Experiment No. 01

Aim: Introduction and overview of cloud computing

Theory:

Introduction:

Cloud computing is a model of computing that provides on-demand access to a shared pool of computing resources, including servers, storage, applications, andservices. These resources can be rapidly provisioned and released with minimal management effort or service provider interaction. Cloud computing enables users to access applications and data from anywhere, on any device, and at any time, if they have an internet connection. Cloud computing is a popular and rapidly growing technology that is changing the way organizations manage their computing resources.

Overview:

Cloud computing can be categorized into three types: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). IaaS providesusers with access to virtualized computing resources, such as servers, storage, and networking, which can be managed and configured by the user. PaaS provides users with a platform on which they can develop and deploy their applications, without having to worry about the underlying infrastructure. SaaS provides users with access to software applications that are hosted and managed by a third-party provider, eliminating the need for users to install or maintain the software themselves. Cloud computing offers several benefits, including:

- **Scalability:** Cloud computing resources can be scaled up or down as per theuser's requirements, providing flexibility and cost savings.
- **Cost savings:** Cloud computing eliminates the need for users to invest in expensive hardware and software infrastructure, as well as the associatedmaintenance costs.
- **Accessibility:** Cloud computing resources can be accessed from anywhere, onany device, if there is an internet connection.
- **Reliability:** Cloud computing providers offer high availability and redundancy,ensuring that users' applications and data are always available.
- **Security:** Cloud computing providers invest heavily in security measures toensure that users' applications and data are secure and protected.

Origin of Cloud Computing:

The concept of cloud computing can be traced back to the 1960s, when mainframe computers were first introduced. However, the term "cloud computing" was not coined until the late 1990s. The development of virtualization technology in the 2000s enabled cloud computing to become a reality. Amazon Web Services (AWS) launched its Elastic Compute Cloud (EC2) in 2006, which was the first widely adopted cloud computing platform.

Characteristics of Cloud Computing:

Cloud computing is characterized by several key features, including:

- **On-demand self-service:** Users can provision and manage cloud resourceswithout requiring human interaction with the service provider.
- **Broad network access:** Cloud resources can be accessed from anywhere, onany device, with an internet connection.
- **Resource pooling:** Cloud resources are shared among multiple users,providing economies of scale and cost savings.
- **Rapid elasticity:** Cloud resources can be scaled up or down quickly andeasily, based on user demand.
- **Measured service:** Cloud resources are measured and billed based onusage, providing cost transparency and predictability.

Advantages of Cloud Computing:

I. **Collaboration:** Cloud computing allows multiple users to collaborate on documents and projects in real-time, improving productivity and teamwork.
II. **Disaster recovery:** Cloud computing providers offer backup and disaster recovery services, ensuring that users' data is protected in the event of adisaster or outage.
III. **Innovation:** Cloud computing providers offer a range of innovative servicesand technologies, such as artificial intelligence and machine learning, that can help businesses stay competitive and innovative.

Disadvantages of Cloud Computing:

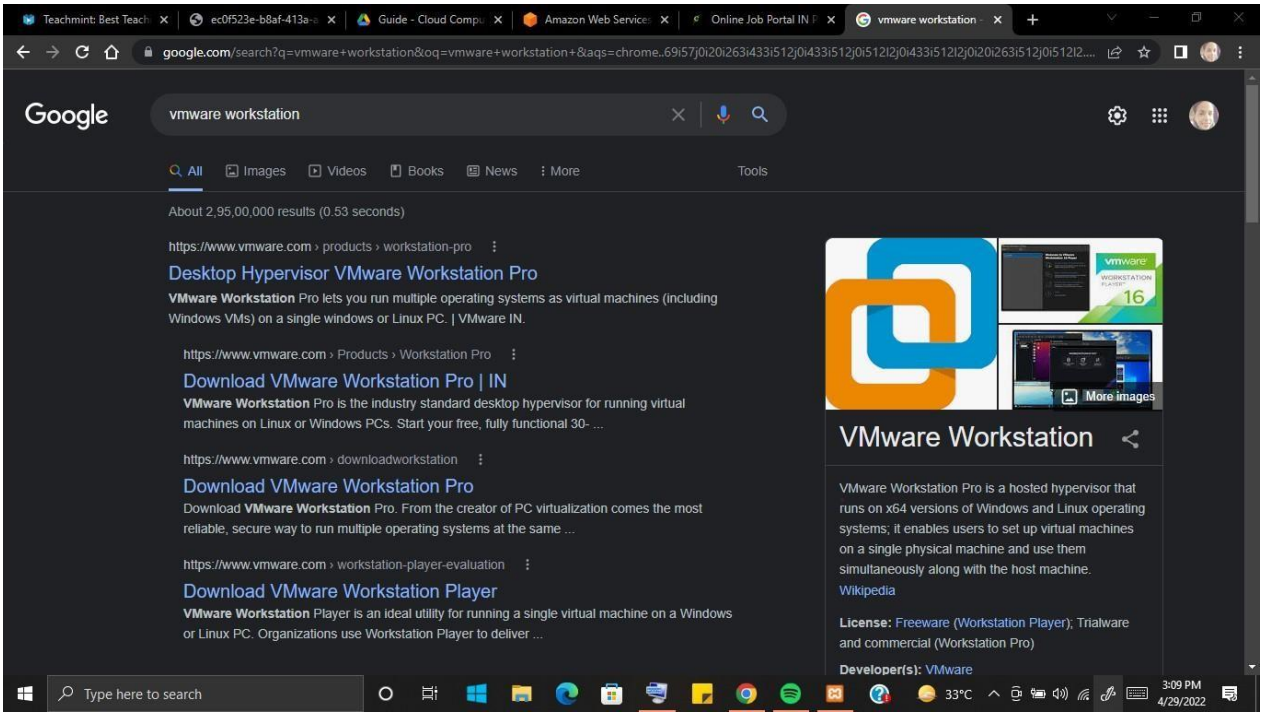
Cloud computing also has several potential disadvantages, including:

I. **Dependency:** Users become dependent on the cloud provider for theircomputing resources, which can be a concern for some organizations.
II. **Security risks:** Cloud computing providers are responsible for the securityof their infrastructure, but users are responsible for the security of their applications and data.
III. **Limited control:** Users have limited control over the underlying infrastructure, which can be a concern for some organizations.
IV. **Downtime:** Cloud computing providers may experience downtime oroutages, which can affect users' access to their applications and data.
V. **Internet connectivity:** Users require a reliable internet connection to access cloud computing resources, which may not be available in all location.

Experiment No. 02

Aim : To study and implement Hosted Virtualization using VirtualBox& KVM.

Step 1:



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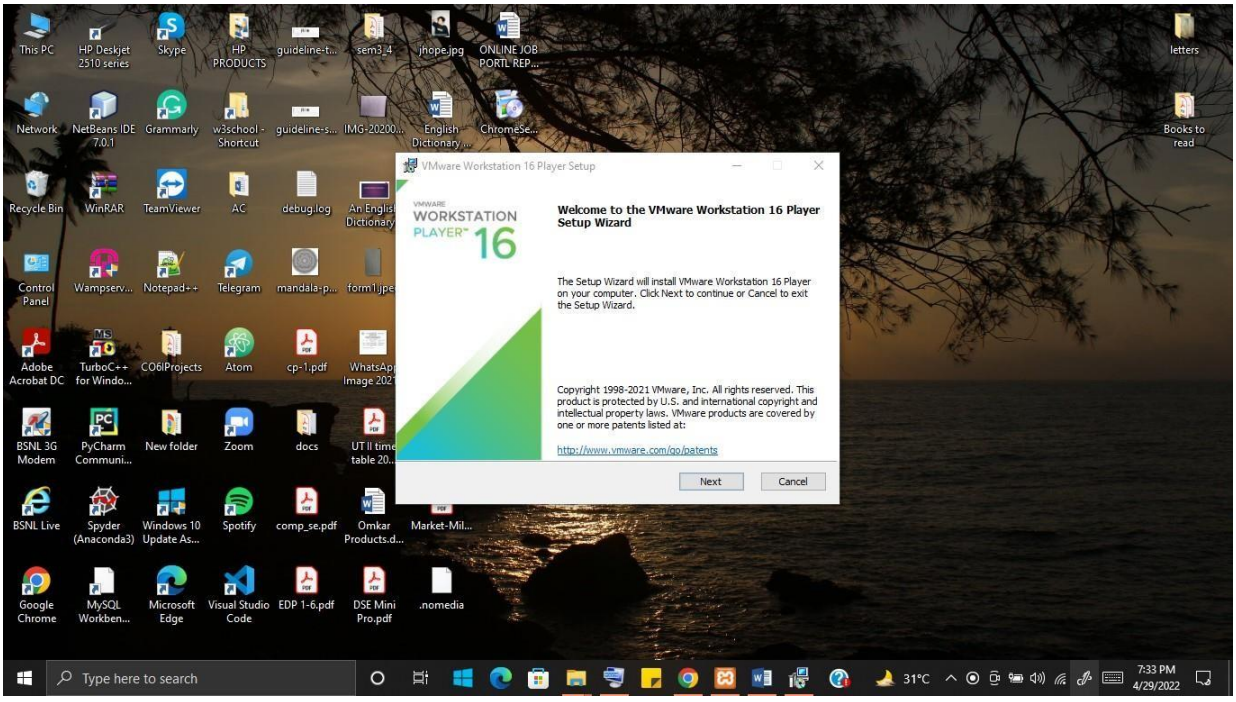

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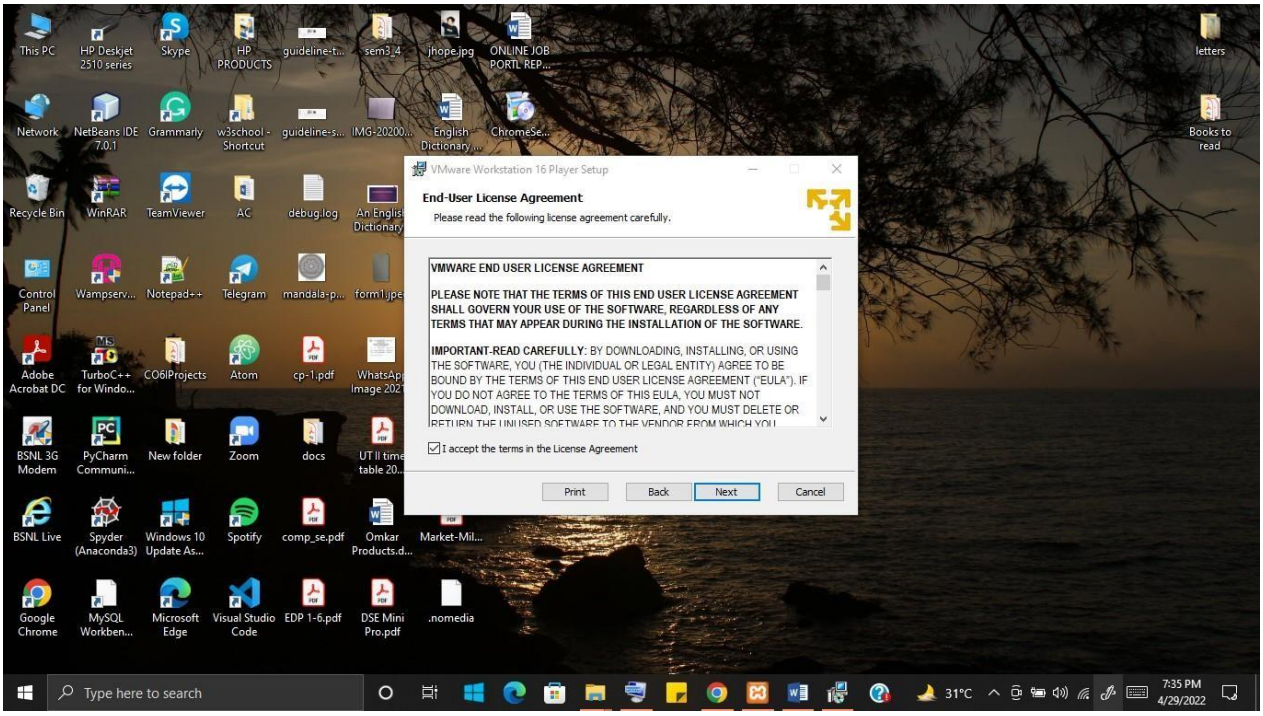
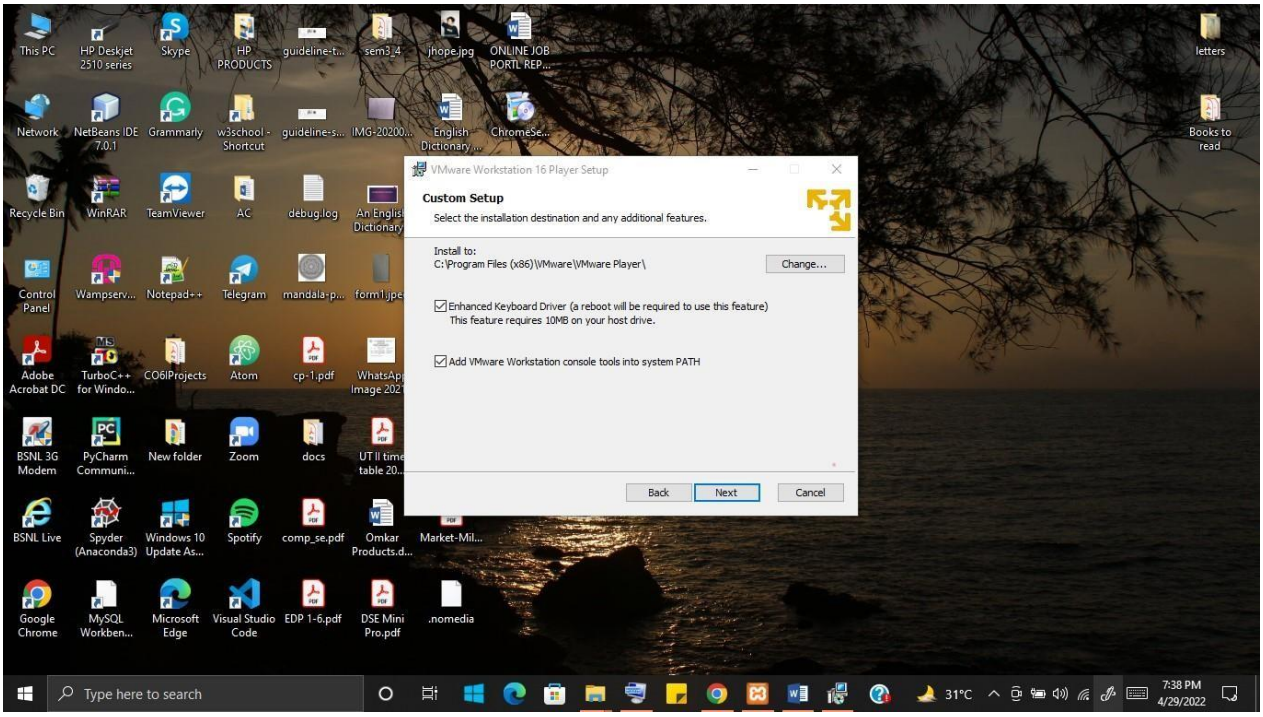
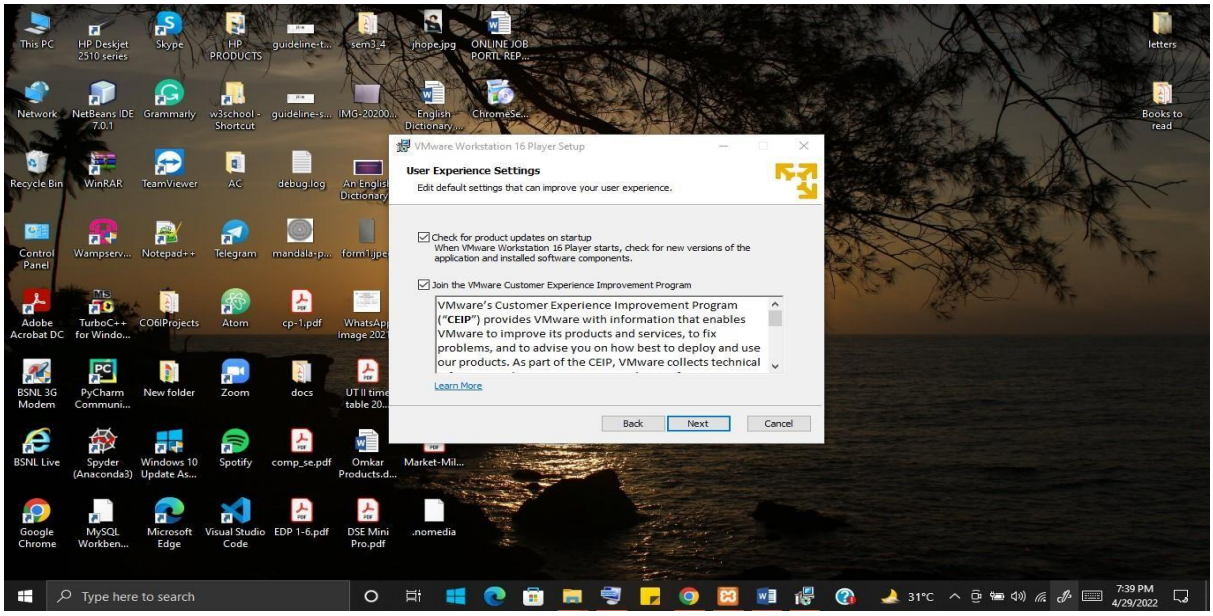

VMware Workstation 16 Player Setup
End-User License Agreement
Please read the following license agreement carefully.
VMWARE END USER LICENSE AGREEMENT
PLEASE NOTE THAT THE TERMS OF THIS END USER LICENSE AGREEMENT SHALL GOVERN YOUR USE OF THE SOFTWARE, REGARDLESS OF ANY TERMS THAT MAY APPEAR DURING THE INSTALLATION OF THE SOFTWARE.
IMPORTANT-READ CAREFULLY: BY DOWNLOADING, INSTALLING, OR USING THE SOFTWARE, YOU (THE INDIVIDUAL OR LEGAL ENTITY) AGREE TO BE BOUND BY THE TERMS OF THIS END USER LICENSE AGREEMENT ("EULA"). IF YOU DO NOT AGREE TO THE TERMS OF THIS EULA, YOU MUST NOT DOWNLOAD, INSTALL, OR USE THE SOFTWARE, AND YOU MUST DELETE OR
I accept the terms in the License Agreement
Print
Back
Next
Cancel

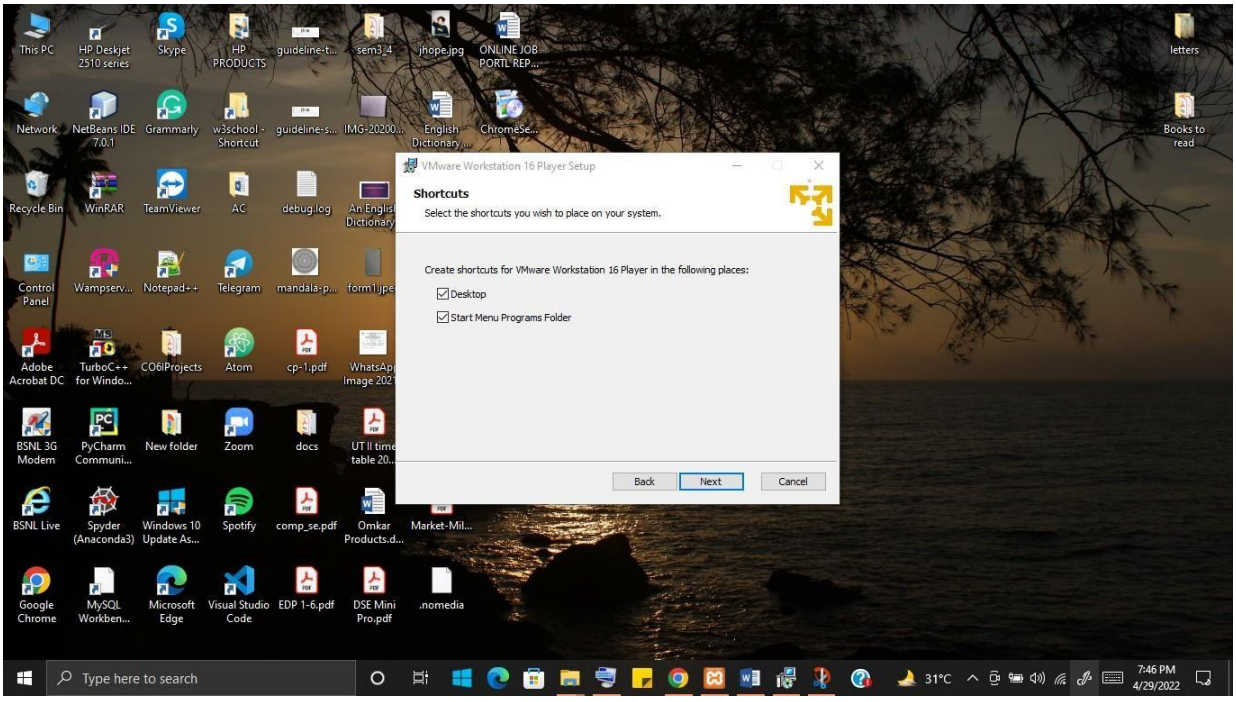
Step 4:

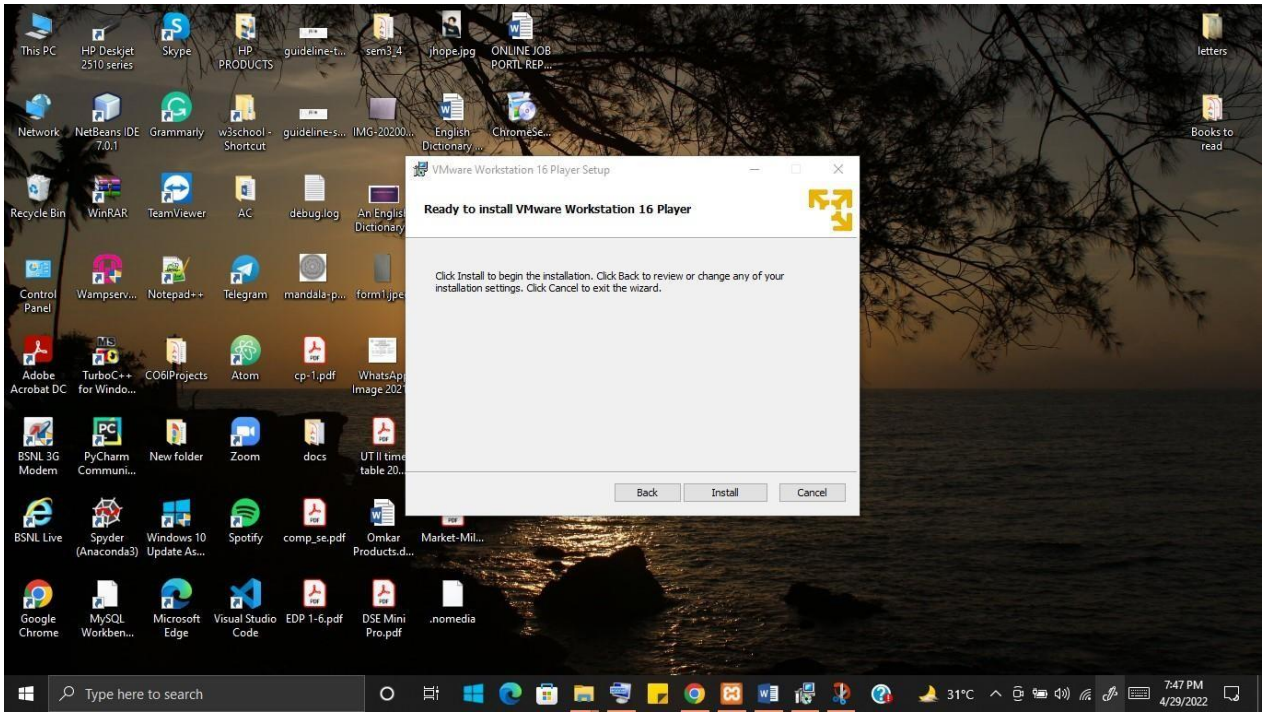

VMware Workstation 16 Player Setup
Custom Setup
Select the installation destination and any additional features.
Install to:
C:\Program Files (x86)\VMware\VMware Player\
Change...
Enhanced Keyboard Driver (a reboot will be required to use this feature)
This feature requires 10MB on your host drive.
Add VMware Workstation console tools into system PATH
Back
Next
Cancel

Step 5:

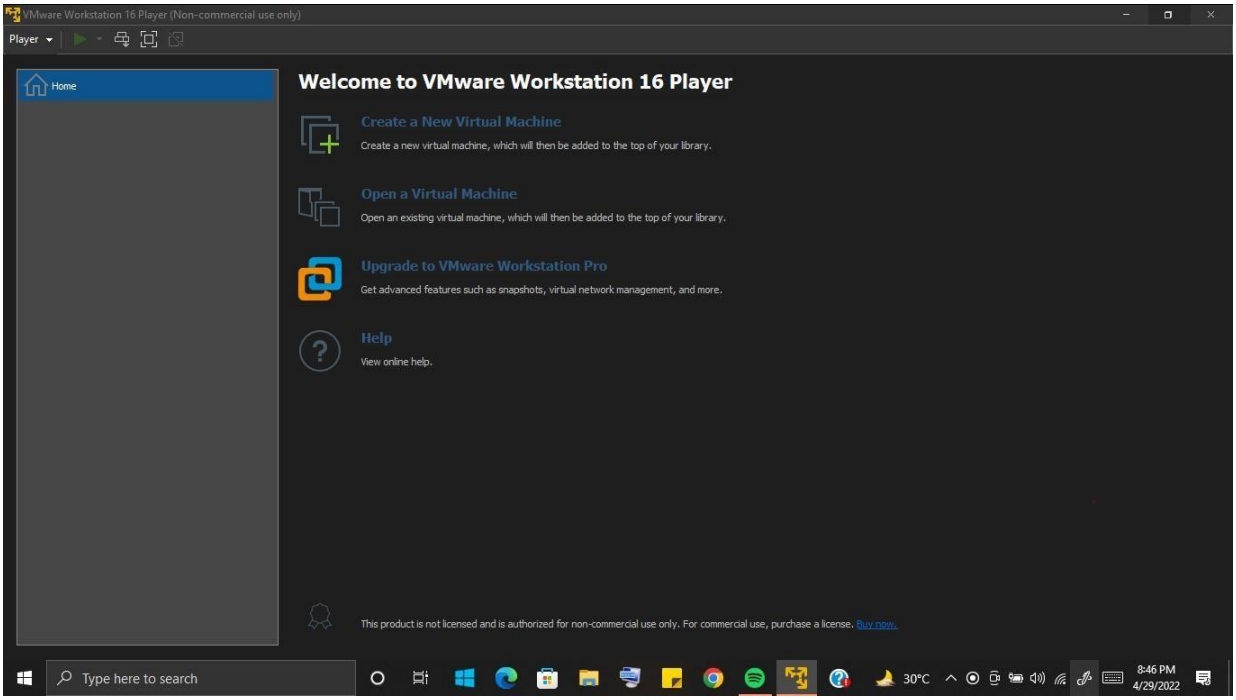

VMware Workstation 16 Player Setup
User Experience Settings
Edit default settings that can improve your user experience.
Check for product updates on startup
When VMware Workstation 16 Player starts, check for new versions of the application and installed software components.
Join the VMware Customer Experience Improvement Program
VMware's Customer Experience Improvement Program ("CEIP") provides VMware with information that enables VMware to improve its products and services, to fix problems, and to advise you on how best to deploy and use our products. As part of the CEIP, VMware collects technical
Learn More
Back
Next
Cancel

Step 6:

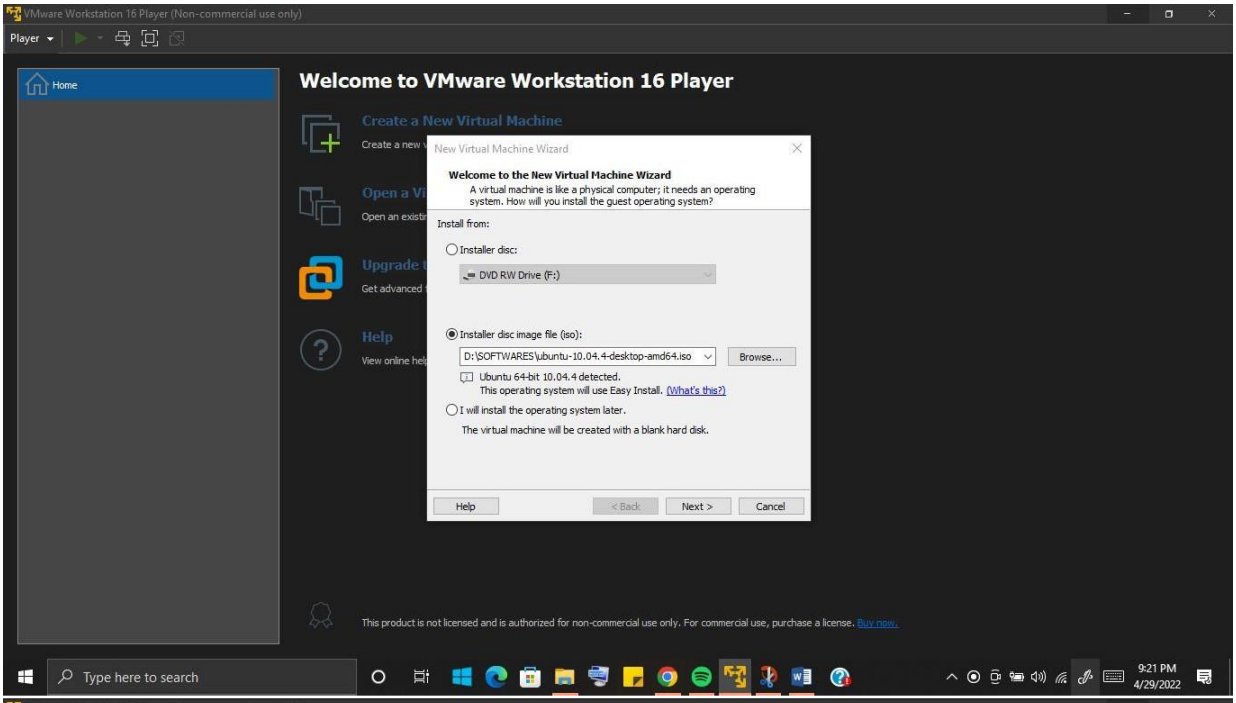

VMware Workstation 16 Player Setup
Shortcuts
Select the shortcuts you wish to place on your system.
Create shortcuts for VMware Workstation 16 Player in the following places:
Desktop
Start Menu Programs Folder
Back
Next
Cancel

