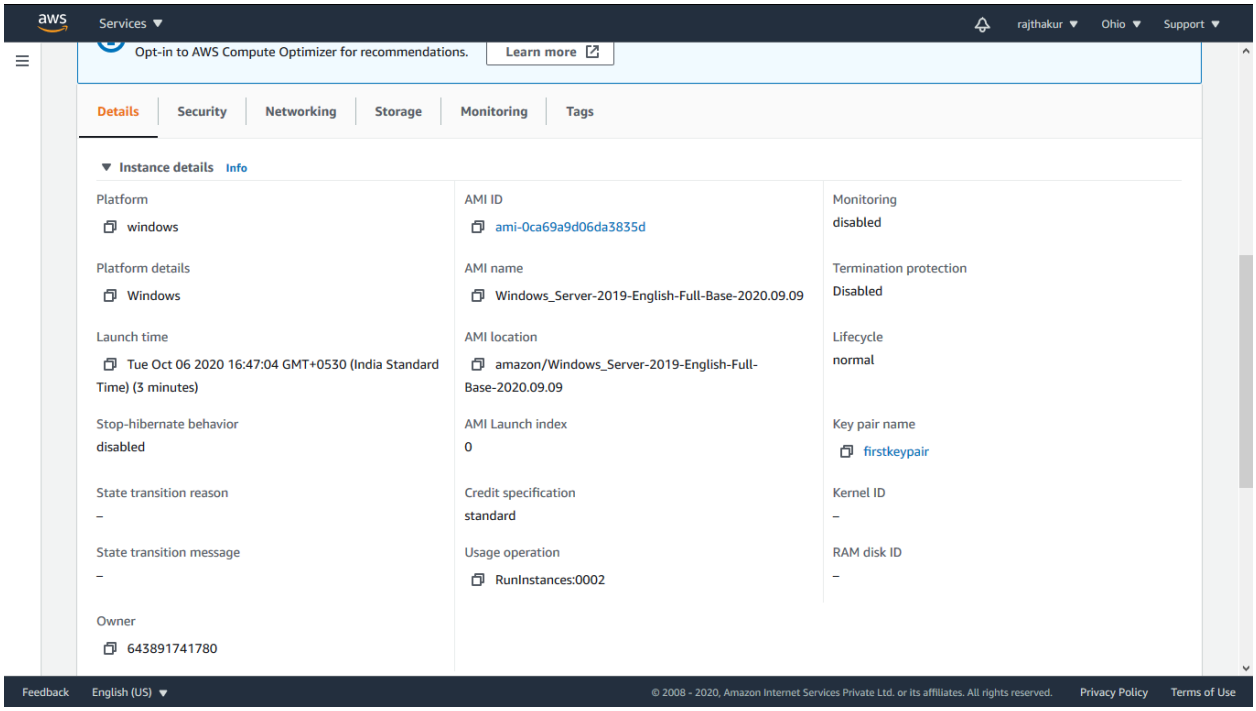
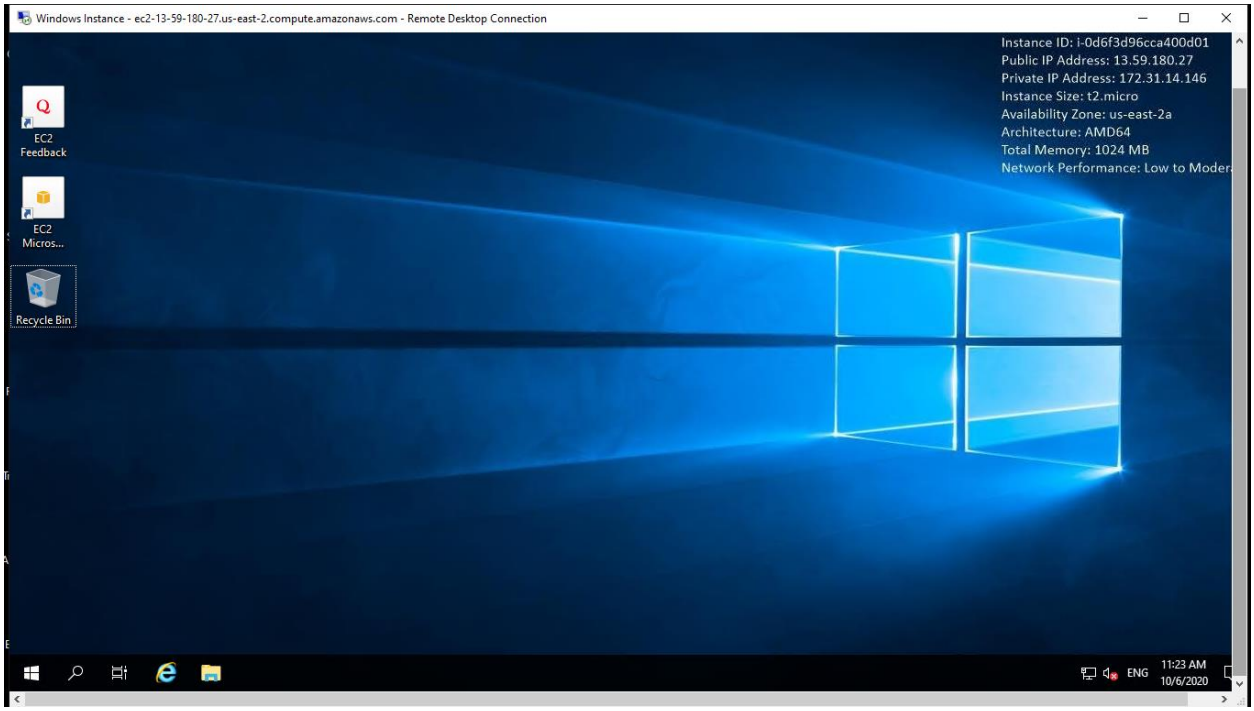
Project 1 - Deploying a web server in Windows instance

