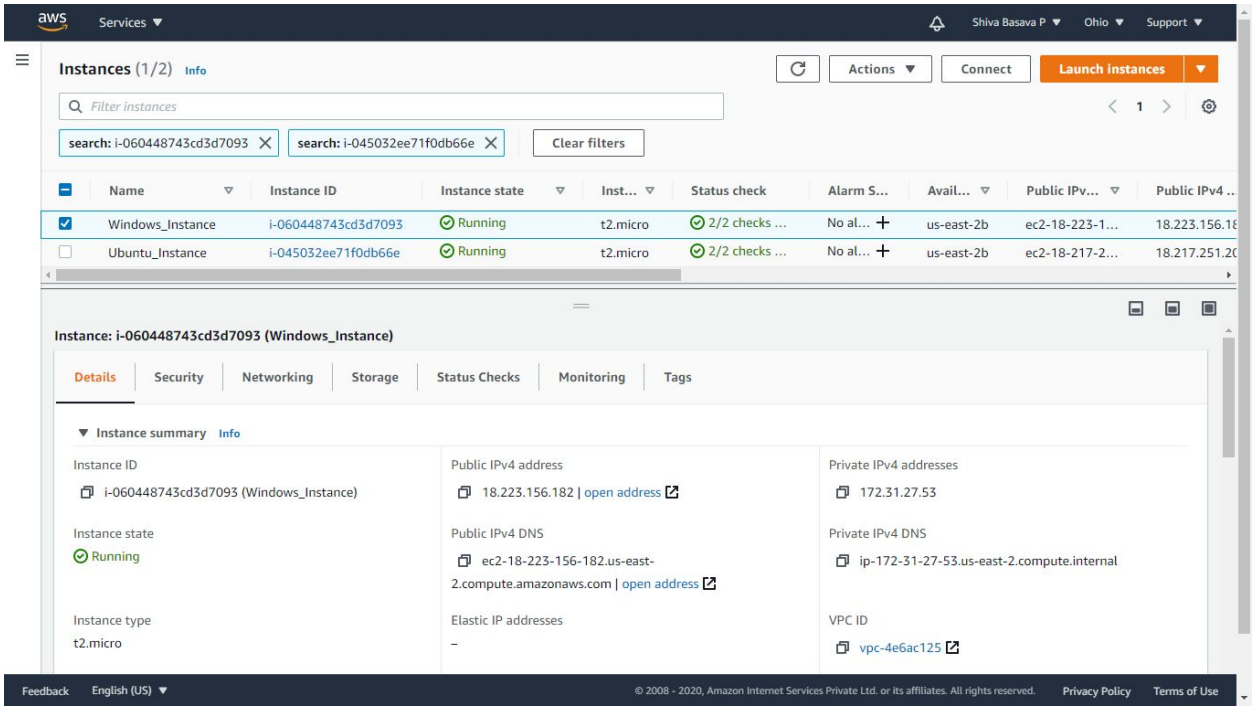
Assignment Solution - Day 3 & 4

- **PROJECT 1:**

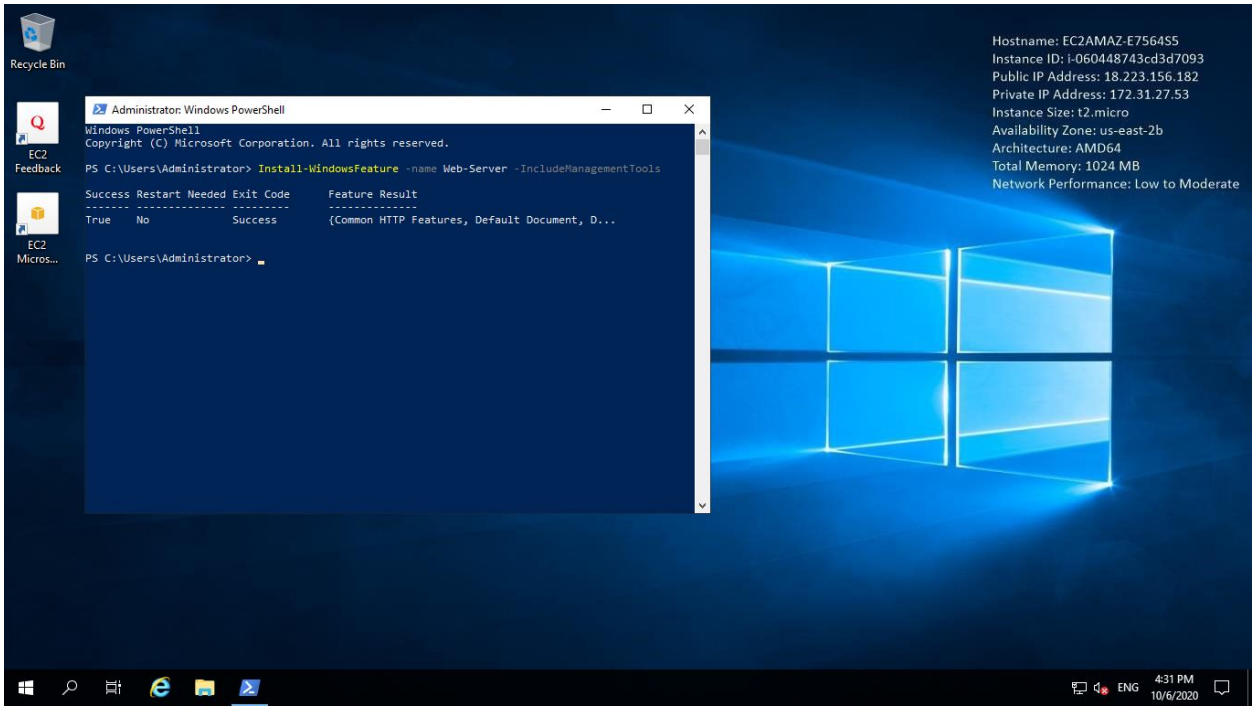
Deploying a web server in Windows instance.

Following are the stepwise screenshots from creation to deploying a web server in Windows instance.

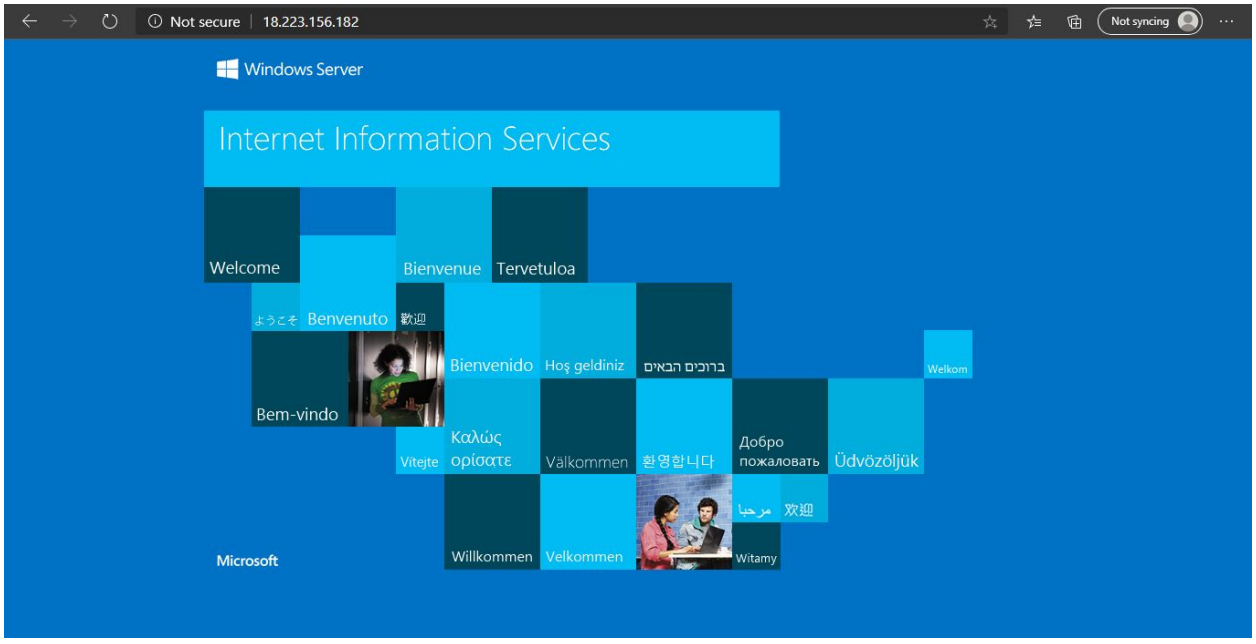
1. Below screenshot is an Overview of the Windows instance, after creation.