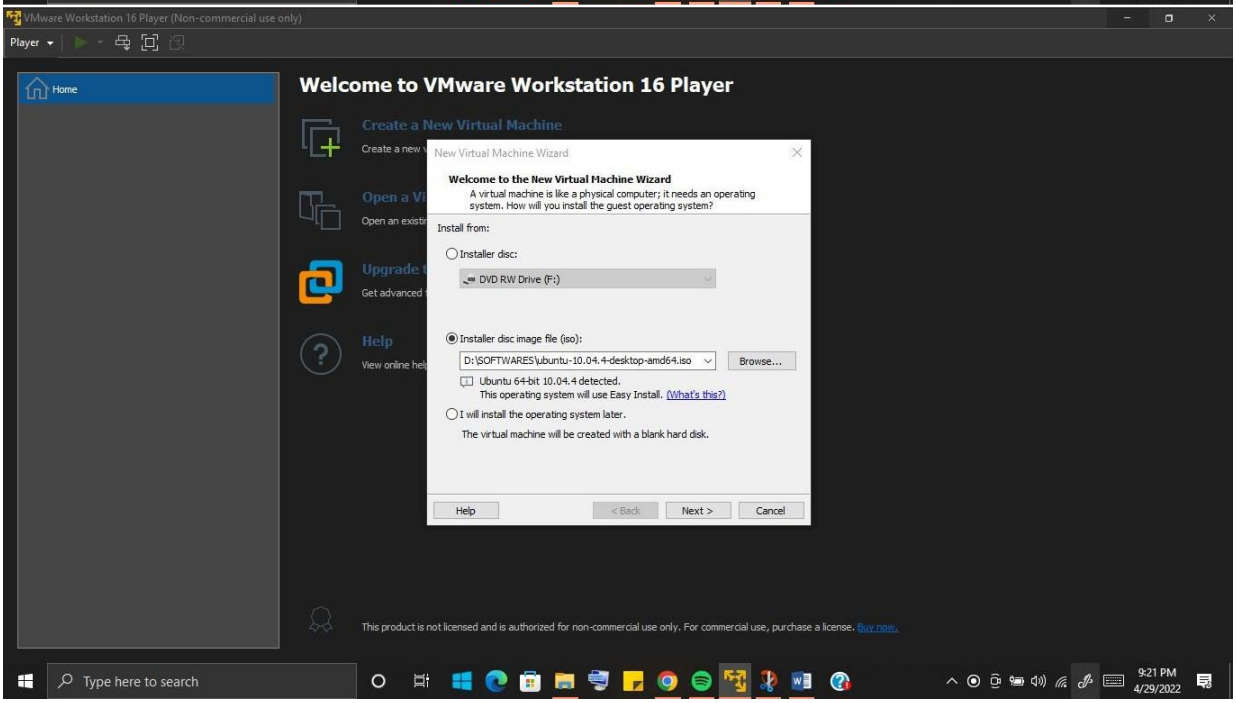

VMware Workstation 16 Player Setup
Ready to install VMware Workstation 16 Player
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Back
Install
Cancel
Type here to search
31°C
7:47 PM
4/29/2022

Step 7:

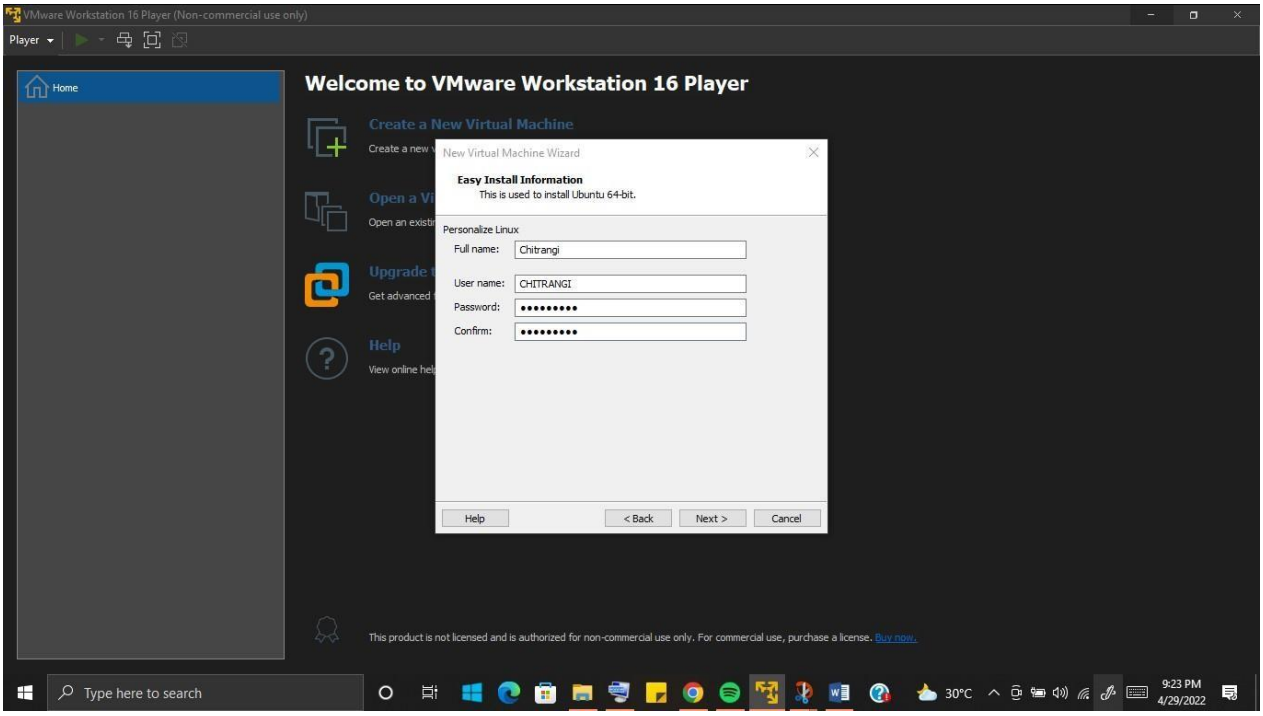

VMware Workstation 16 Player (Non-commercial use only)
Player
Home
Welcome to VMware Workstation 16 Player
Create a New Virtual Machine
Create a new virtual machine, which will then be added to the top of your library.
Open a Virtual Machine
Open an existing virtual machine, which will then be added to the top of your library.
Upgrade to VMware Workstation Pro
Get advanced features such as snapshots, virtual network management, and more.
Help
View online help.
This product is not licensed and is authorized for non-commercial use only. For commercial use, purchase a license. Buy now.
Type here to search
30°C
8:46 PM
4/29/2022

Step 8:


VMware Workstation 16 Player (Non-commercial use only)
Player
Home
Welcome to VMware Workstation 16 Player
Create a New Virtual Machine
Open a Virtual Machine
Upgrade to VMware Workstation Pro
Help
View online help
New Virtual Machine Wizard
Welcome to the New Virtual Machine Wizard
A virtual machine is like a physical computer; it needs an operating system. How will you install the guest operating system?
Install from:
Installer disc:
DVD RW Drive (F:)
Installer disc image file (iso):
D:\SOFTWARES\ubuntu-10.04.4-desktop-amd64.iso
Browse...
Ubuntu 64-bit 10.04.4 detected.
This operating system will use Easy Install. (What's this?)
I will install the operating system later.
The virtual machine will be created with a blank hard disk.
Help
< Back
Next >
Cancel
This product is not licensed and is authorized for non-commercial use only. For commercial use, purchase a license. Buy now.
Type here to search
9:21 PM
4/29/2022


VMware Workstation 16 Player (Non-commercial use only)
Player
Home
Welcome to VMware Workstation 16 Player
Create a New Virtual Machine
Open a Virtual Machine
Upgrade to VMware Workstation Pro
Help
View online help
New Virtual Machine Wizard
Welcome to the New Virtual Machine Wizard
A virtual machine is like a physical computer; it needs an operating system. How will you install the guest operating system?
Install from:
Installer disc:
DVD RW Drive (F:)
Installer disc image file (iso):
D:\SOFTWARES\ubuntu-10.04.4-desktop-amd64.iso
Browse...
Ubuntu 64-bit 10.04.4 detected.
This operating system will use Easy Install. (What's this?)
I will install the operating system later.
The virtual machine will be created with a blank hard disk.
Help
< Back
Next >
Cancel
This product is not licensed and is authorized for non-commercial use only. For commercial use, purchase a license. Buy now.
Type here to search
9:21 PM
4/29/2022

Step 9:



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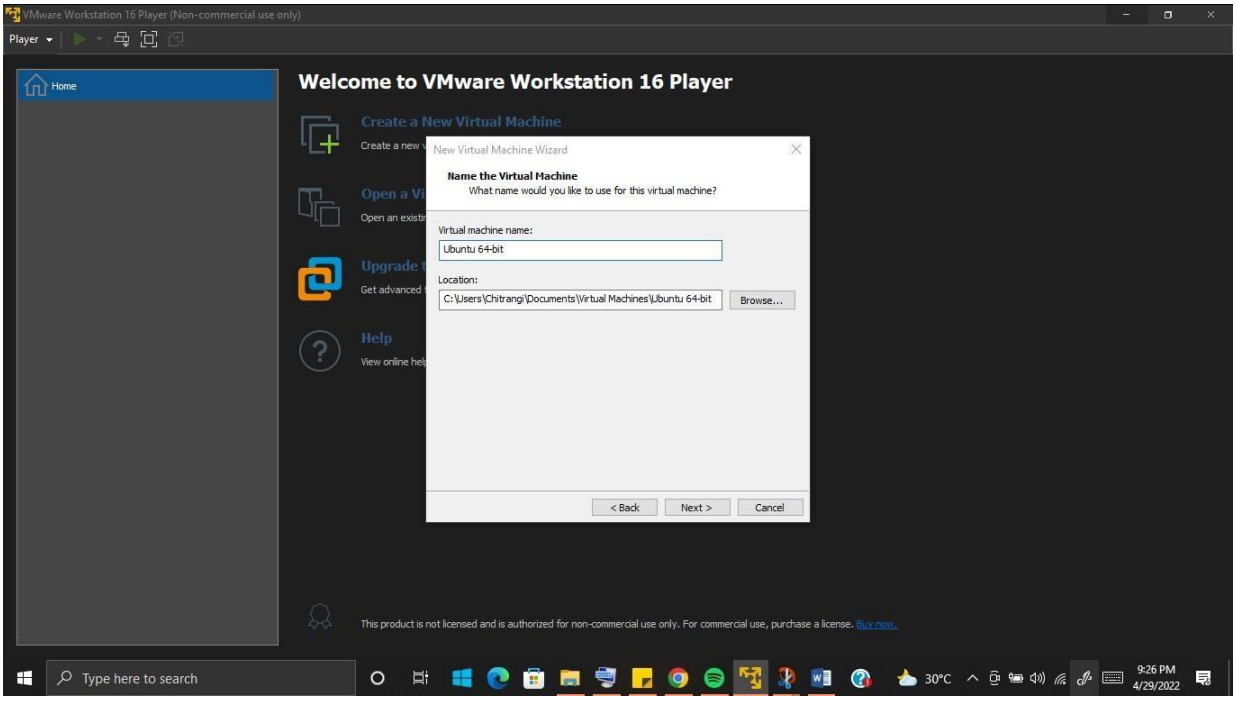
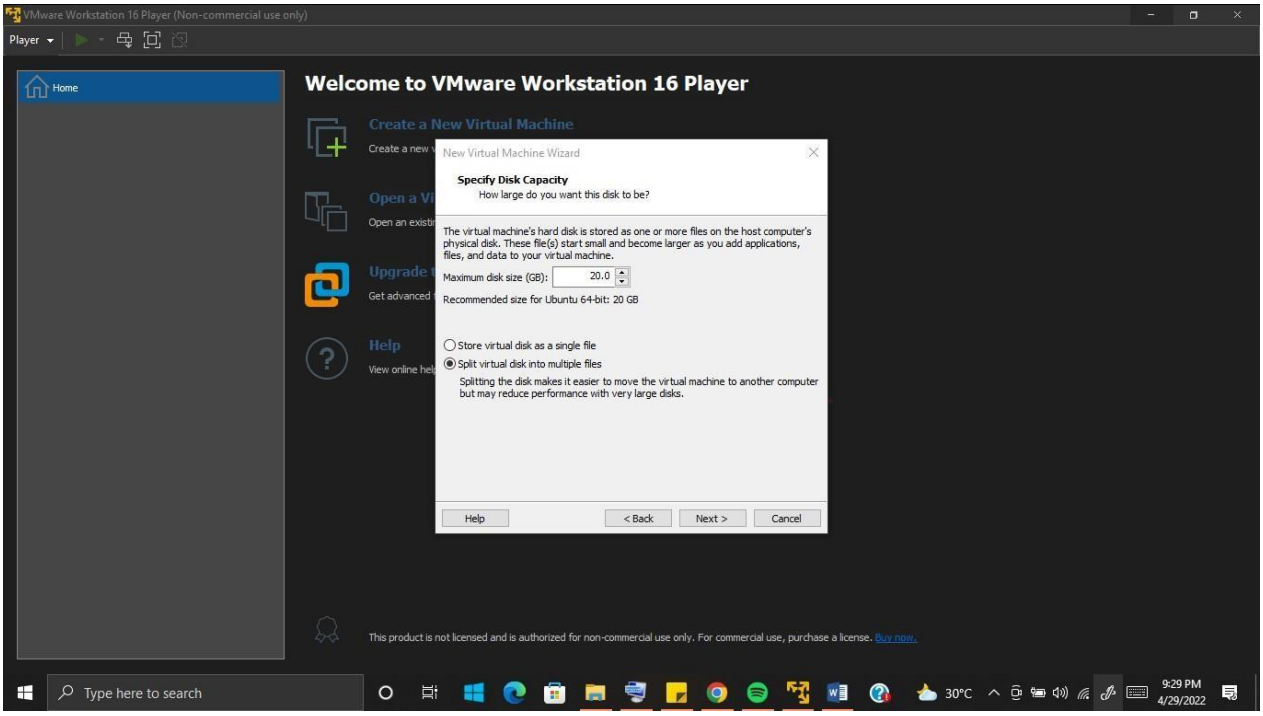
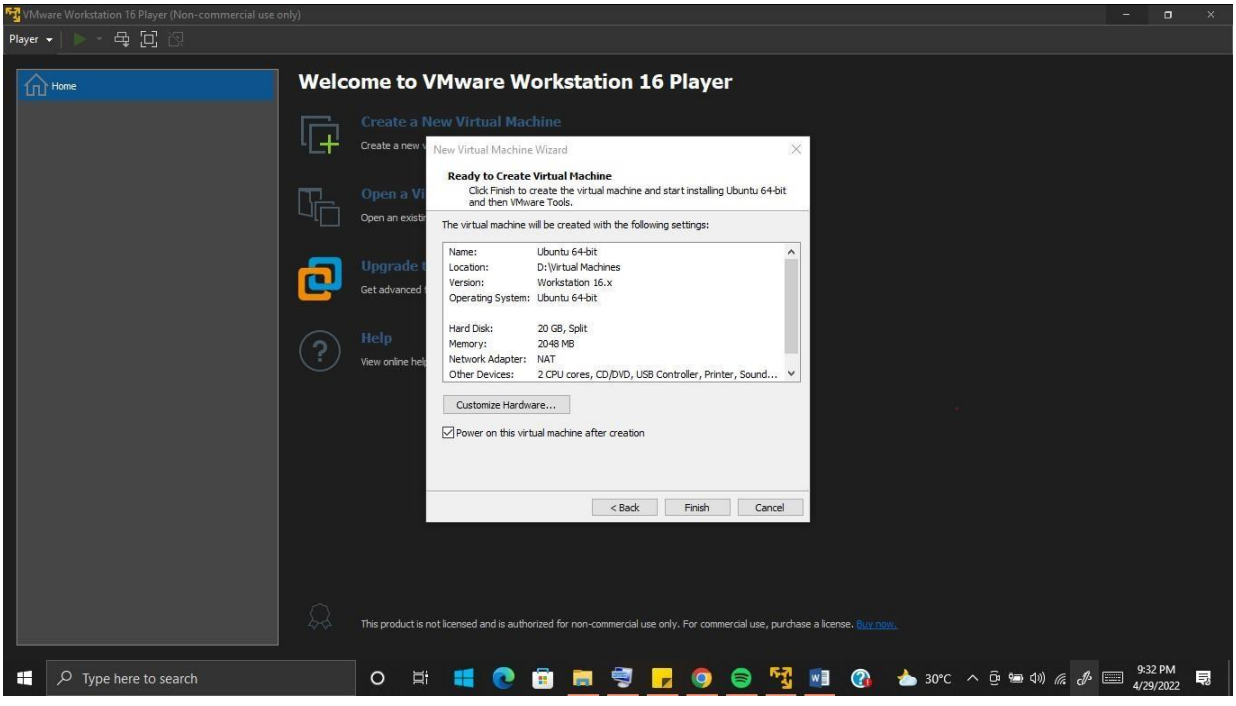


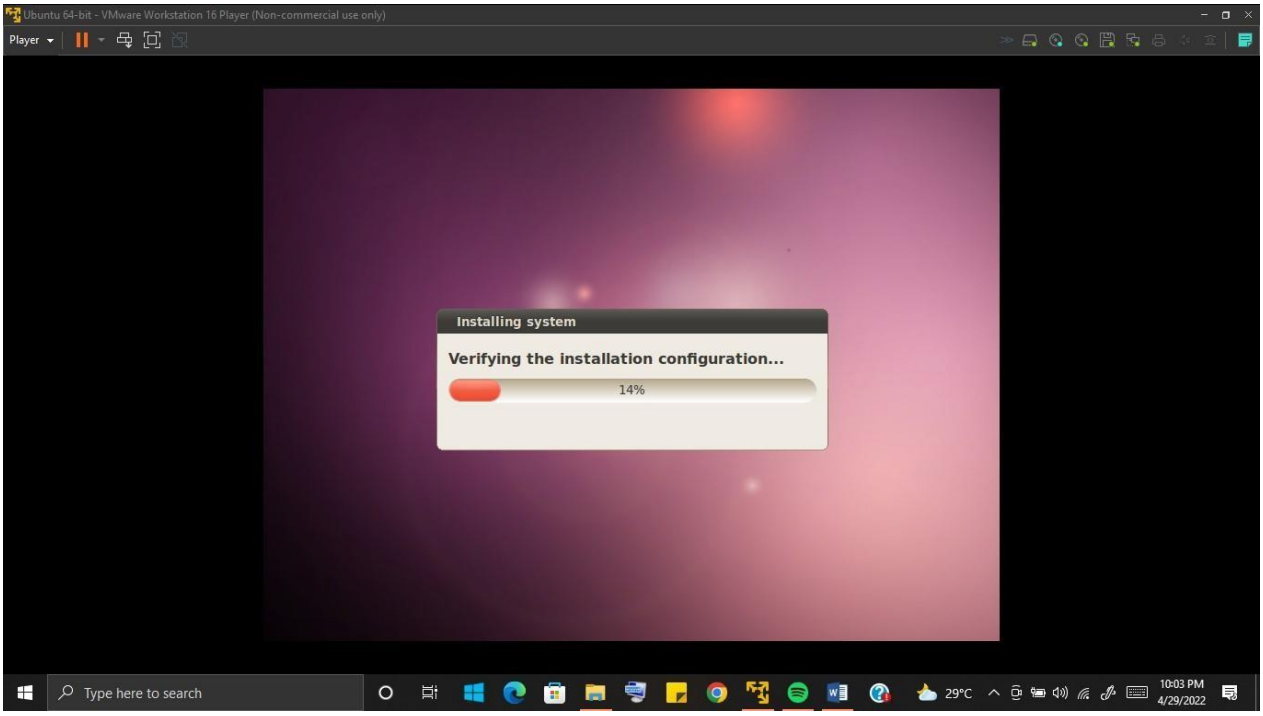
Step 11:

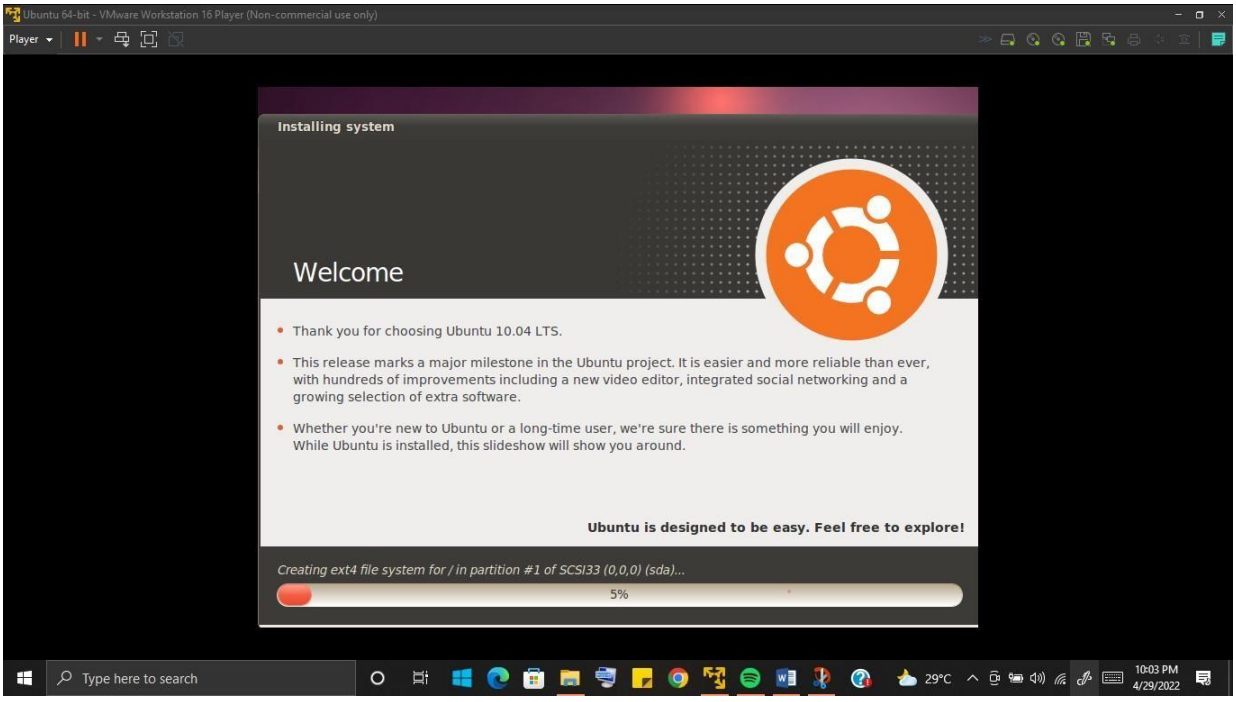


Step 12:



Step 13:

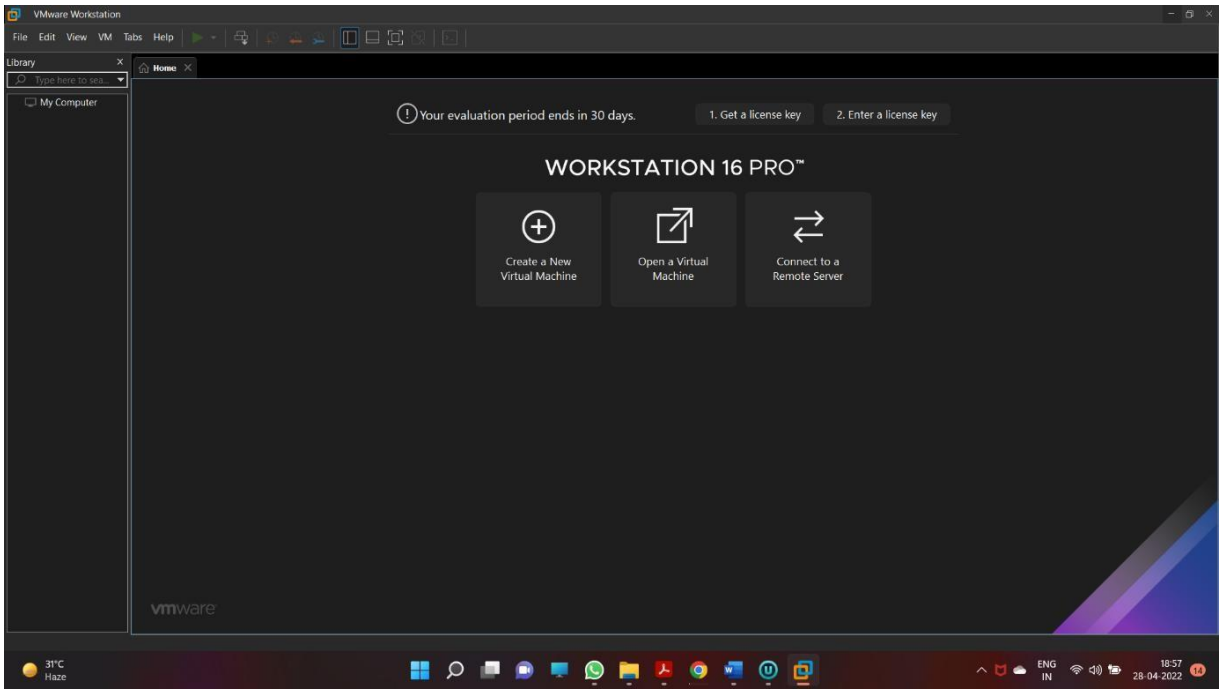

Ubuntu 64-bit - VMware Workstation 16 Player (Non-commercial use only)
Player
Installing system
Verifying the installation configuration...
14%
Type here to search
29°C
10:03 PM
4/29/2022


Ubuntu 64-bit - VMware Workstation 16 Player (Non-commercial use only)
Player
Installing system
Welcome
Thank you for choosing Ubuntu 10.04 LTS.
This release marks a major milestone in the Ubuntu project. It is easier and more reliable than ever, with hundreds of improvements including a new video editor, integrated social networking and a growing selection of extra software.
Whether you're new to Ubuntu or a long-time user, we're sure there is something you will enjoy. While Ubuntu is installed, this slideshow will show you around.
Ubuntu is designed to be easy. Feel free to explore!
Creating ext4 file system for / in partition #1 of SCSI33 (0,0,0) (sda)...
5%
Type here to search
29°C
10:03 PM
4/29/2022

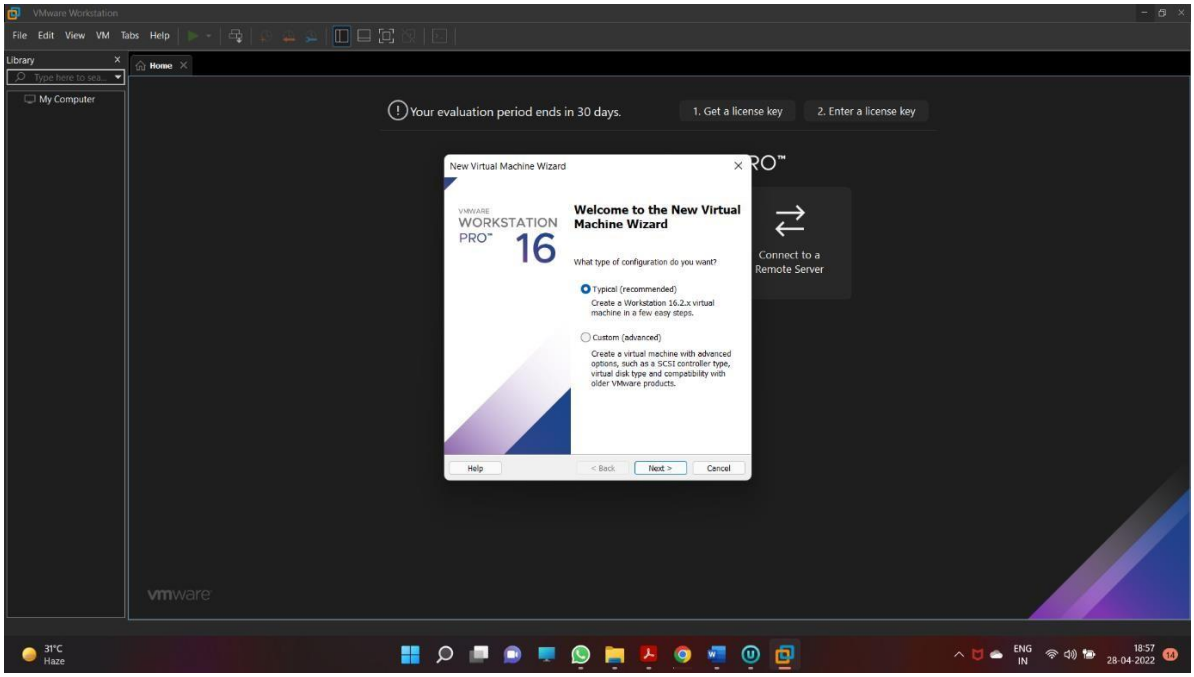
EXPERIMENT NO 3

Aim - To study and Implement Bare-metal Virtualization using Xen, HyperV orVMware Esxi

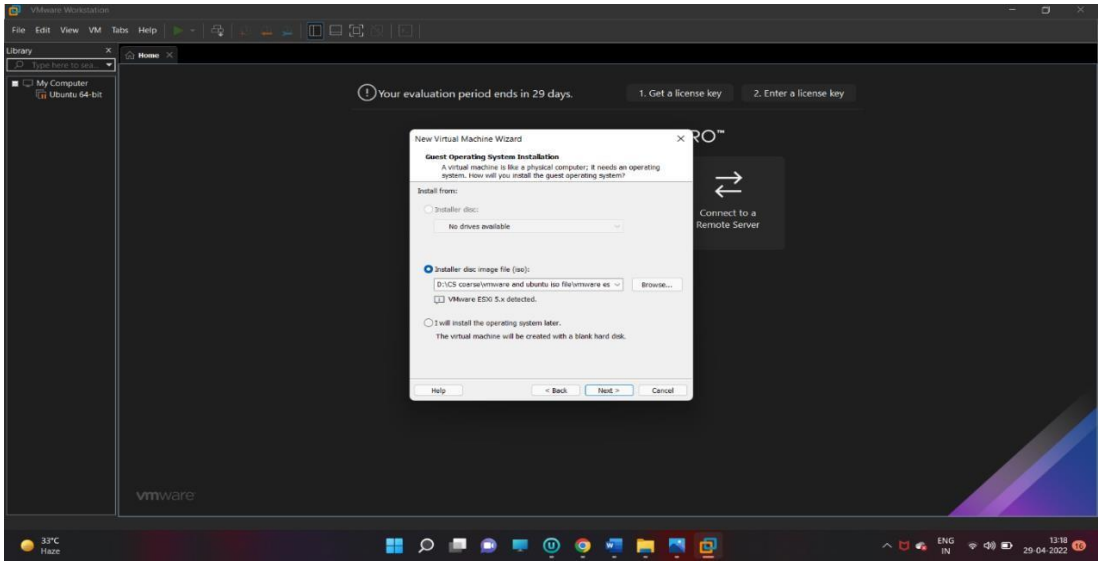
Step 1- Open VMware Workstation



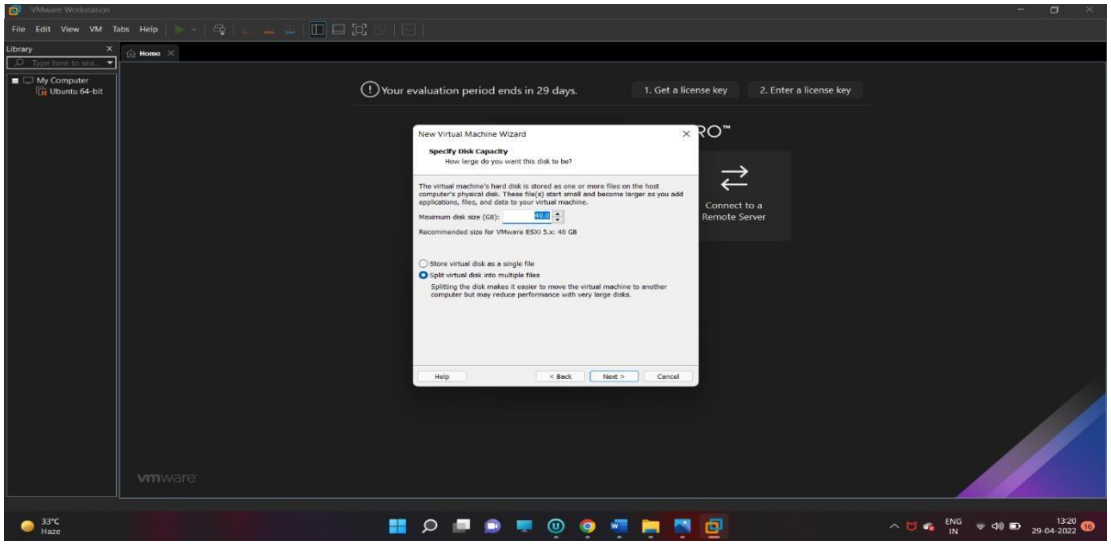
Step 2 – Click create Virtual Machine.



