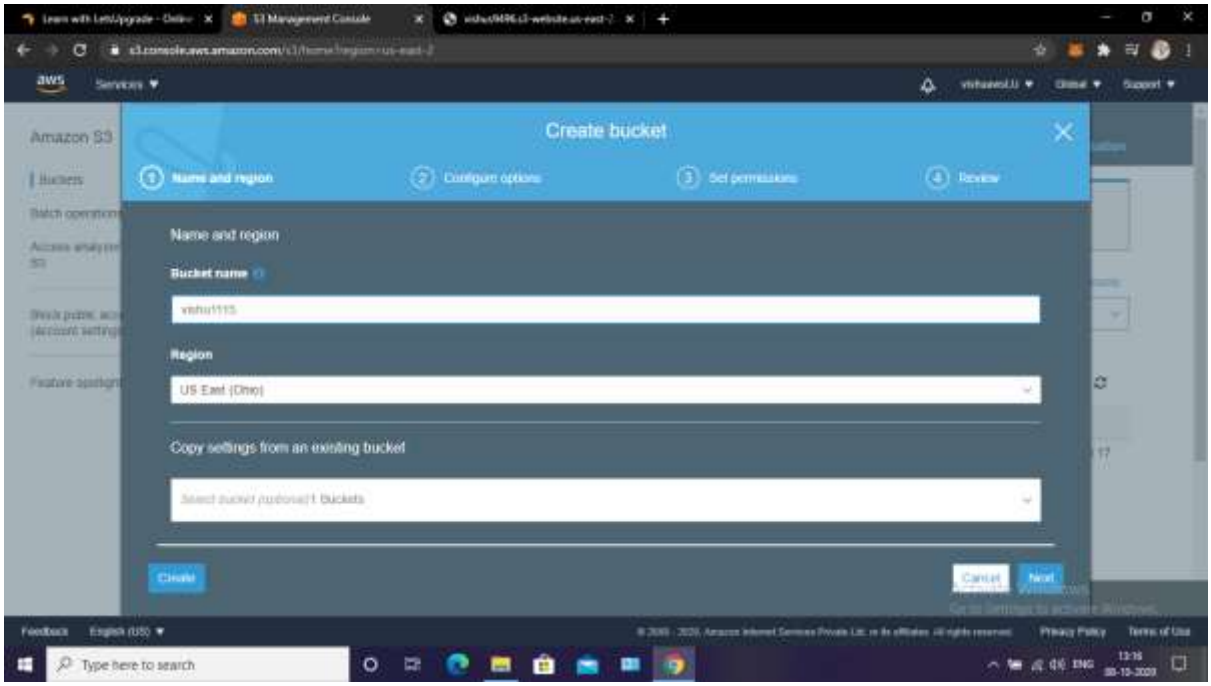
5.Copy URL and Paste it in Browser:



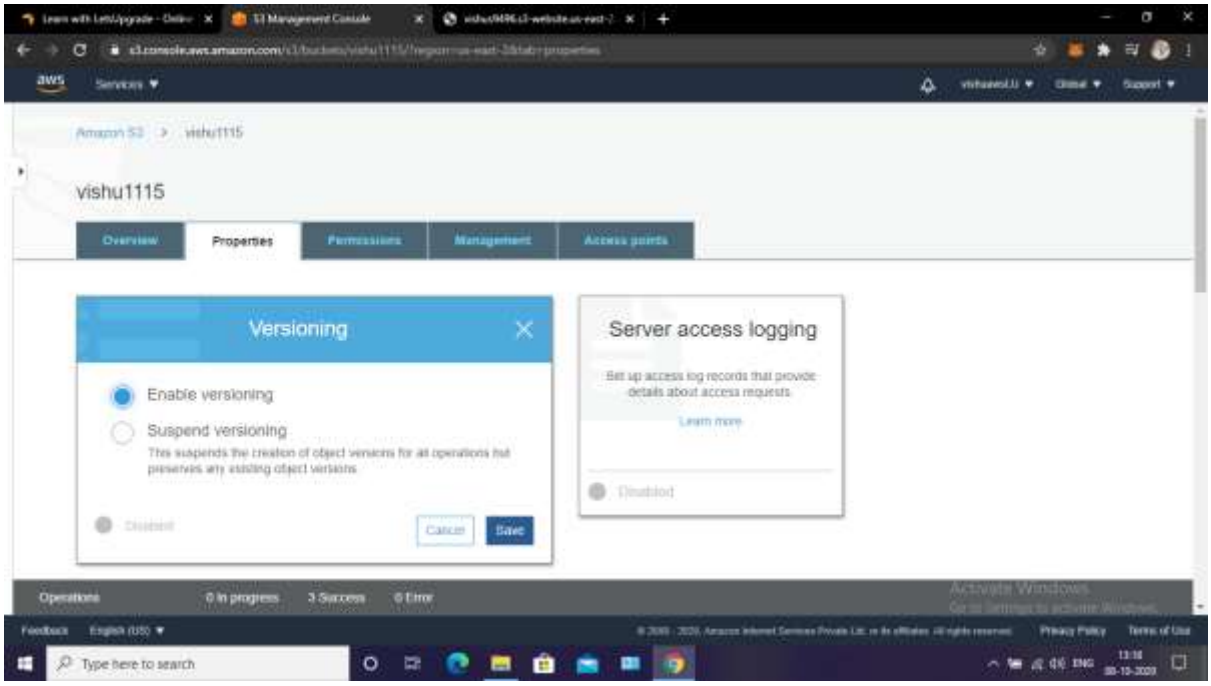


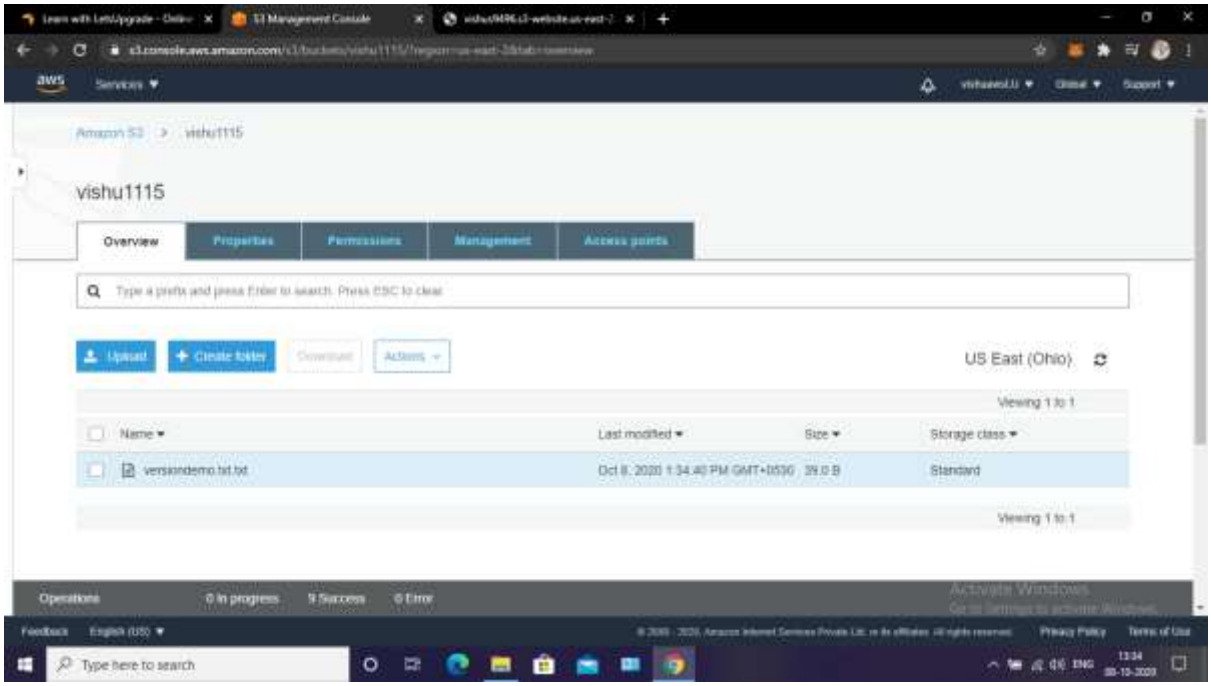
C. Working with Versioning:

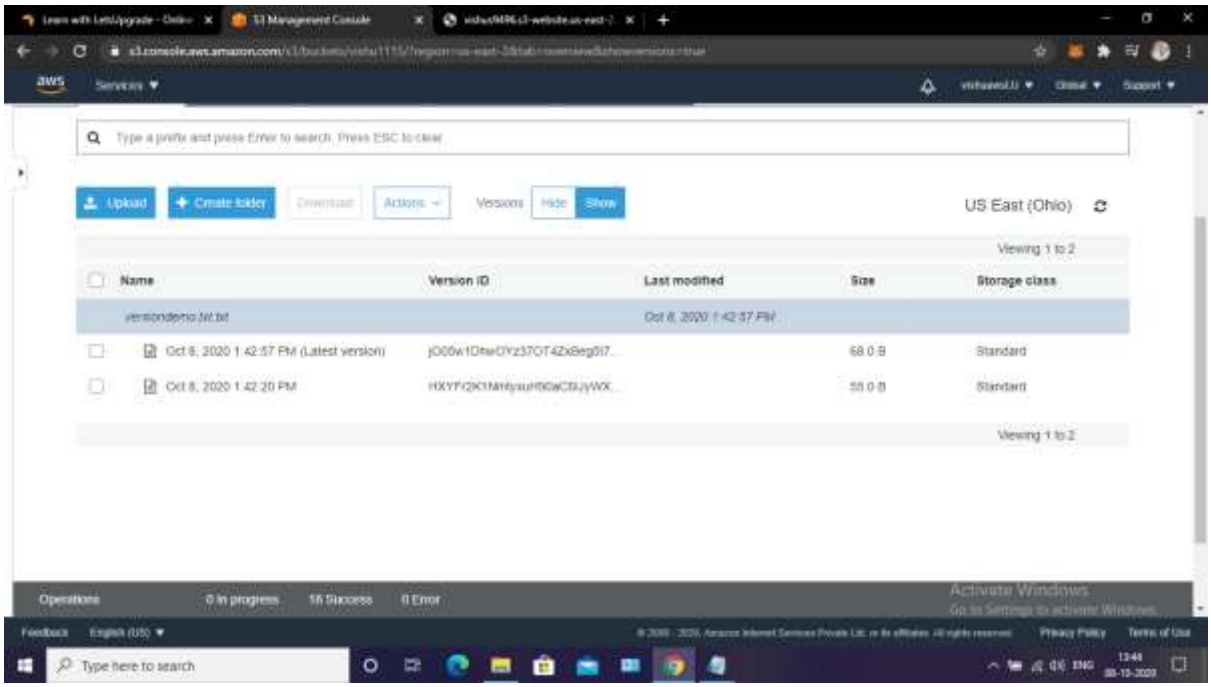
1.Create New Bucket:

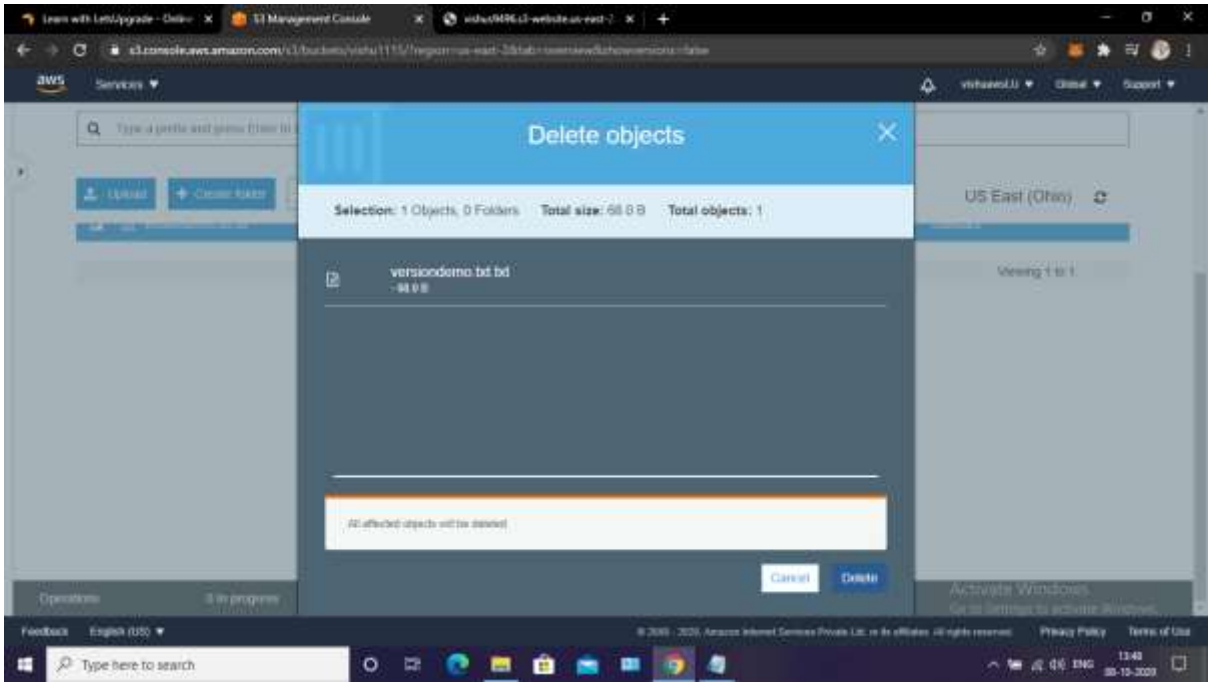


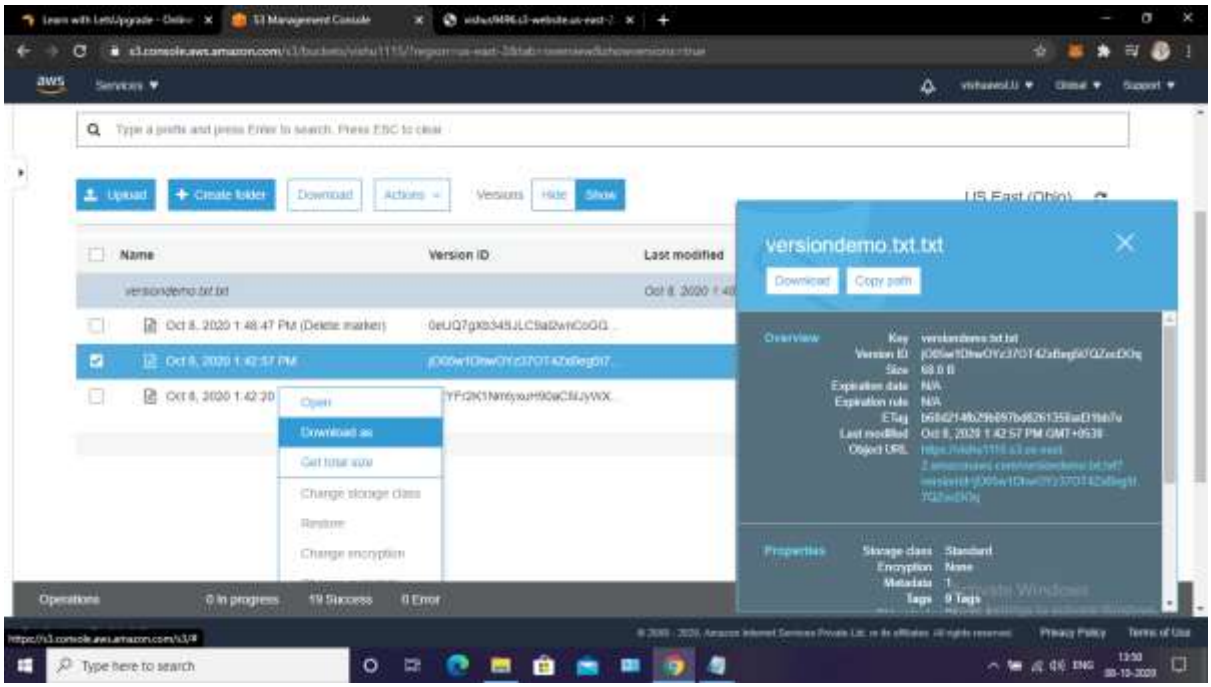
2.Enable Versioning and Save:

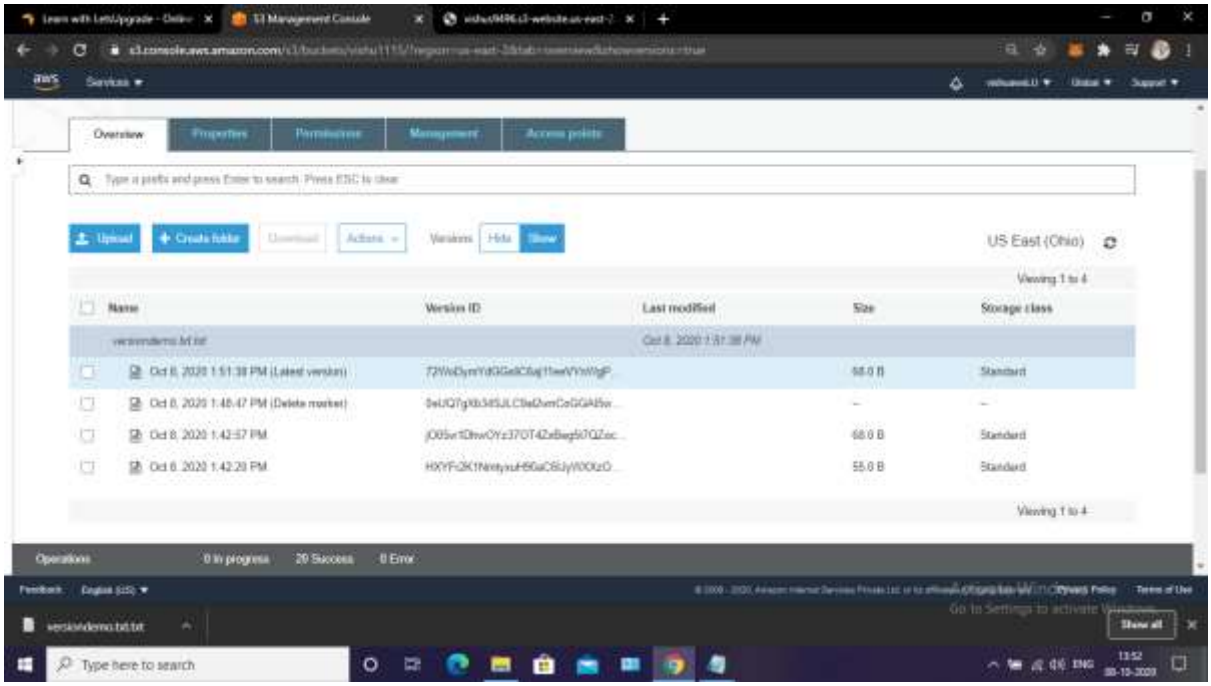



vishu1115
Overview
Properties
Permissions
Management
Access points
Upload
+ Create folder
Actions
US East (Ohio)
Name
Last modified
Size
Storage class
versiondemo.txt.txt
Oct 8, 2020 1:34:40 PM GMT+0530
39.0 B
Standard
Operations
0 In progress
9 Success
0 Error


Upload
+ Create folder
Actions
Versions
Hide
Show
US East (Ohio)
Name
Version ID
Last modified
Size
Storage class
versiondemo.txt.txt
Oct 8, 2020 1:42:57 PM
Oct 8, 2020 1:42:57 PM (Latest version)
68.0 B
Standard
Oct 8, 2020 1:42:20 PM
55.0 B
Standard
Operations
0 In progress
16 Success
0 Error


Delete objects
Selection: 1 Objects, 0 Folders
Total size: 68.0 B
Total objects: 1
versiondemo.txt.txt
Cancel
Delete
US East (Ohio)
Type here to search


Upload
Create folder
Download
Actions
Versions
Hide
Show
Name
Version ID
Last modified
versiondemo.txt.txt
Oct 8, 2020 1:48:47 PM (Delete marker)
Open
Download as
Get total size
Change storage class
Restore
Change encryption
versiondemo.txt.txt
Download
Copy path
Overview
Properties
Operations
0 In progress
19 Success
0 Error
US East (Ohio)
Type here to search



Q1: Explain life cycle effects on instances:

Stop, start, reboot, terminate-public IP, Private Ip, Applications installed.