2. Installed a IIS web server in Windows Instance



3. We can access the web page by the Public IP - **18.223.156.182**

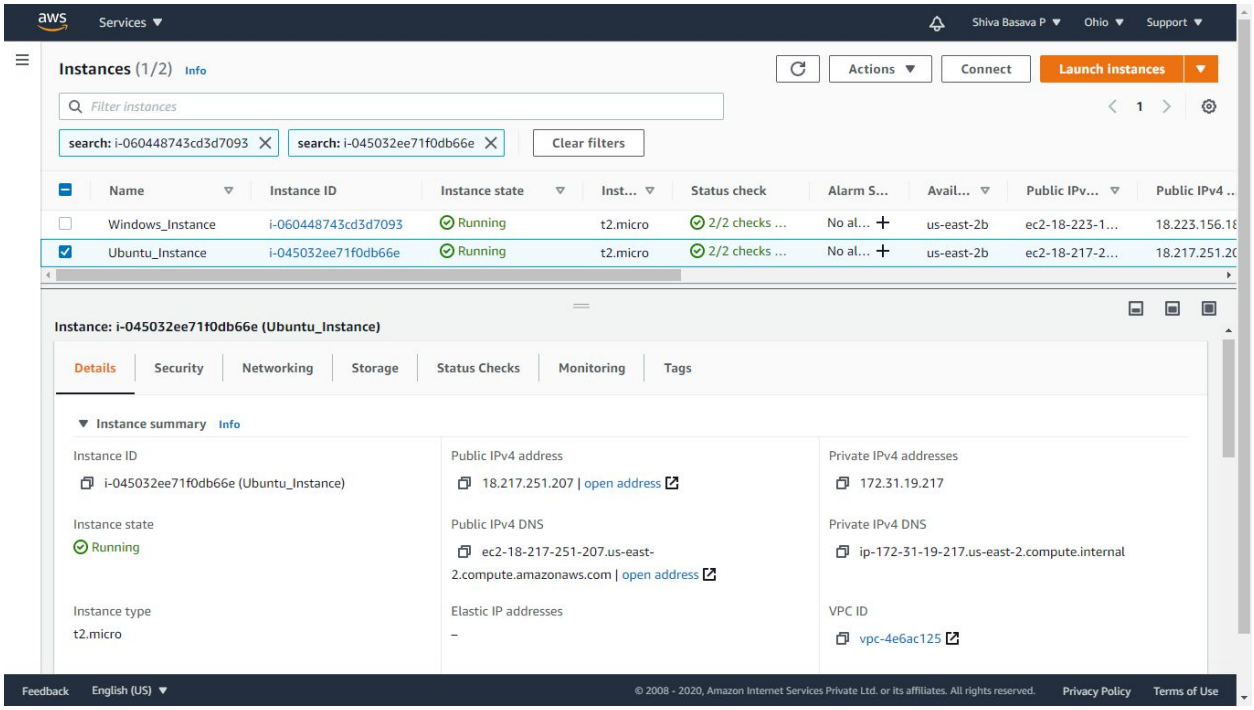


- **PROJECT 2:**

Deploying a web server in Ubuntu instance.

Following are the stepwise screenshots from creation to deploying a web server in Ubuntu instance.

1. Below screenshot is an Overview of the Ubuntu instance, after creation.

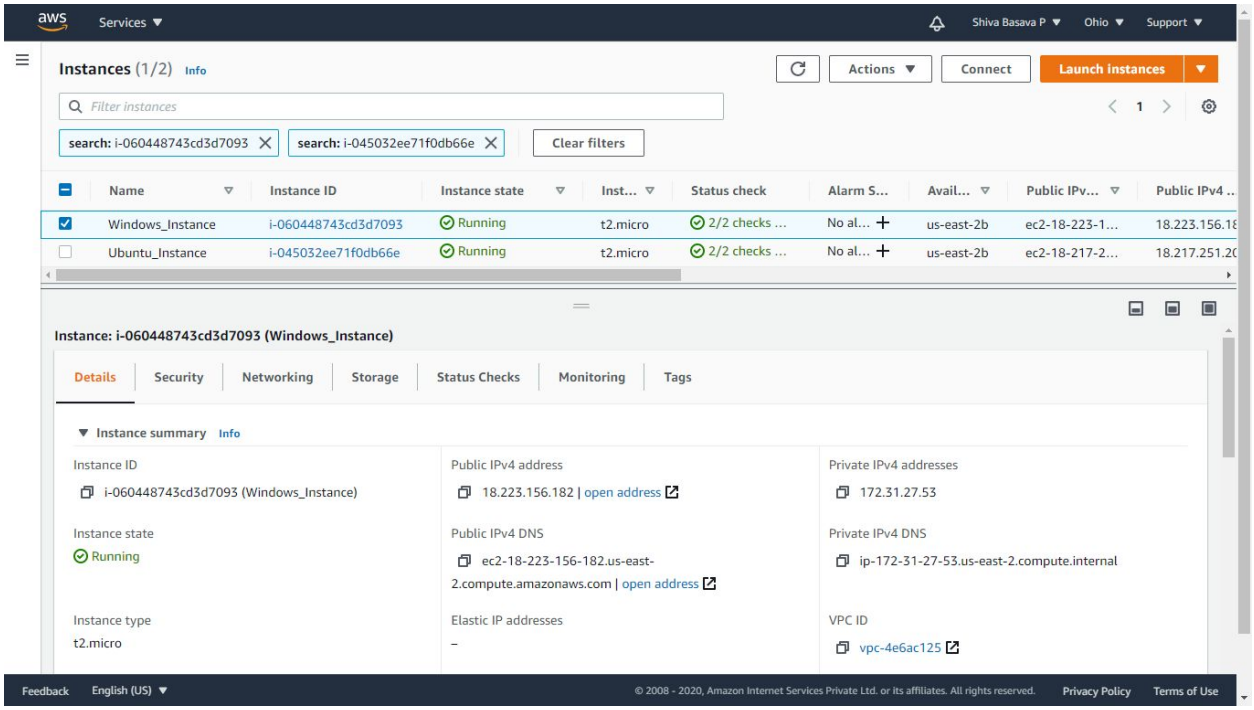


2. After Successful login to Instance, Installed the 'nginx' server. Now, we can access the web page by the Public IP - **18.217.251.207**

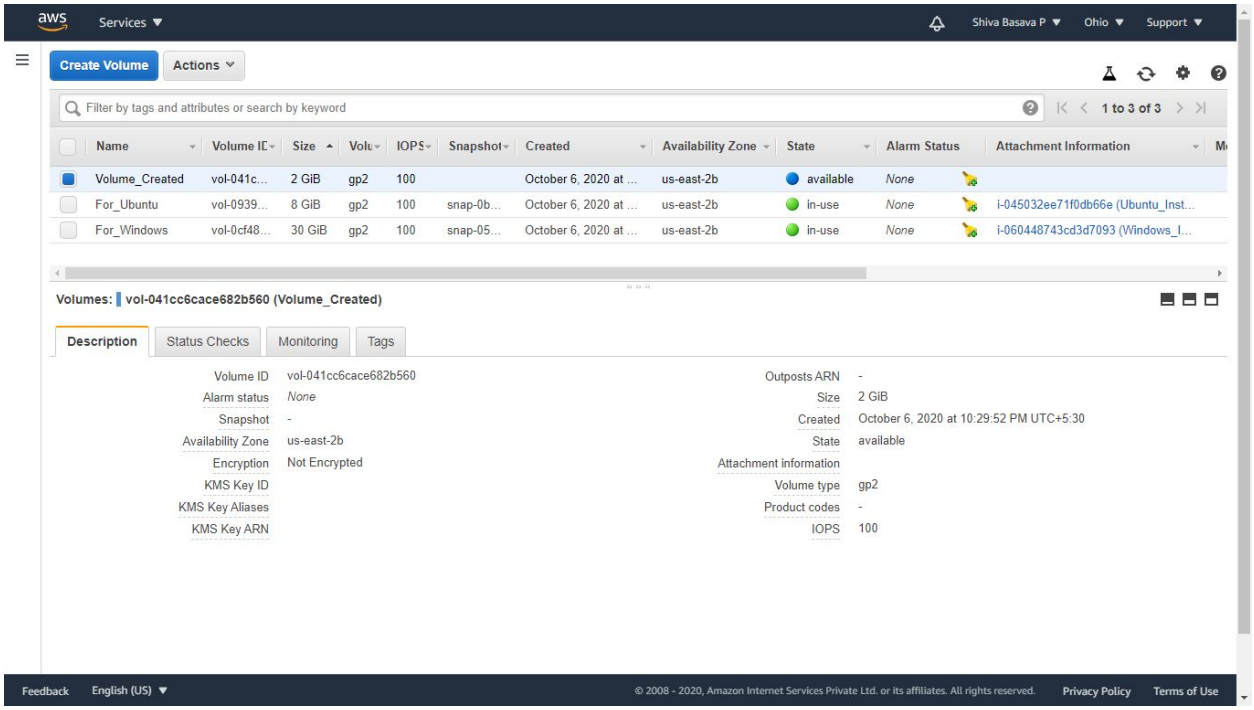
- **PROJECT 3:** Working with volumes

Following are the stepwise screenshots, Which describe the creation or modifying of volume for Windows Instance.