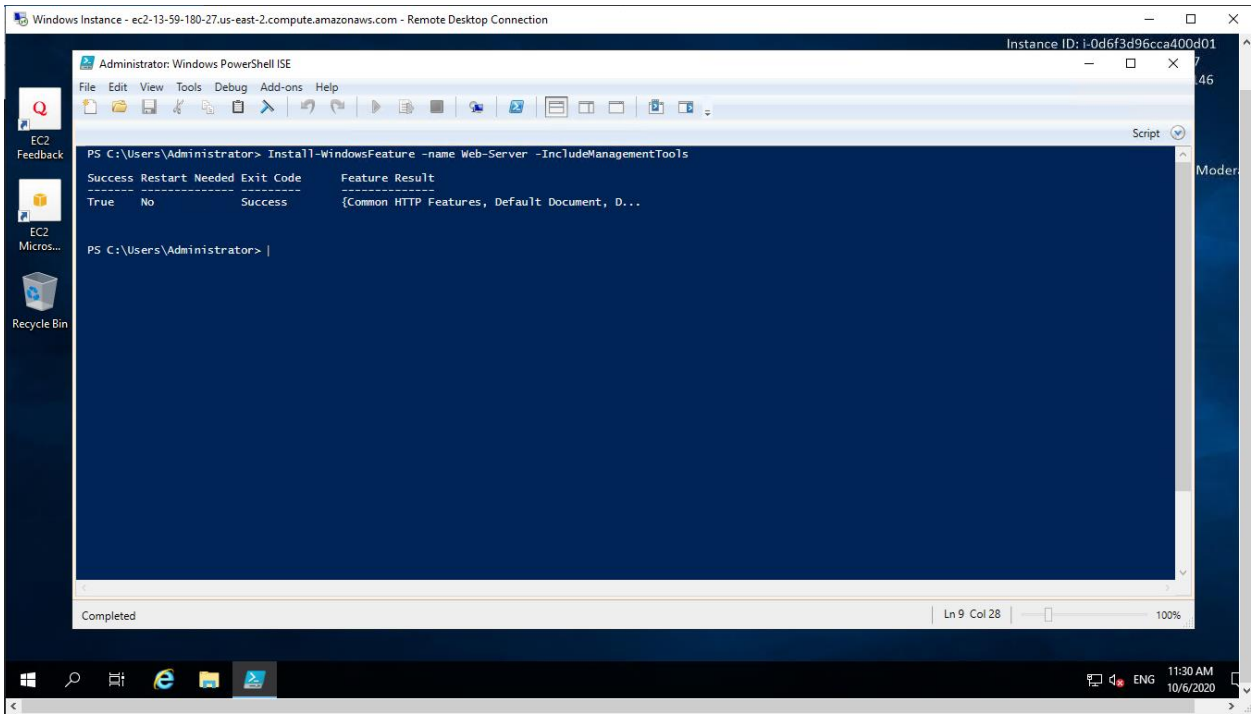
1. Instance Details of created instance



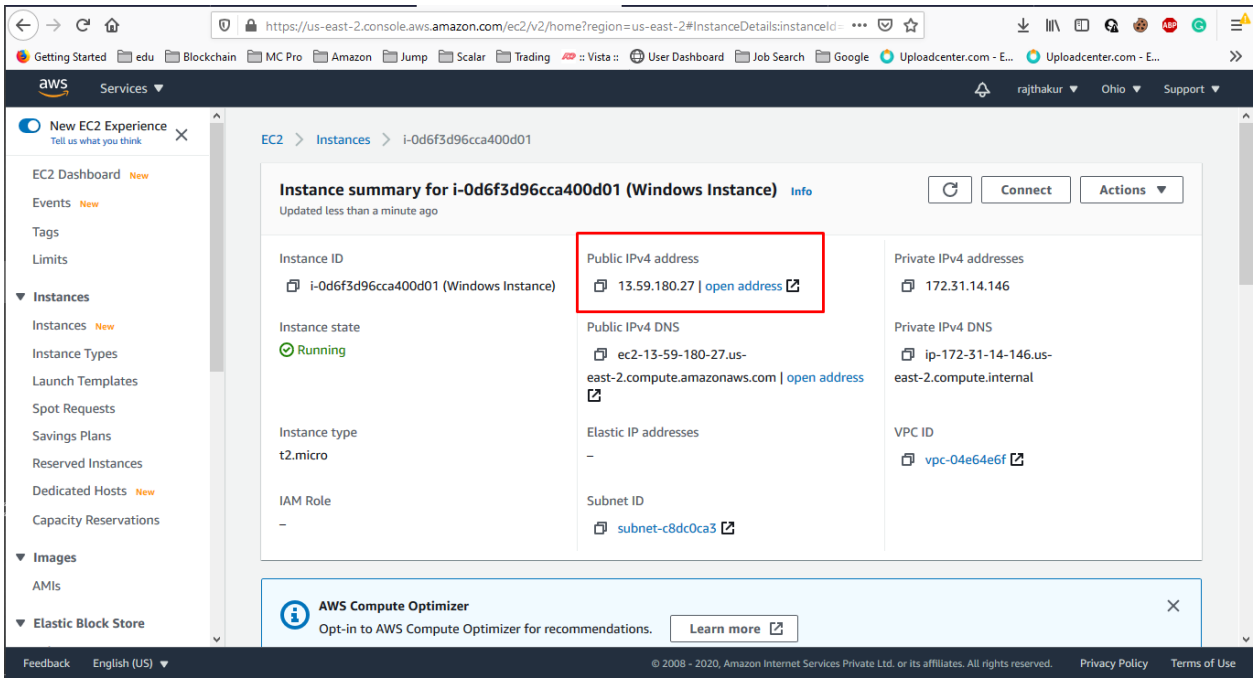
2.RDP Connection to created Instance



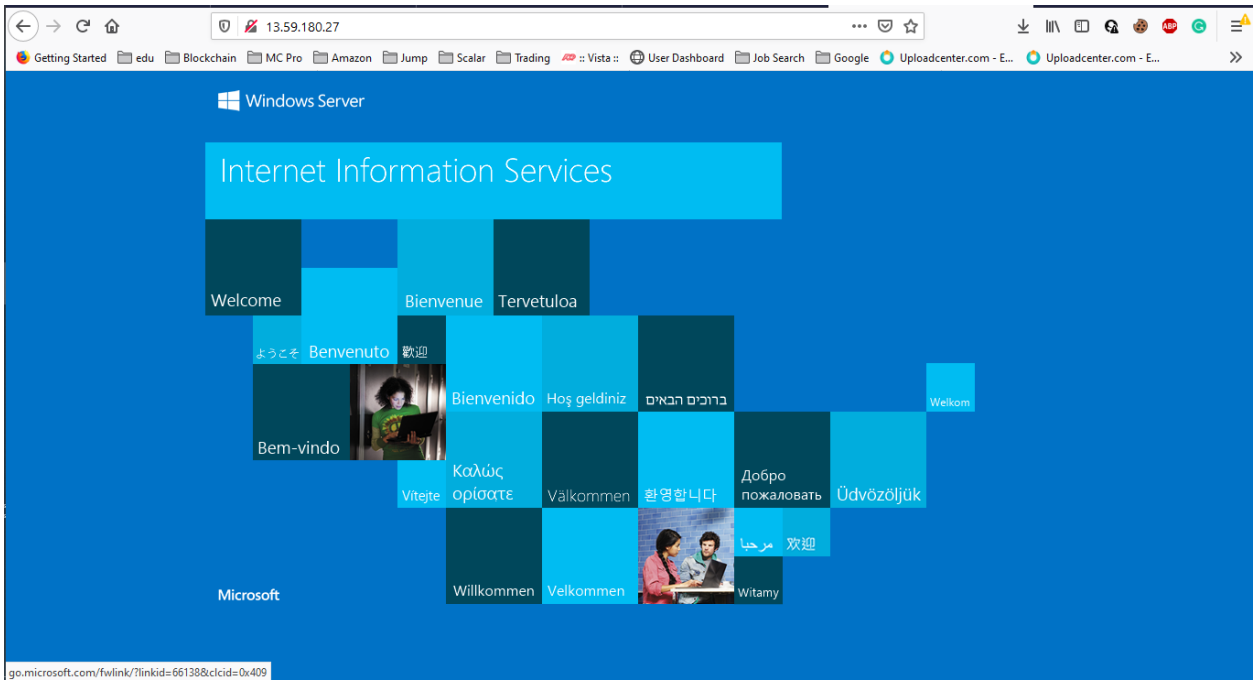
3. IIS Installation



4. Public IP address of created instance

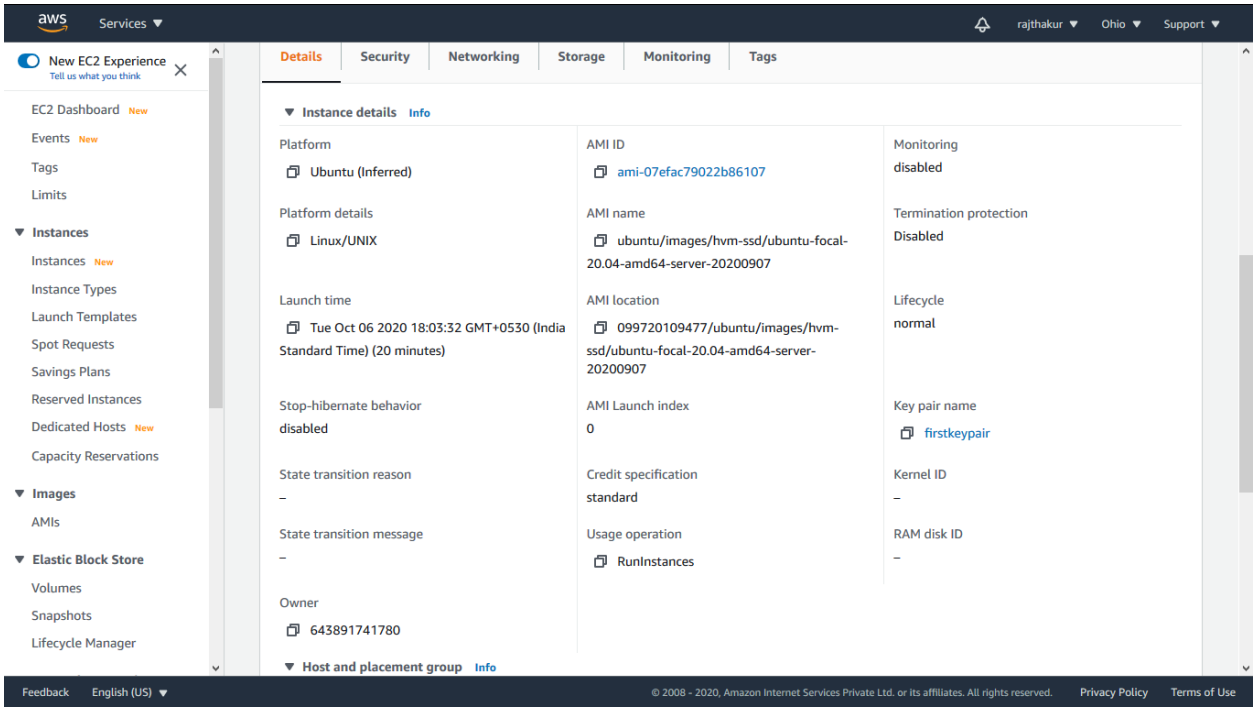


5. Opening IIS server homepage with public IP address of created instance

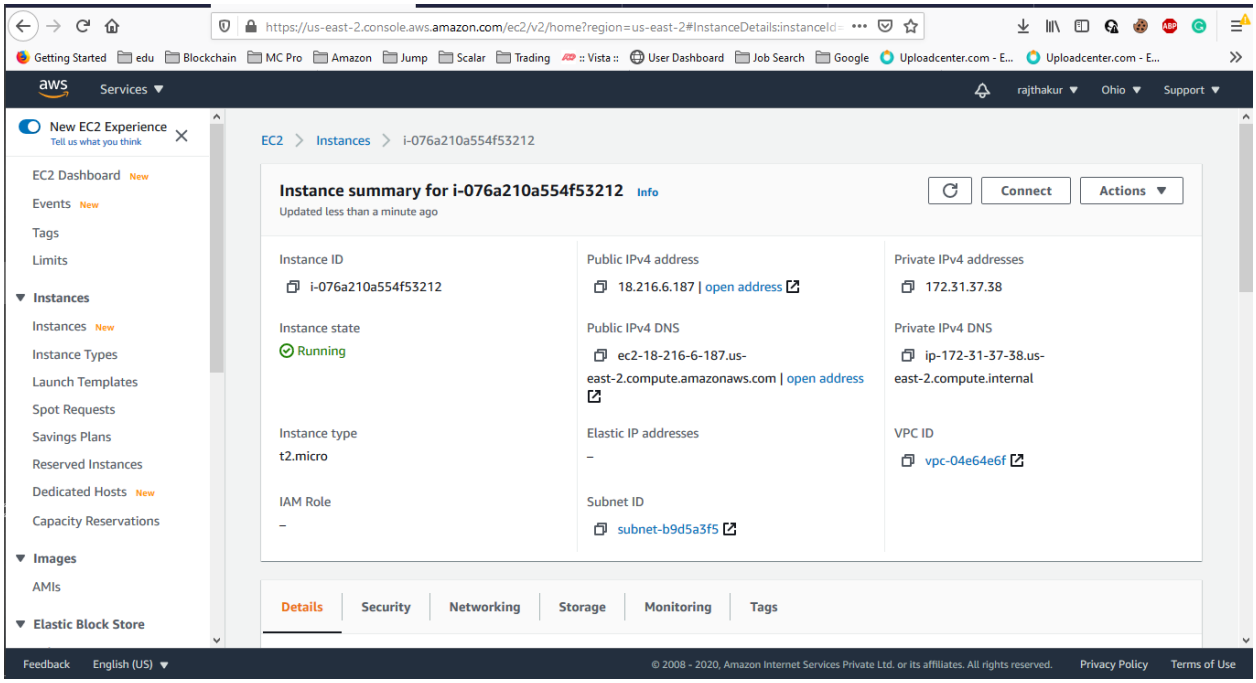


Project 2 - Deploying a web server in Linux instance

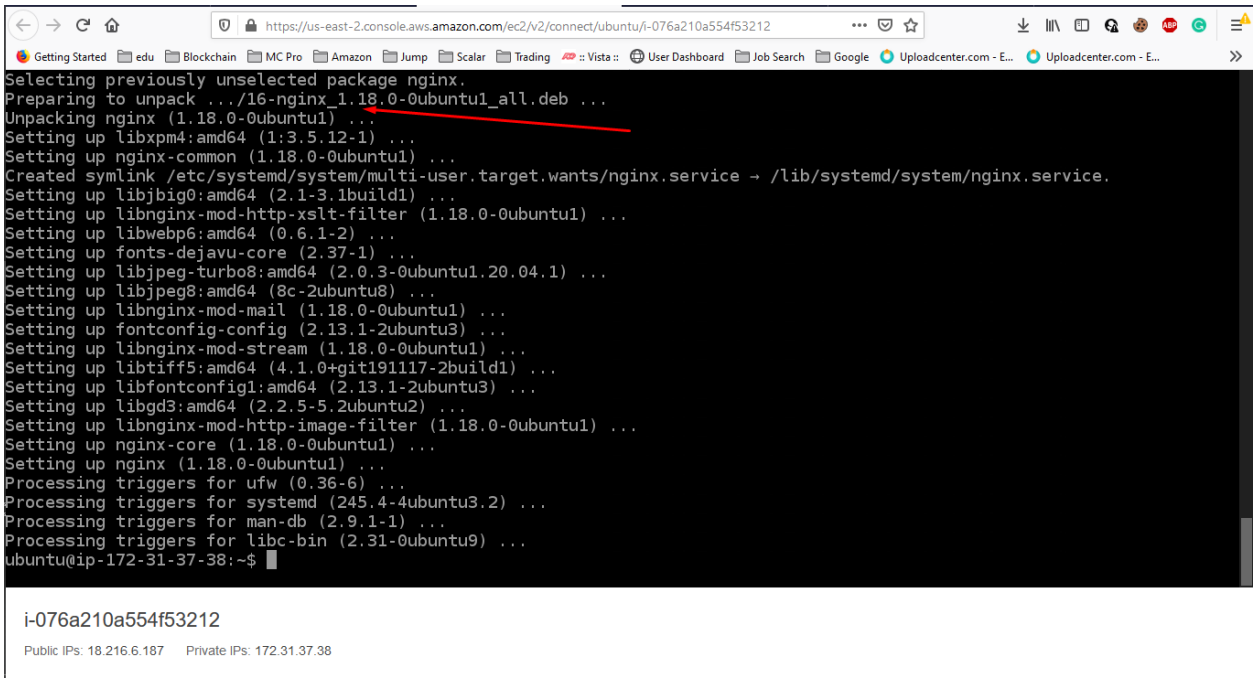