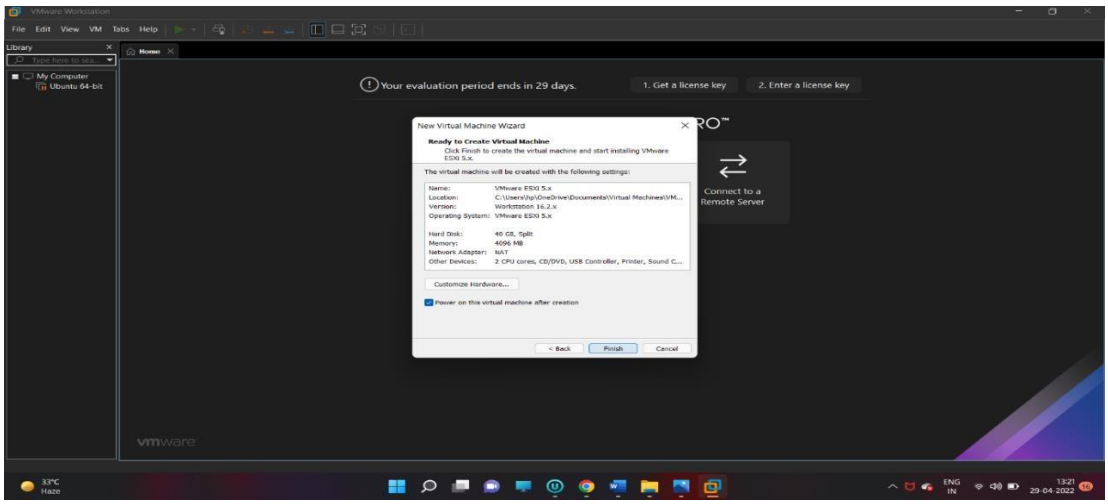
Step 3 – Select vmware4 ESXI file location.



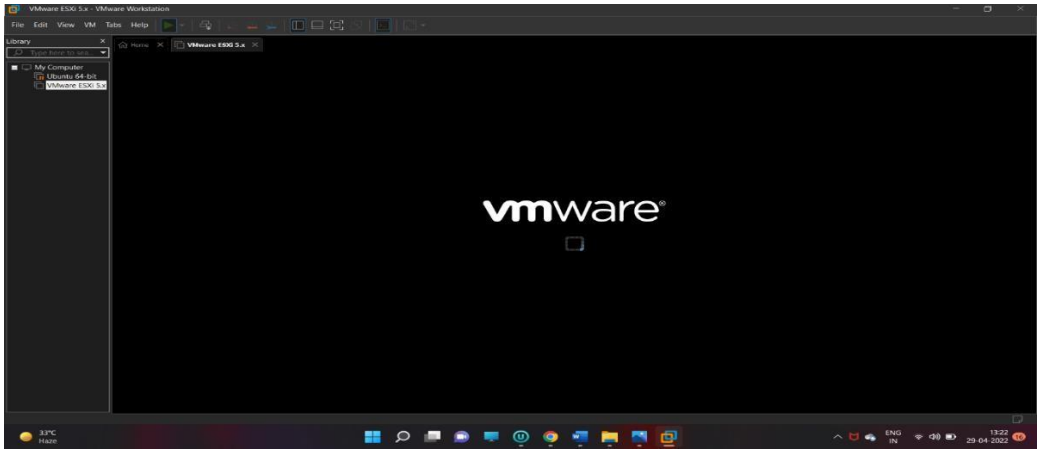
Step 4 – Specify disk capacity



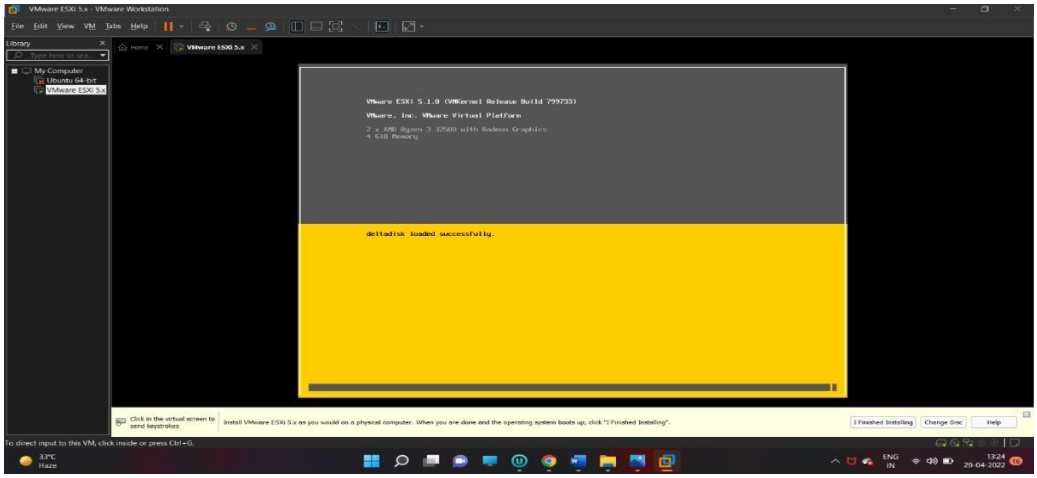
Step 5 – Customized Hardware click finish .



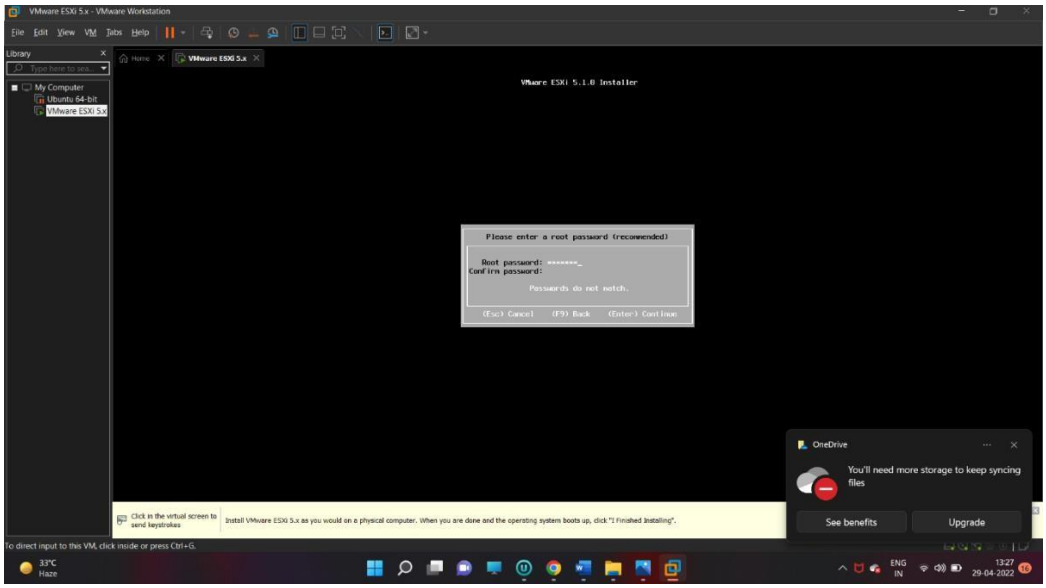
VMware instance created



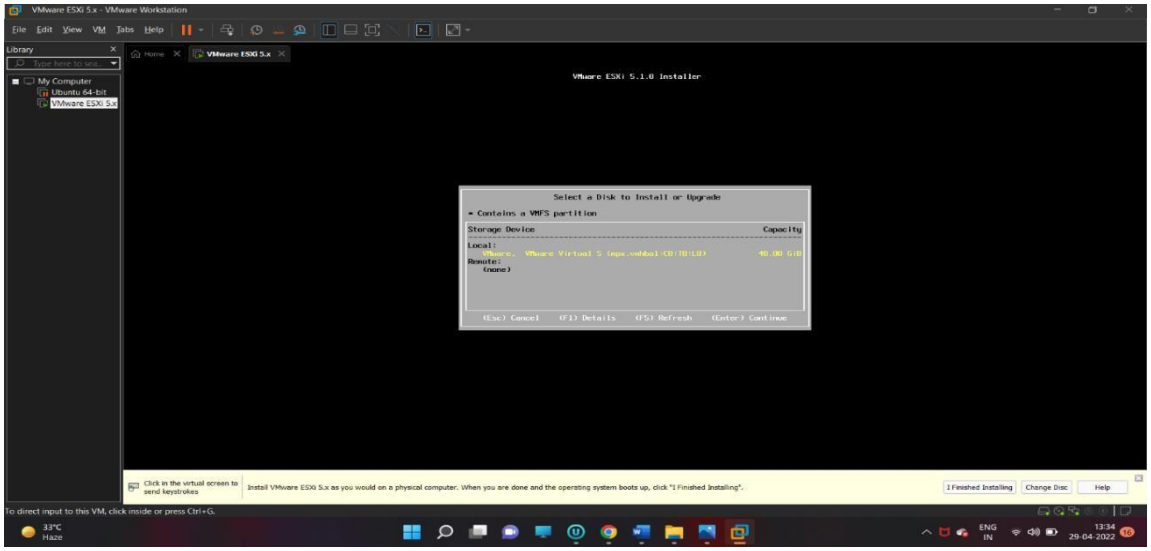
Step 6- Press F10 to install.



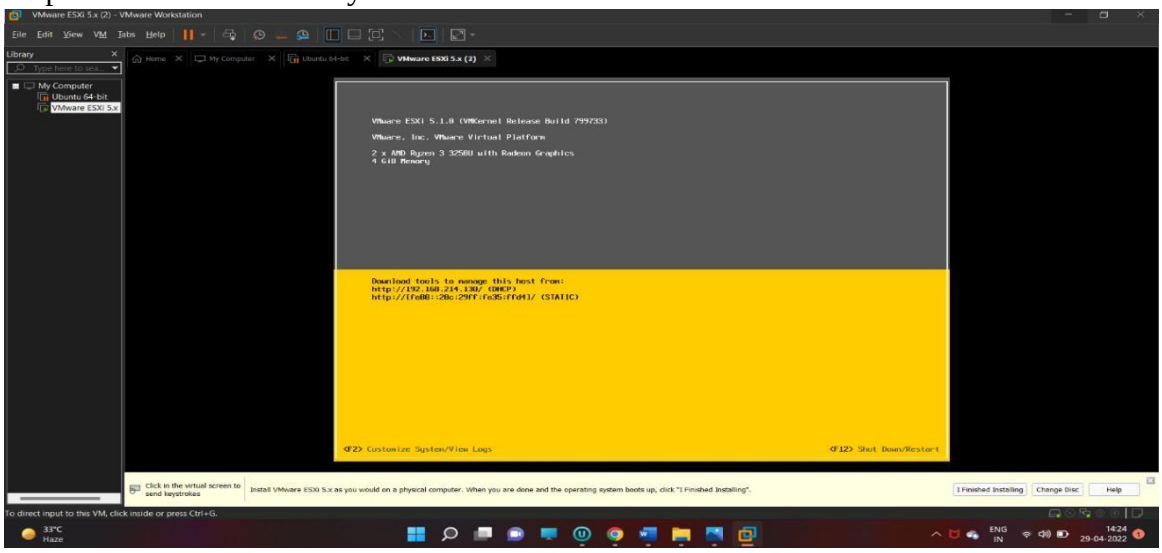
Step 7 – Create root password.



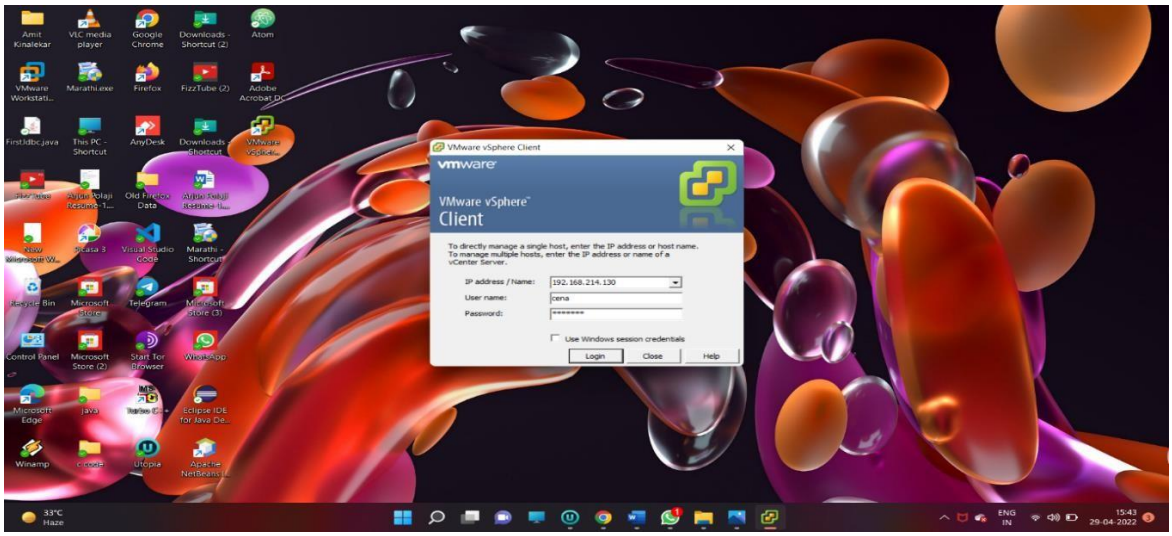
Step 8 – Press Enter to continue



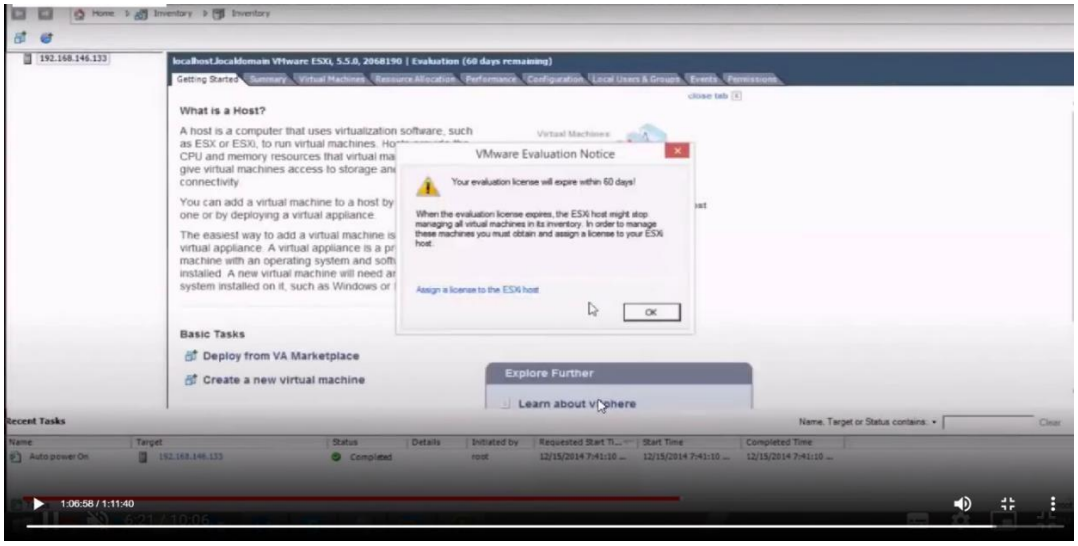
Step 9 – Server successfully install



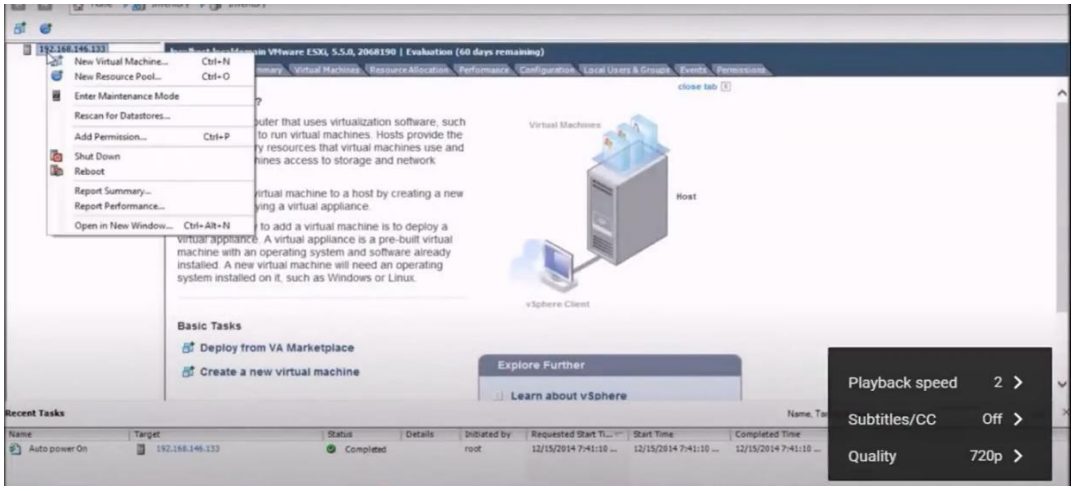
Step 10 – Open VMware Vsphere. Client. Enter Ip address and password.



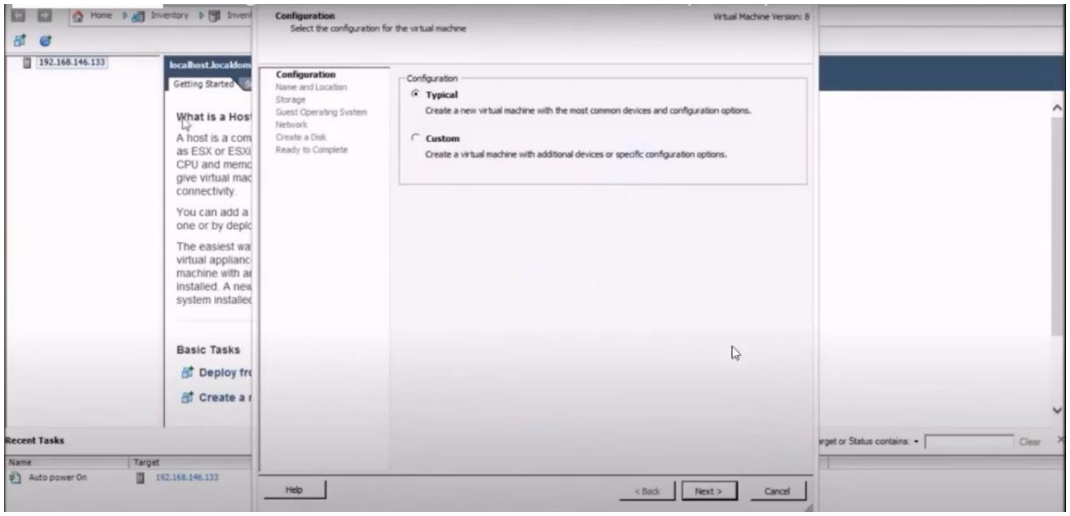
Localhost VMware ESXI window is opened



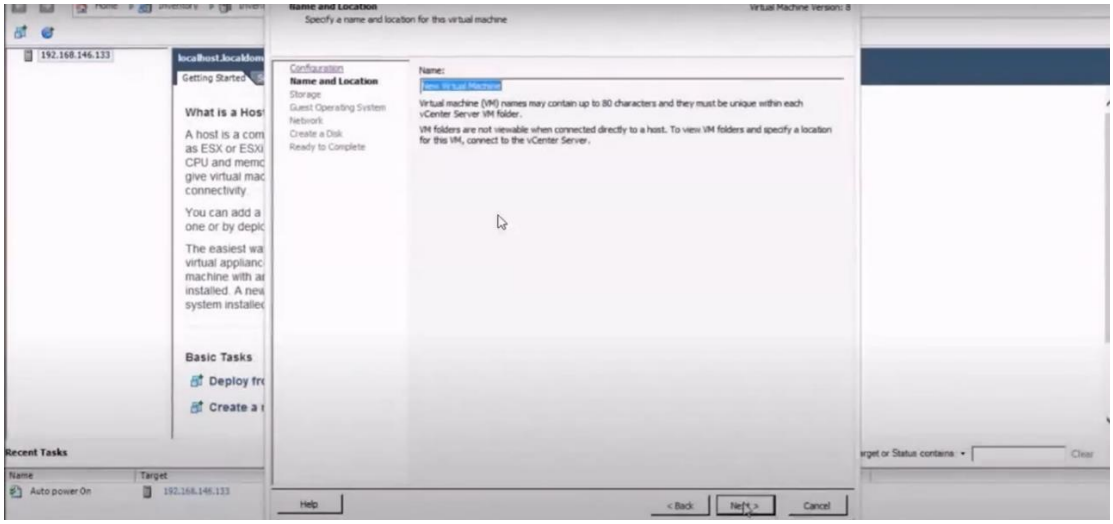
Step 11- Click address to create virtual machine



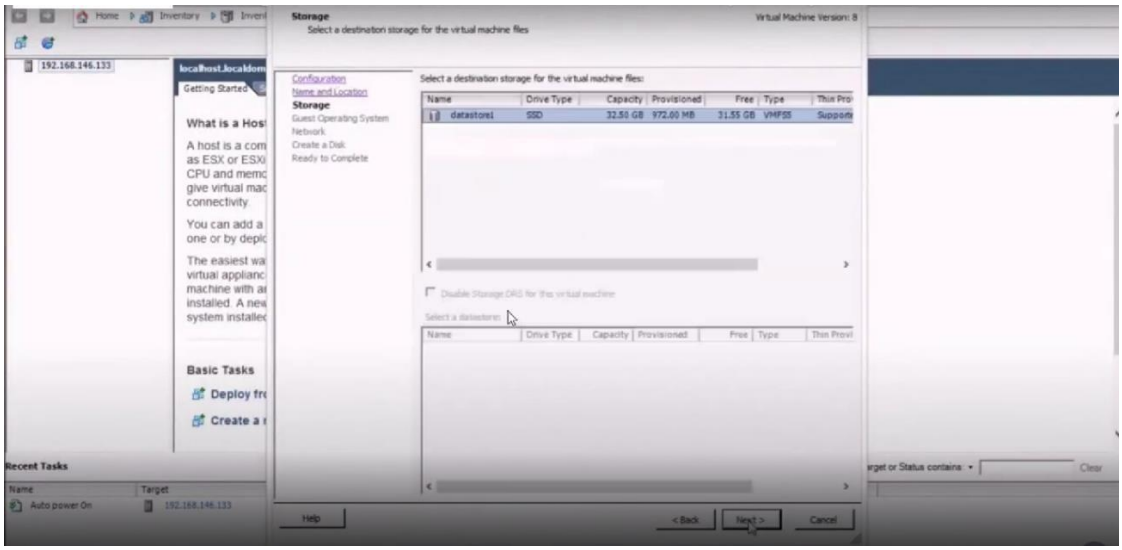
Step 12- Select configuration for virtual machine.



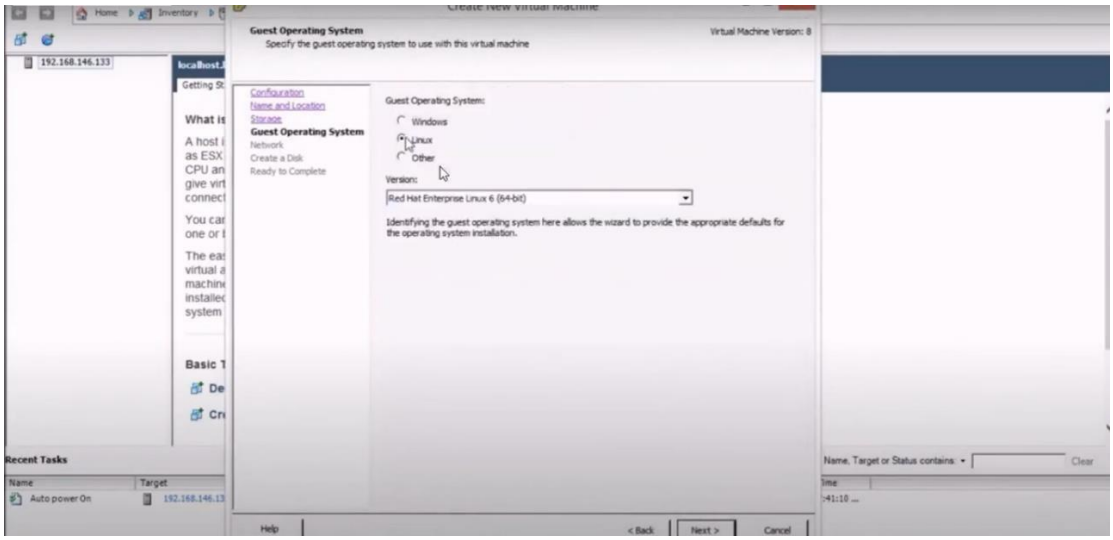
Step 13- Specify name and location for virtual machine.



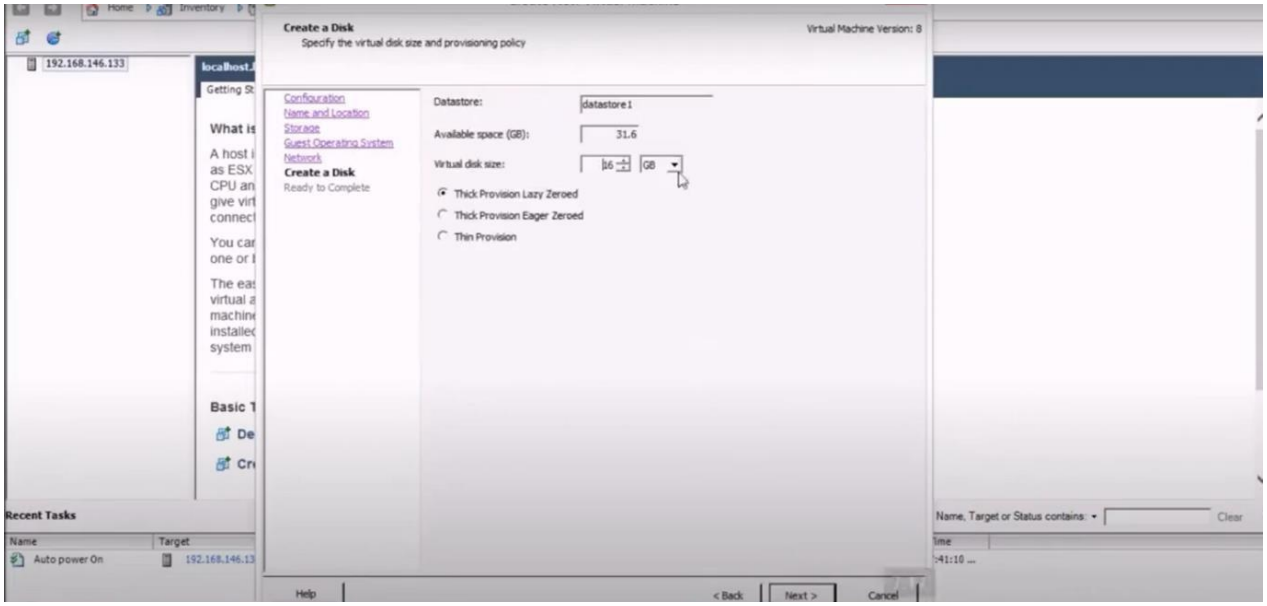
Step 14- Select destination storage for virtual machine files.