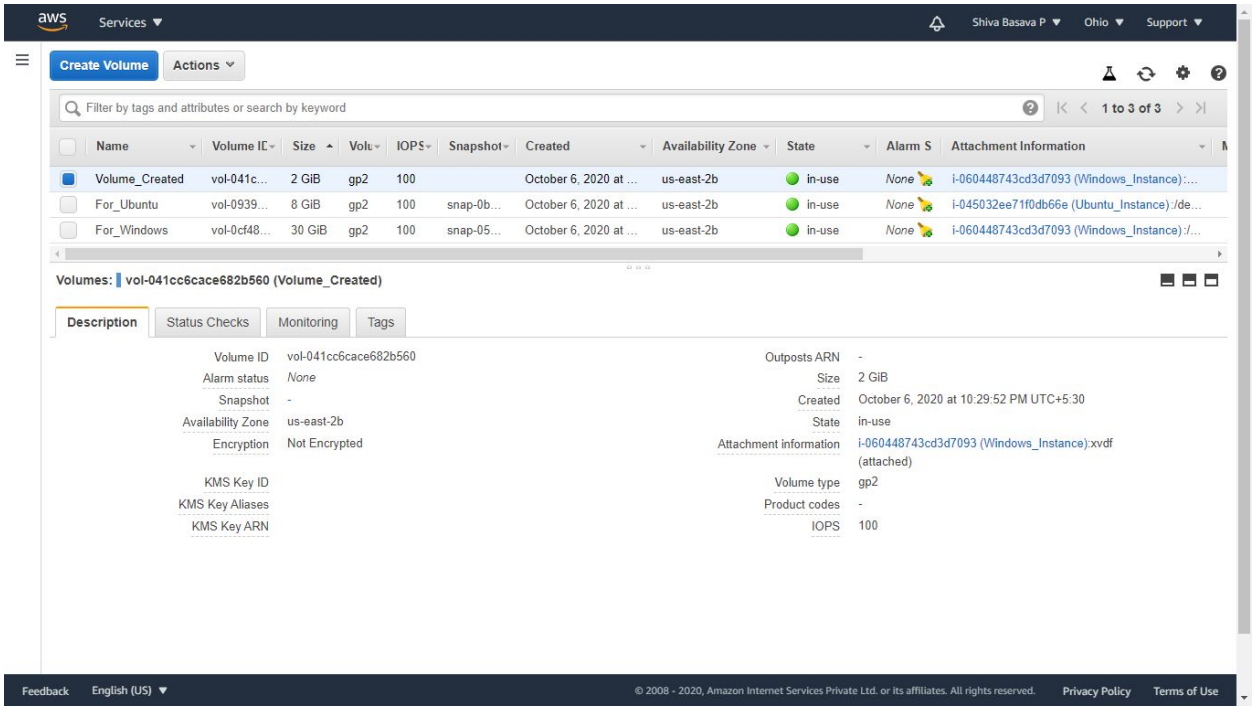
1. Created a Windows Instance



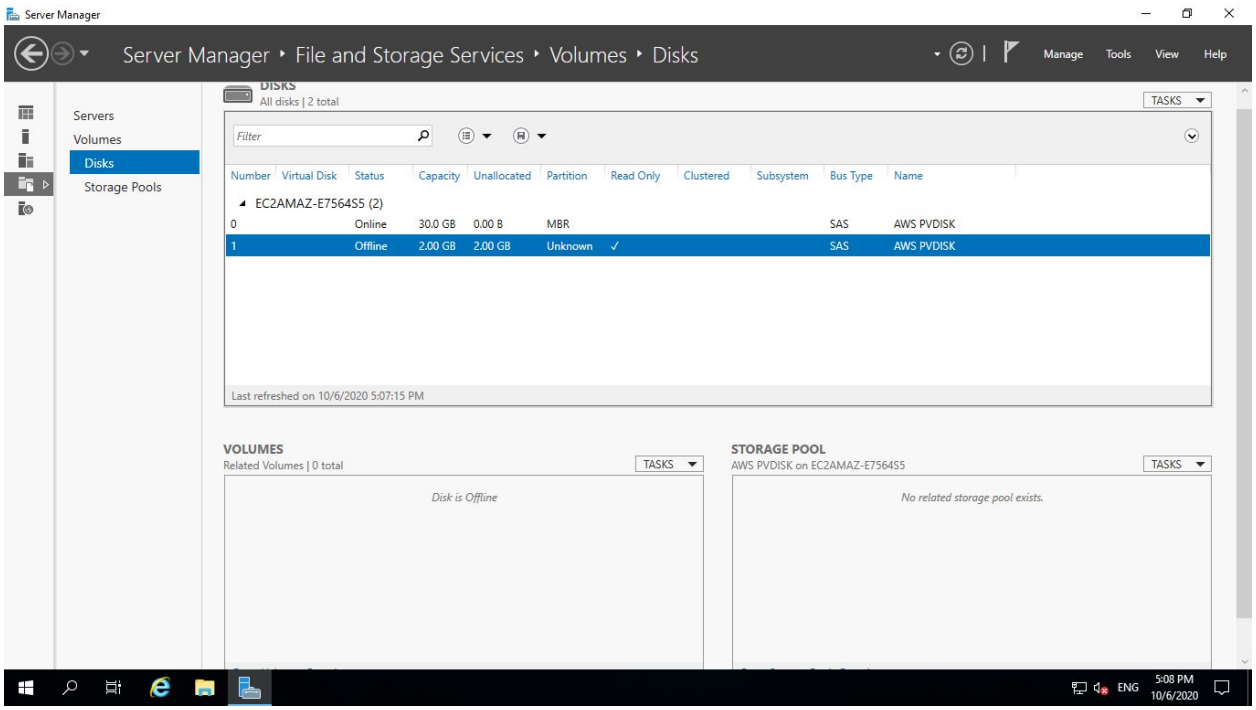
2. Created a New EBS Volume.



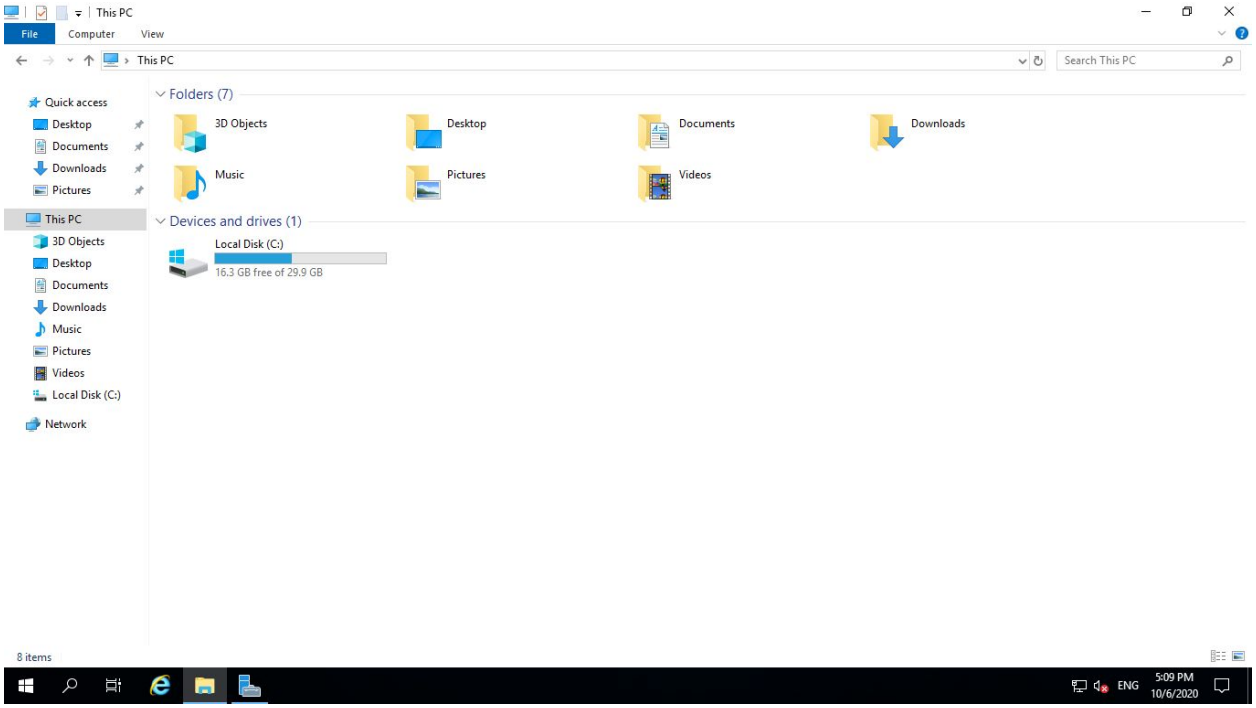
3. Attaching the Created EBS to the Windows Instance.



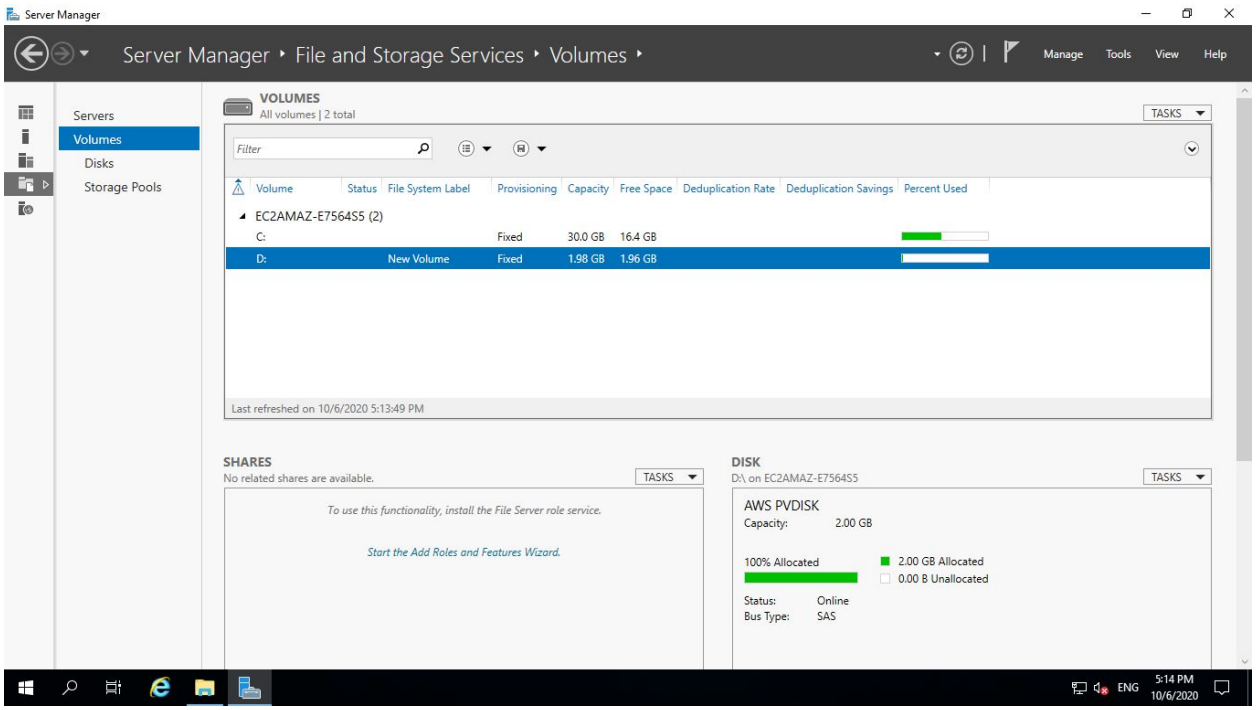
4. Now login to the Windows Instance and goto Server Management, Newly created EBS Volume will be in OFFLINE state.