1. Created Linux Instance Details



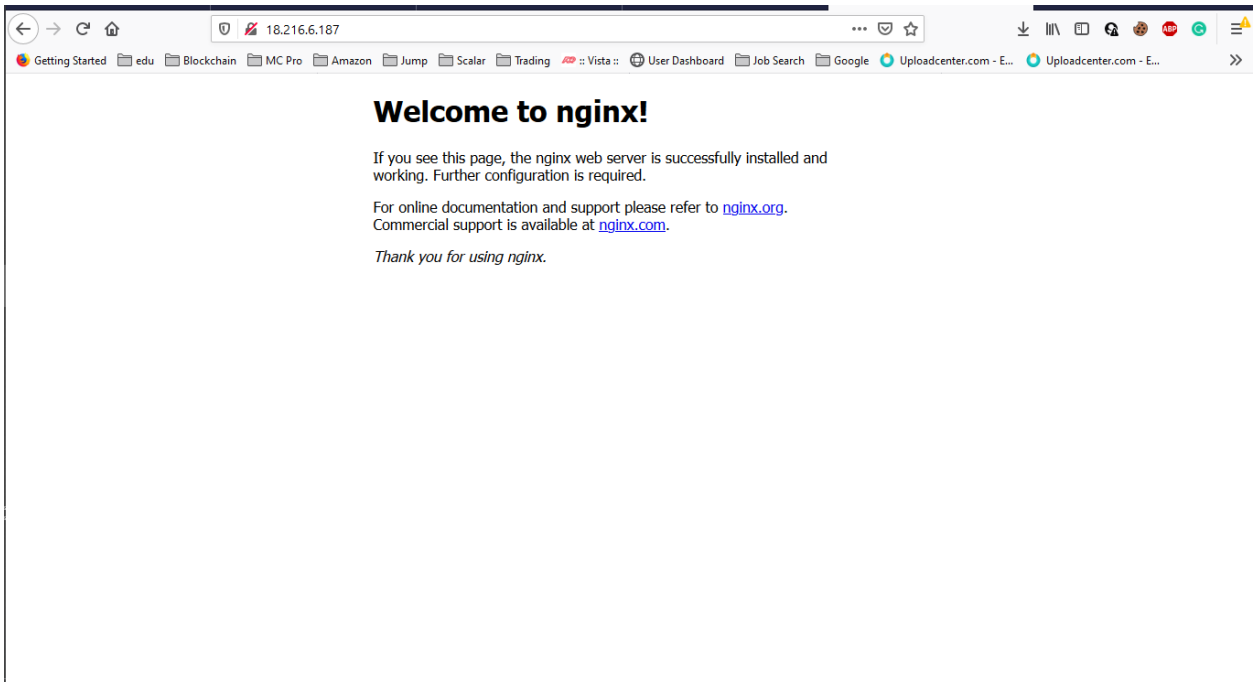
2.Public IP Address of created Instance



3. NGINX Installed in Ubuntu Machine

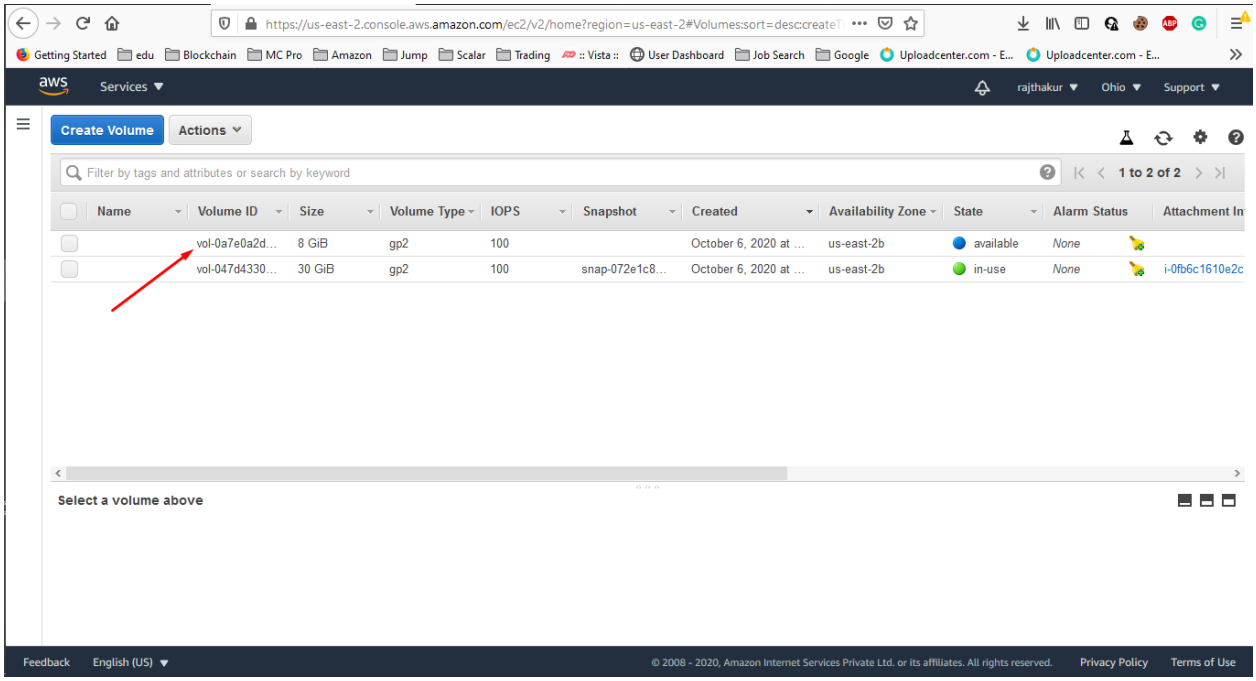


4. Visiting NGINX homepage using, public IP address of created instance.

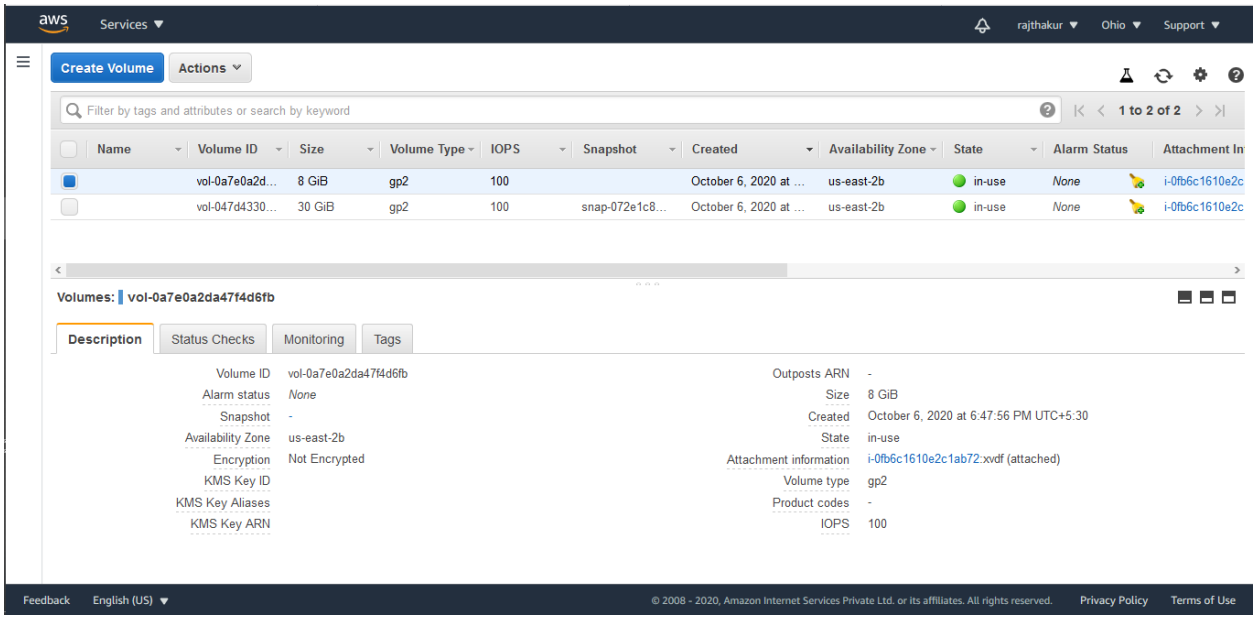


Project 3 -Working with volumes

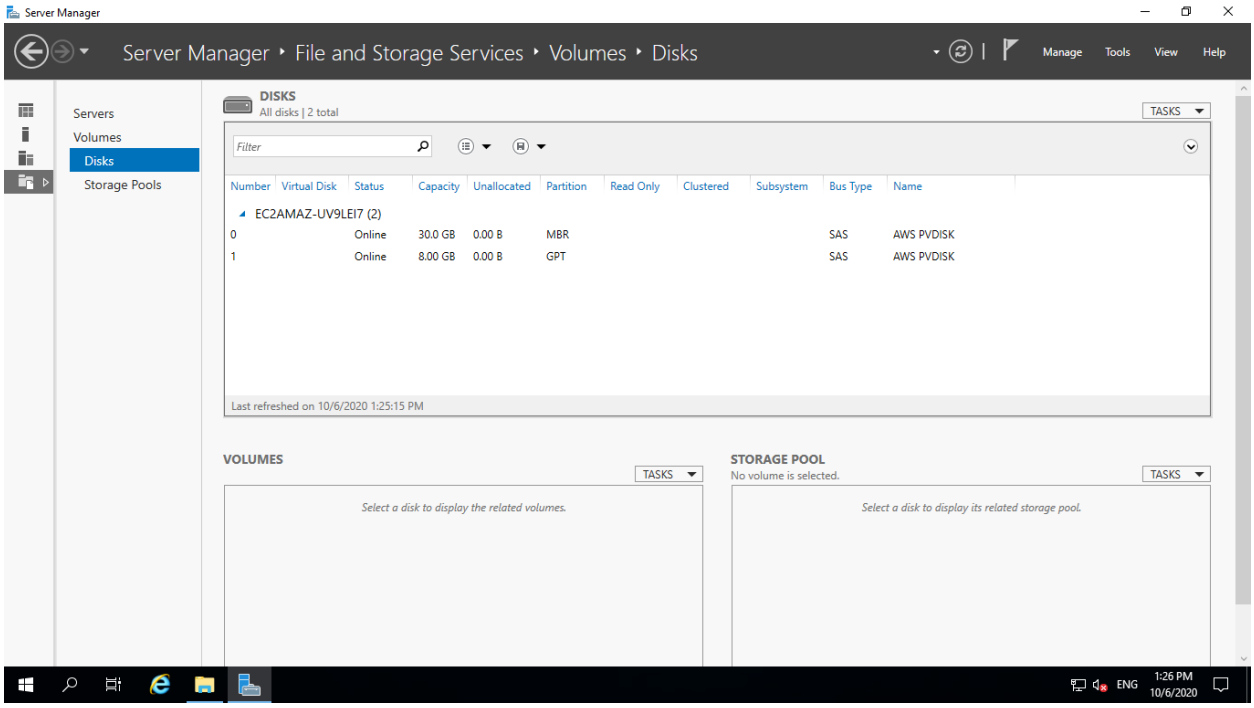
1. Volume created in AWS



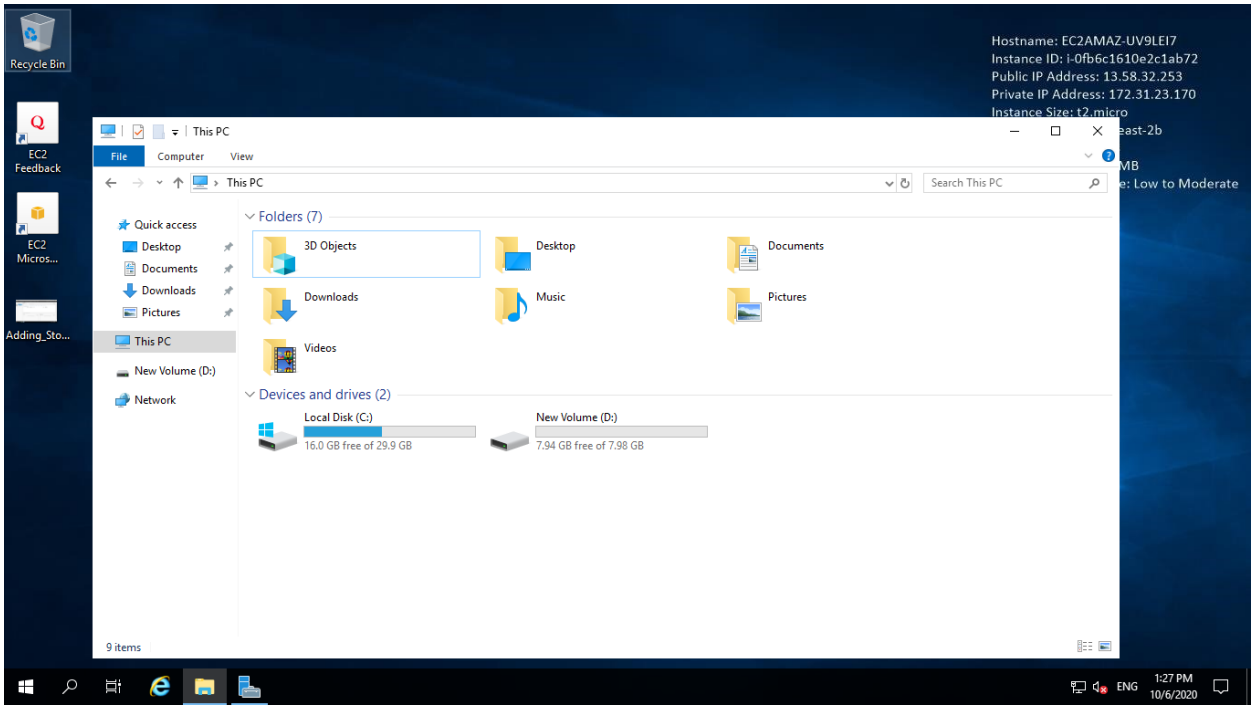
2. Volume attached to ec2 instance.