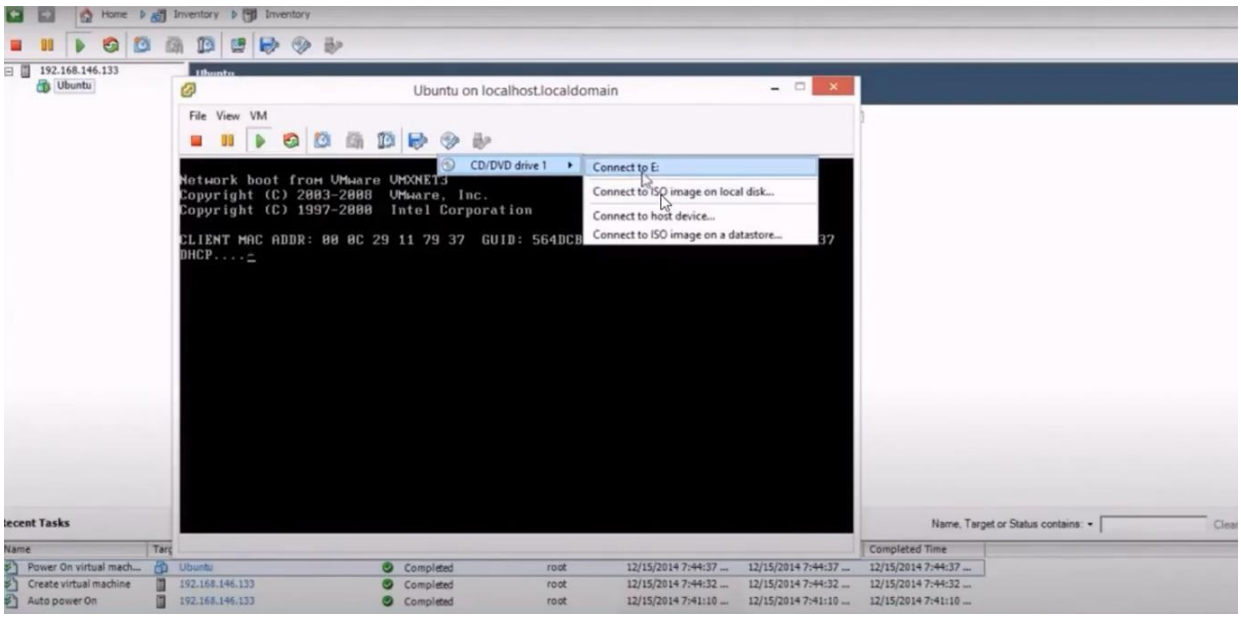
Step 15- Select guest operating system

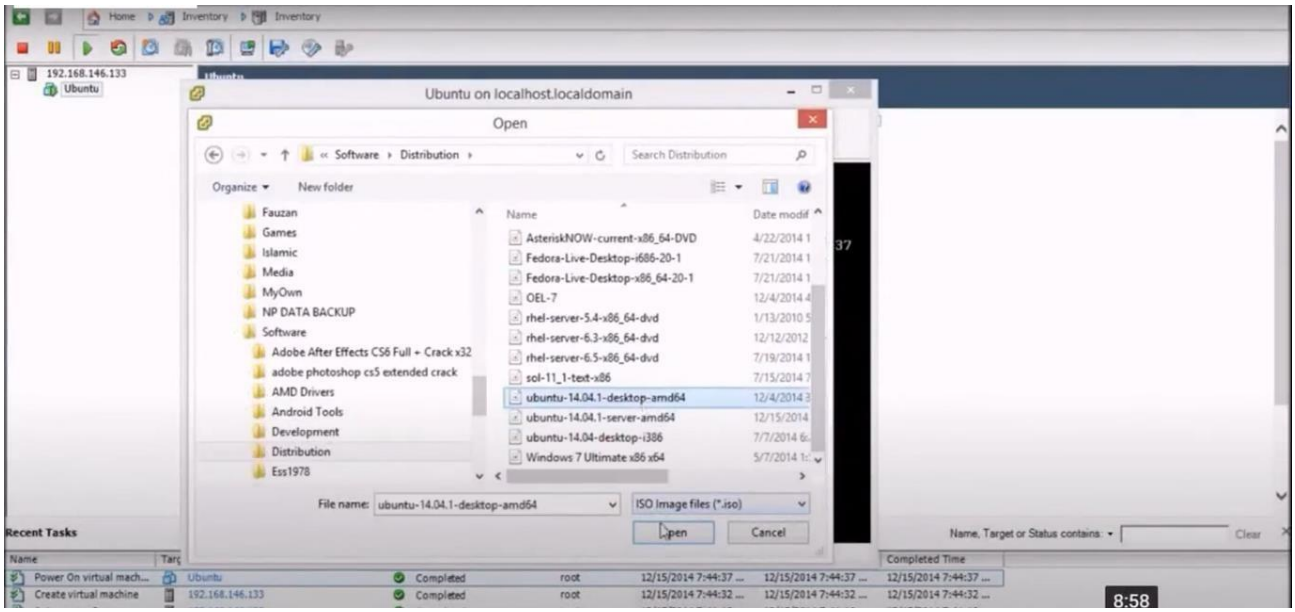


Step 16- Specify disk size

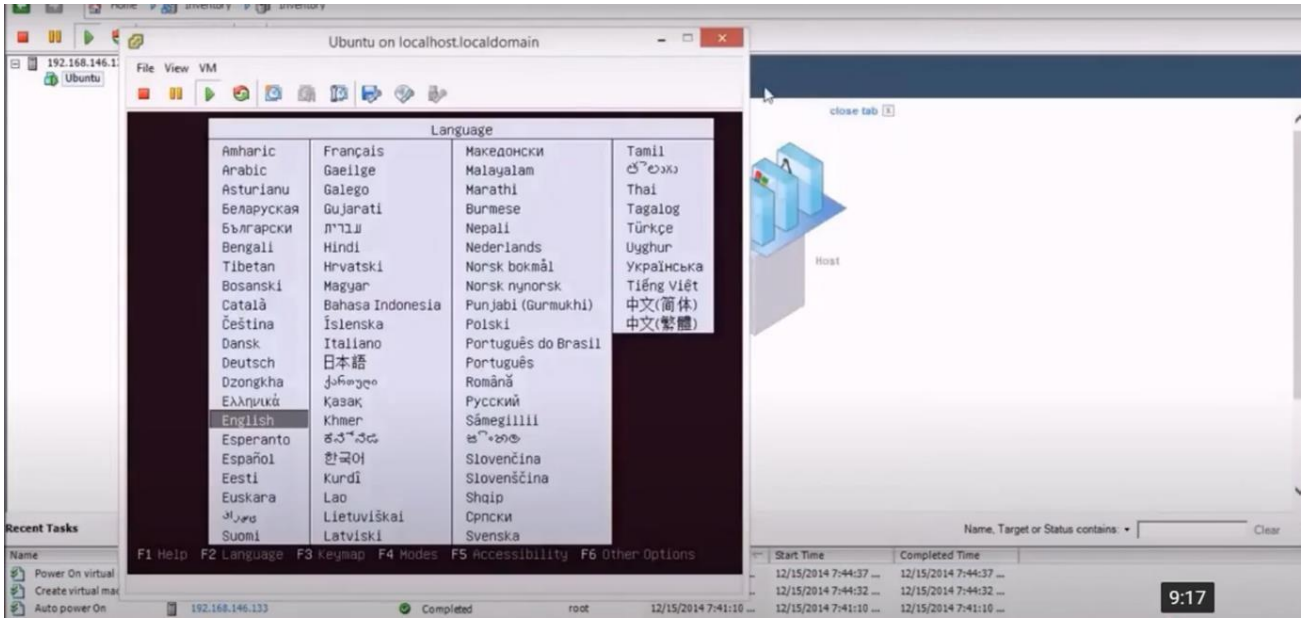


Step 17- Select ISO file





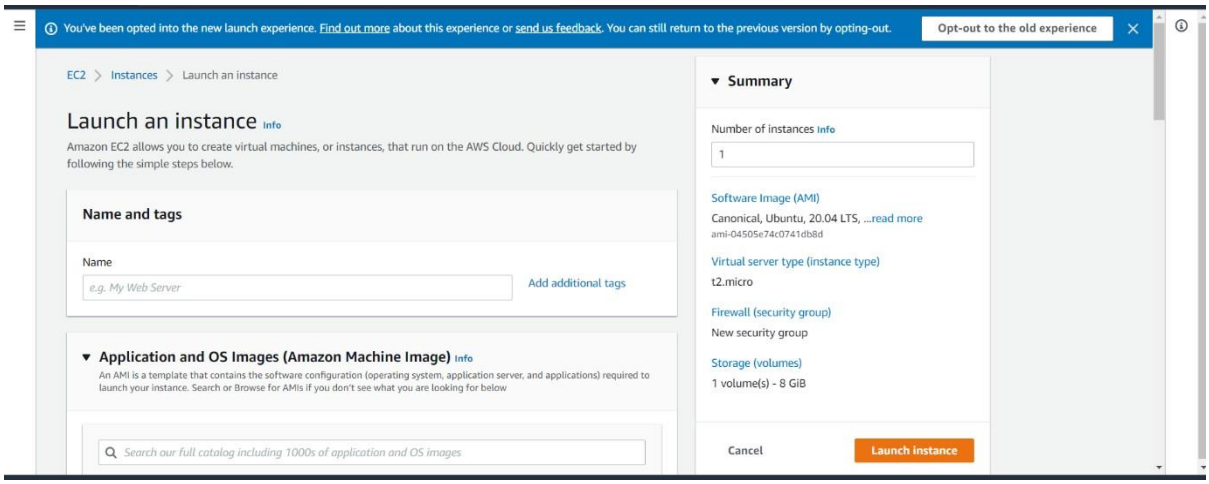
UBUNTU SUCCESSFULLY RUNS



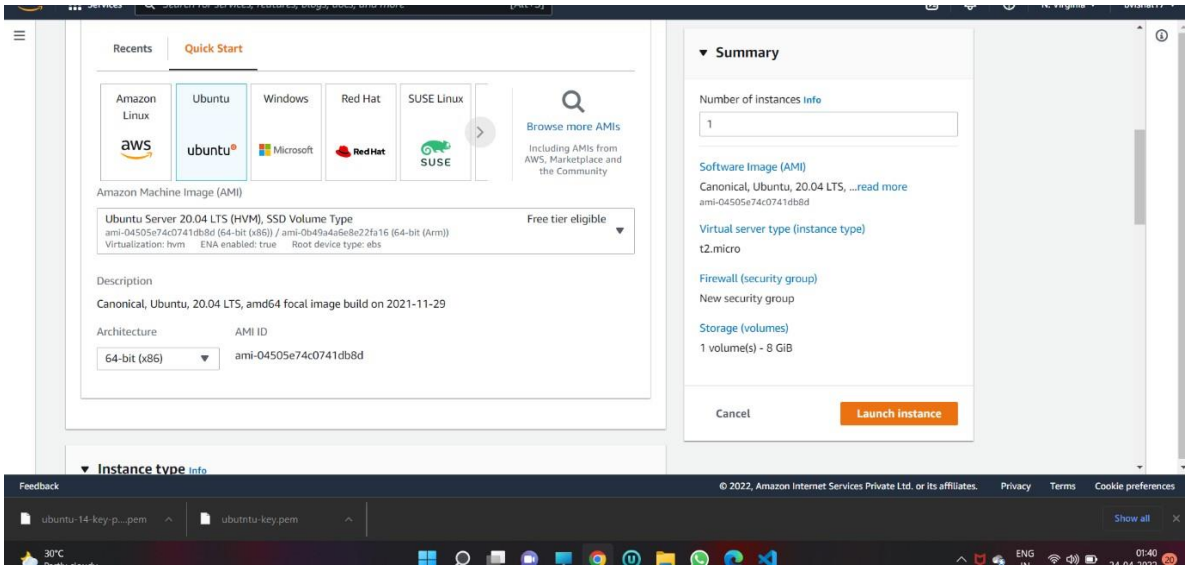
EXPERIMENT NO.4

Aim: - To study and Implement Infrastructure as aService using AWS/Microsoft Azure

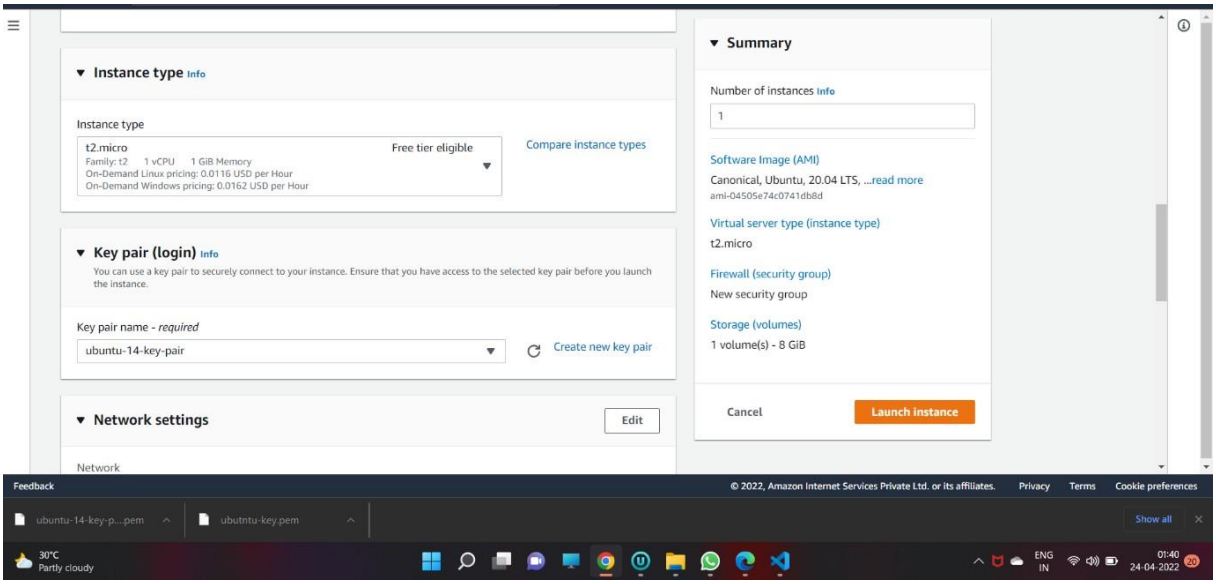
Step 1 open AWS



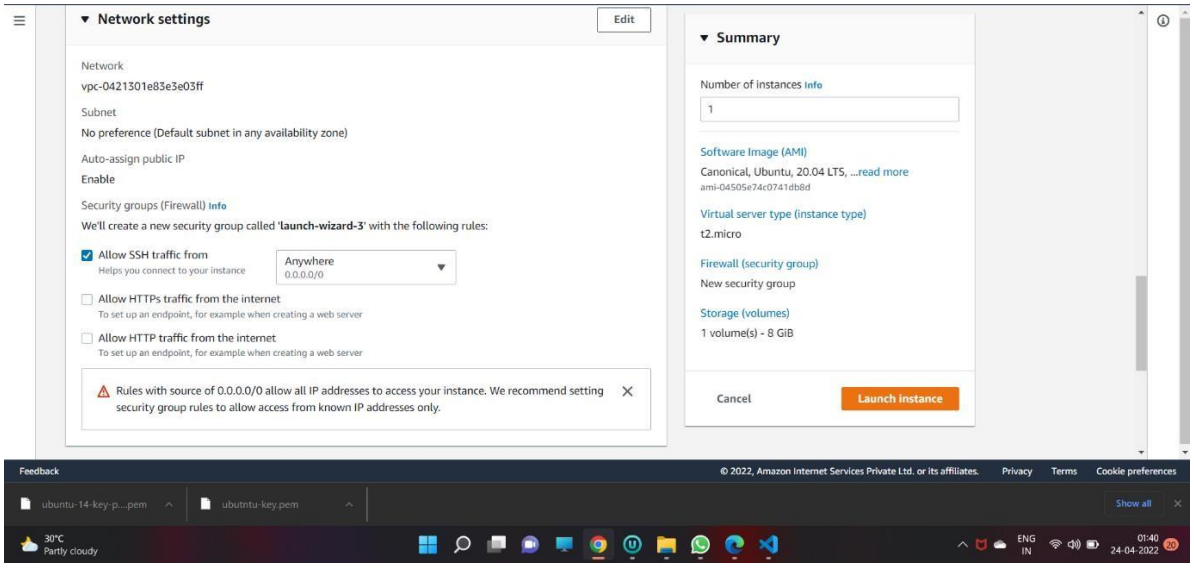
Step 2 select operating system.



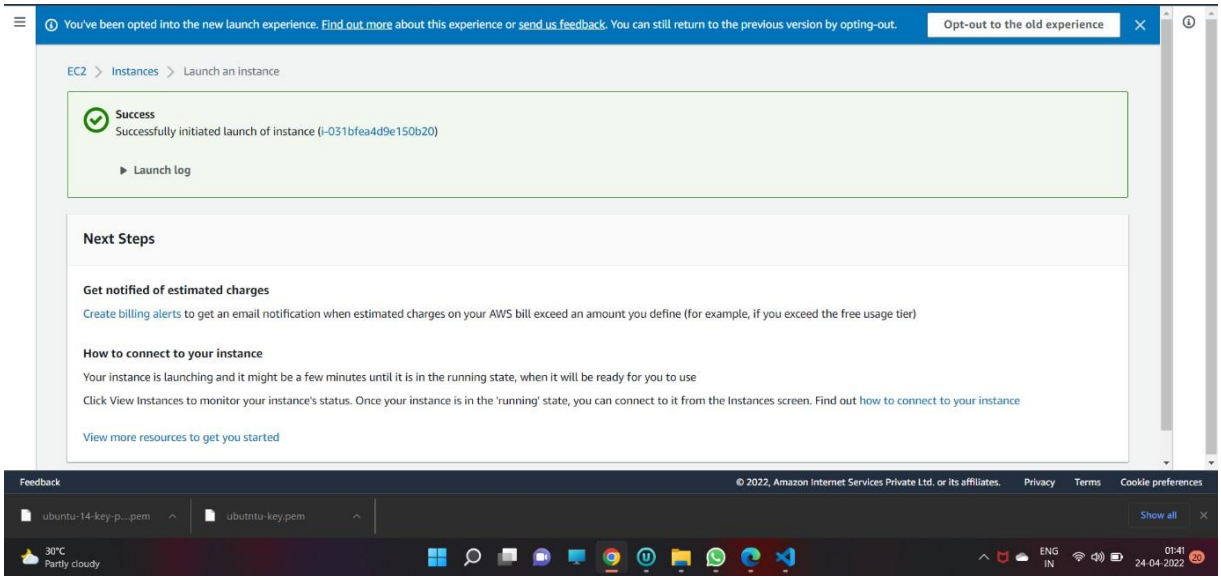
Step 3 – create new key pair



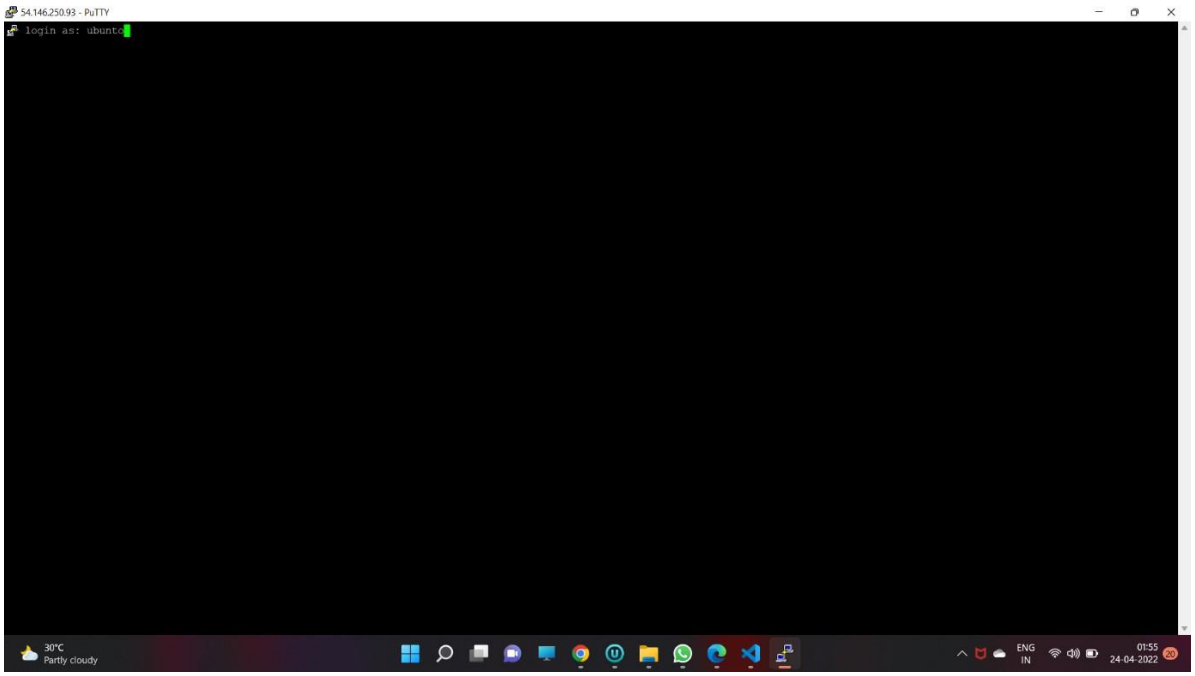
step 4- select allow SSH from anywhere



Step- 5-Launch instance



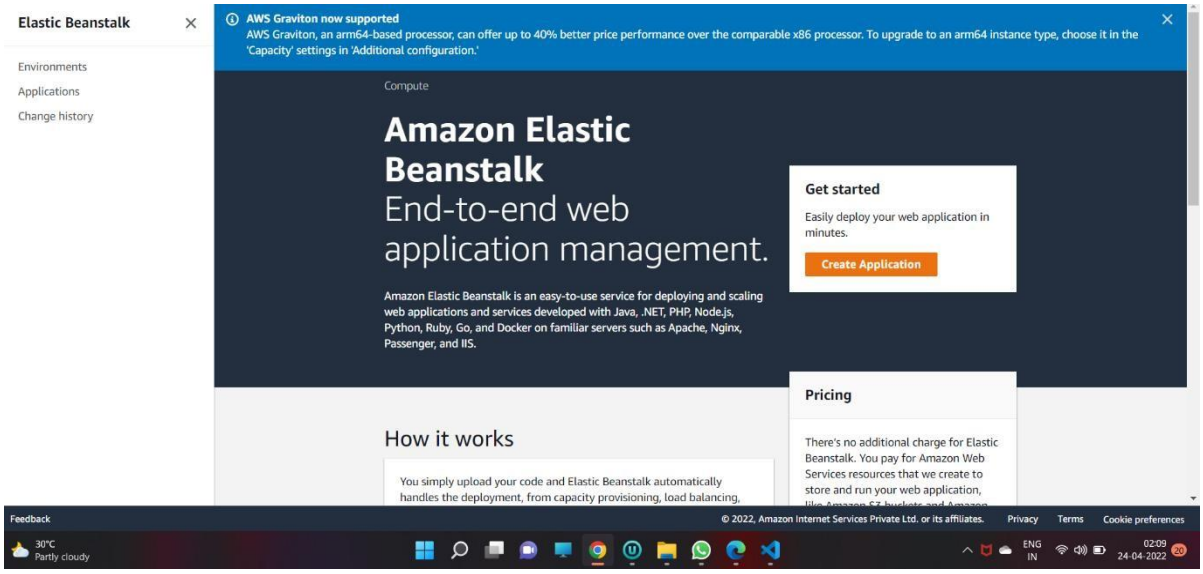
Step -6 launce ubuntu



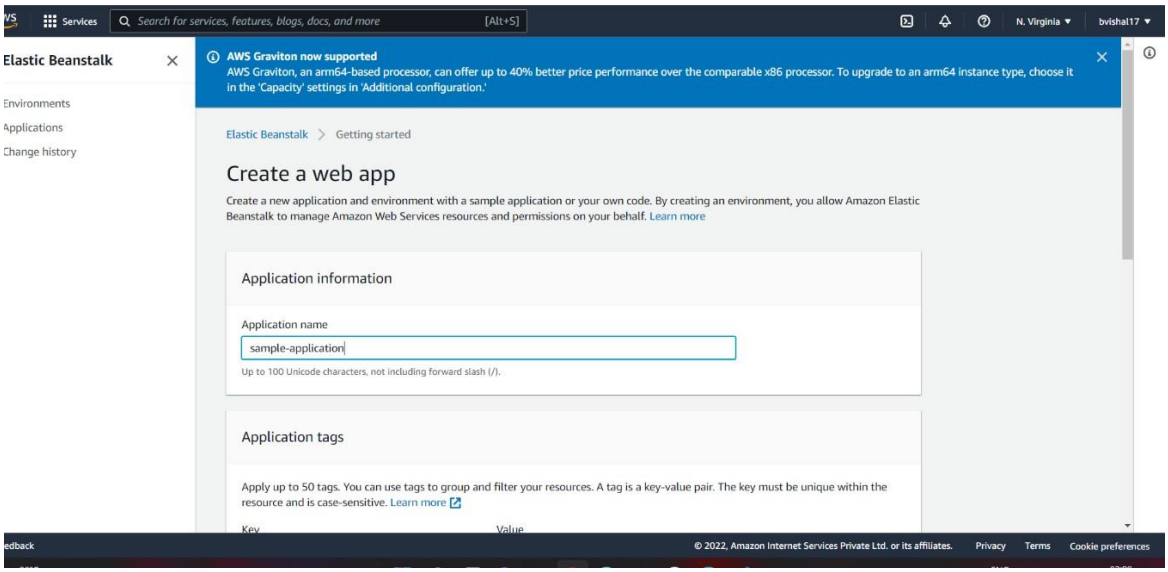
EXPERIMENT NO.5

Aim: - To study and Implement Platform as a Service using AWSElastic Beanstalk/ Microsoft Azure App Service.

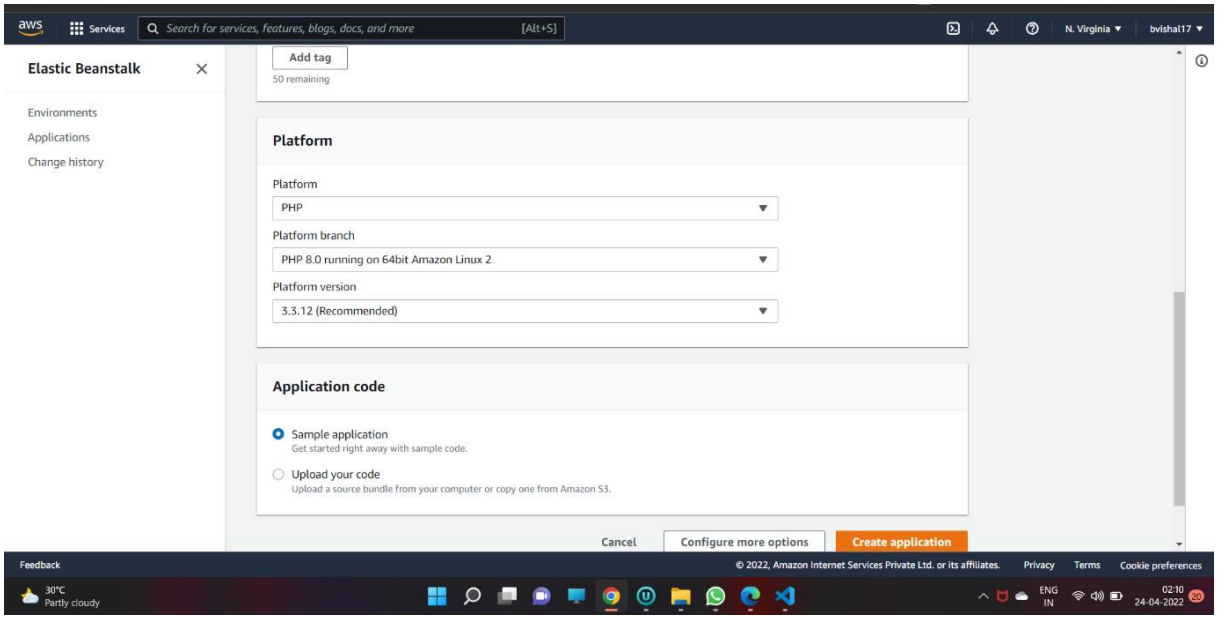
Step-1: Open AWS and select elastics beamstalk.