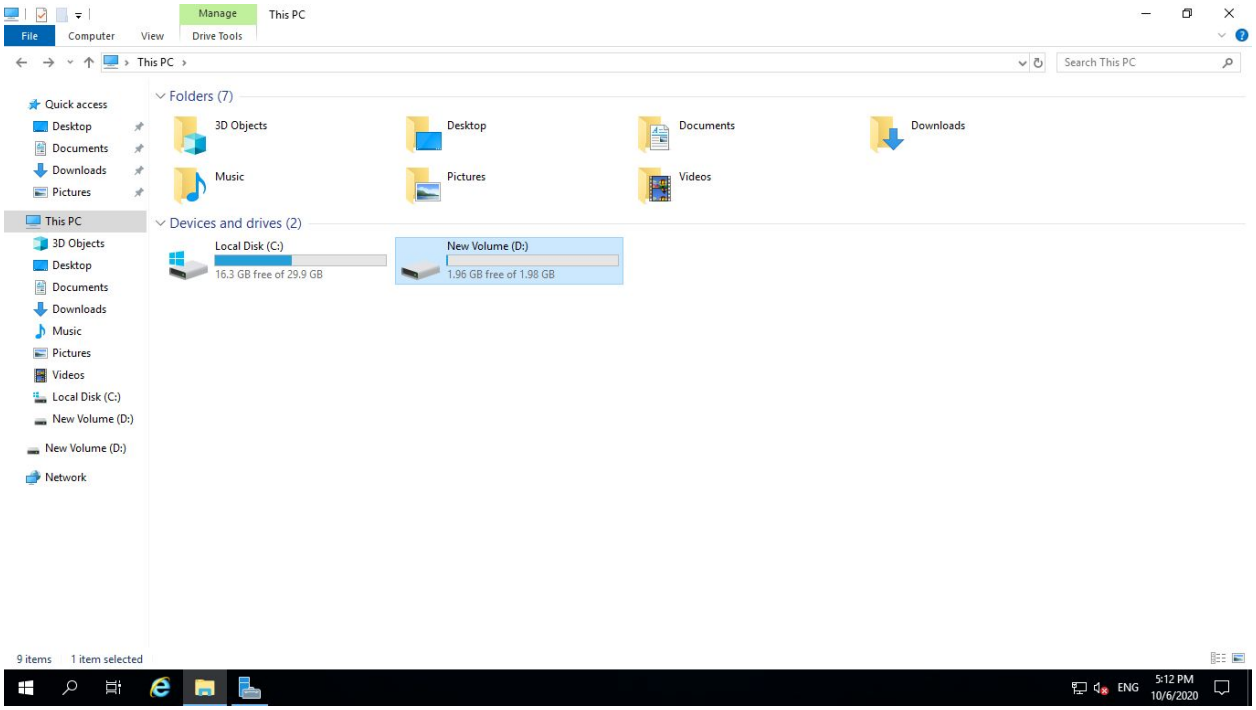
(This PC view)



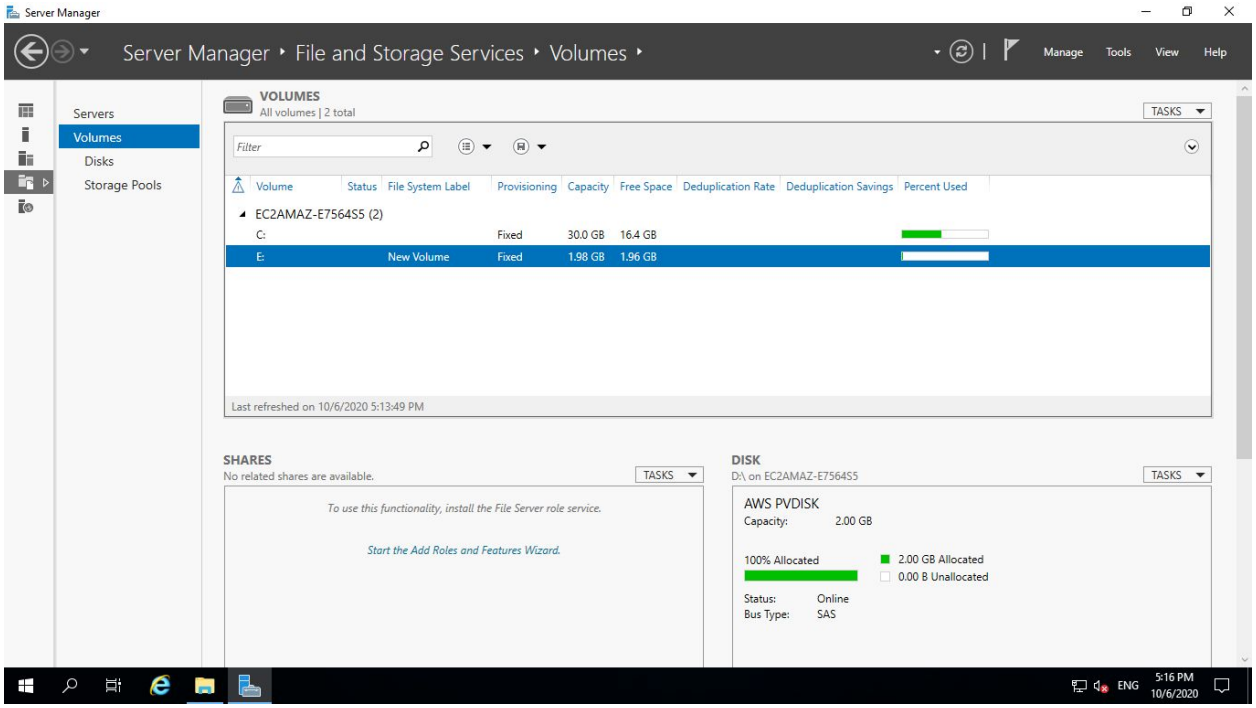
5. Bringing EBS ONLINE. And now the EBS volume is successfully Mounted.



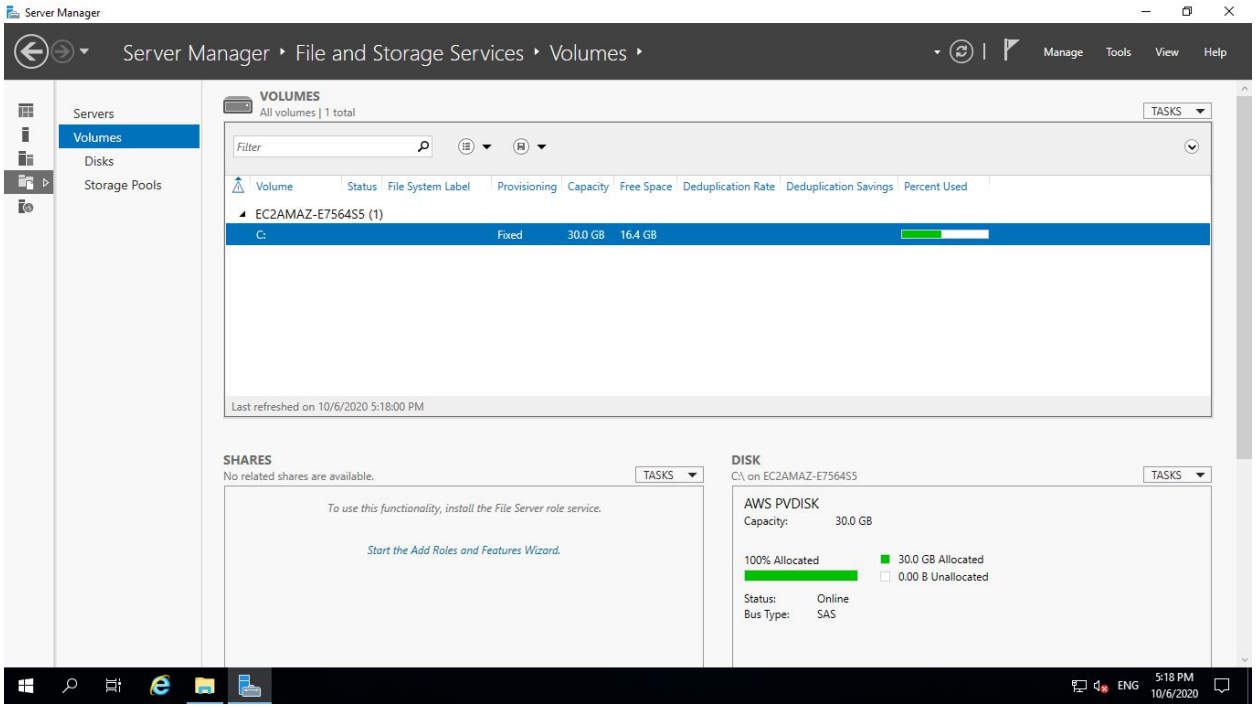
(This PC view)