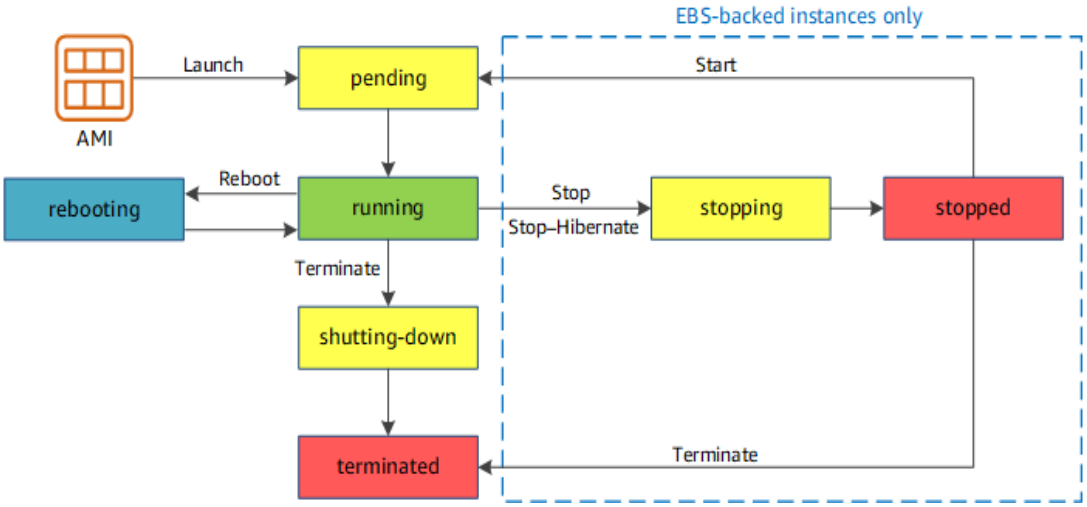
Instance Life Cycle:

1. An EC2 instance is a virtual server in the AWS cloud, launched from an Amazon Machine Image (AMI).

2.AMI provides the operating system, application server, and applications for the instance.

3.When an instance is launched, it receives private DNS name that other instances within the same EC2 network can use to contact the instance. Optionally, it receives a public DNS name that can be used to contact the instance from the Internet.

4.The following illustration represents the transitions between instance states. Notice that you can't stop and start an instance store-backed instance.



Instance start and stop:

1.Only and EBS-backed instance can be stopped and started. Instance store-backed instance cannot be stopped and started.

2.An instance can stopped & started in case the instance fails a status check or is not running as expected.

STOP:

1.After the instance is stopped, it enters in stopping state and then to stopped state.

2.Charges are only incurred for the EBS storage and not for the instance hourly charge or data transfer.

3.While the instance is stopped, its root volume can be treated like any other volume, and modify it for e.g. repair file system problems or update software or change the instance type, user data, EBS optimization attributes etc.

4.Volume can be detached from the stopped instance, and attached to a running instance, modified, detached from the running instance, and then reattached to the stopped instance. It should be reattached using the storage device.

name that’s specified as the root device in the block device mapping for the instance.

START:

1.When the instance is started, it enters into pending state and then into running

2.An instance when stopped and started is launched on a new host

3.Any data on an instance store volume (not root volume) would be lost while data on the EBS volume persists

Instance reboot:

1.Both EBS-backed and Instance store-backed instances can be rebooted

2.An instance retains it public DNS, public and private IP address during the reboot

3.Data on the EBS and Instance store volume is also retained

4.Amazon recommends to use Amazon EC2 to reboot the instance instead of running the operating system reboot command from your instance as it performs a hard reboot if the instance does not cleanly shutdown within four minutes also creates an API record in CloudTrail, if enabled.

Instance Termination:

1.An instance can be terminated, and it enters into the shutting-down and then the terminated state

2.After an instance is terminated, it can't be connected and no charges are incurred

3.EBS-backed instance supports Instance Initiated Shutdown Behaviour attribute which determines whether the instance would be stopped or terminated when a shutdown command is initiated from the instance itself for e.g. shutdown, halt or power off command in Linux

4.Default behaviour for the the instance to be stopped.

5.A shutdown command for an Instance store-backed instance will always terminate the instance

Characteristic	Reboot	Stop/start (Amazon EBS-backed instances only)	Hibernate (Amazon EBS-backed instances only)	Terminate
Private and public IPv4 addresses	These addresses stay the same	The instance keeps its private IPv4 address. The instance gets a new public IPv4 address, unless it has an Elastic IP address, which doesn't change during a stop/start.	The instance keeps its private IPv4 address. The instance gets a new public IPv4 address, unless it has an Elastic IP address, which doesn't change during a stop/start.	None