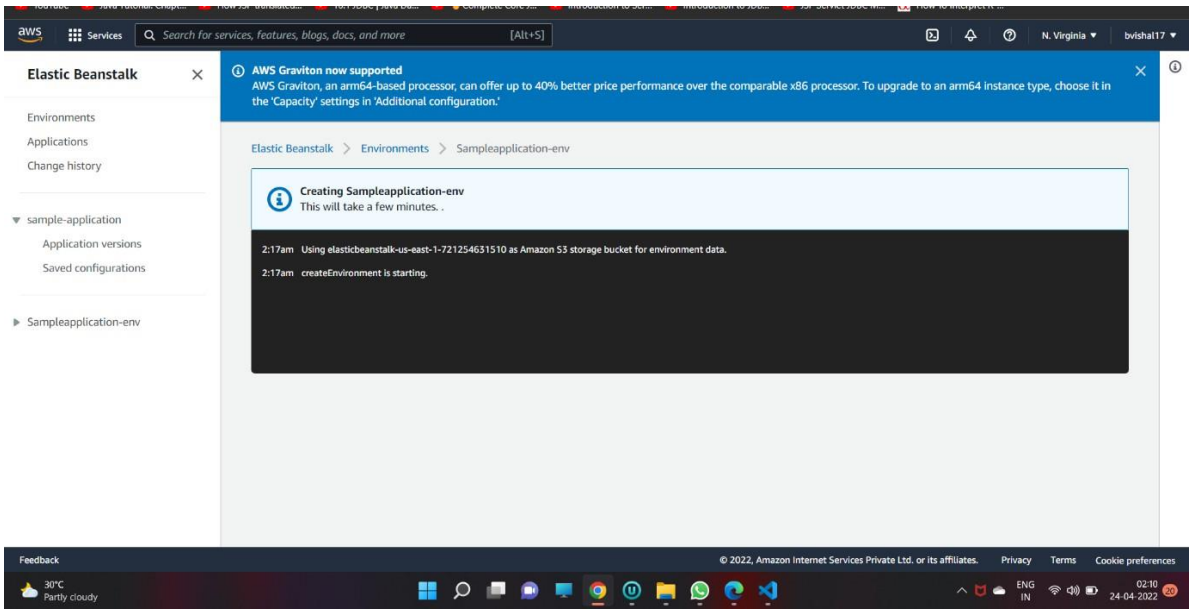
Step-2 Create web application and enter the name of application.



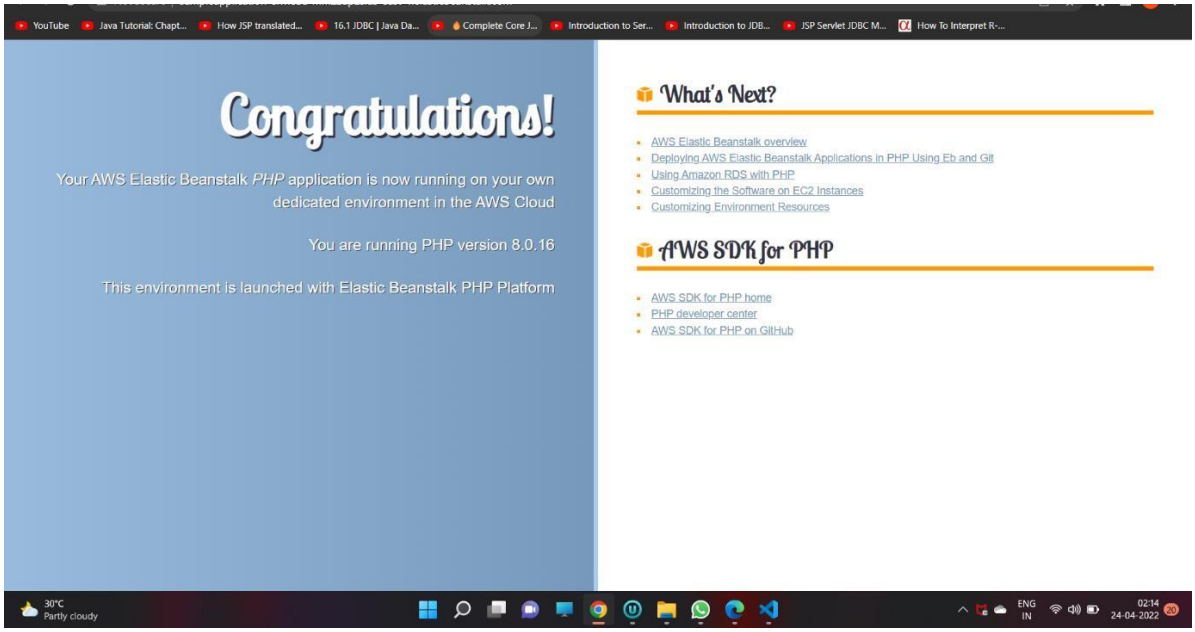
Step-3 : Select platform and application code.



Step 4- Click create application



Step-5 Copy link and open in the Brower.



EXPERIMENT NO. 6

Aim: To study andImplement Storage as a Service using Own Cloud/ AWS S3,Glaciers/ Azure Storage.

Theory:

Storage as a Service or SaaS

Storage as a Service or STaaS is cloud storage that you rent from a Cloud ServiceProvider (CSP) and that provides basic ways to access that storage.Enterprises, small and medium businesses, home offices, and individuals can use the cloud formultimedia storage, data repositories, data backup and recovery, and disaster recovery. There are also higher-tier managed services that build on top of STaaS, such as Database as a Service, in which you can write data into tables that are hosted through CSP resources.

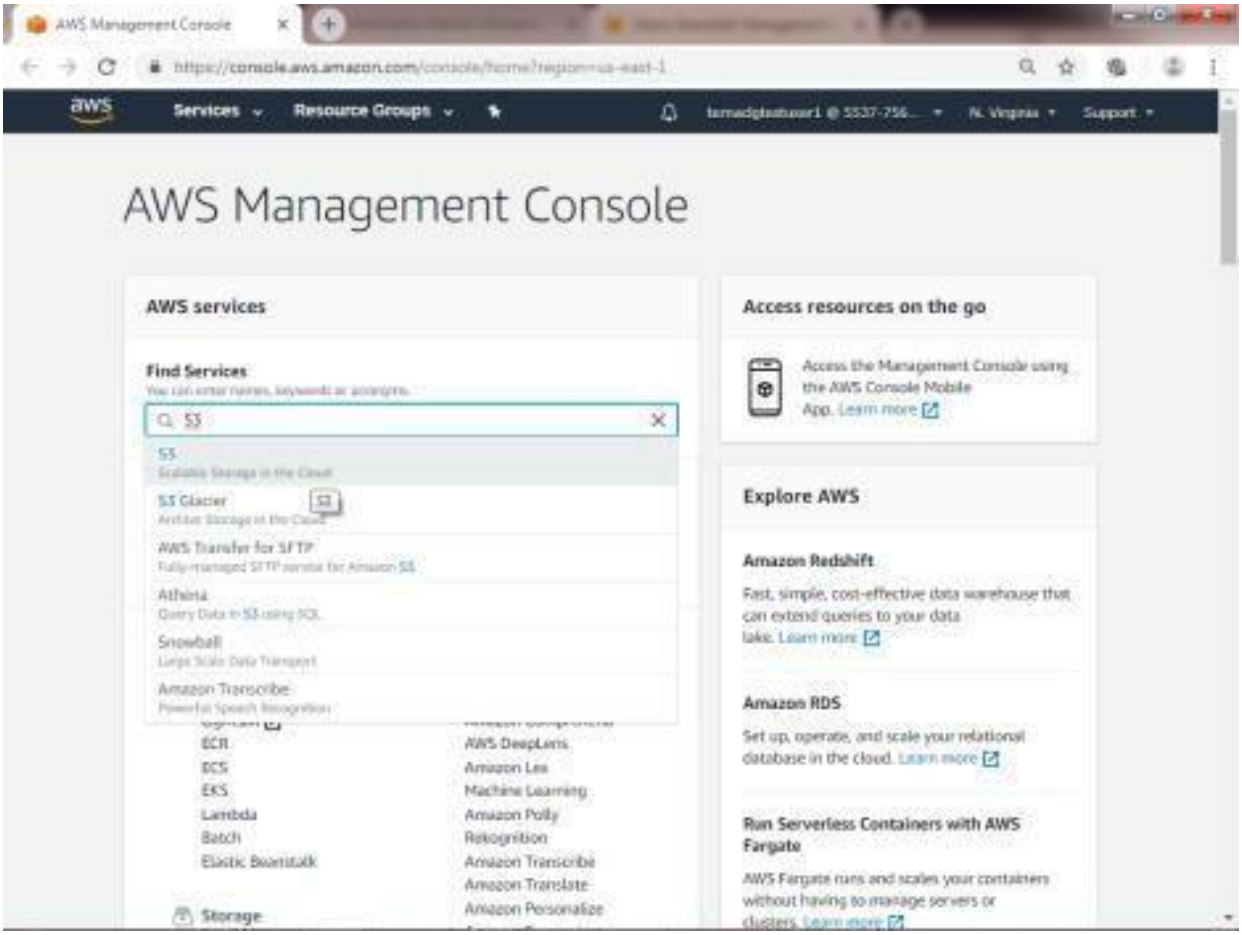
The key benefit to STaaS is that you are offloading the cost and effort to manage data storage infrastructure and technology to a third-party CSP. This makes it muchmore effective to scale up storage resources without investing in new hardware or taking on configuration costs. You can also respond to changing market conditions faster. With just a few clicks you can rent terabytes or more of storage, and you don't have to spin up newstorage appliances on your own.

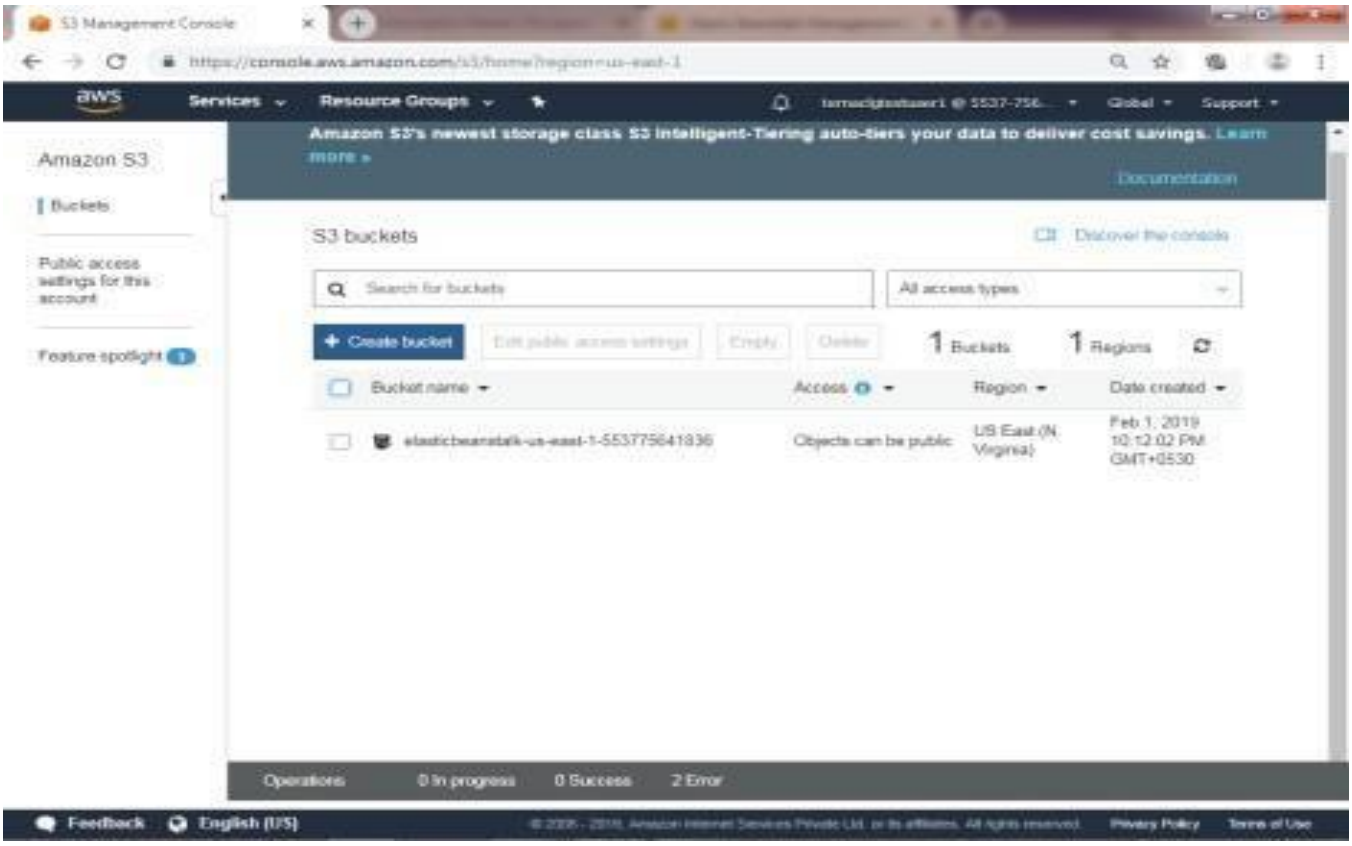
Working of Storage as a Service :

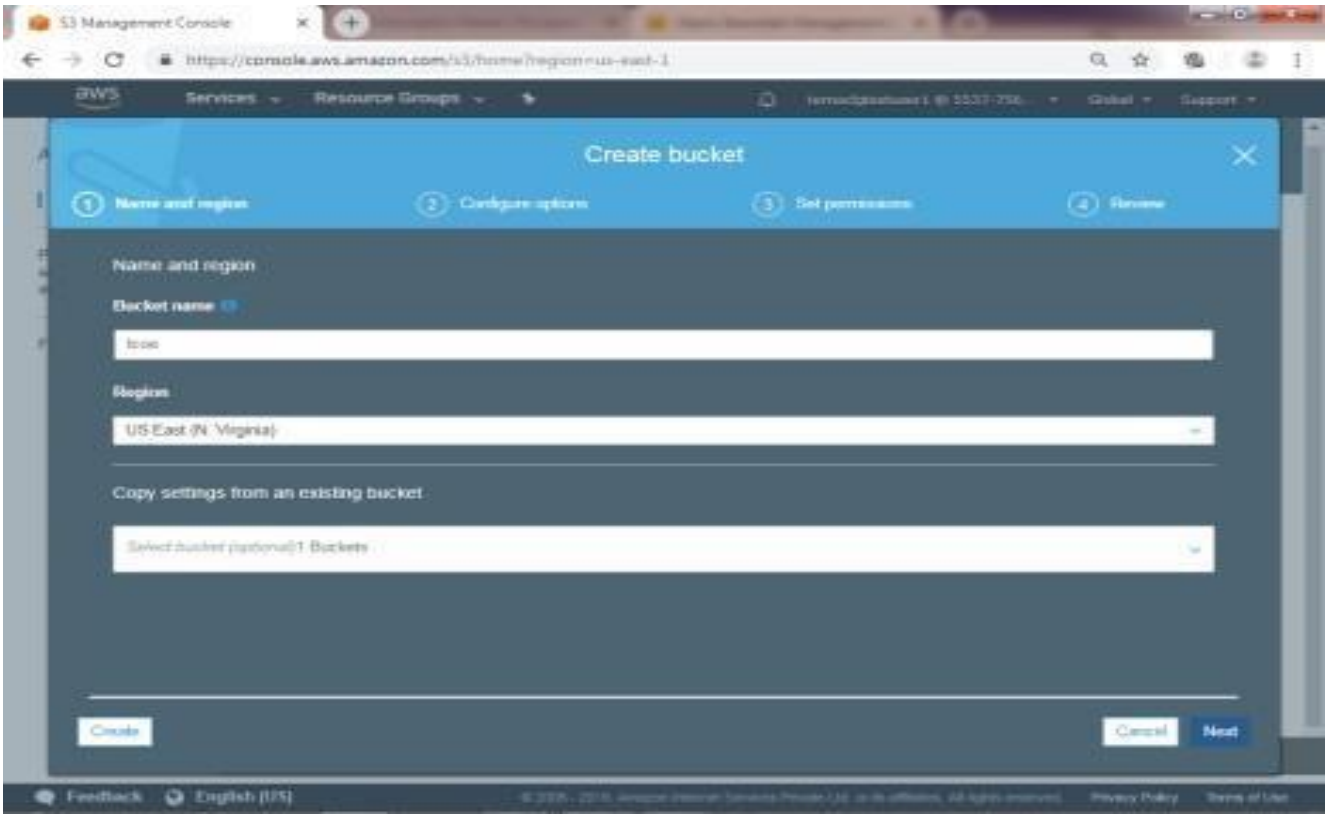
Some STaaS offerings can be rented based on quantity, others are rented based on aservice level agreement (SLA). SLAs help establish and reinforce conditions for using data storage, such as uptime and read/write access speed. The storage you choose will typically depend on how often you intend to access the data. Cold data storage is data that you leave alone or access infrequently, whereas warm or hot data is accessed regularly and repeatedly. Pricing by quantity tends to be more cost efficientbut isn't intended to support fast and frequent access for day-to-day business productivity. For hot or warm data, an SLA will be crucial to

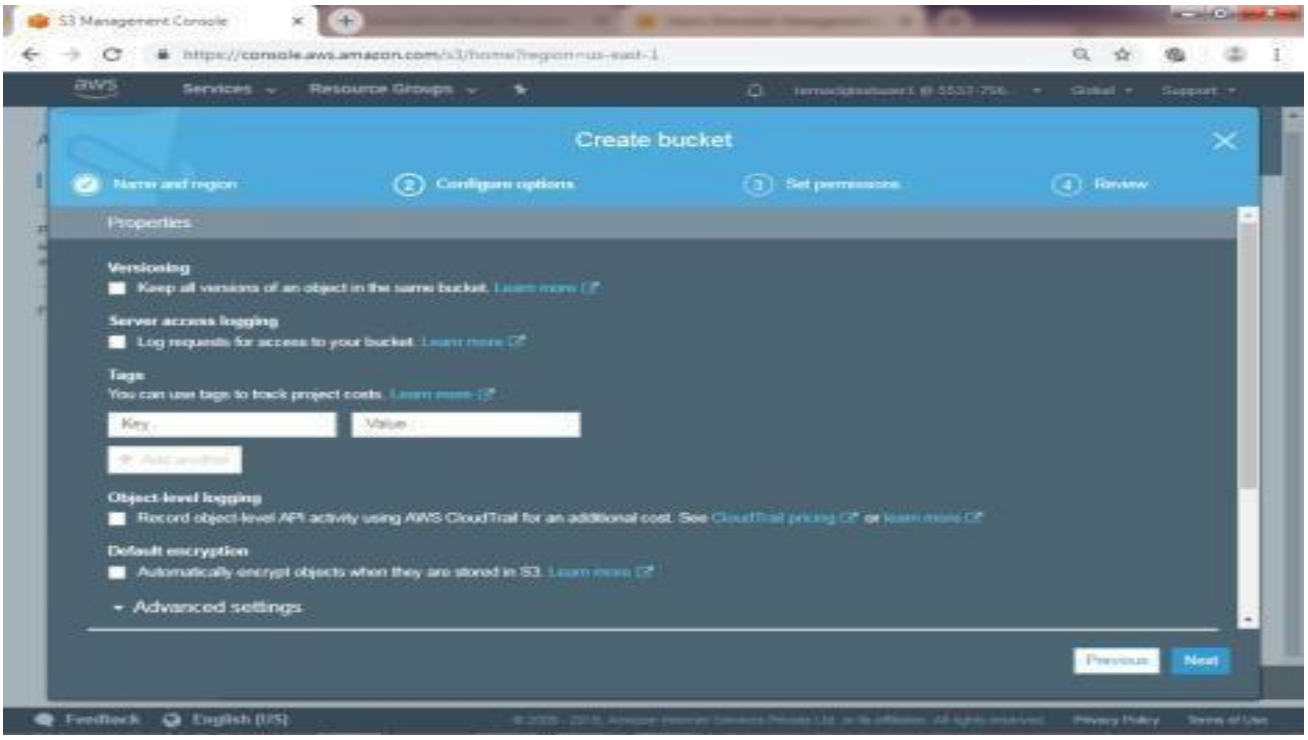
leveraging data storage in support of current projects or ongoingprocesses.

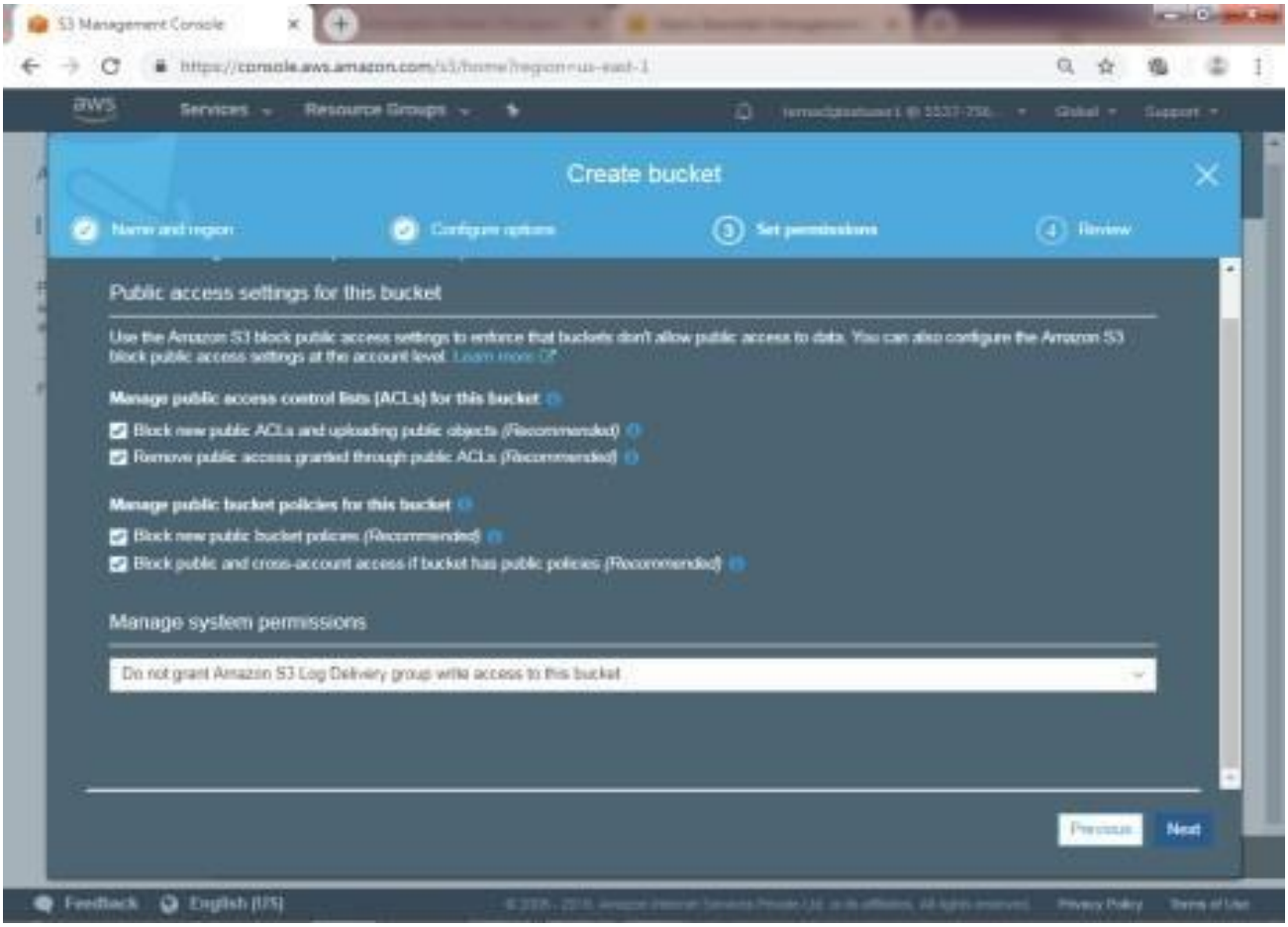
Many CSPs make it easy to onboard and upload data into their STaaS infrastructure for little to no cost at all. However, there may be hidden feesand itcan be extremely costly to migrate or transfer your data to a different cloud platform.

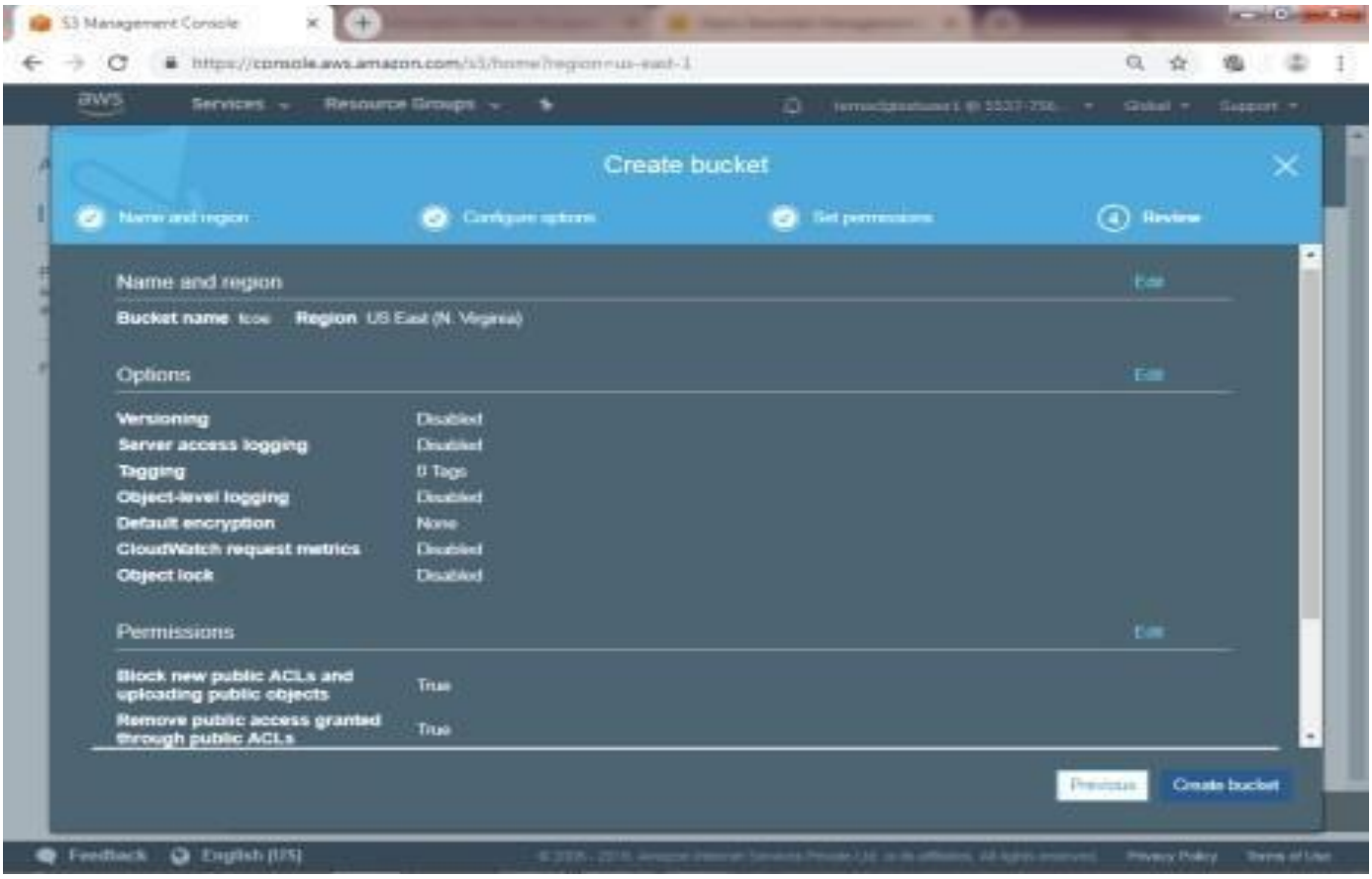


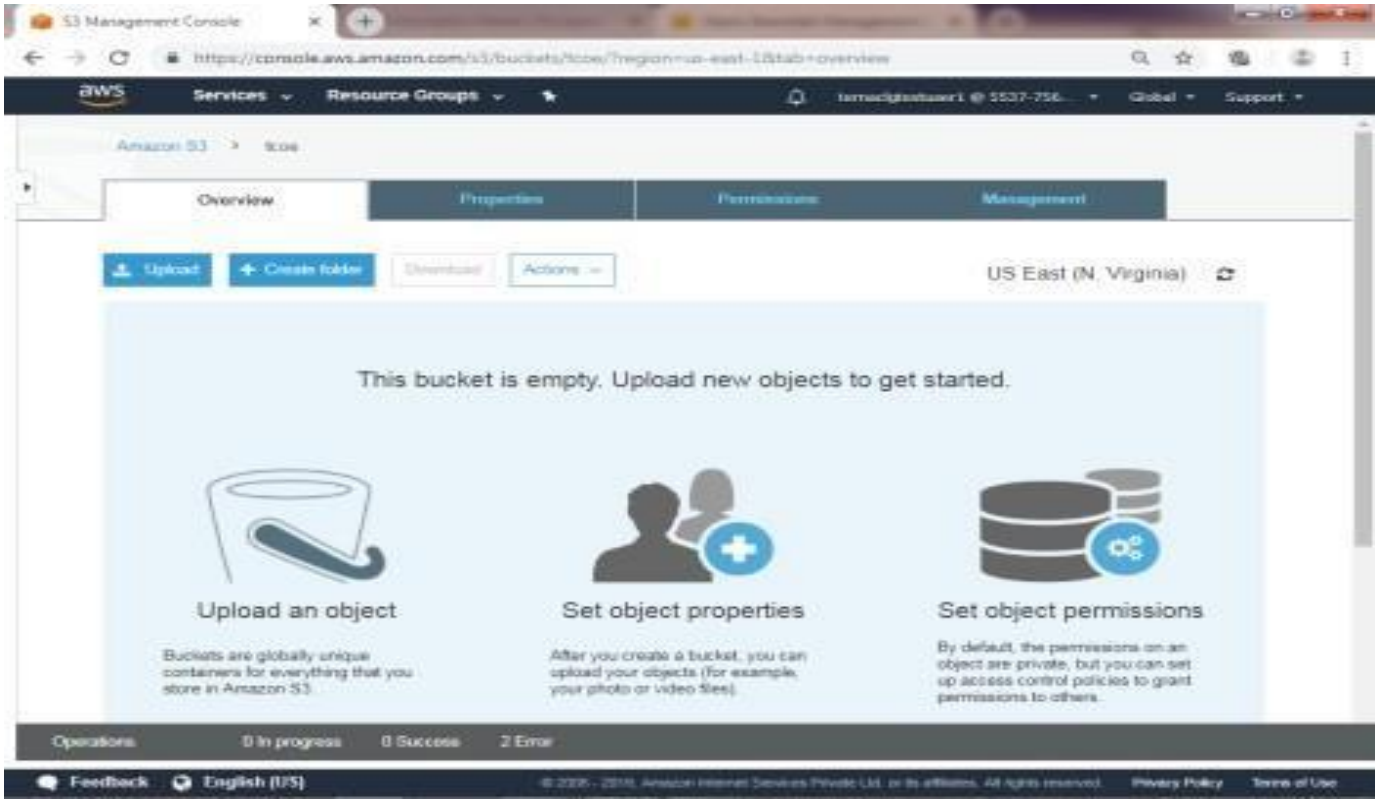

S3 Management Console
Services
Resource Groups
Amazon S3
Buckets
Public access settings for this account
Feature spotlight
Amazon S3's newest storage class S3 Intelligent-Tiering auto-tiers your data to deliver cost savings. Learn more »
Documentation
S3 buckets
Discover the console
Search for buckets
All access types
Create bucket
Empty
Delete
1 Buckets
1 Regions
Bucket name
Access
Region
Date created
elasticbeanstalk-us-east-1-553775641836
Objects can be public
US East (N. Virginia)
Feb 1, 2019 10:12:02 PM GMT+0530
Operations
0 In progress
0 Success
2 Error
Feedback
English (US)
Privacy Policy
Terms of Use