6. Changed the Drive Name from ‘D’ to ‘E’



7. Deleted the EBS Volume

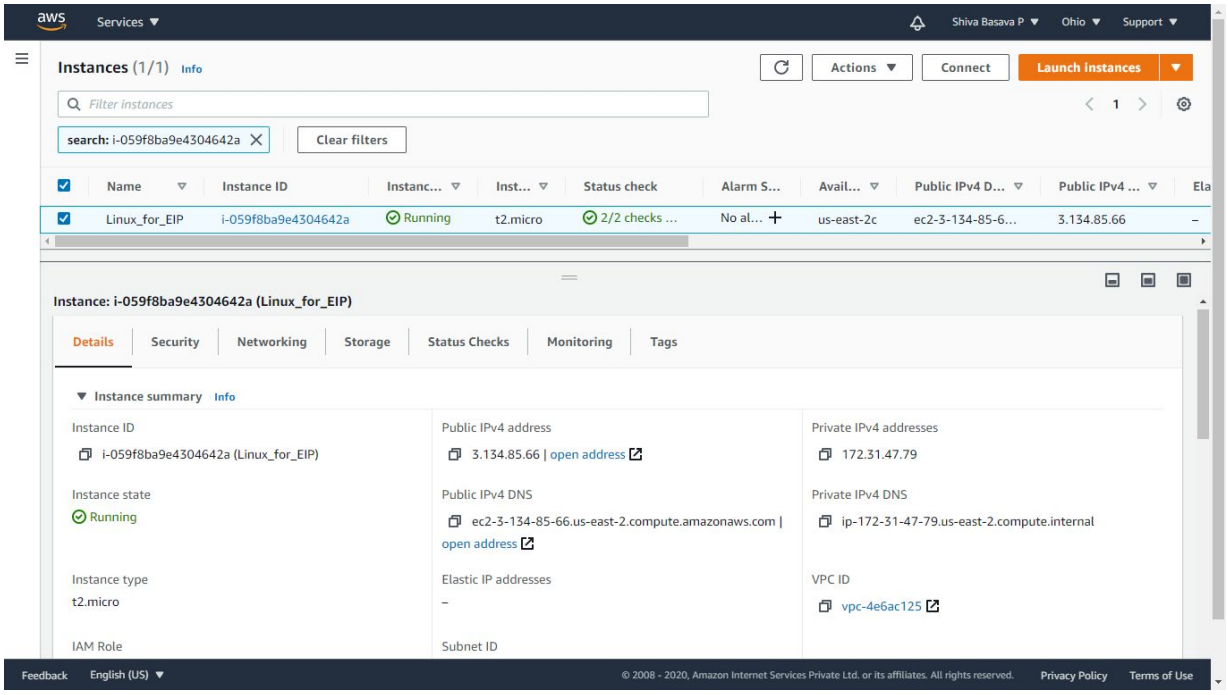


- **PROJECT 4:**

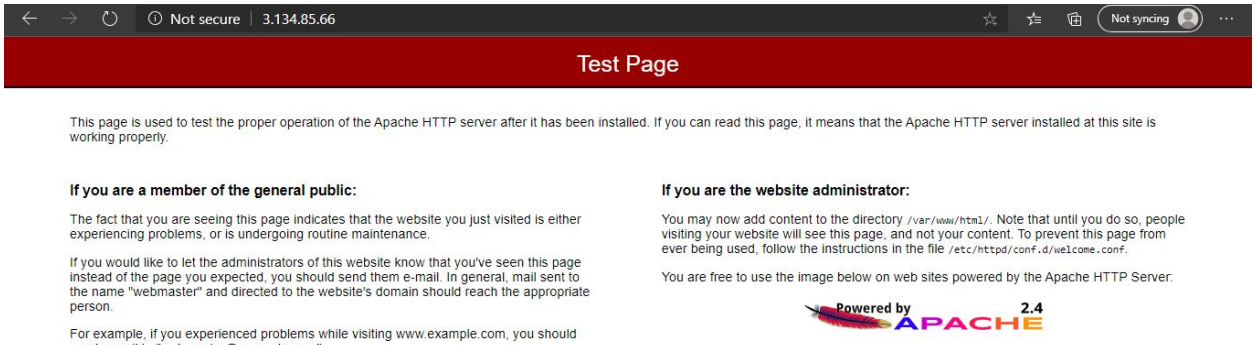
Working with Elastic IP's

Following are the stepwise screenshots, Which describe the creation of Elastic IP.

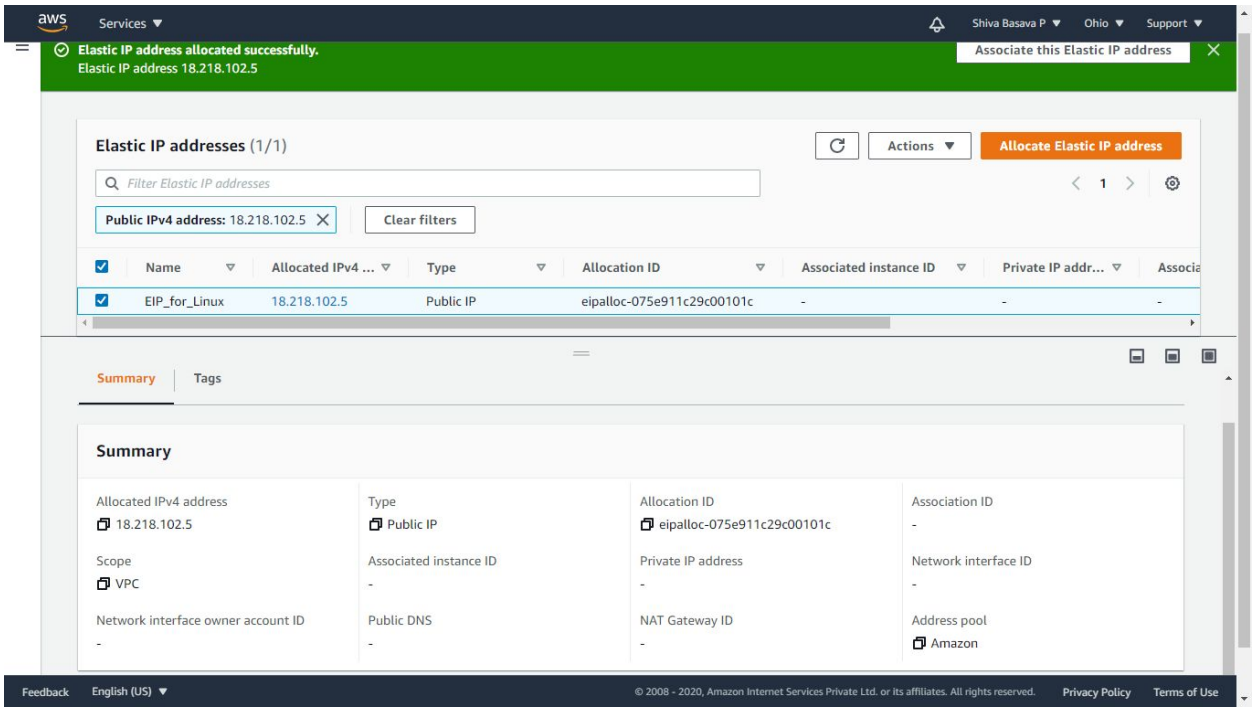
1. Created a Linux Instance.



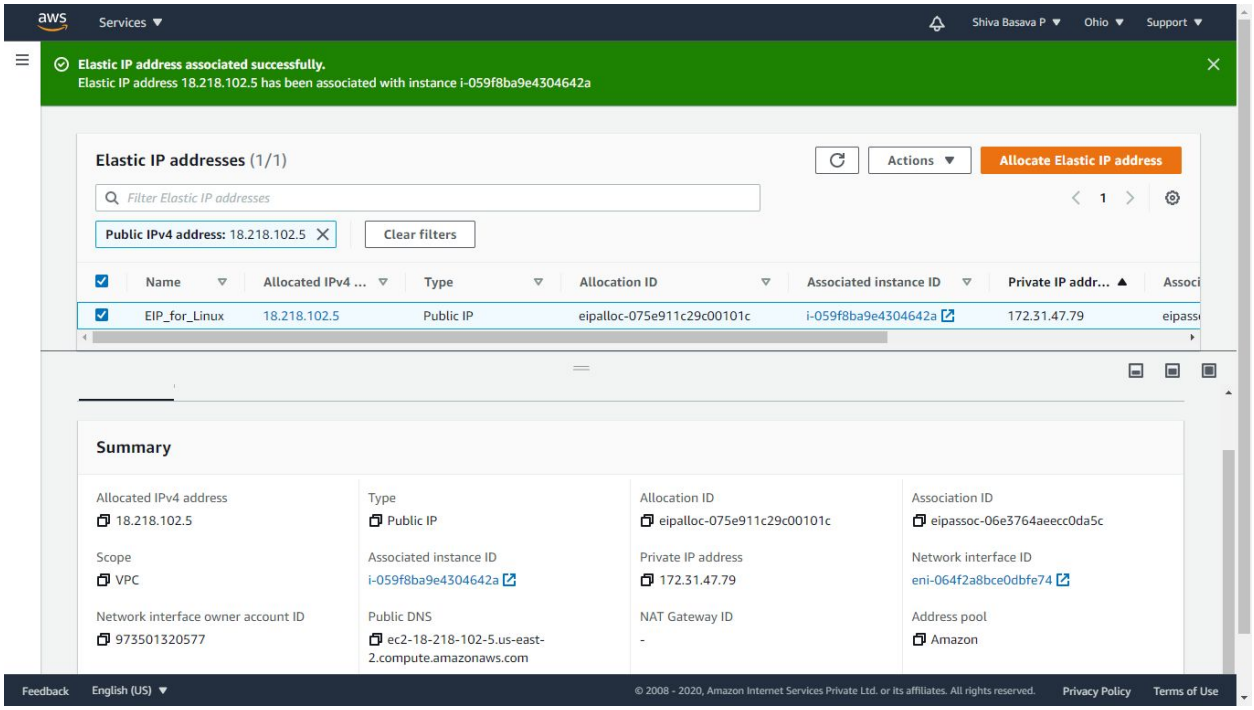
2. Logged in as a Super root user, Updated the system and installed Apache server. Now the web page(Test page) can be accessed by IP - **3.134.85.66**