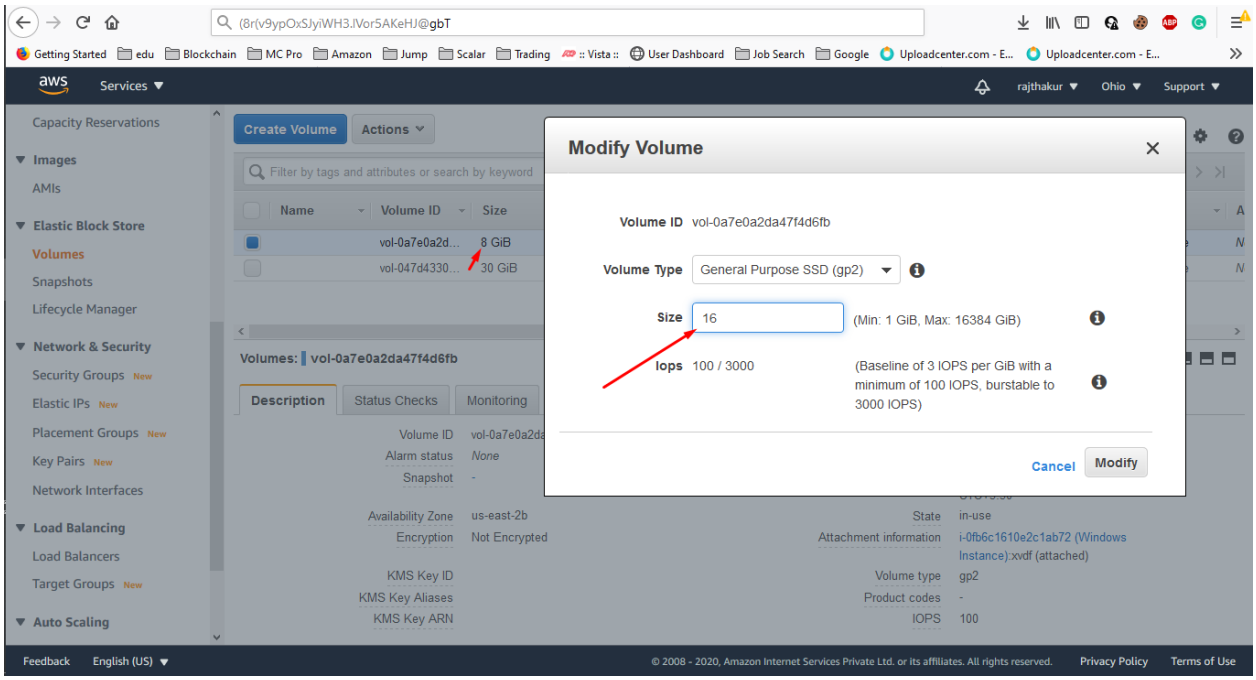
3. Adding Storage as new volume



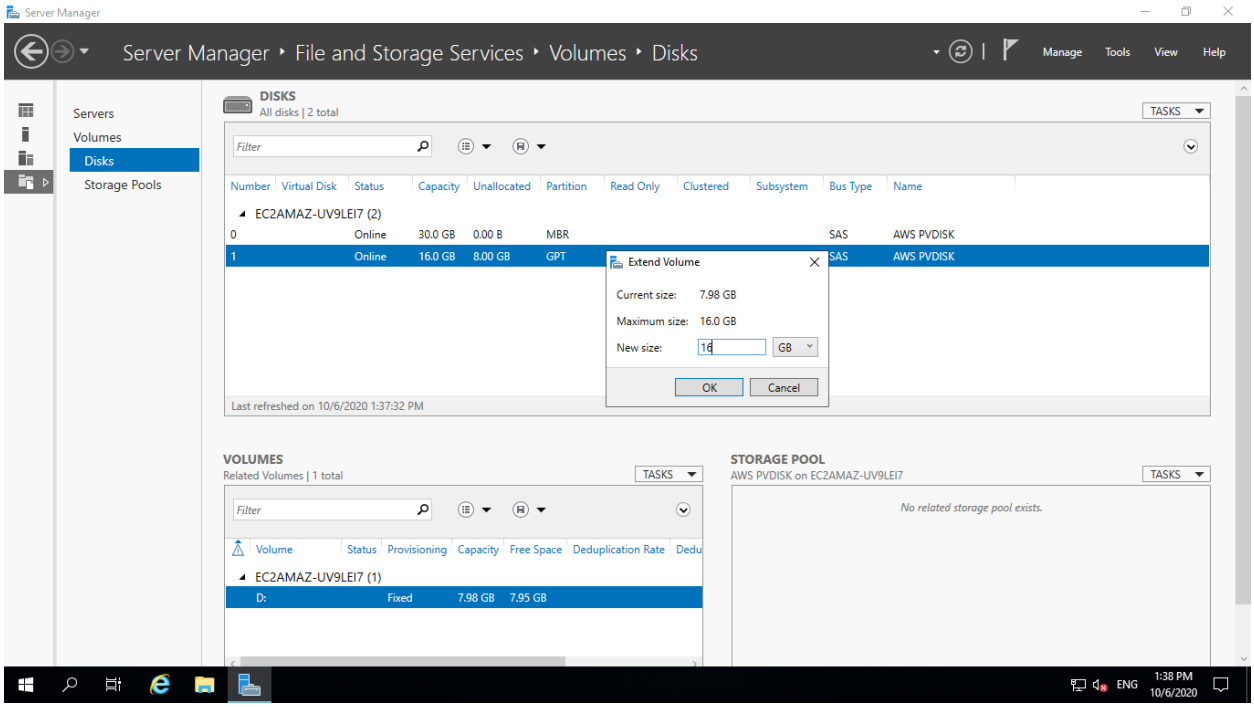
4. New Volume Attached



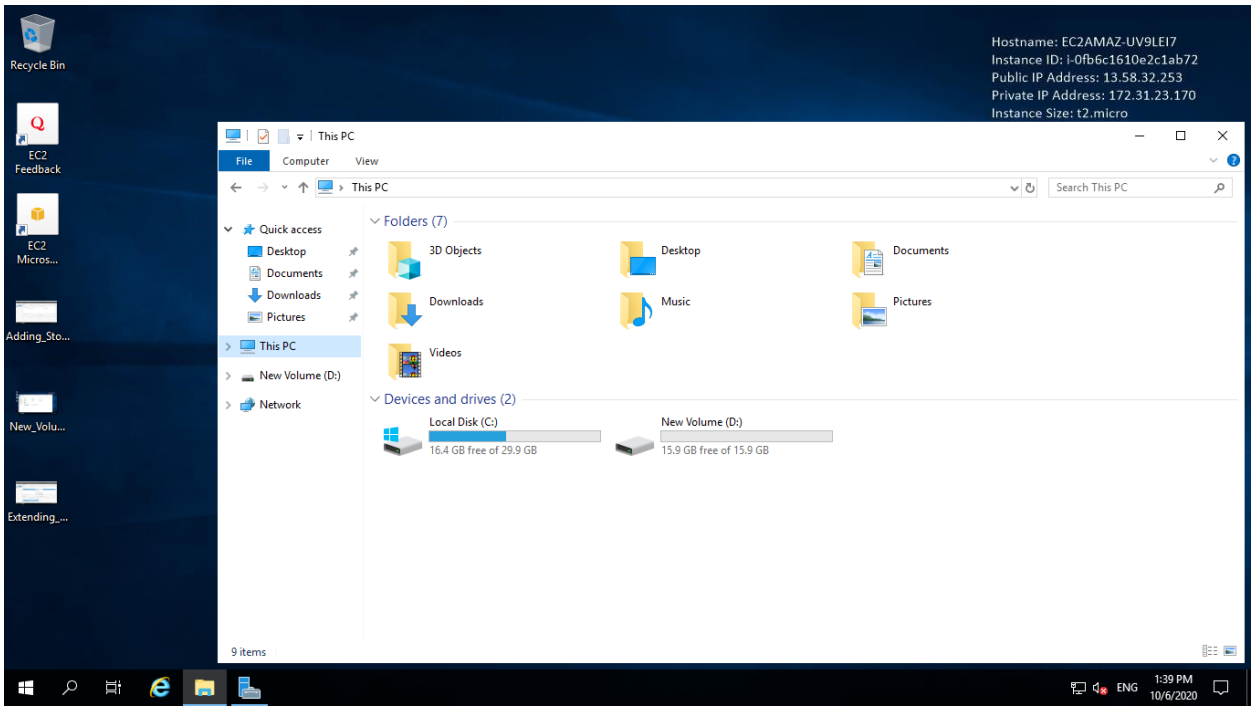
5. Modifying volume size



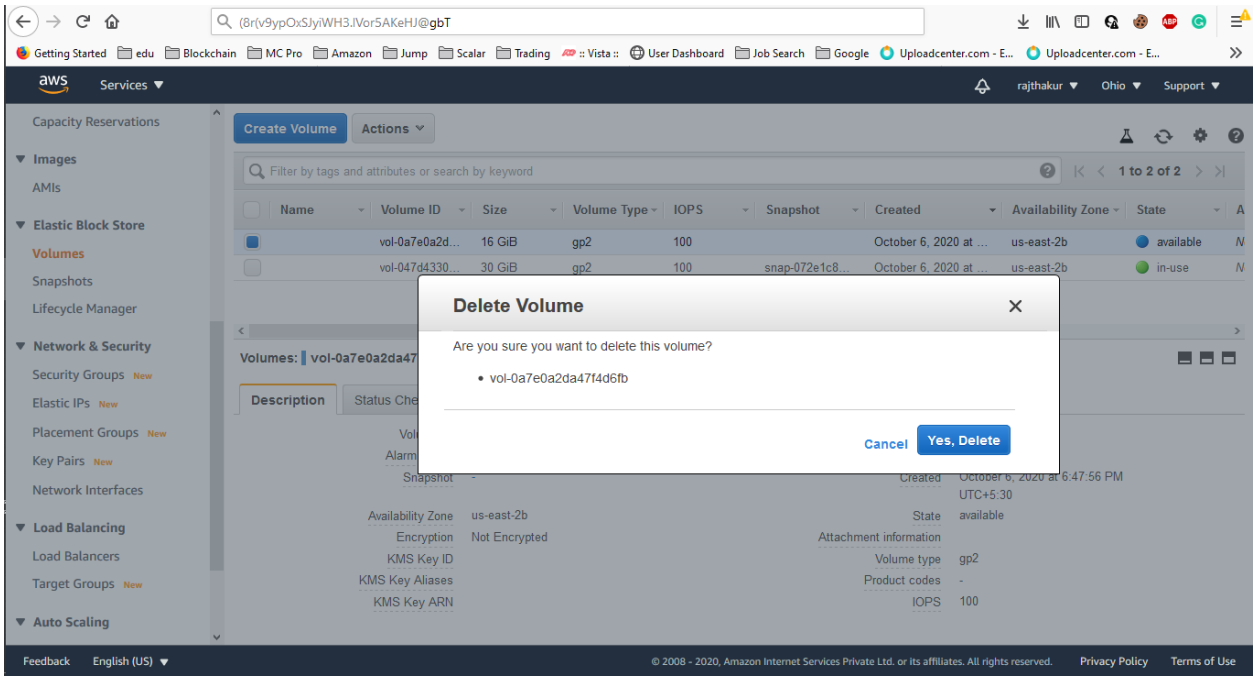
6. Extending the volume



7. New Extended Volume

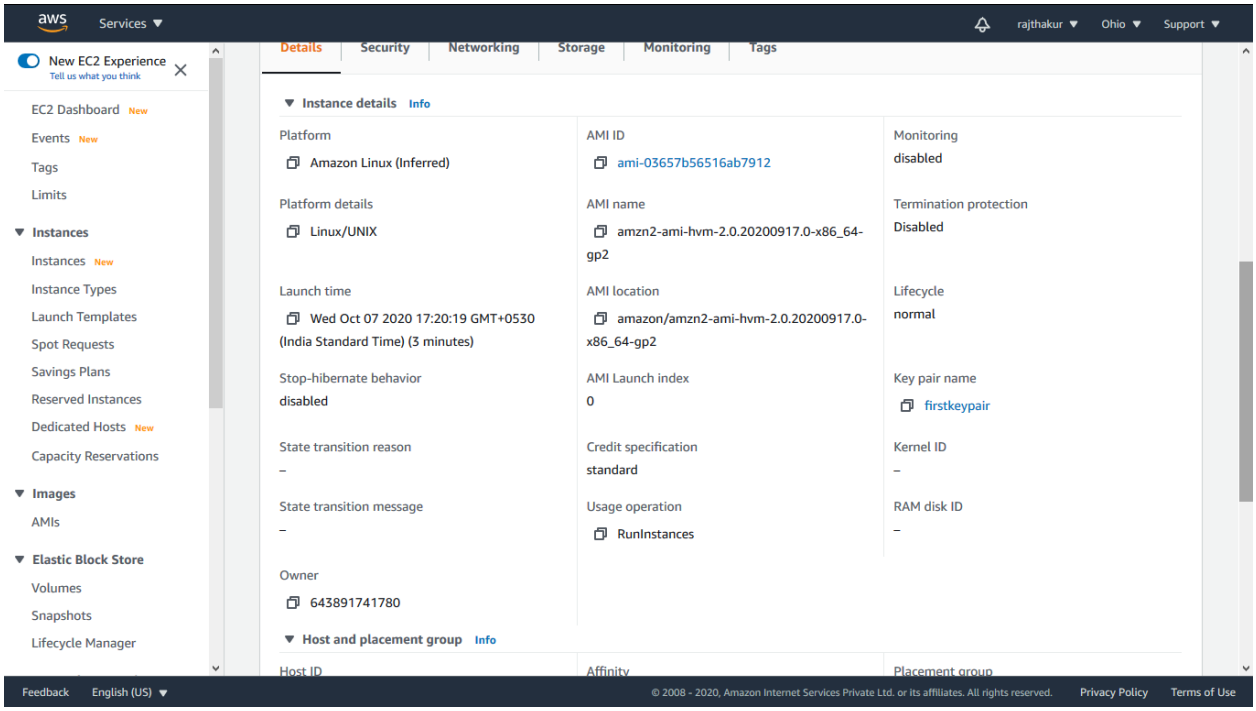


8.Deleting Volume

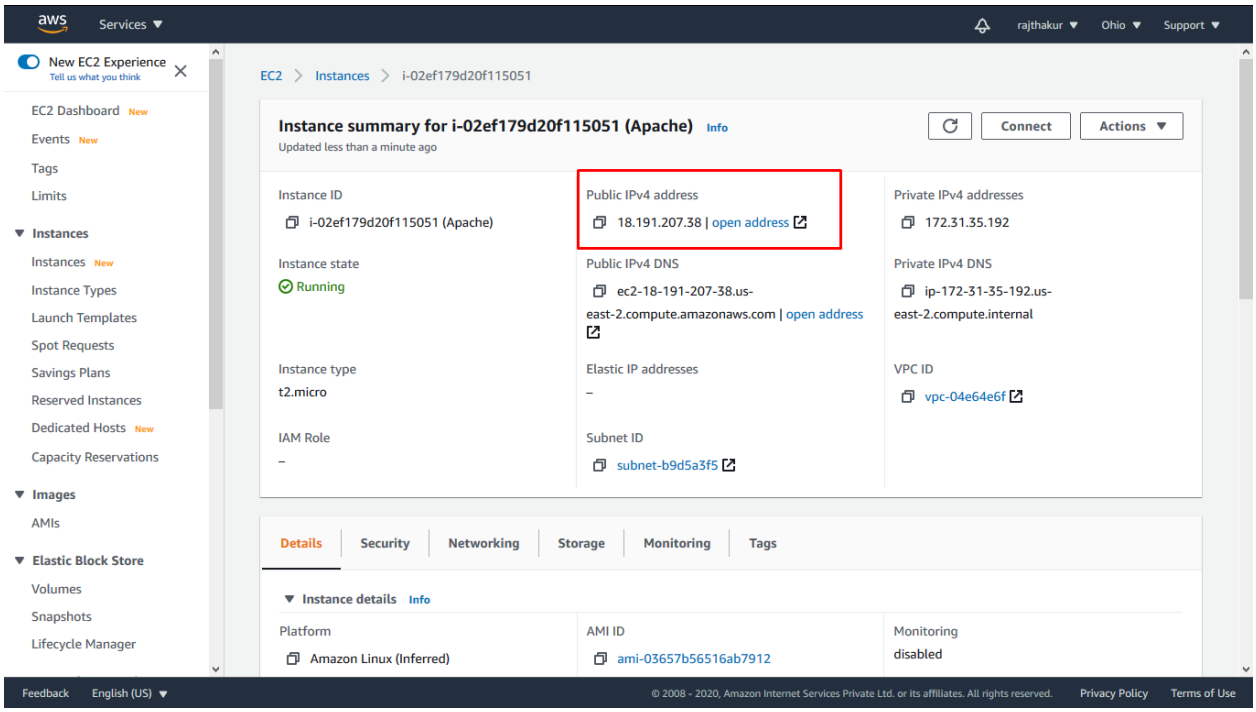


Project 4 - Working with Elastic IP's

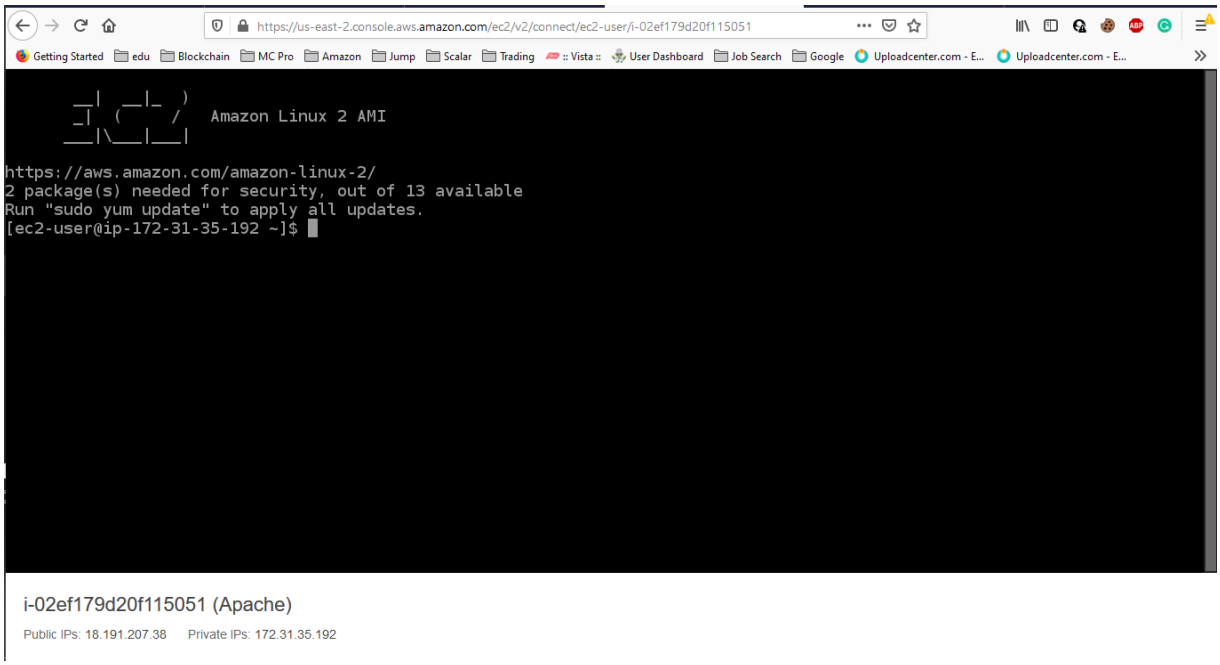
1. Instance Details



2.Public IP Address



3.Connected to EC2 Instance

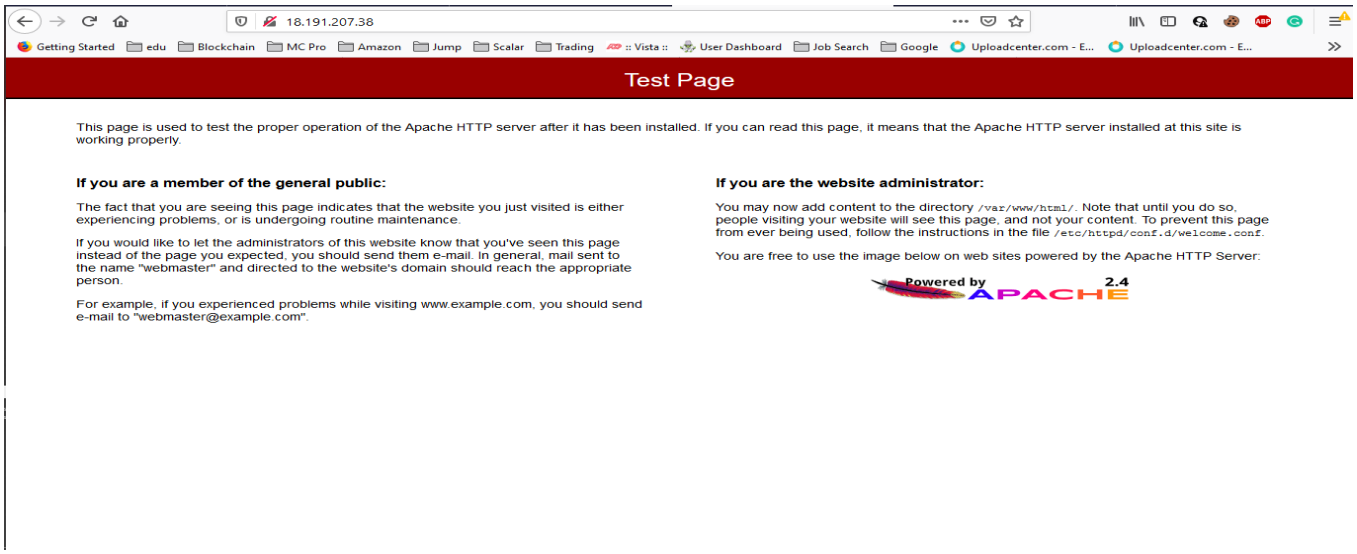


4.Start,Enable,Status httpd

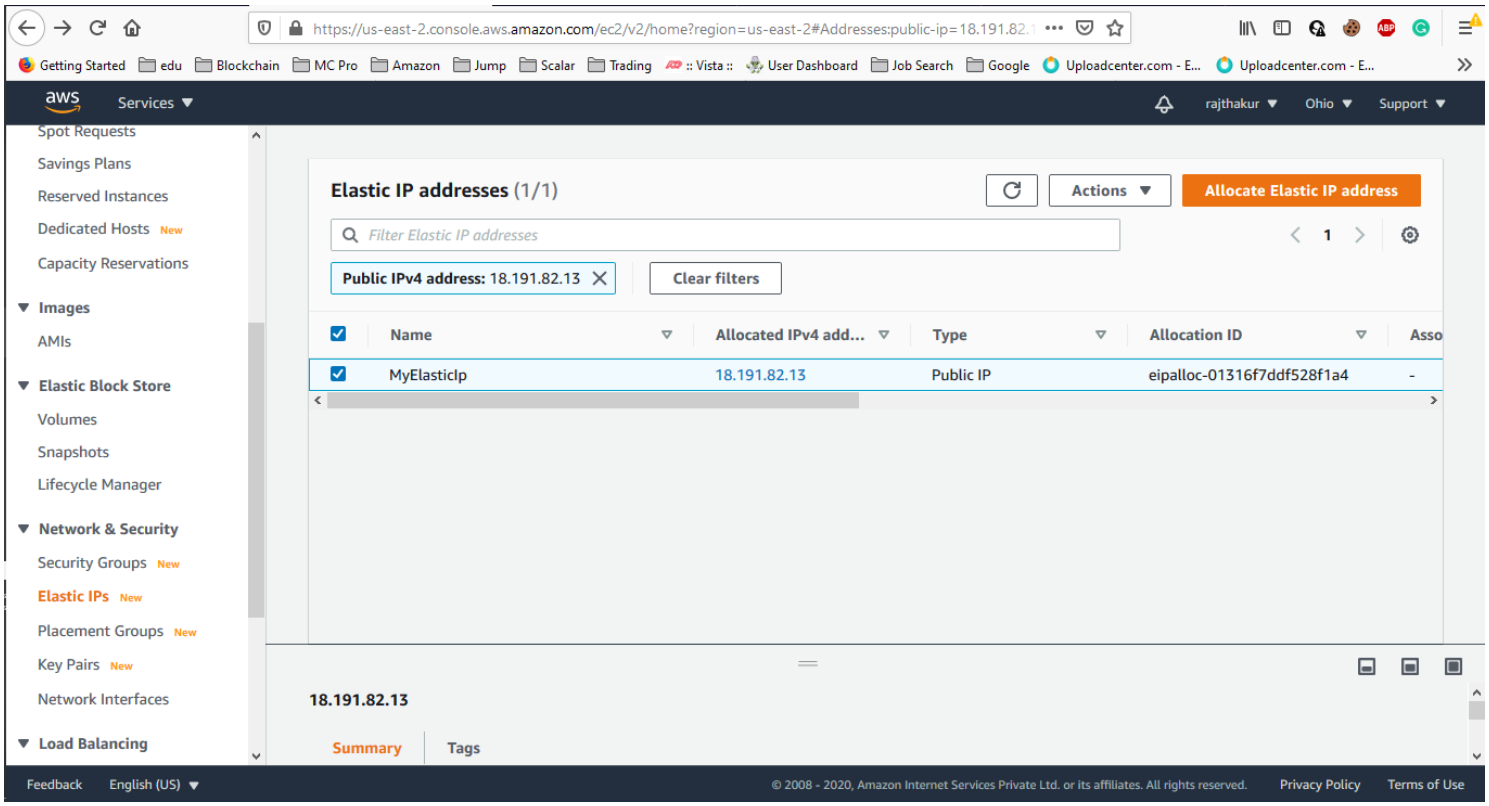
```
[root@ip-172-31-35-192 ec2-user]# systemctl start httpd
[root@ip-172-31-35-192 ec2-user]# systemctl enable httpd
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.
[root@ip-172-31-35-192 ec2-user]# systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor preset: disabled)
   Active: active (running) since Wed 2020-10-07 11:57:24 UTC; 39s ago
     Docs: man:httpd.service(8)
 Main PID: 12831 (httpd)
   Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes served/sec:   0 B/sec"
   CGroup: /system.slice/httpd.service
           ├─12831 /usr/sbin/httpd -DFOREGROUND
           ├─12832 /usr/sbin/httpd -DFOREGROUND
           ├─12833 /usr/sbin/httpd -DFOREGROUND
           ├─12834 /usr/sbin/httpd -DFOREGROUND
           ├─12835 /usr/sbin/httpd -DFOREGROUND
           └─12836 /usr/sbin/httpd -DFOREGROUND

Oct 07 11:57:24 ip-172-31-35-192.us-east-2.compute.internal systemd[1]: Starting The Apache HTTP Server...
Oct 07 11:57:24 ip-172-31-35-192.us-east-2.compute.internal systemd[1]: Started The Apache HTTP Server.
[root@ip-172-31-35-192 ec2-user]#
```