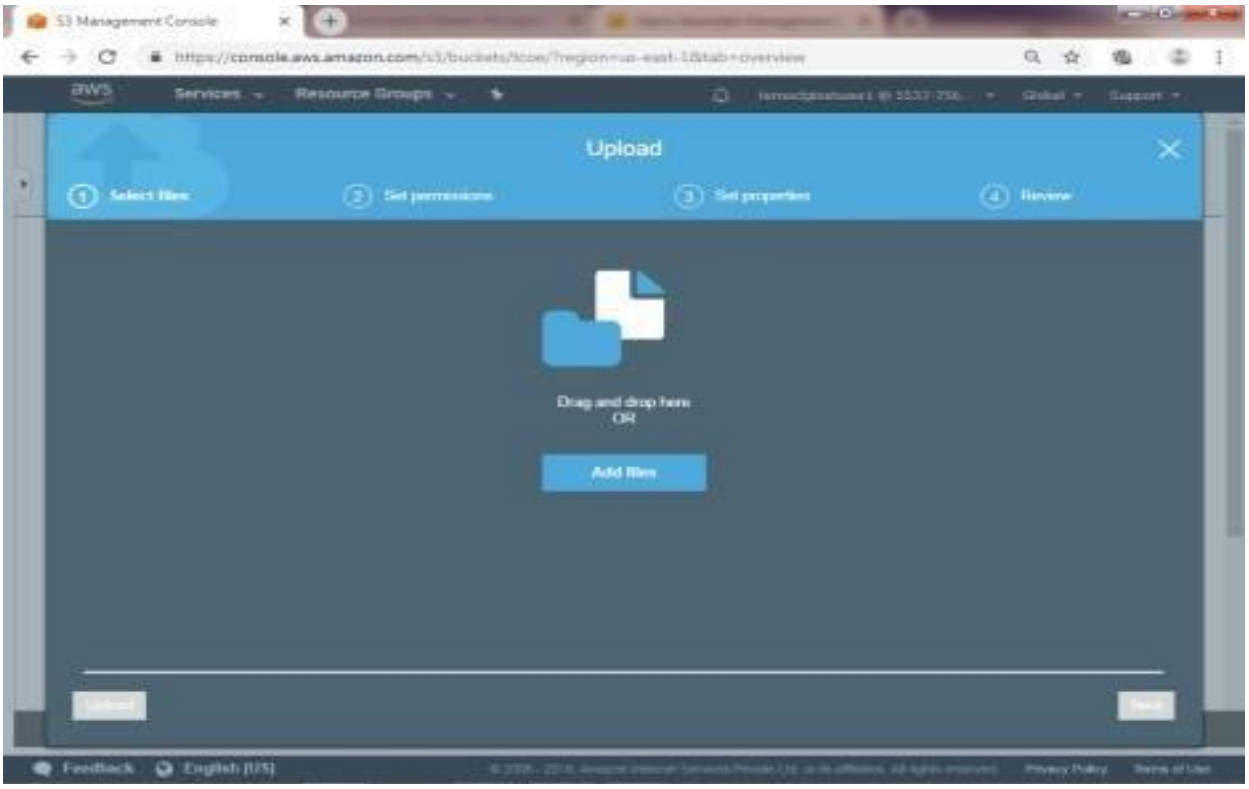

S3 Management Console
Services
Resource Groups
Create bucket
1 Name and region
2 Configure options
3 Set permissions
4 Review
Name and region
Bucket name
Region
US East (N. Virginia)
Copy settings from an existing bucket
Select bucket (optional) 1 Buckets
Create
Cancel
Next
Feedback
English (US)
Privacy Policy
Terms of Use

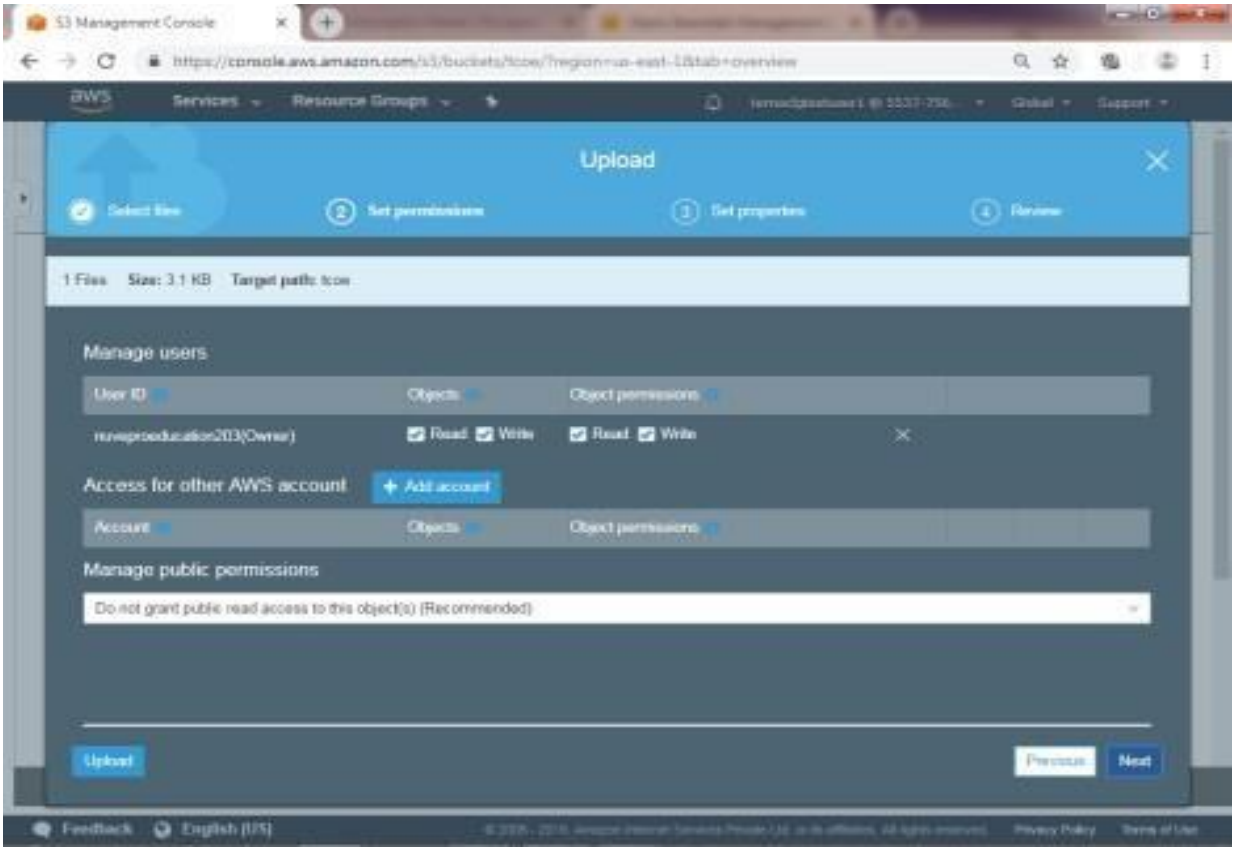

S3 Management Console
https://console.aws.amazon.com/s3/home?region=us-east-1
Services
Resource Groups
Global
Support
Create bucket
1 Name and region
2 Configure options
3 Set permissions
4 Review
Properties
Versioning
Keep all versions of an object in the same bucket. Learn more
Server access logging
Log requests for access to your bucket. Learn more
Tags
You can use tags to track project costs. Learn more
Key
Value
Object-level logging
Record object-level API activity using AWS CloudTrail for an additional cost. See CloudTrail pricing or Learn more
Default encryption
Automatically encrypt objects when they are stored in S3. Learn more
Advanced settings
Previous
Next
Feedback
English (US)
Privacy Policy
Terms of Use

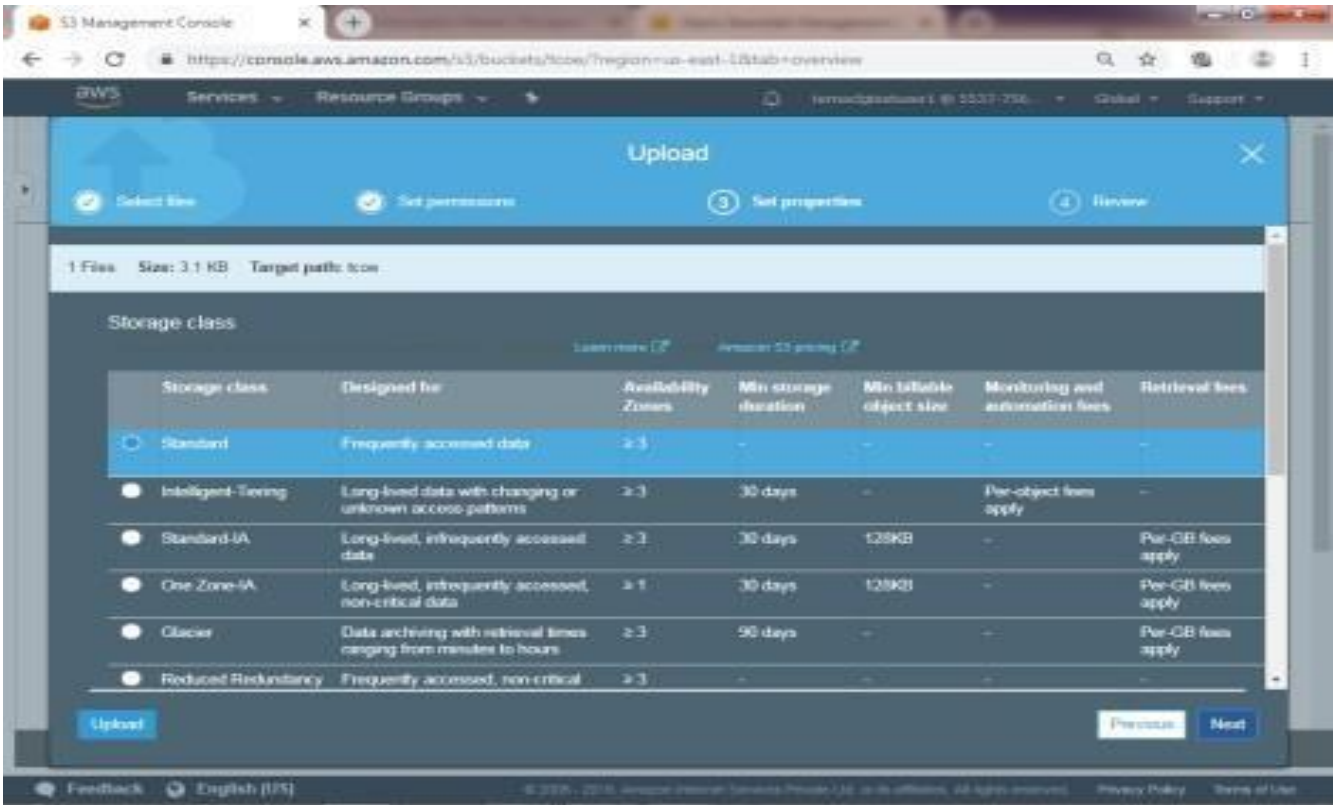

S3 Management Console
https://console.aws.amazon.com/s3/home?region=us-east-1
Services
Resource Groups
Global
Support
Create bucket
1 Name and region
2 Configure options
3 Set permissions
4 Review
Public access settings for this bucket
Use the Amazon S3 block public access settings to ensure that buckets don't allow public access to data. You can also configure the Amazon S3 block public access settings at the account level. Learn more
Manage public access control lists (ACLs) for this bucket
Block new public ACLs and uploading public objects (Recommended)
Remove public access granted through public ACLs (Recommended)
Manage public bucket policies for this bucket
Block new public bucket policies (Recommended)
Block public and cross-account access if bucket has public policies (Recommended)
Manage system permissions
Do not grant Amazon S3 Log Delivery group write access to this bucket
Previous
Next
Feedback
English (US)
Privacy Policy
Terms of Use

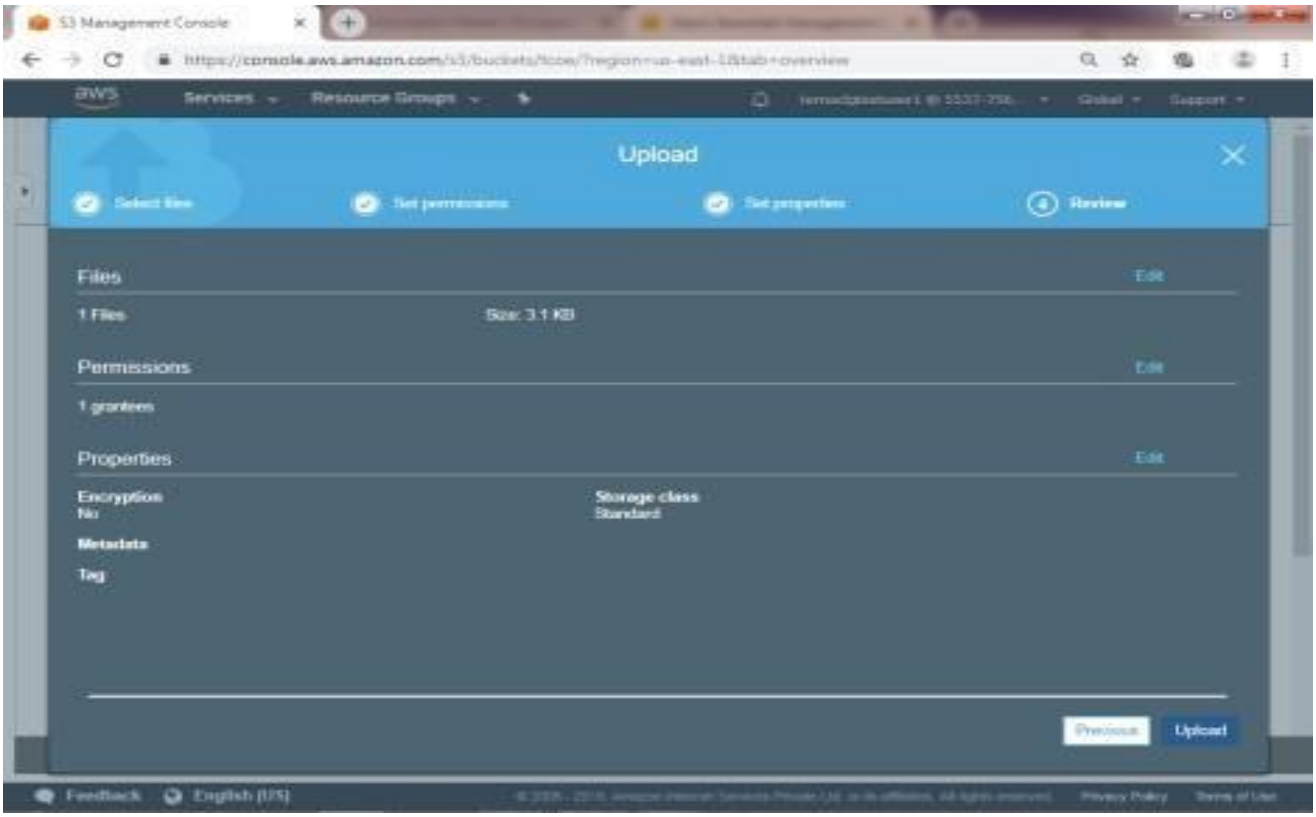

S3 Management Console
Services
Resource Groups
Create bucket
Name and region
Configure options
Set permissions
Review
Name and region
Edit
Bucket name
Region US East (N. Virginia)
Options
Edit
Versioning Disabled
Server access logging Disabled
Tagging 0 Tags
Object-level logging Disabled
Default encryption None
CloudWatch request metrics Disabled
Object lock Disabled
Permissions
Edit
Block new public ACLs and uploading public objects True
Remove public access granted through public ACLs True
Create bucket

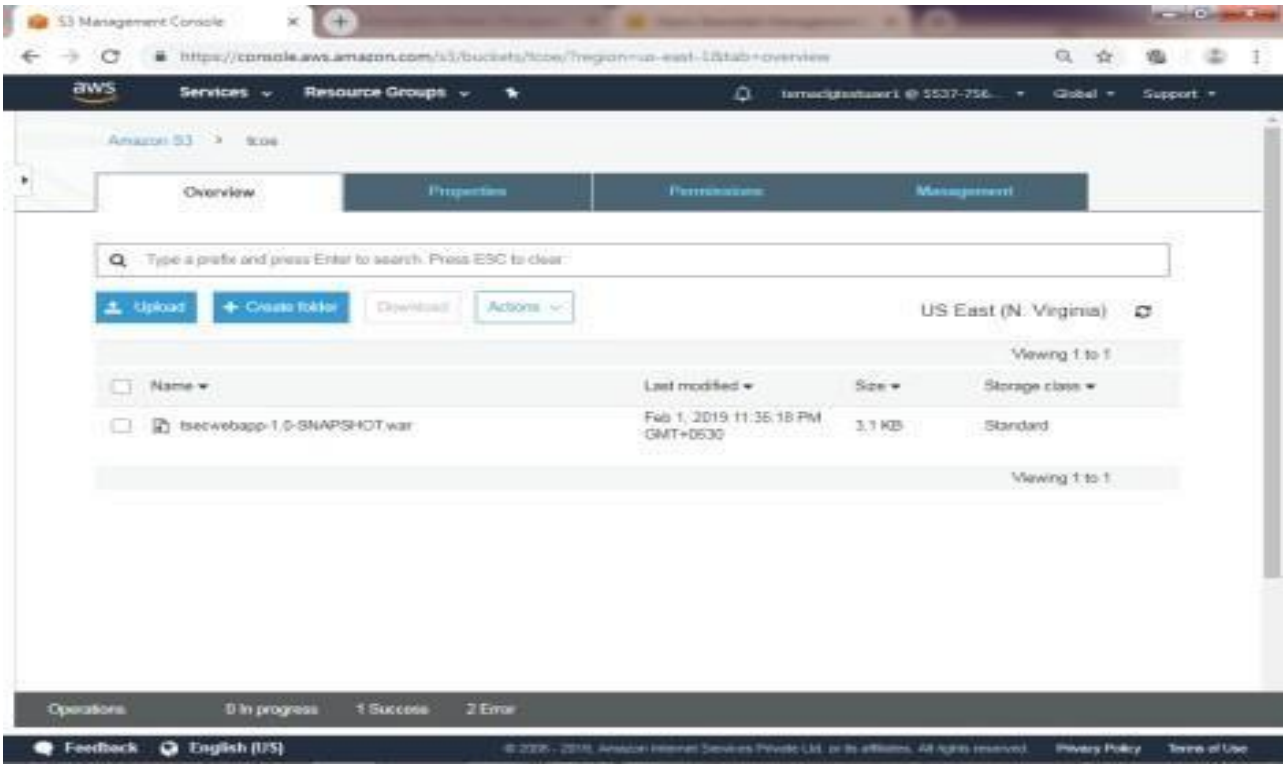

S3 Management Console
Services
Resource Groups
Overview
Properties
Permissions
Management
Upload
Create folder
Actions
US East (N. Virginia)
This bucket is empty. Upload new objects to get started.
Upload an object
Buckets are globally unique containers for everything that you store in Amazon S3.
Set object properties
After you create a bucket, you can upload your objects (for example, your photo or video files).
Set object permissions
By default, the permissions on an object are private, but you can set up access control policies to grant permissions to others.
Operations
0 In progress
0 Success
2 Error
Feedback
English (US)

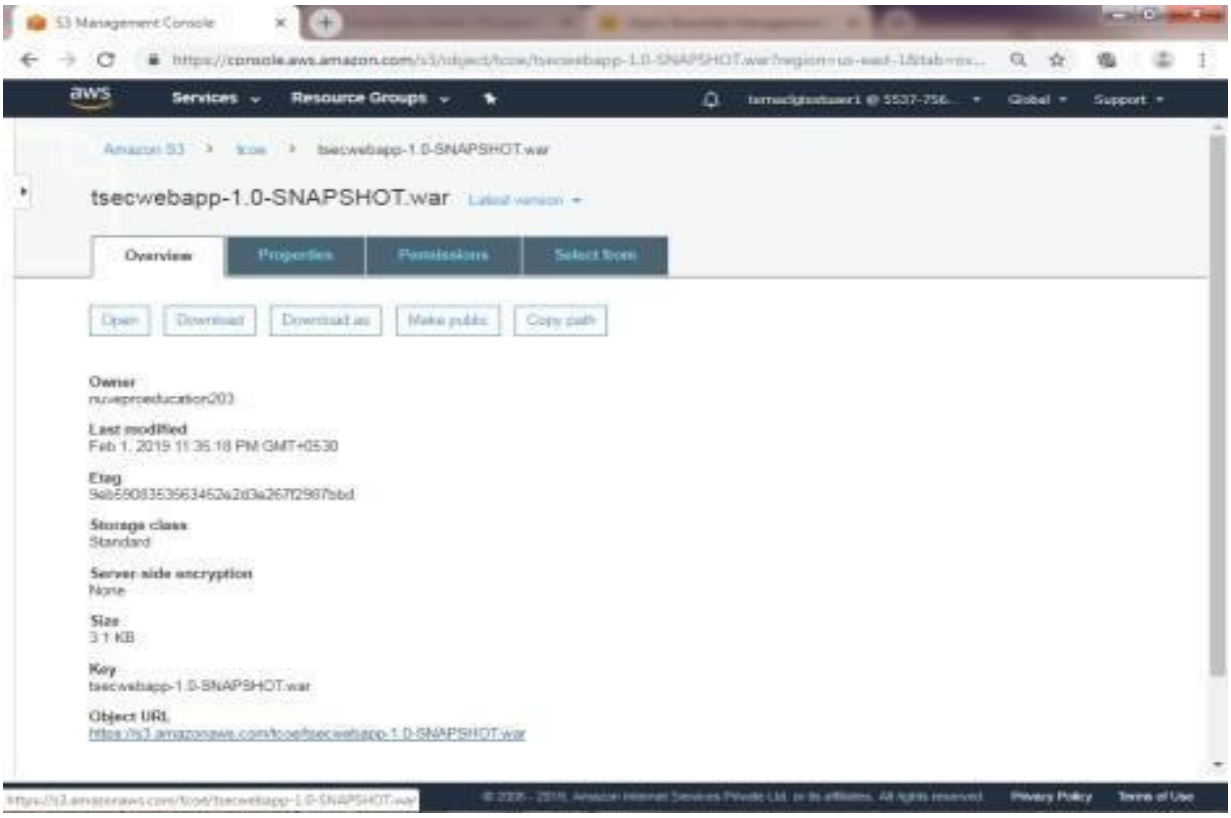

S3 Management Console
Services
Resource Groups
Upload
Select files
Set permissions
Set properties
Review
Drag and drop here
OR
Add files
Feedback
English (US)

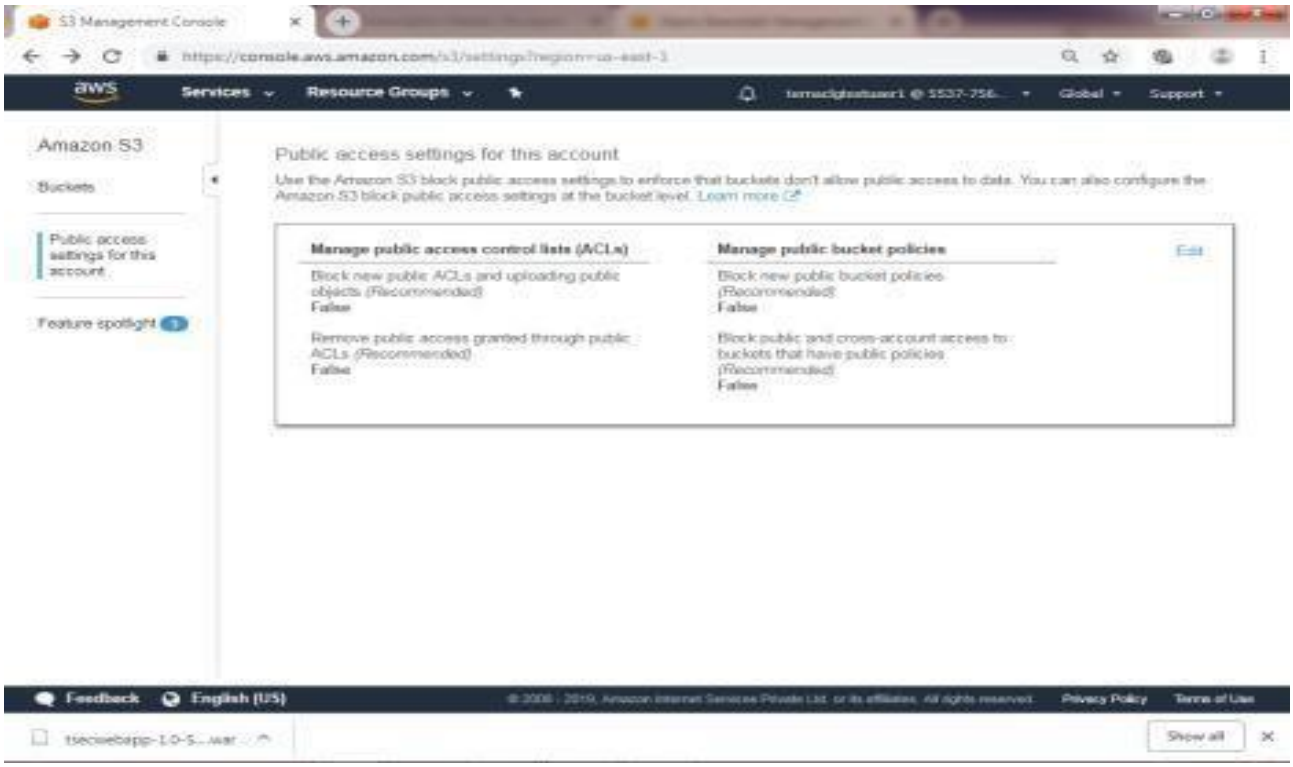

S3 Management Console
Services
Resource Groups
Upload
Select files
Set permissions
Set properties
Review
1 Files
Size: 3.1 KB
Target path: tcoe
Manage users
User ID
Objects
Object permissions
Read
Write
Access for other AWS account
+ Add account
Account
Manage public permissions
Do not grant public read access to this object(s) (Recommended)
Upload
Previous
Next
Feedback
English (US)


S3 Management Console
Services
Resource Groups
Upload
Select files
Set permissions
3 Set properties
4 Review
1 Files Size: 3.1 KB Target path: tcoe
Storage class
Storage class
Designed for
Availability Zones
Min storage duration
Min billable object size
Monitoring and automation fees
Retrieval fees
Standard
Frequently accessed data
≥ 3
Intelligent-Tiering
Long-lived data with changing or unknown access patterns
≥ 3
30 days
Per-object fees apply
Standard-IA
Long-lived, infrequently accessed data
≥ 3
30 days
128KB
Per-GB fees apply
One Zone-IA
Long-lived, infrequently accessed, non-critical data
≥ 1
30 days
128KB
Per-GB fees apply
Glacier
Data archiving with retrieval times ranging from minutes to hours
≥ 3
90 days
Per-GB fees apply
Reduced Redundancy
Frequently accessed, non-critical
≥ 3
Upload
Previous
Next
Feedback
English (US)
Privacy Policy
Terms of Use