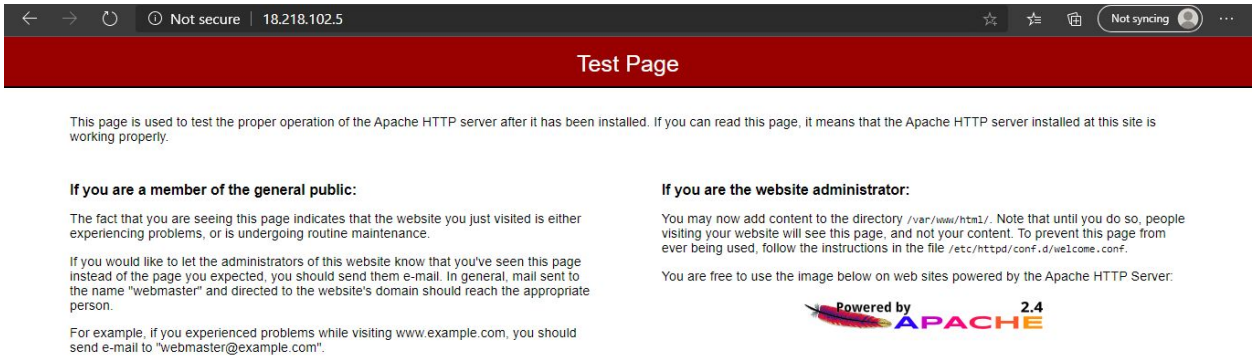
3. Created an Elastic IP.