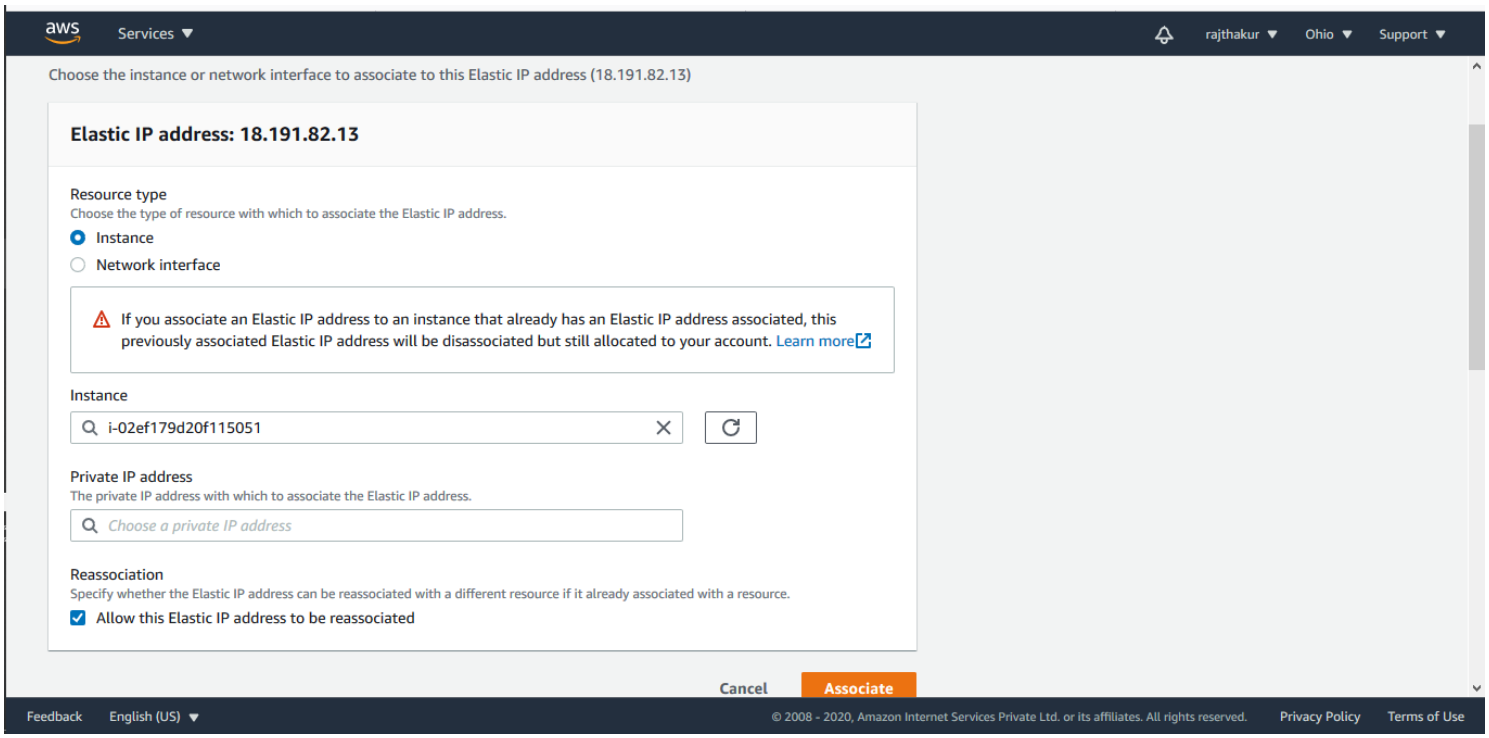
5. Test Page of Apache Server



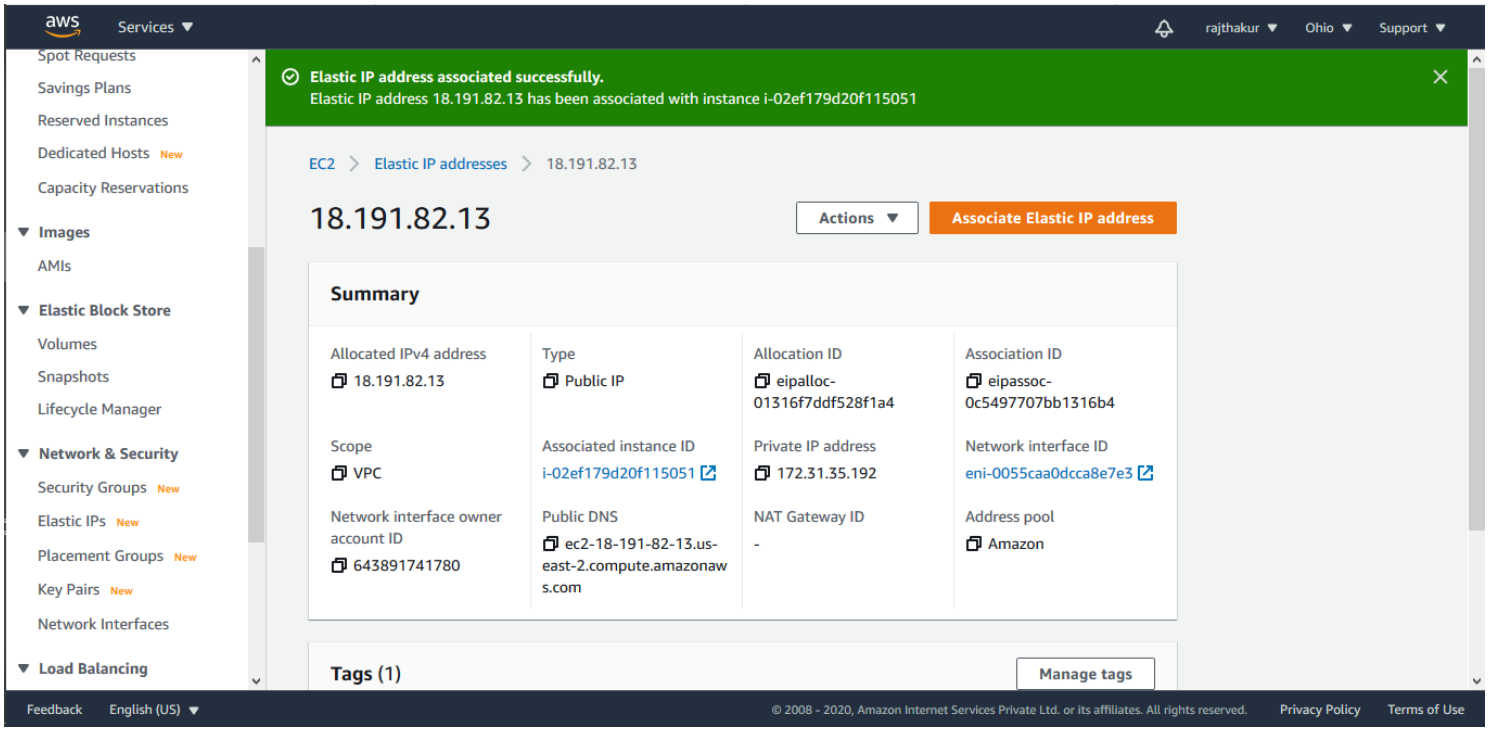
6. Elastic IP Created



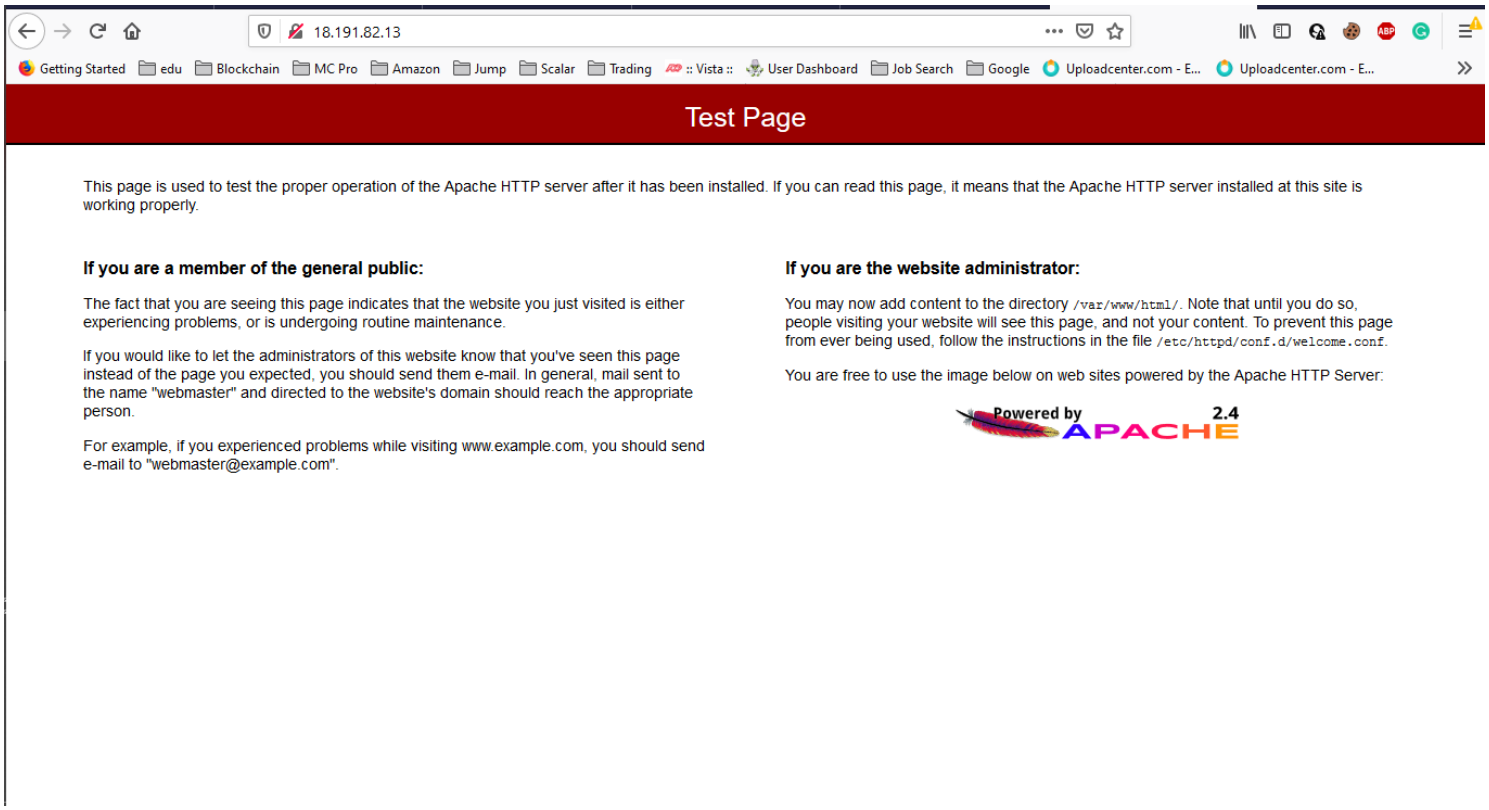
7.Assosciate IP address



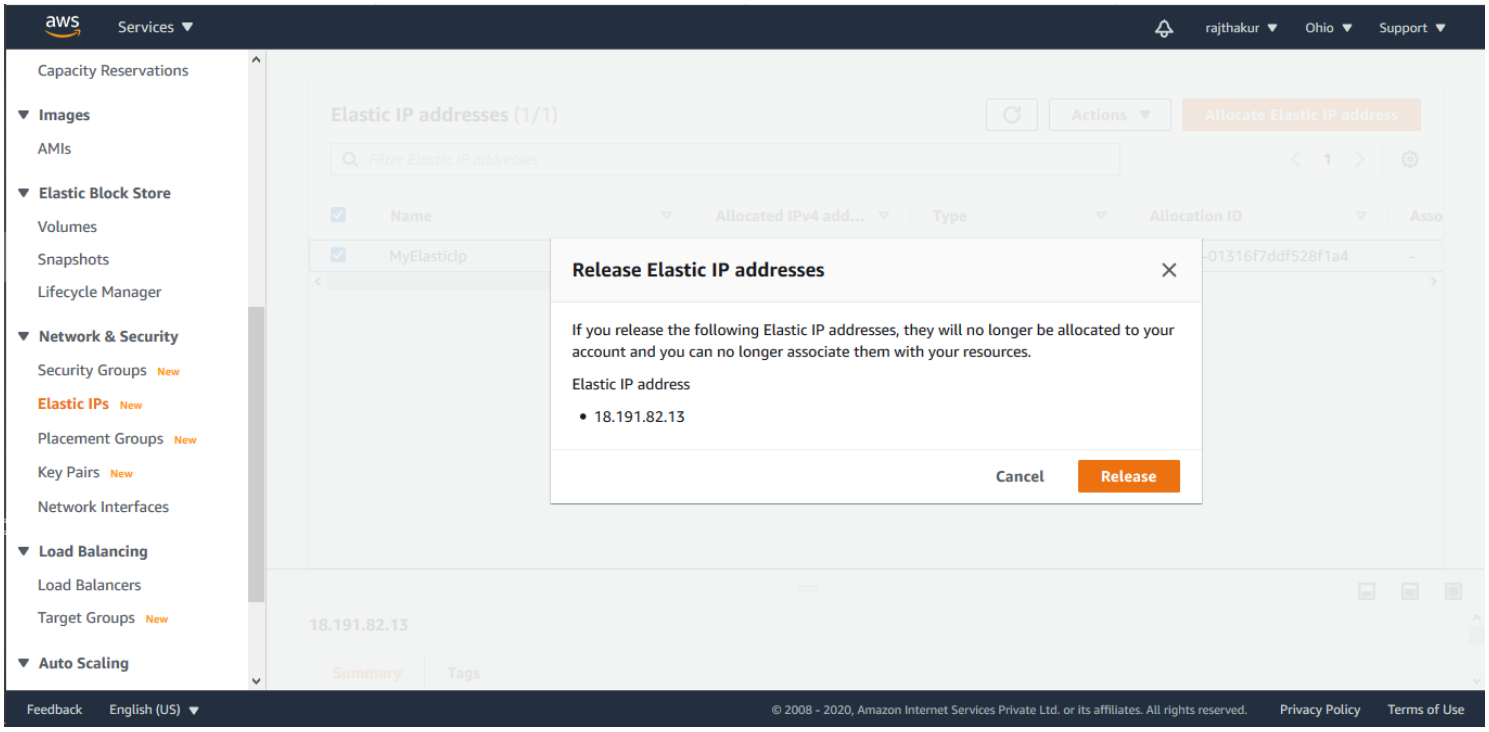
8. Elastic IP associated with instance



9.Apache test page with elastic IP

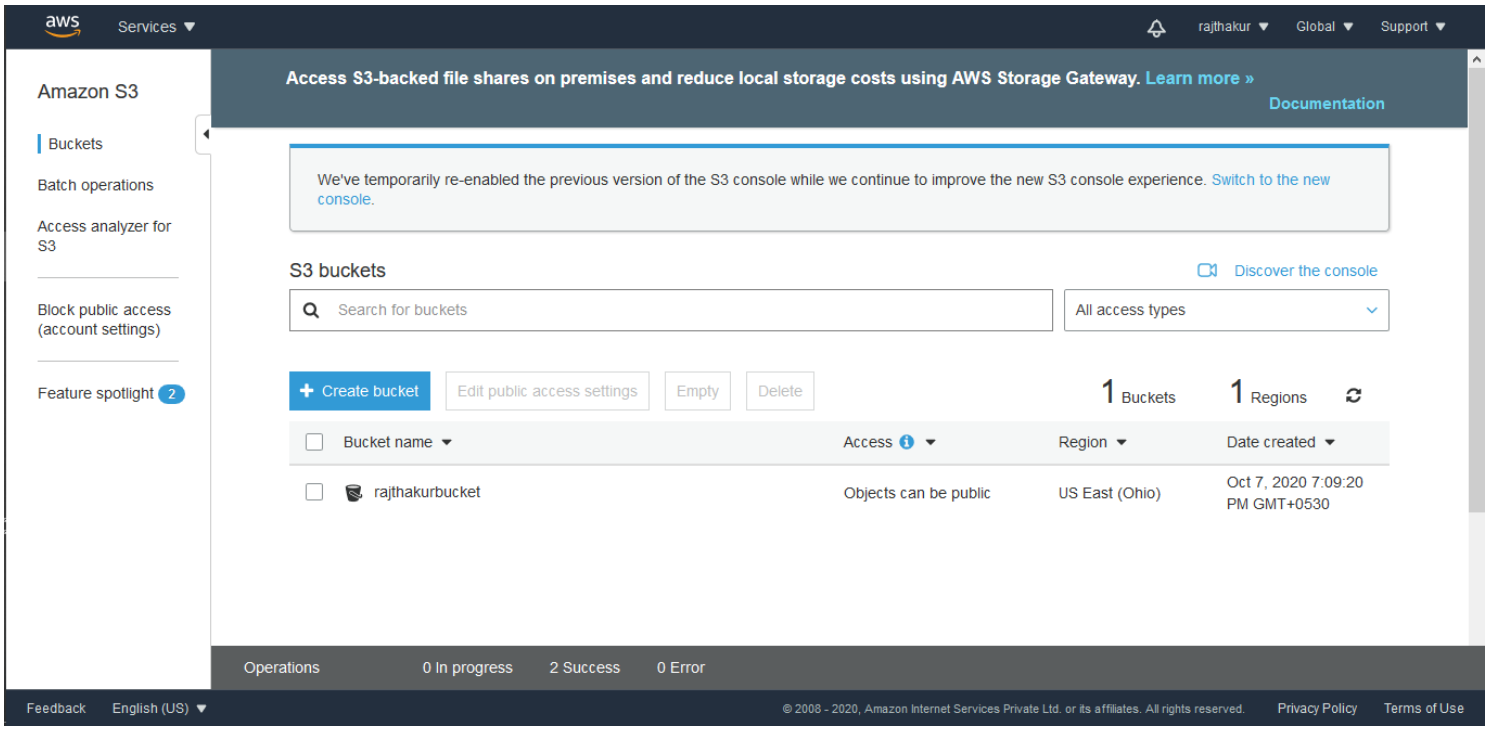


10. Release Elastic IP

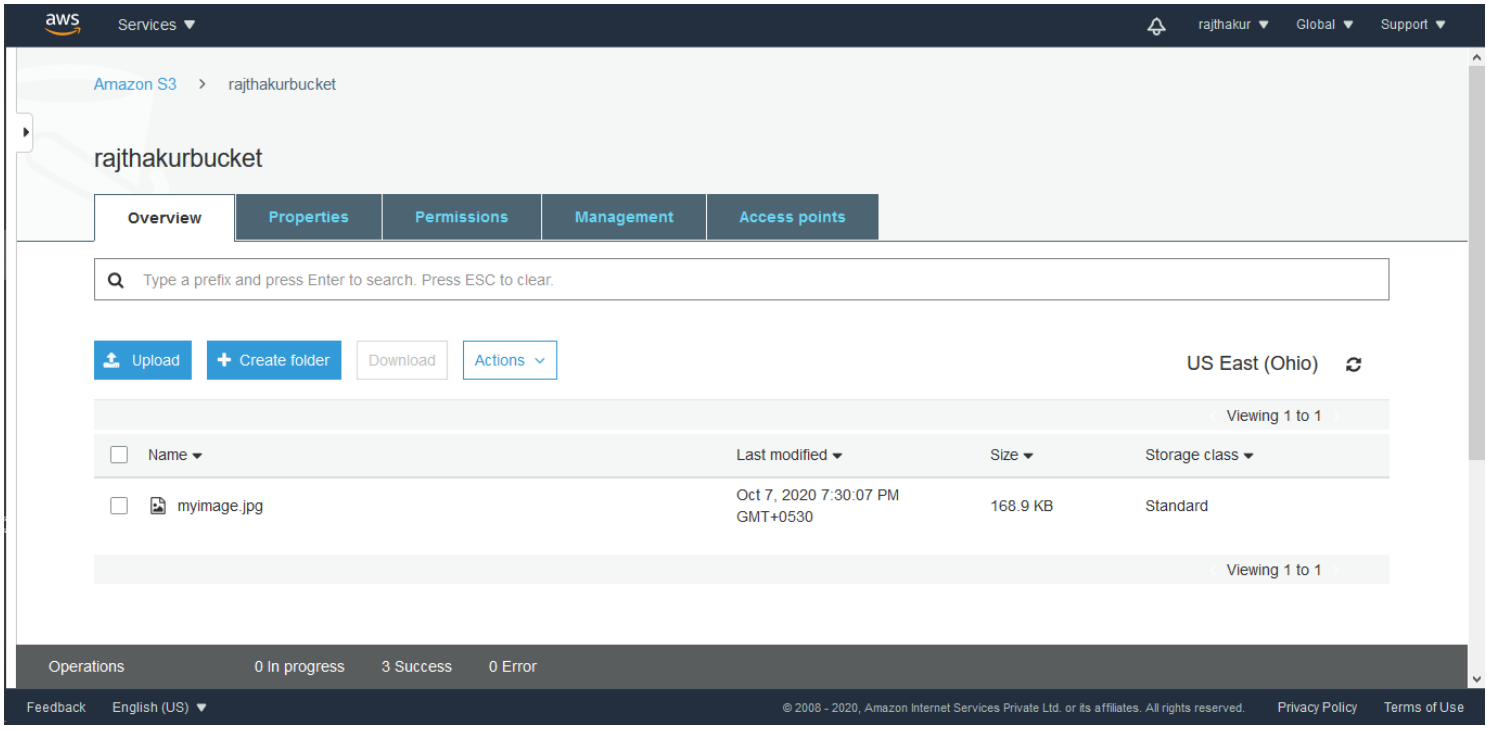


Project 5-Working with S3

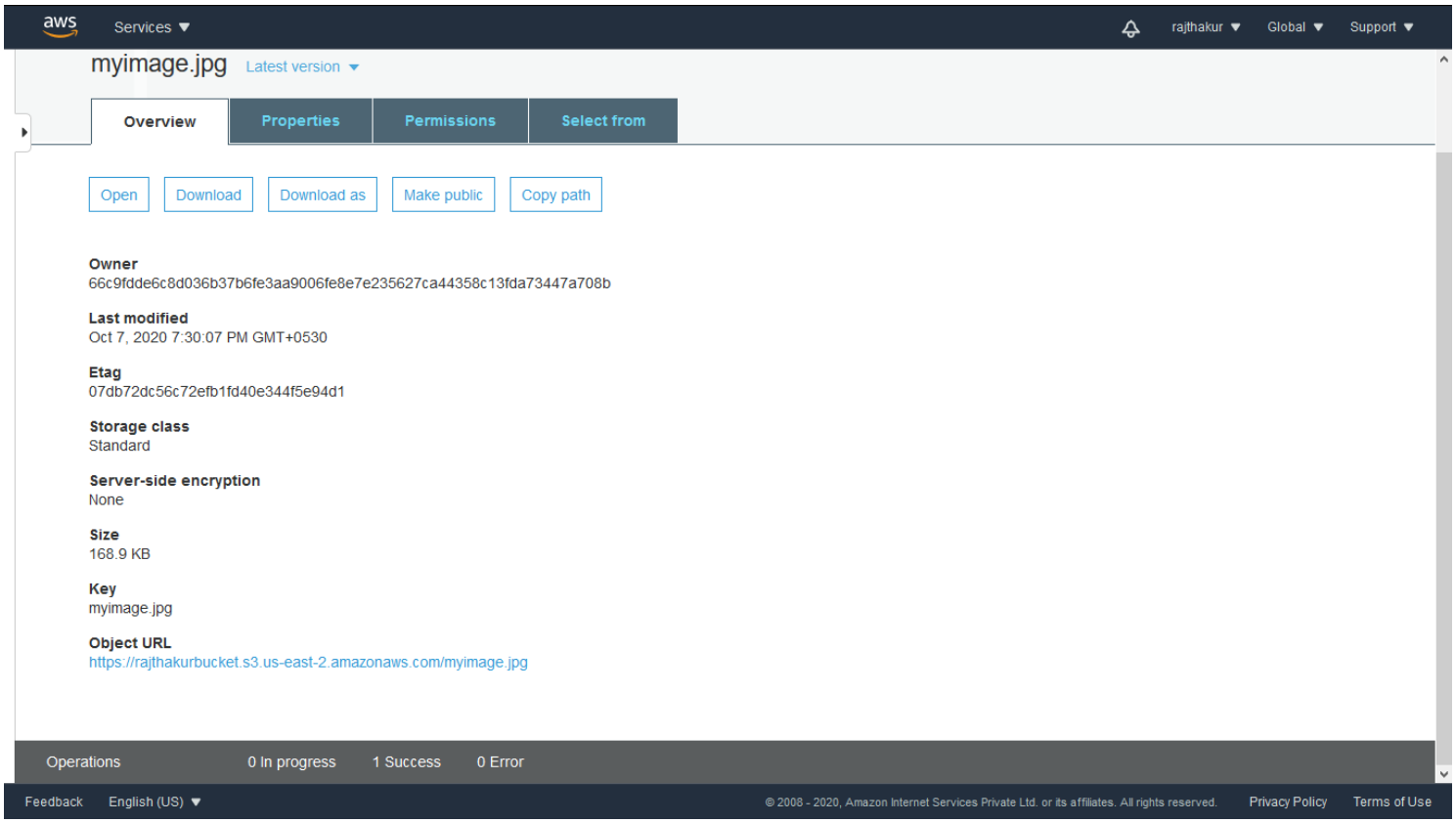
1. S3 bucket created



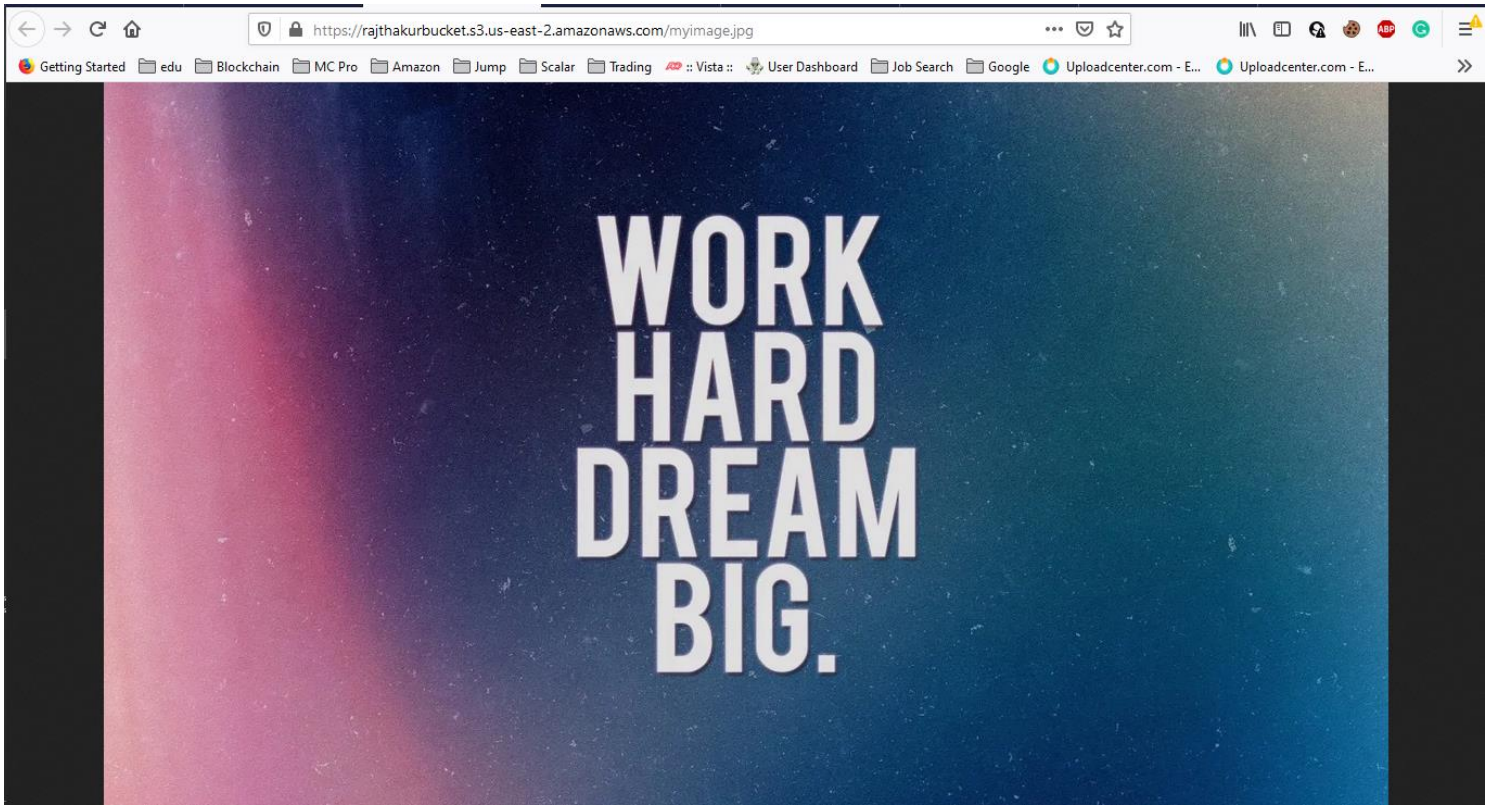