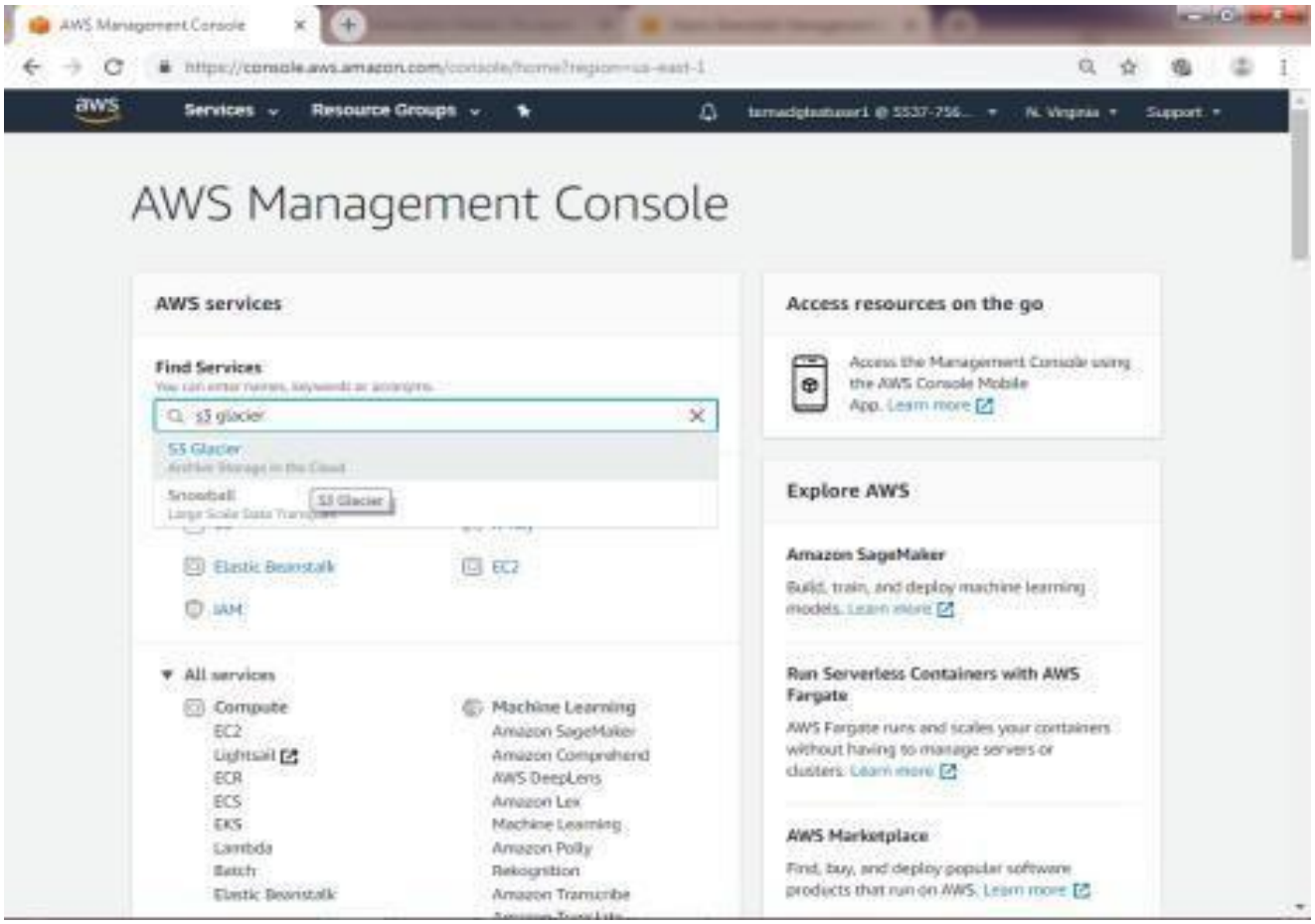

S3 Management Console
Services
Resource Groups
Upload
Select files
Set permissions
Set properties
4 Review
Files
Edit
1 Files
Size: 3.1 KB
Permissions
Edit
1 grantees
Properties
Edit
Encryption
No
Storage class
Standard
Metadata
Tag
Previous
Upload
Feedback
English (US)
Privacy Policy
Terms of Use


S3 Management Console
Services
Resource Groups
Overview
Properties
Permissions
Management
Upload
+ Create folder
Download
Actions
US East (N. Virginia)
Viewing 1 to 1
Name
Last modified
Size
Storage class
tsecwebapp-1.0-SNAPSHOT.war
Feb 1, 2019 11:35:18 PM GMT+0530
3.1 KB
Standard
Viewing 1 to 1
Operations
0 In progress
1 Success
2 Error
Feedback
English (US)


S3 Management Console
Services
Resource Groups
tsecwebapp-1.0-SNAPSHOT.war
Overview
Properties
Permissions
Select from
Open
Download
Download as
Make public
Copy path
Owner
ruveproeducation203
Last modified
Feb 1, 2019 11:35:18 PM GMT+0530
Etag
9ab59083535634f52a2d3a2672987bbd
Storage class
Standard
Server side encryption
None
Size
3.1 KB
Key
tsecwebapp-1.0-SNAPSHOT.war
Object URL
https://s3.amazonaws.com/tcoe/tsecwebapp-1.0-SNAPSHOT.war



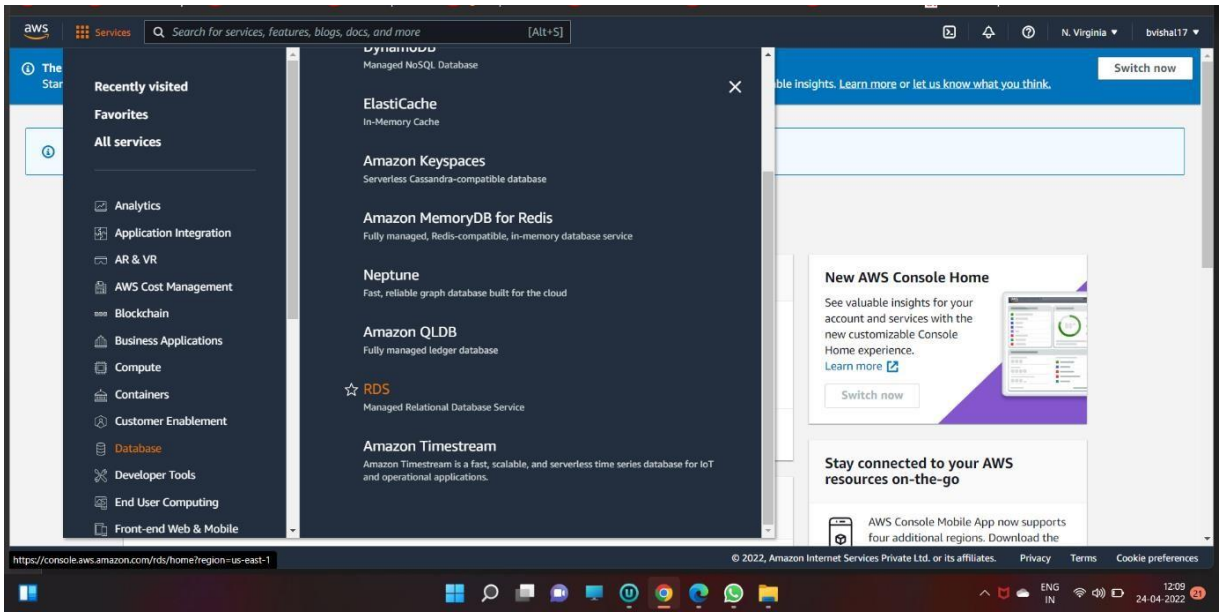
B) S3 Glaciers


AWS Management Console
https://console.aws.amazon.com/console/home?region=us-east-1
Services
Resource Groups
N. Virginia
Support
AWS Management Console
AWS services
Find Services
s3 glacier
S3 Glacier
Snowball
S3 Glacier
Elastic Beanstalk
EC2
IAM
All services
Compute
EC2
Lightsail
ECR
ECS
EKS
Lambda
Batch
Elastic Beanstalk
Machine Learning
Amazon SageMaker
Amazon Comprehend
AWS DeepLens
Amazon Lex
Machine Learning
Amazon Polly
Rekognition
Amazon Transcribe
Access resources on the go
Access the Management Console using the AWS Console Mobile App. Learn more
Explore AWS
Amazon SageMaker
Build, train, and deploy machine learning models. Learn more
Run Serverless Containers with AWS Fargate
AWS Fargate runs and scales your containers without having to manage servers or clusters. Learn more
AWS Marketplace
Find, buy, and deploy popular software products that run on AWS. Learn more

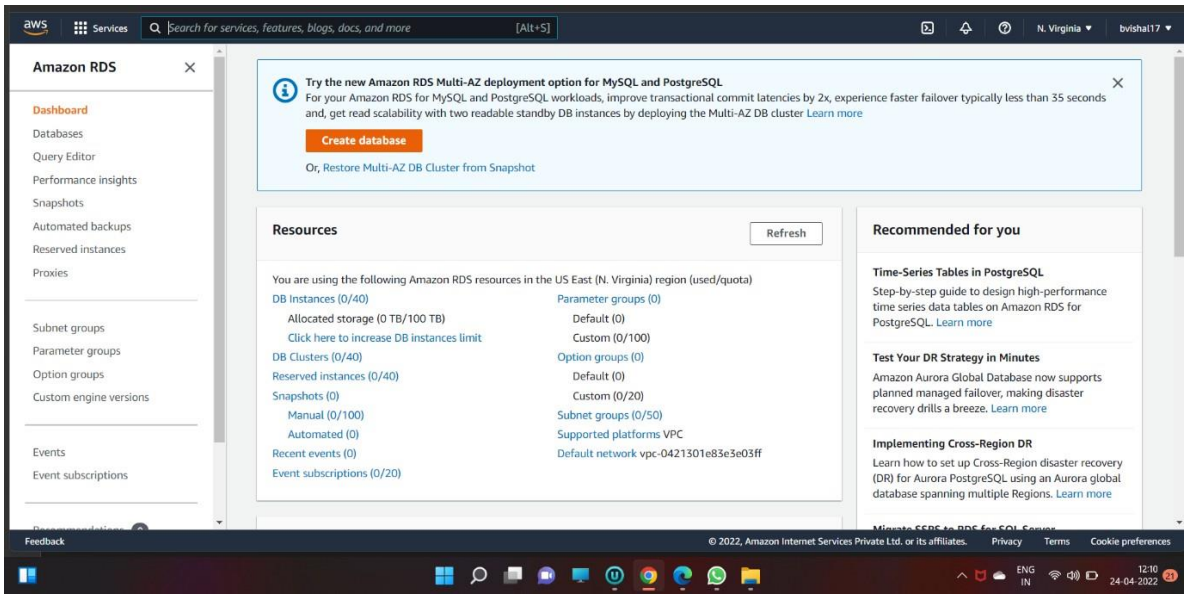
EXPERIMENT NO.7

Aim: - To study and Implement Database as a Service onSQL/NOSQL databases like AWS RDS, AZURE SQL/ MongoDB Lab/ Firebase.

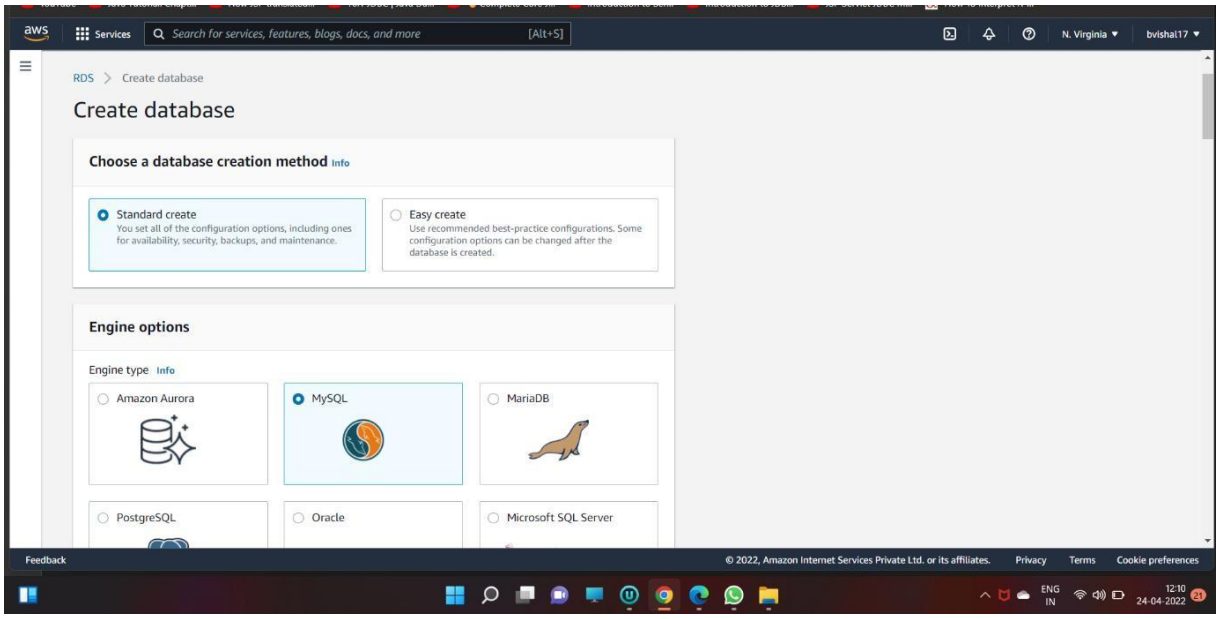
Step- 1: Open AWS and open RDS service



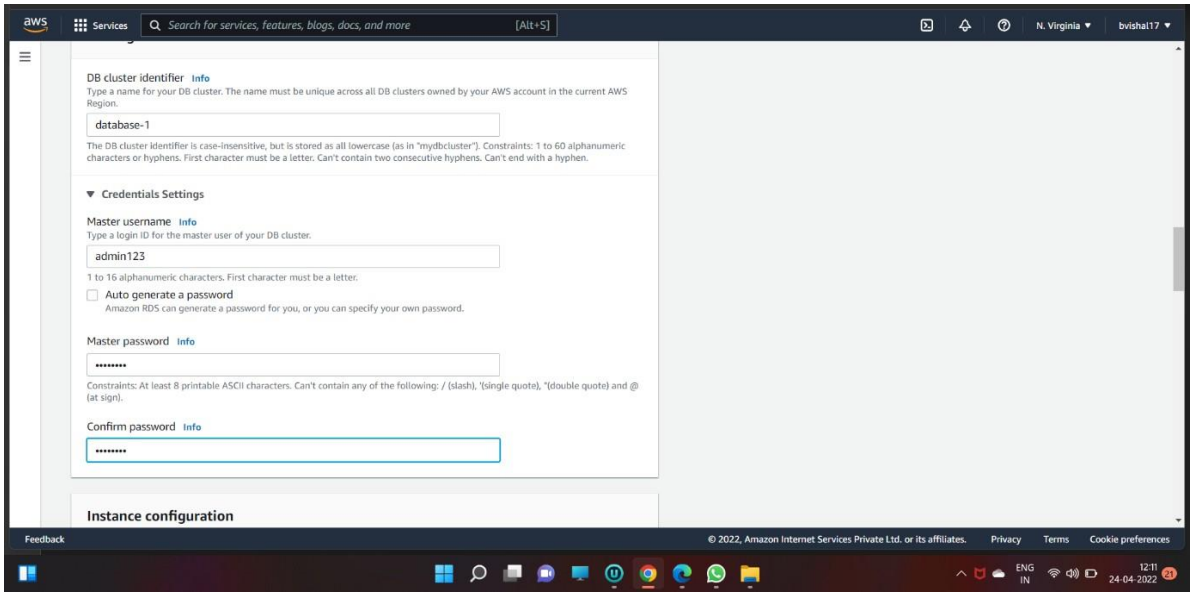
Step 2 : Click on create database



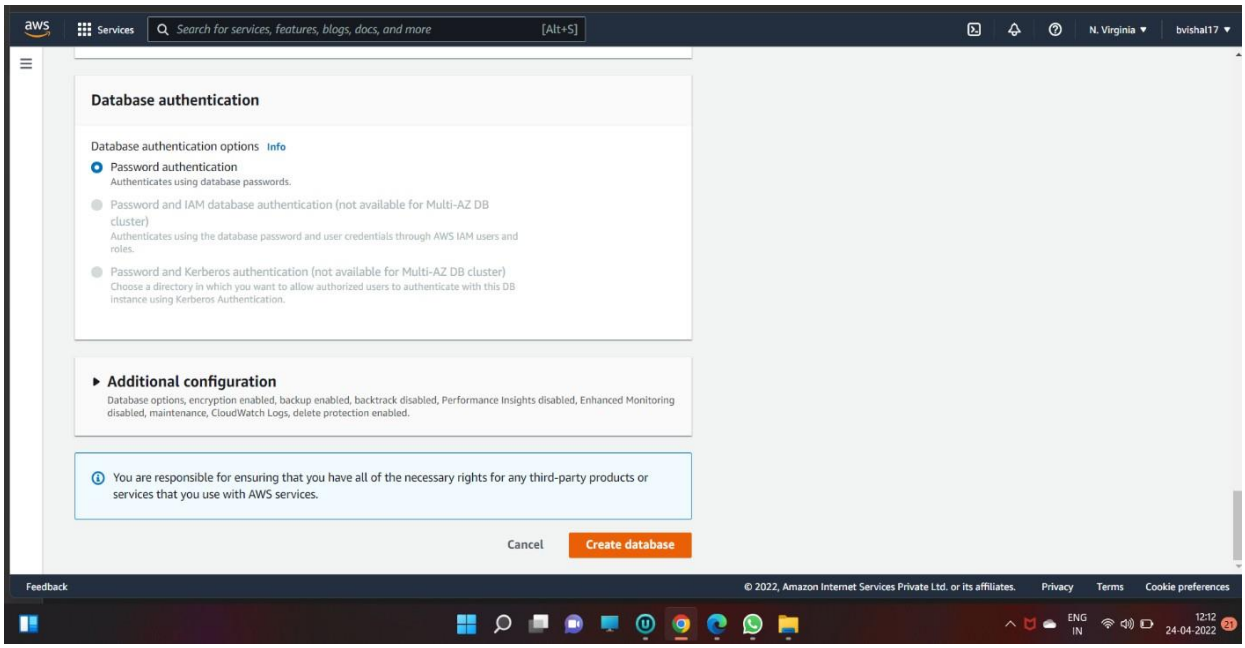
Step 3 select engine option as mysql



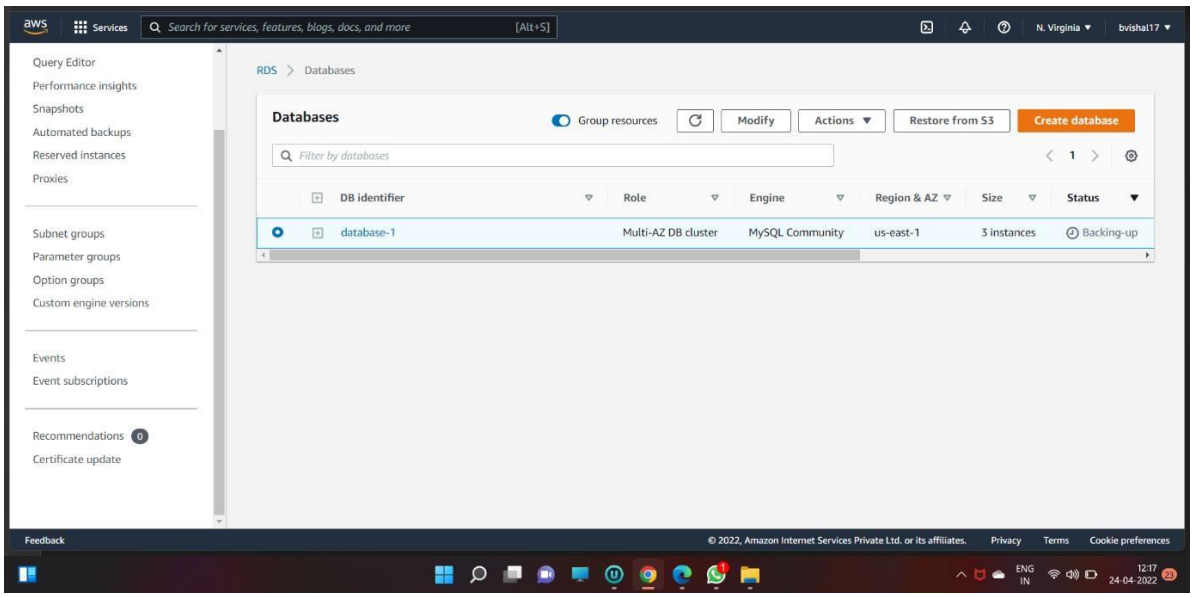
Step 4 : Create username and password



Step 5: Click on create database



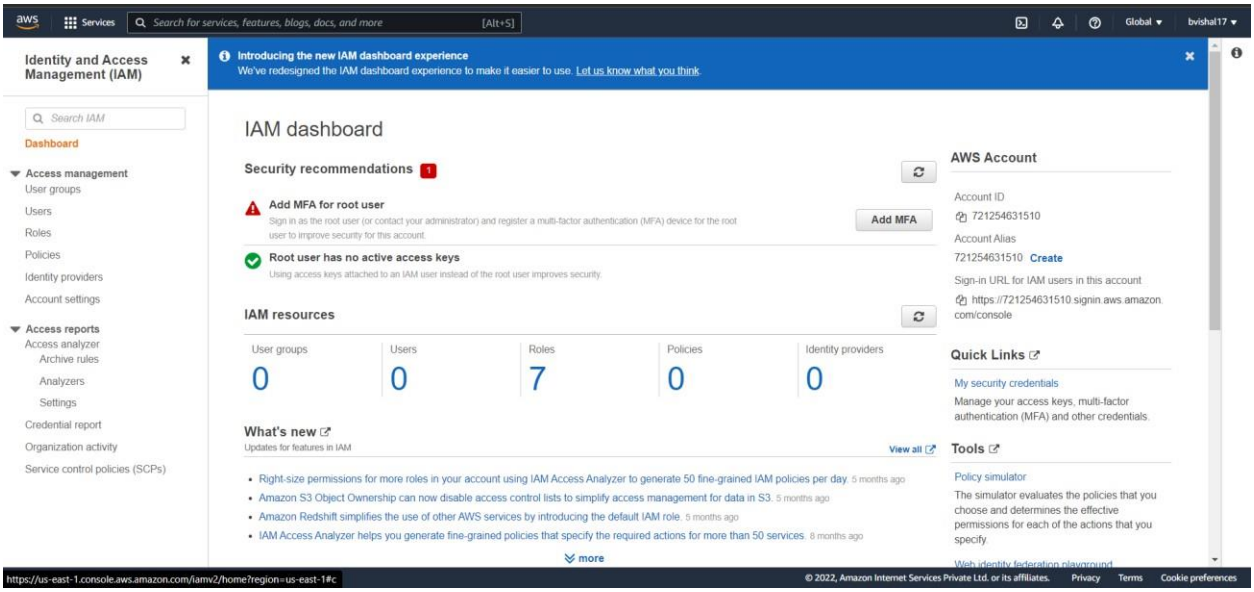
Database created



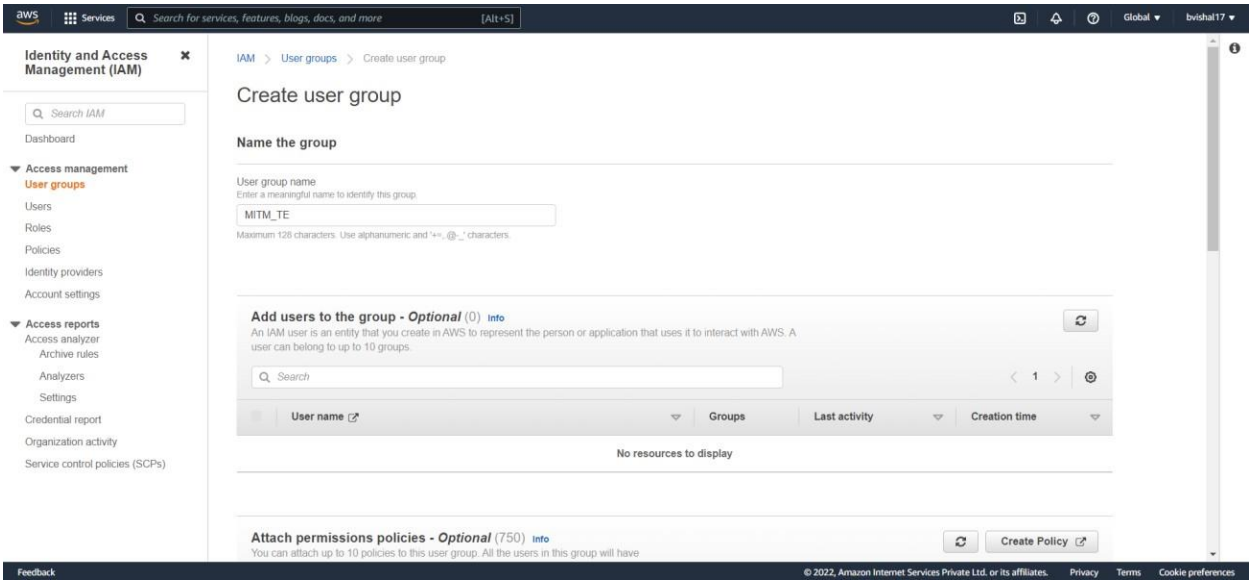
EXPERIMENT NO 8

AIM: To study and Implement Security as a Service on AWS/Azure

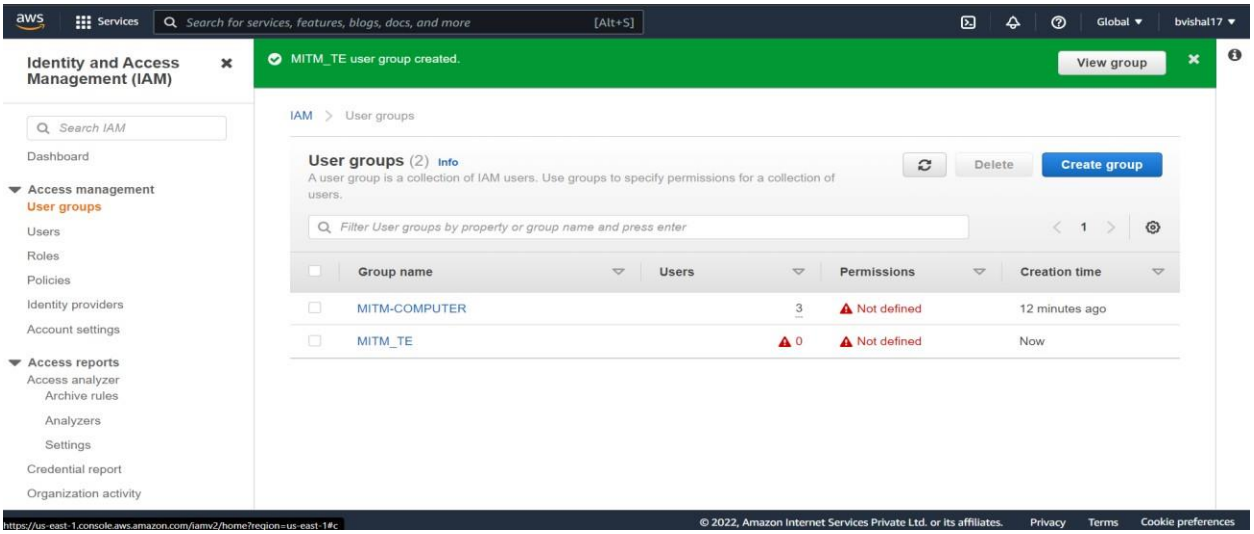
STEP 1: Open the AWS home page, Search the IAM, Open the IAM dashboard,



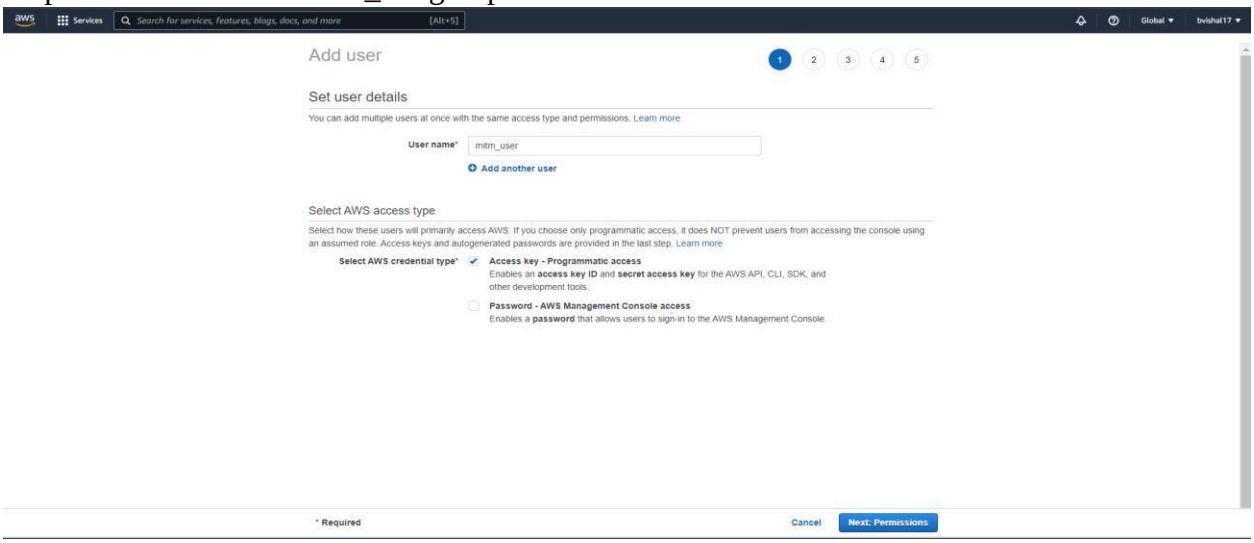
STEP 2: Create one user group: **MITM_TE**

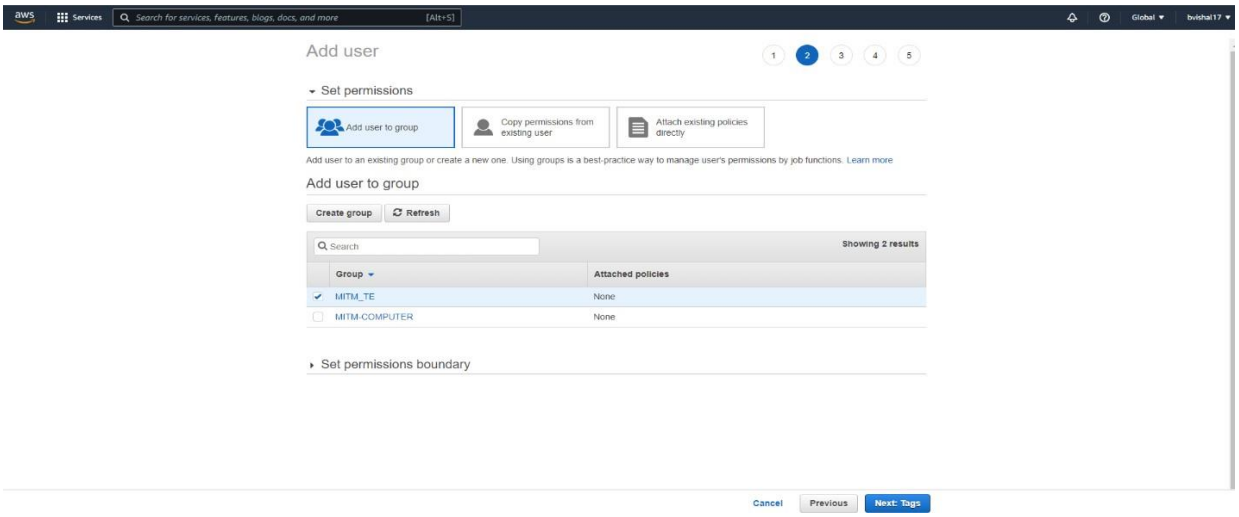


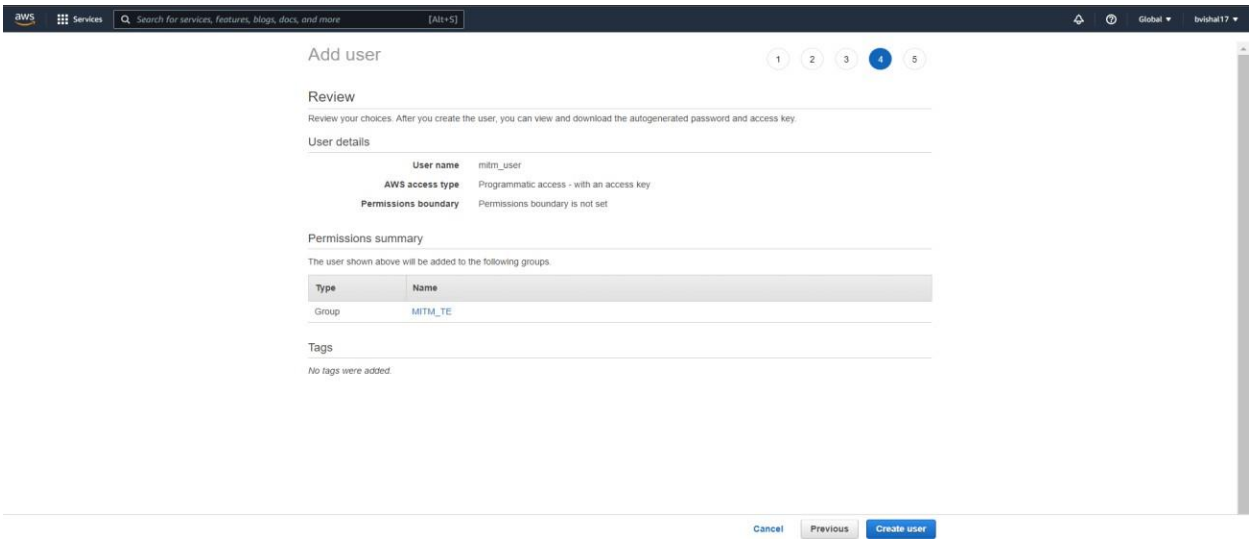
STEP 3: MITM TE group created. NO user is present in this group.