4. Allocated it to above Linux Instance.



5. Now we can access the web page(Test page) by using the Elastic IP's Id - **18.218.102.5**

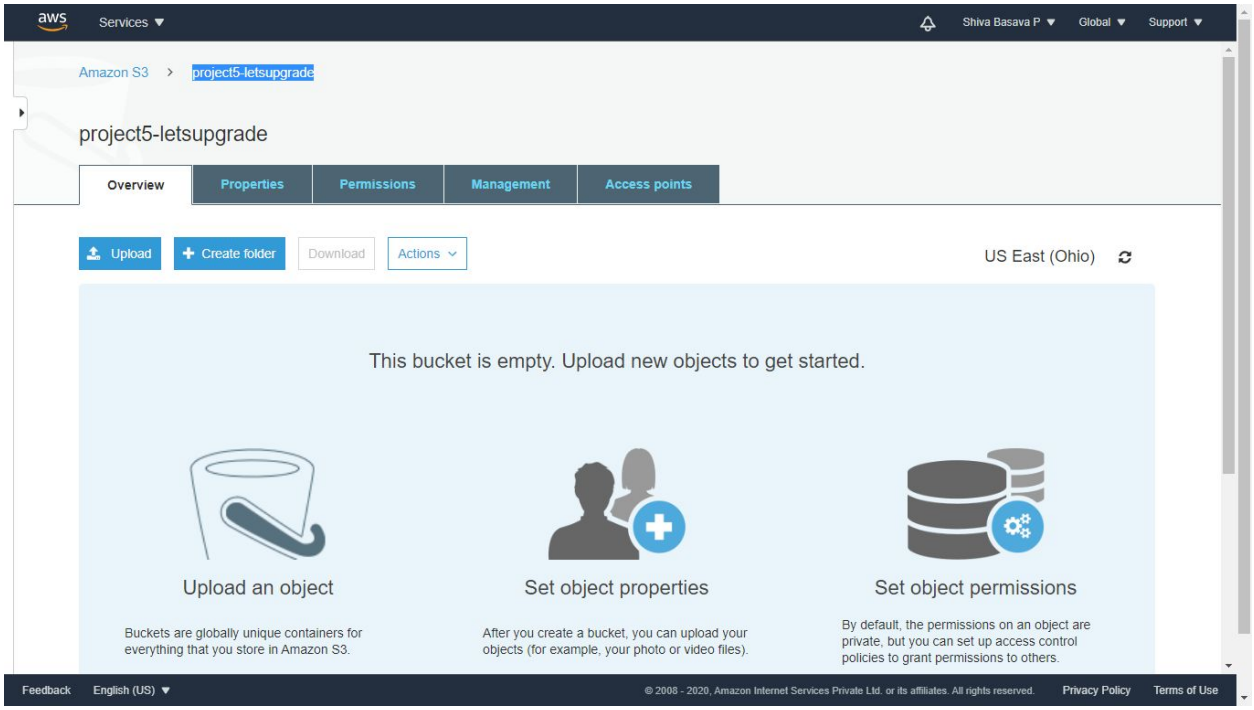


- **PROJECT 5:**

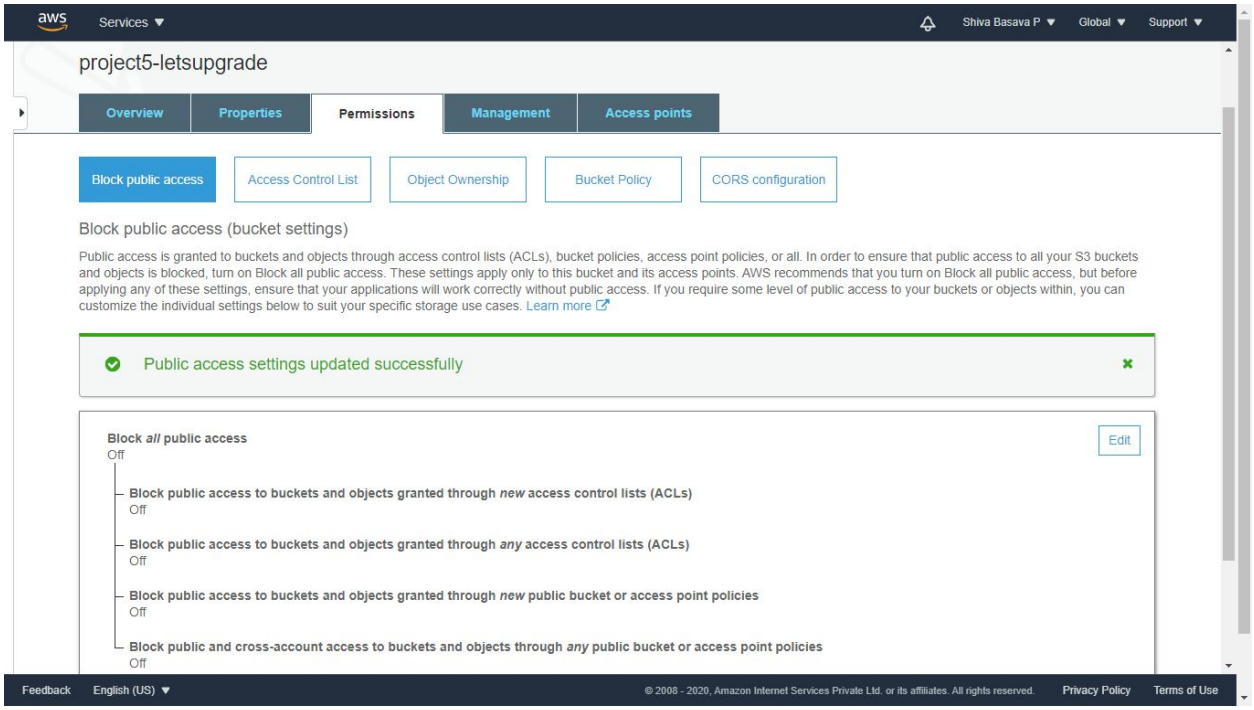
Working with S3 -

I. Uploading an Image of format '.jpg' to S3

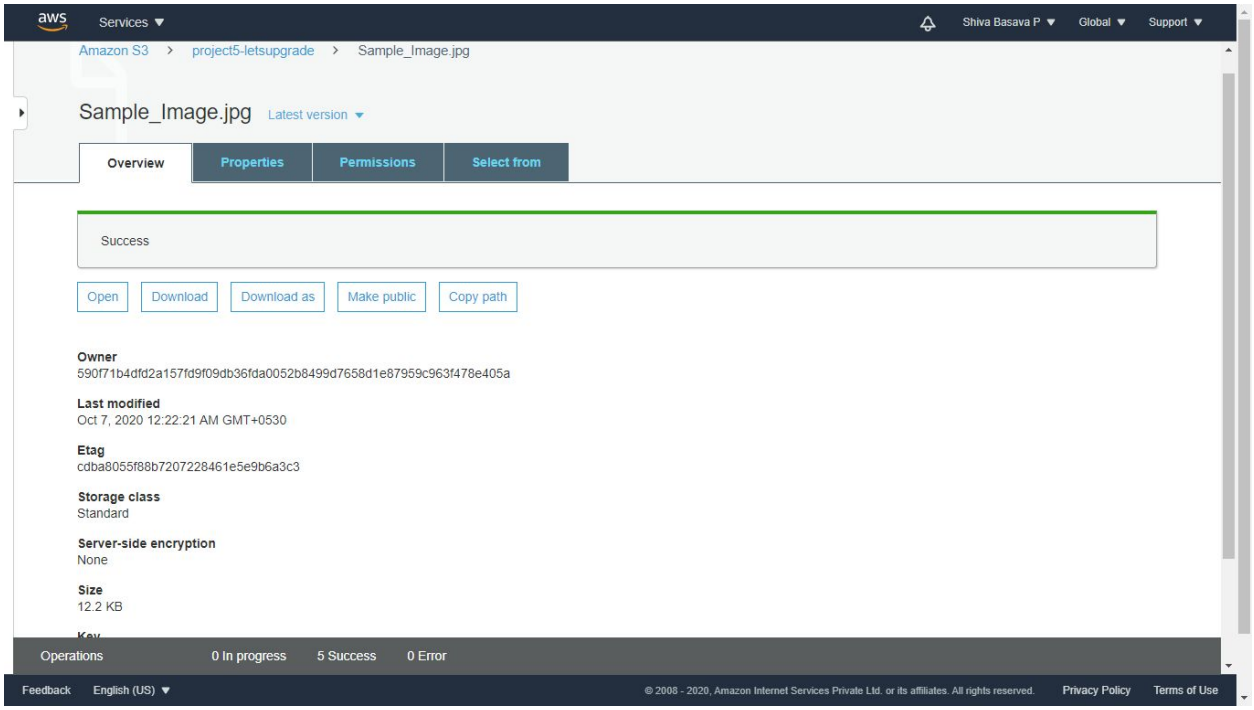
1. Create a S3 bucket (project5-letsupgrade)



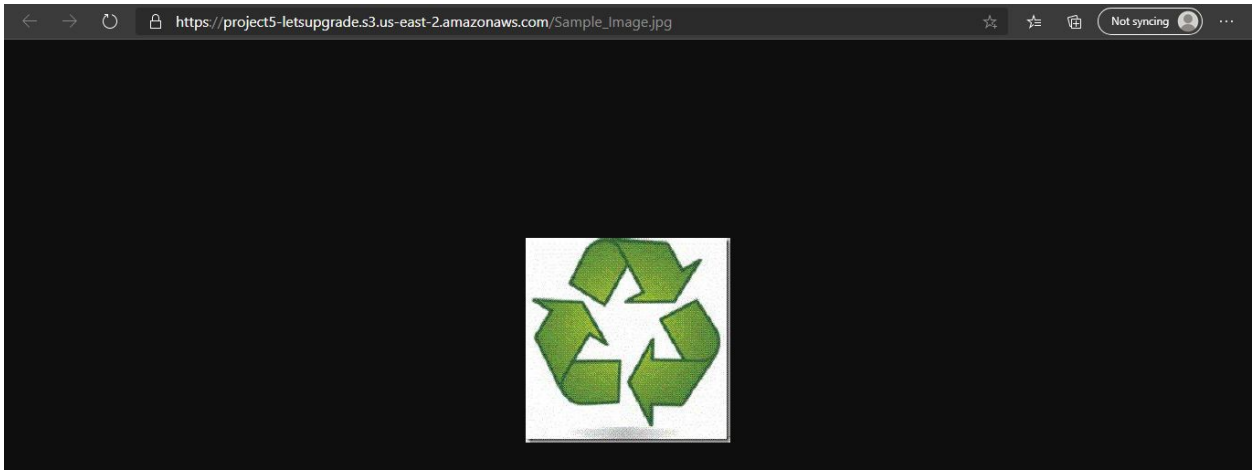
2. Make the S3 bucket's permission to PUBLIC.



3. Upload an Image of format '.jpg' and also change its visibility to PUBLIC as well.

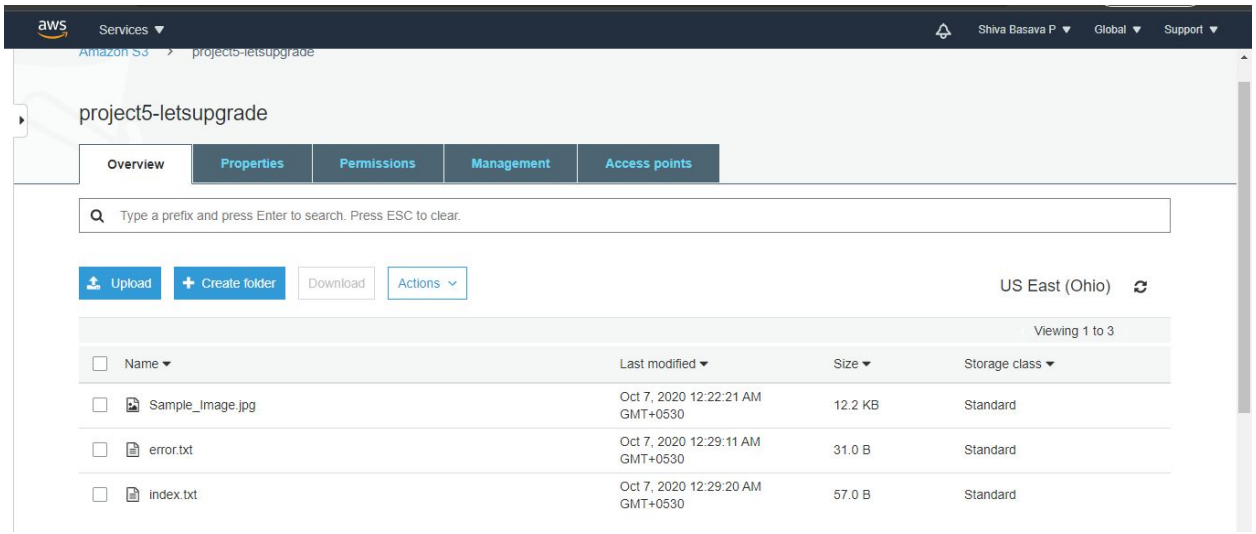


4. Now we'll be able to access the uploaded image by its **Object URL**.

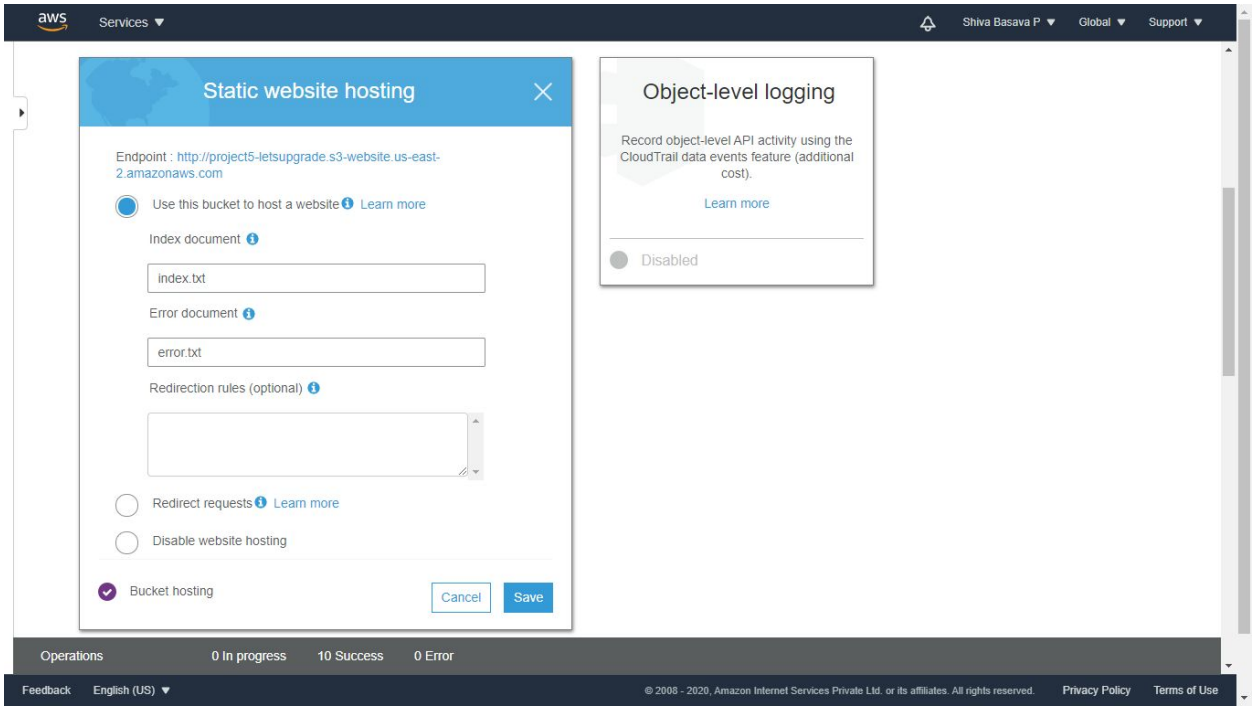


II. Static web hosting

1. In the above S3 bucket, Upload two text files - index.txt and error.txt

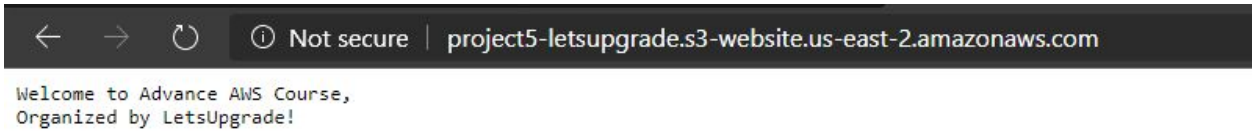


2. Let's ENABLE the option for Static Web Hosting. And fill in required details(like- file name). And it'll auto generate link, through which we can access this Static web page.