2.Uploaded file to S3 bucket



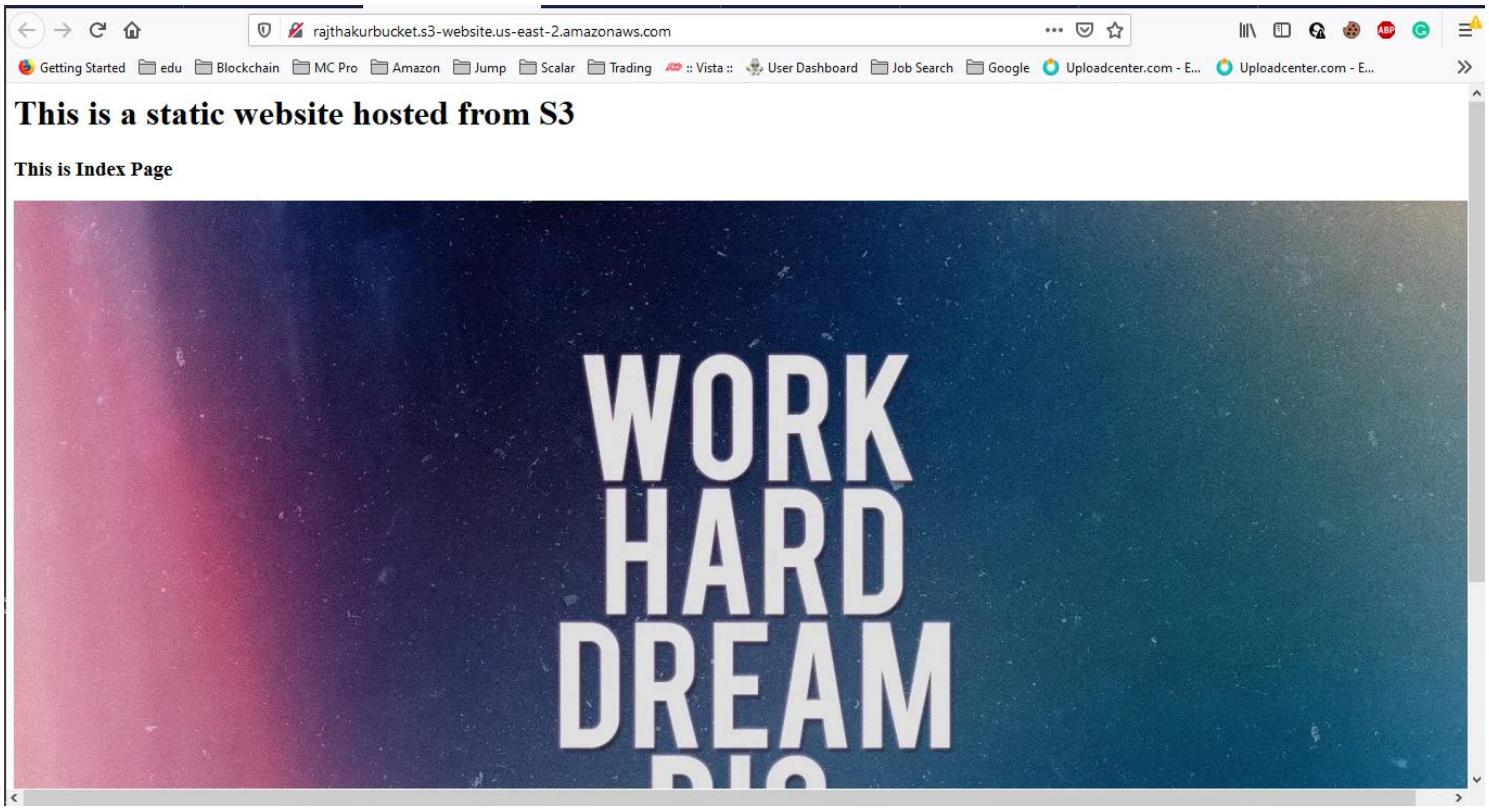
3.Made object as public and getting its url



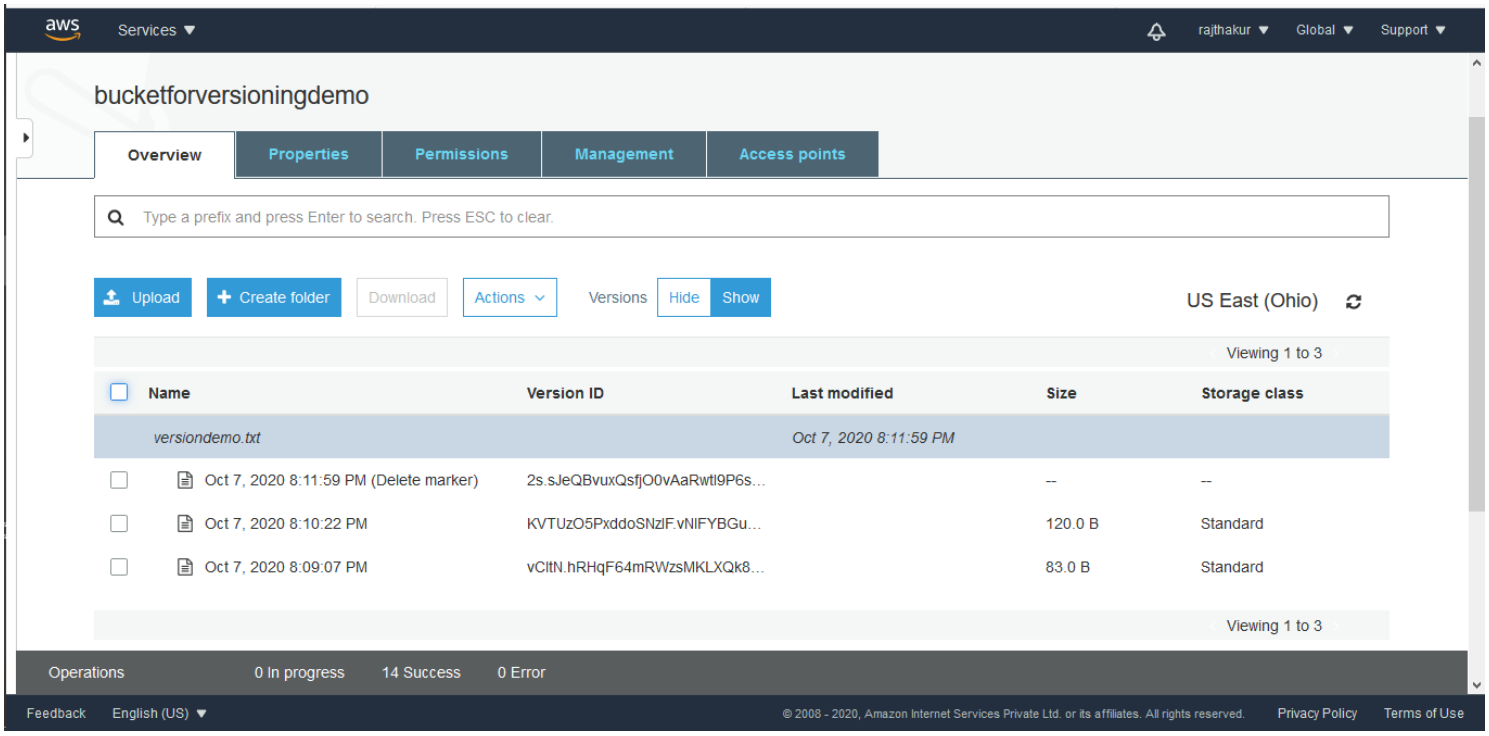
4. Browsing the object url



5.Static Website from S3 Bucket



6.Versioning



Question and Answers:

QUESTION 1:

Explain life cycle effects on instances:Stop,start,reboot,terminate-public IP,Private Ip,Applications installed.

Answer:

Characteristic	Start/Stop	Reboot	Terminate
Public IP	The instance gets a new public IPv4 address, unless it has an Elastic IP address, which doesn't change during a stop/start.	These addresses stay the same	When instance is terminated the public IP for it no longer exists for that instance.
Private IP	The instance keeps its private IPv4 address.	These addresses stay the same	When instance is terminated the private IP for it no longer exists for that instance.
Applications	The applications will still be installed , as Start/Stop is just similar to turning a PC on/off.	The applications will still be installed , as Reboot is just similar to a PC restart.	The applications will be deleted, as terminating an instance is like deleting/removing a complete virtual machine.