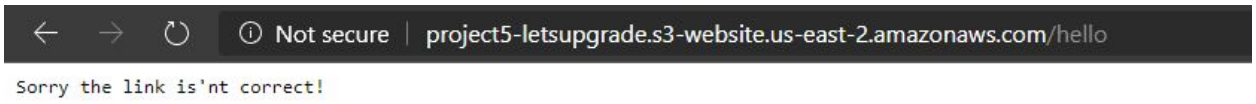


3. Following are the success and error messages, the web page will display.

   (success)

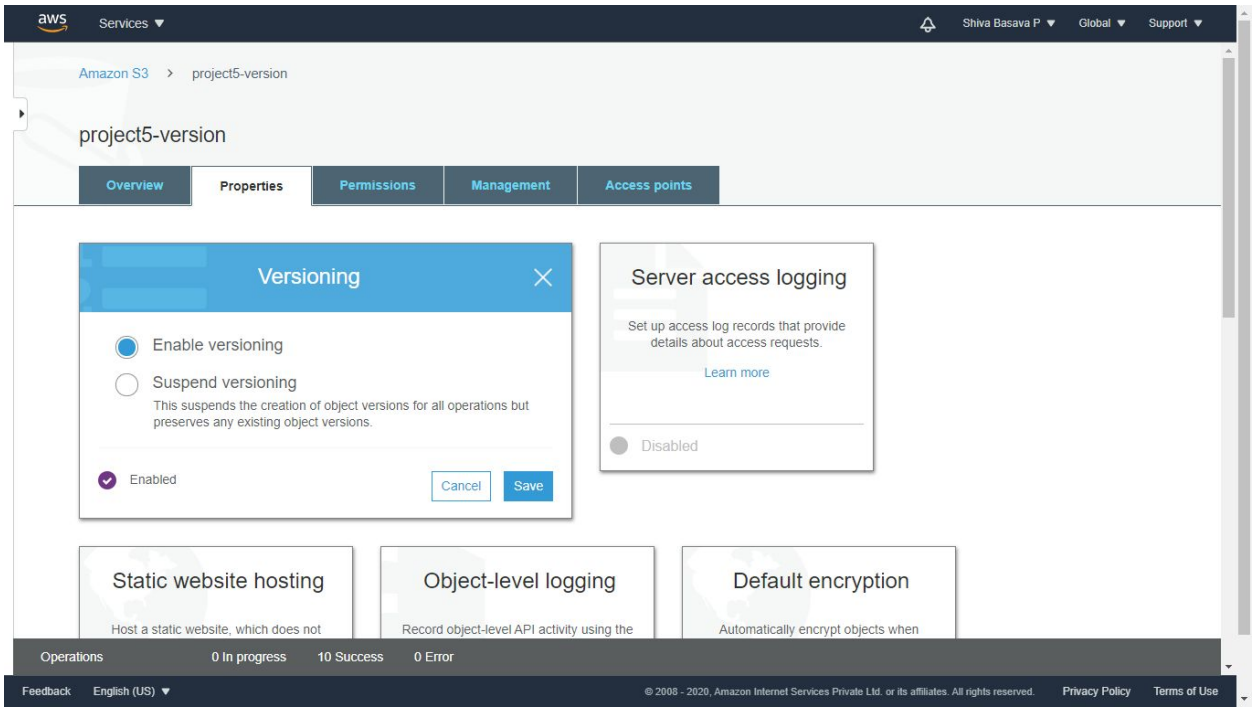


(error)



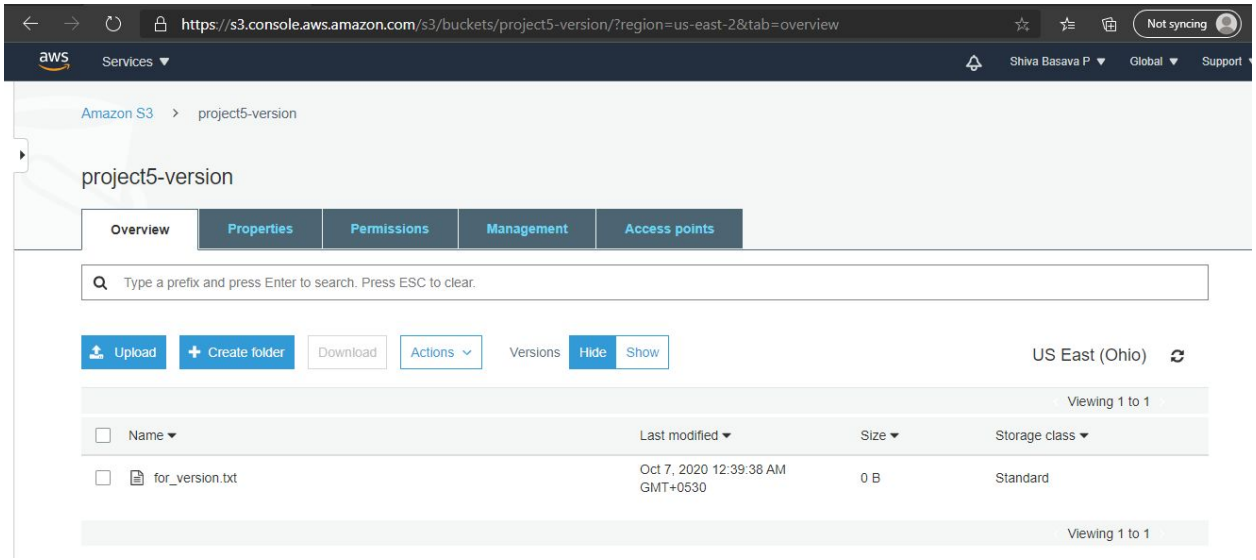
III. Versioning

1. Created a new S3 bucket (project5-version)

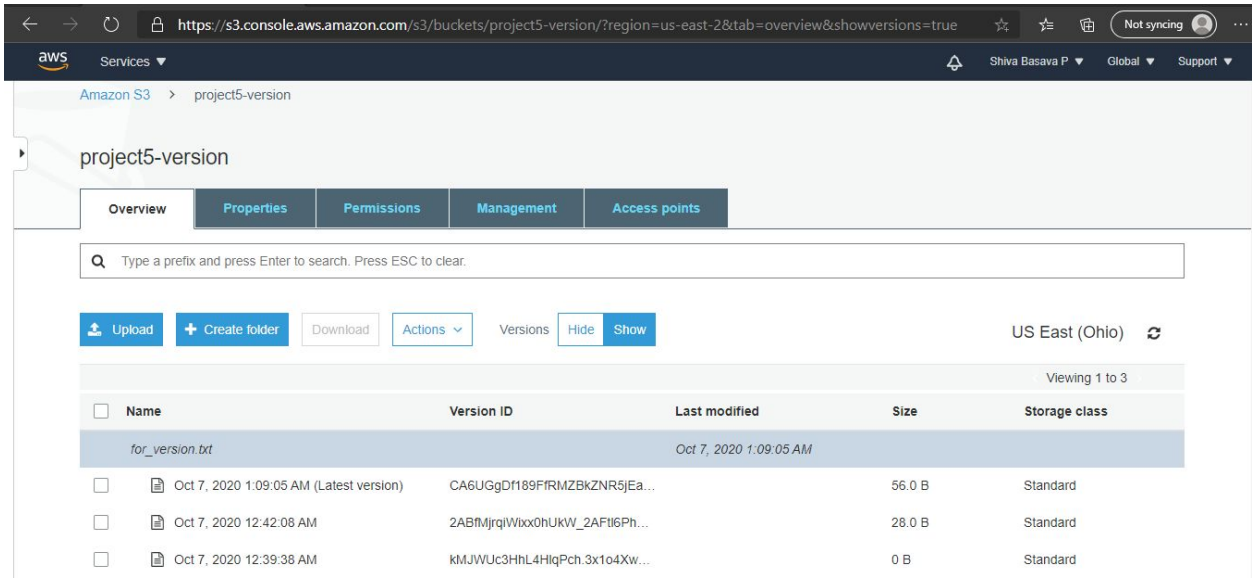


2. Enabling the Versioning option for the S3 Bucket.

(hide versions)



(Show versions)



Question 1:

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

Following are the life cycle effects on instances,

- **Start** of Instance
  When the instance is started, it enters into a pending state and then into running. An instance when stopped and started is launched on a new host. Any data on an instance store volume (not root volume) would be lost while data on the EBS volume persists.

- **Stop** of Instance
  After the instance is stopped, it enters in stopping state and then to stopped state. 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(or Application), EBS optimization attributes etc. 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.

Only EBS-backed instances can be stopped and started. Instance store-backed instances cannot be stopped and started. EC2 instance retains its private IP address as well as the Elastic IP address. If the instance has an IPv6 address, it retains its IPv6 address. However, the public IP address, if assigned instead of the Elastic IP address, would be released in the transition from Start to Stop.

- **Reboot** of Instance
  An instance retains its public DNS, public and private IP address during the reboot. Data(or Application) on the EBS and Instance store volume is also retained.
  (Both EBS-backed and Instance store-backed instances can be rebooted.)

- **Terminate** of an Instance
  An instance can be terminated, and it enters into the shutting-down and then the terminated state. After an instance is terminated, it can’t be connected and all the IP(public & private), Applications are lost.