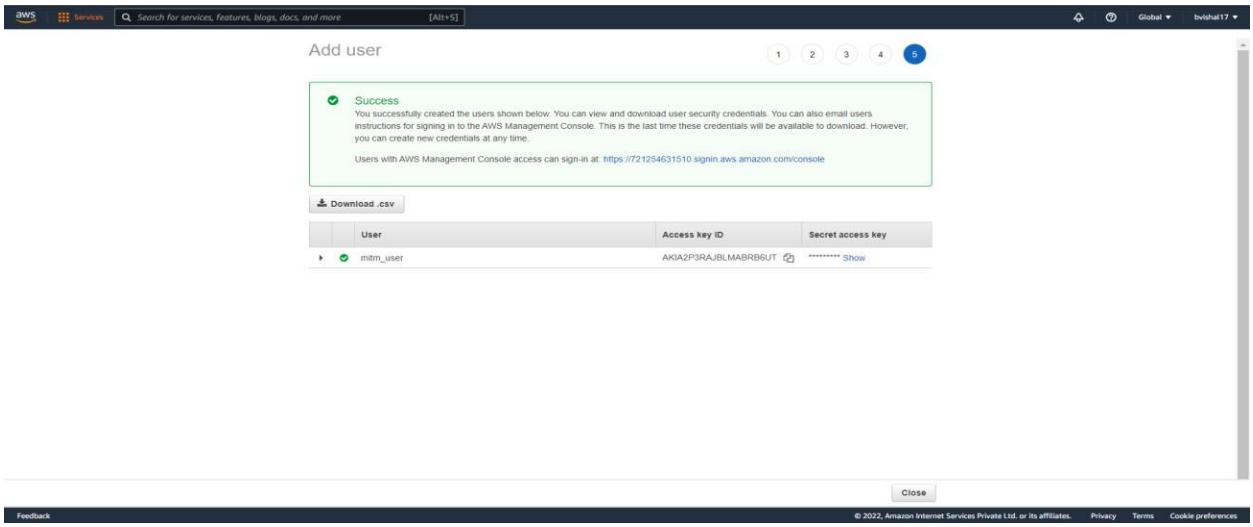


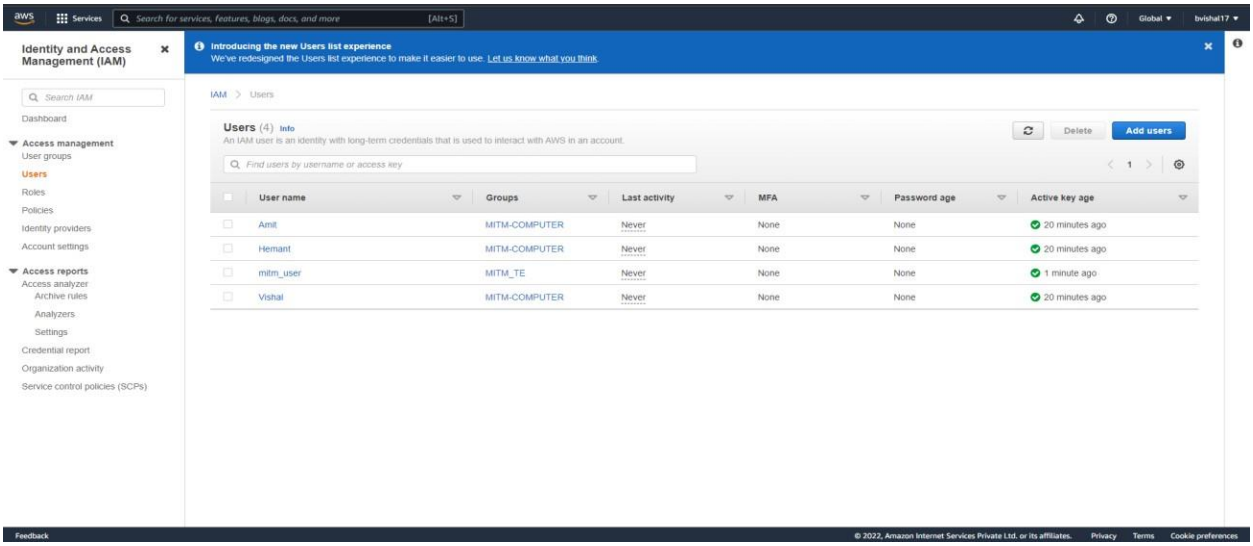
Step 4:Add USER in MITM_TE group



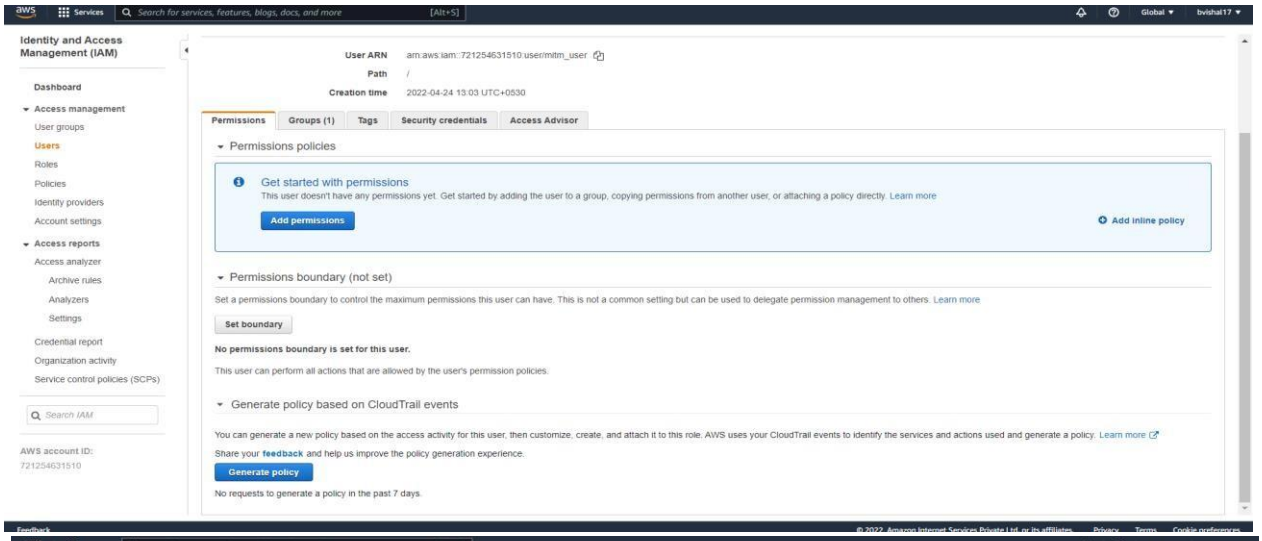


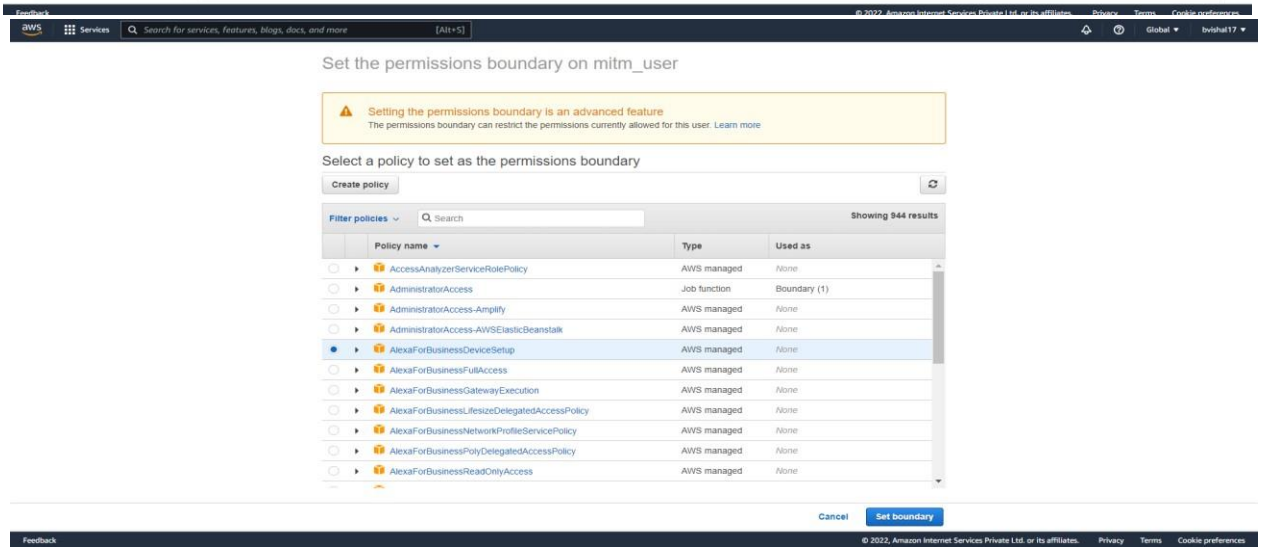

Add user
1 2 3 4 5
Review
Review your choices. After you create the user, you can view and download the autogenerated password and access key.
User details
User name mitm_user
AWS access type Programmatic access - with an access key
Permissions boundary Permissions boundary is not set
Permissions summary
The user shown above will be added to the following groups.
Type Name
Group MITM_TE
Tags
No tags were added.
Cancel
Previous
Create user

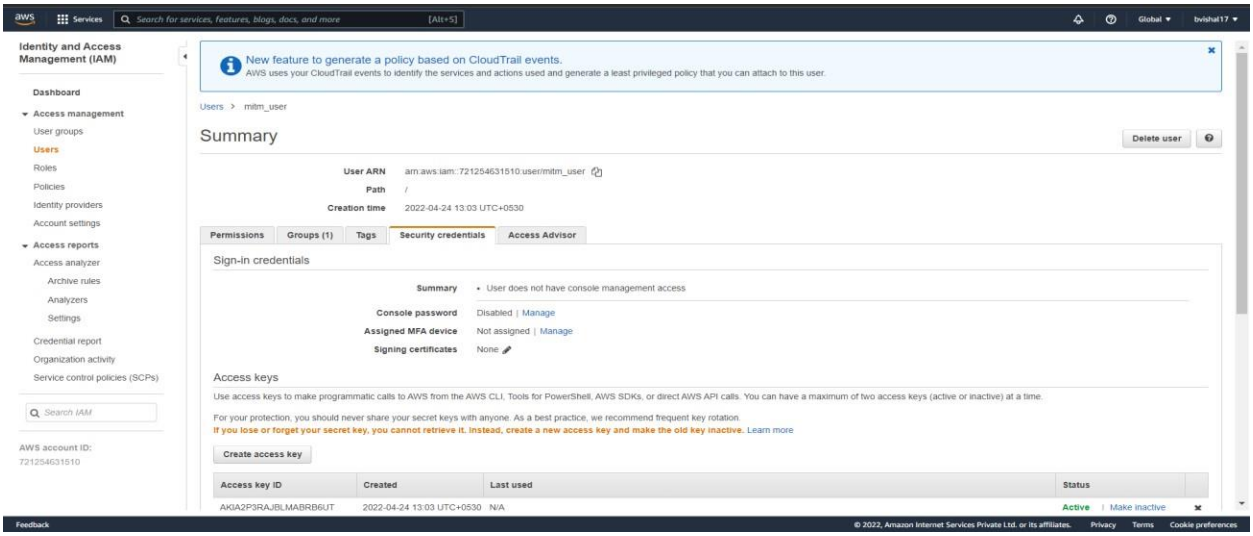

Add user
1 2 3 4 5
Success
You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.
Users with AWS Management Console access can sign-in at: https://721254631510.signin.aws.amazon.com/console
Download .csv
User
Access key ID
Secret access key
mitm_user
AKIA2P3RAJBLMABRB6UT
Show
Close
Feedback
© 2022, Amazon Internet Services Private Ltd. or its affiliates.
Privacy
Terms
Cookie preferences


Identity and Access Management (IAM)
Introducing the new Users list experience
We've redesigned the Users list experience to make it easier to use. Let us know what you think.
IAM > Users
Users (4) Info
An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.
Delete
Add users
Find users by username or access key
User name
Groups
Last activity
MFA
Password age
Active key age
Amit MITM-COMPUTER Never None None 20 minutes ago
Hemant MITM-COMPUTER Never None None 20 minutes ago
mitm_user MITM_TE Never None None 1 minute ago
Vishal MITM-COMPUTER Never None None 20 minutes ago
Dashboard
Access management
User groups
Users
Roles
Policies
Identity providers
Account settings
Access reports
Access analyzer
Archive rules
Analyzers
Settings
Credential report
Organization activity
Service control policies (SCPs)
Feedback
© 2022, Amazon Internet Services Private Ltd. or its affiliates.
Privacy
Terms
Cookie preferences

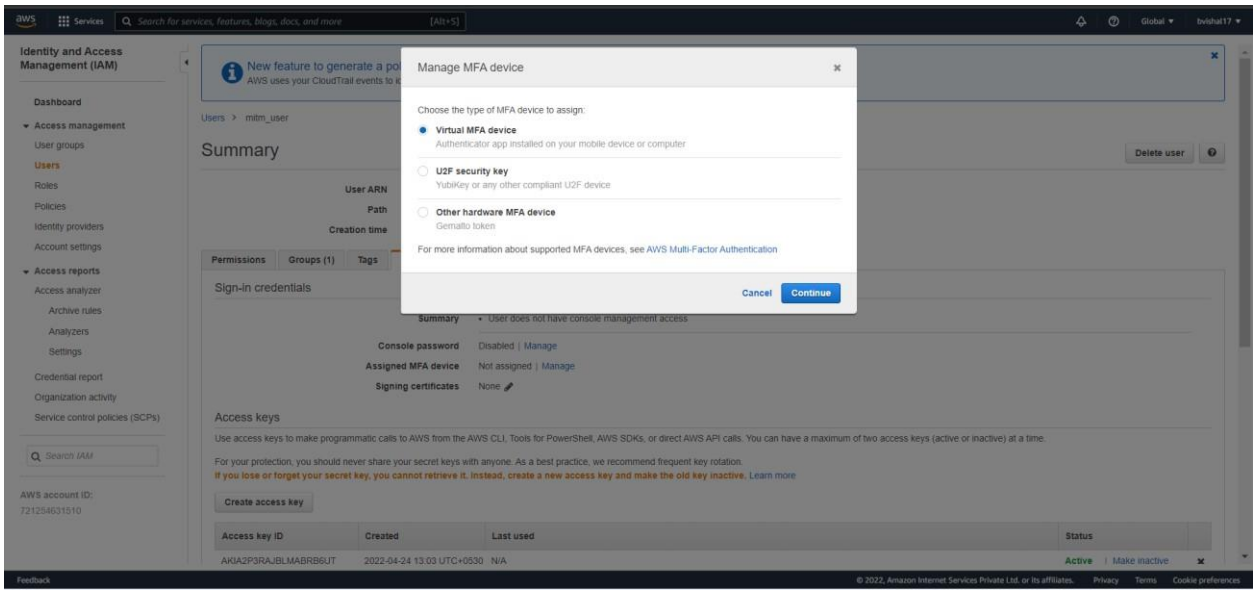
STEP 5: Set the permission boundry to the USER , select any policy for USER



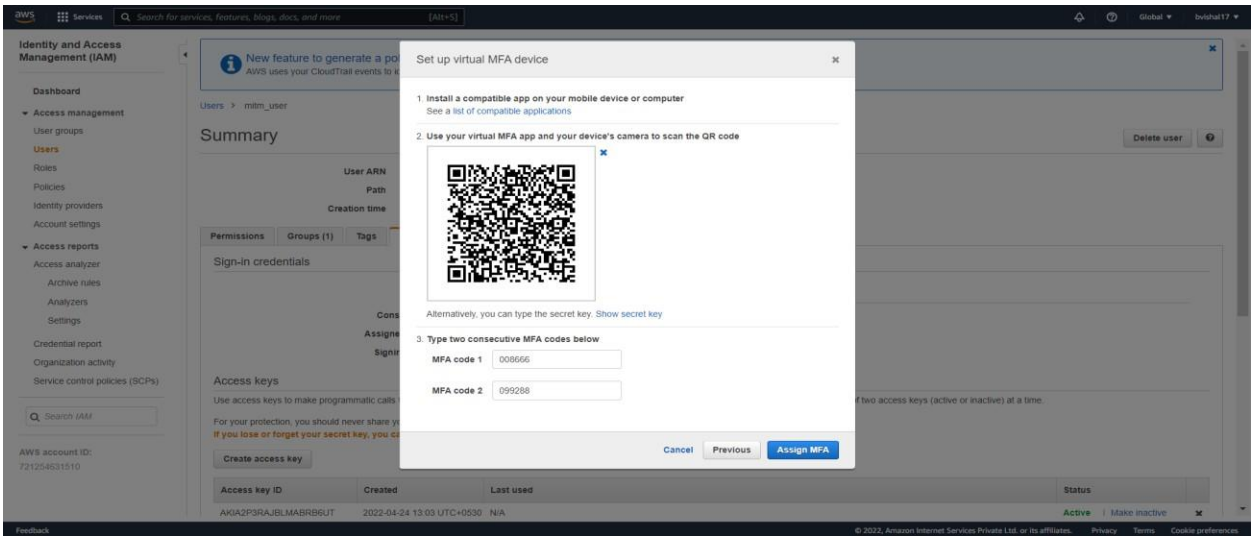


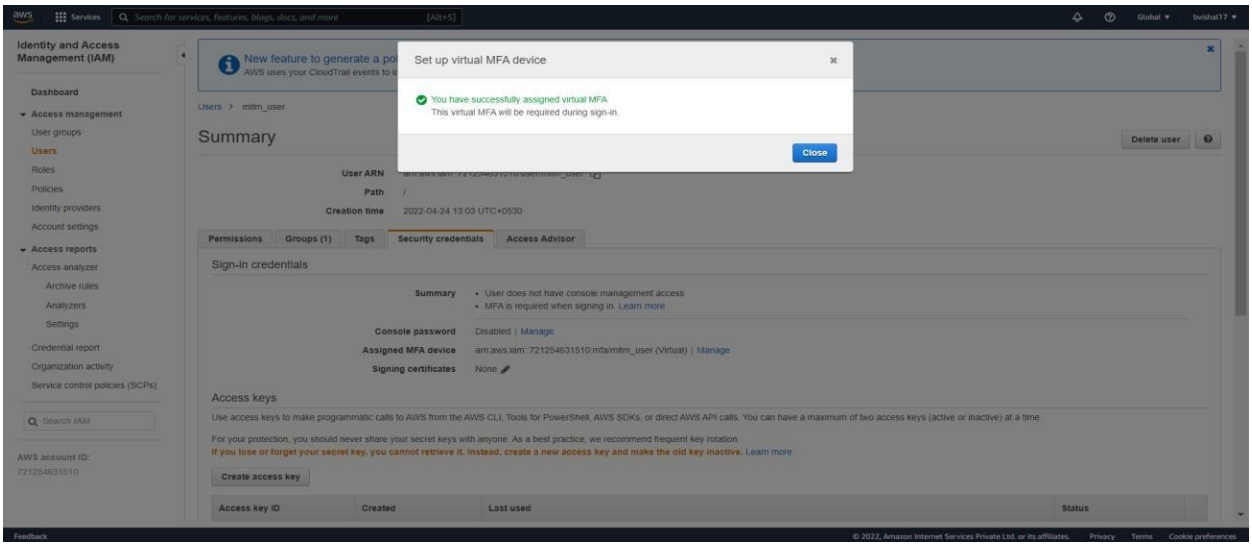


STEP 6: Assigned MFA Device, click on Manage and select the Virtual MFA Device



STEP 7: Download the Google Authenticator application on your mobile device , scan the Qr code &submit the Mfa code1 & MFA code 2.




Identity and Access Management (IAM)
Dashboard
Access management
User groups
Users
Roles
Policies
Identity providers
Account settings
Access reports
Access analyzer
Archive rules
Analyzers
Settings
Credential report
Organization activity
Service control policies (SCPs)
Search IAM
AWS account ID:
721254631510
Set up virtual MFA device
You have successfully assigned virtual MFA
This virtual MFA will be required during sign-in.
Close
Users > mitm_user
Summary
Delete user
User ARN
Path
/
Creation time
2022-04-24 13:03 UTC+0530
Permissions
Groups (1)
Tags
Security credentials
Access Advisor
Sign-in credentials
Summary
User does not have console management access
MFA is required when signing in. Learn more
Console password
Disabled | Manage
Assigned MFA device
arn:aws:iam::721254631510:mfa/mitm_user (Virtual) | Manage
Signing certificates
None
Access keys
Use access keys to make programmatic calls to AWS from the AWS CLI, Tools for PowerShell, AWS SDKs, or direct AWS API calls. You can have a maximum of two access keys (active or inactive) at a time.
For your protection, you should never share your secret keys with anyone. As a best practice, we recommend frequent key rotation.
If you lose or forget your secret key, you cannot retrieve it. Instead, create a new access key and make the old key inactive. Learn more
Create access key
Access key ID
Created
Last used
Status
Feedback
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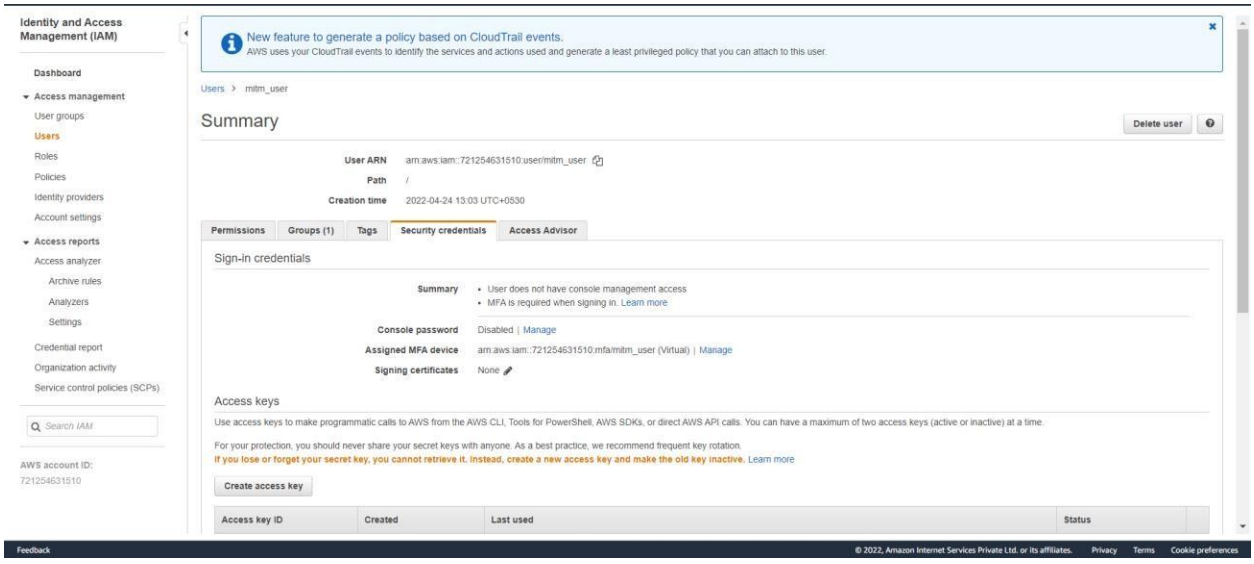
Privacy
Terms
Cookie preferences


Identity and Access Management (IAM)
Dashboard
Access management
User groups
Users
Roles
Policies
Identity providers
Account settings
Access reports
Access analyzer
Archive rules
Analyzers
Settings
Credential report
Organization activity
Service control policies (SCPs)
Search IAM
AWS account ID:
721254631510
New feature to generate a policy based on CloudTrail events.
AWS uses your CloudTrail events to identify the services and actions used and generate a least privileged policy that you can attach to this user.
Users > mitm_user
Summary
Delete user
User ARN
arn:aws:iam::721254631510:user/mitm_user
Path
/
Creation time
2022-04-24 13:03 UTC+0530
Permissions
Groups (1)
Tags
Security credentials
Access Advisor
Sign-in credentials
Summary
User does not have console management access
MFA is required when signing in. Learn more
Console password
Disabled | Manage
Assigned MFA device
arn:aws:iam::721254631510:mfa/mitm_user (Virtual) | Manage
Signing certificates
None
Access keys
Use access keys to make programmatic calls to AWS from the AWS CLI, Tools for PowerShell, AWS SDKs, or direct AWS API calls. You can have a maximum of two access keys (active or inactive) at a time.
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If you lose or forget your secret key, you cannot retrieve it. Instead, create a new access key and make the old key inactive. Learn more
Create access key
Access key ID
Created
Last used
Status
Feedback
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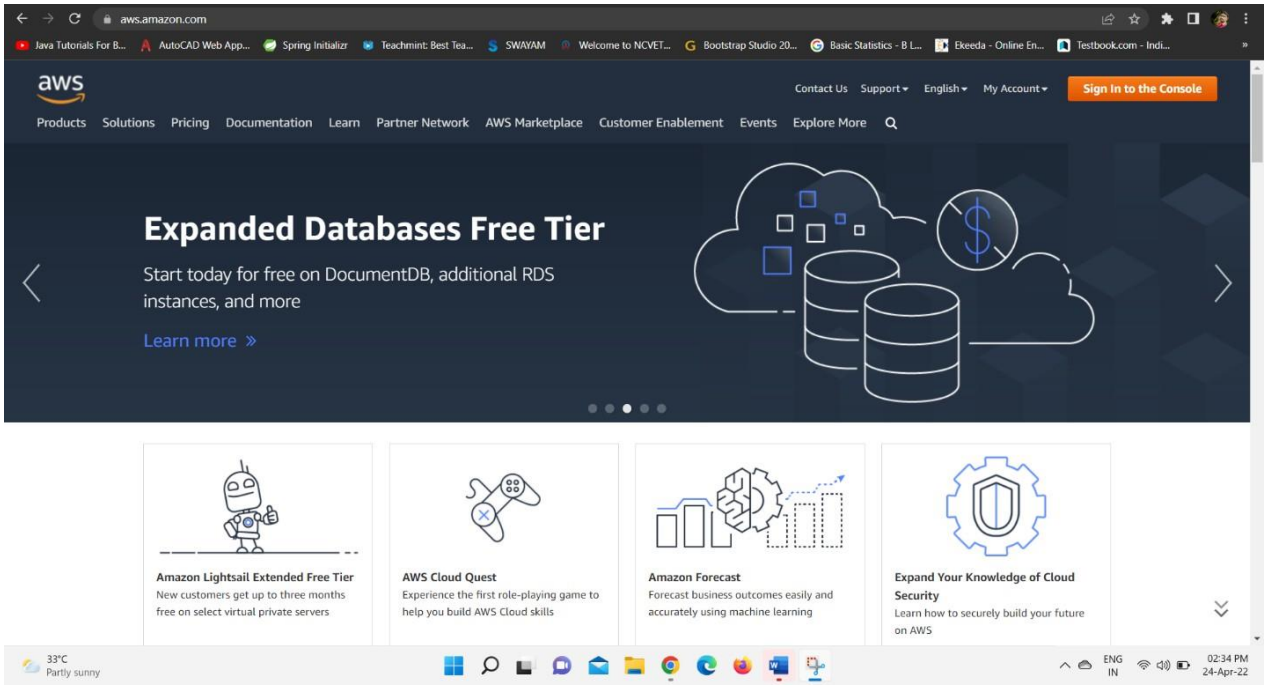
Privacy
Terms
Cookie preferences

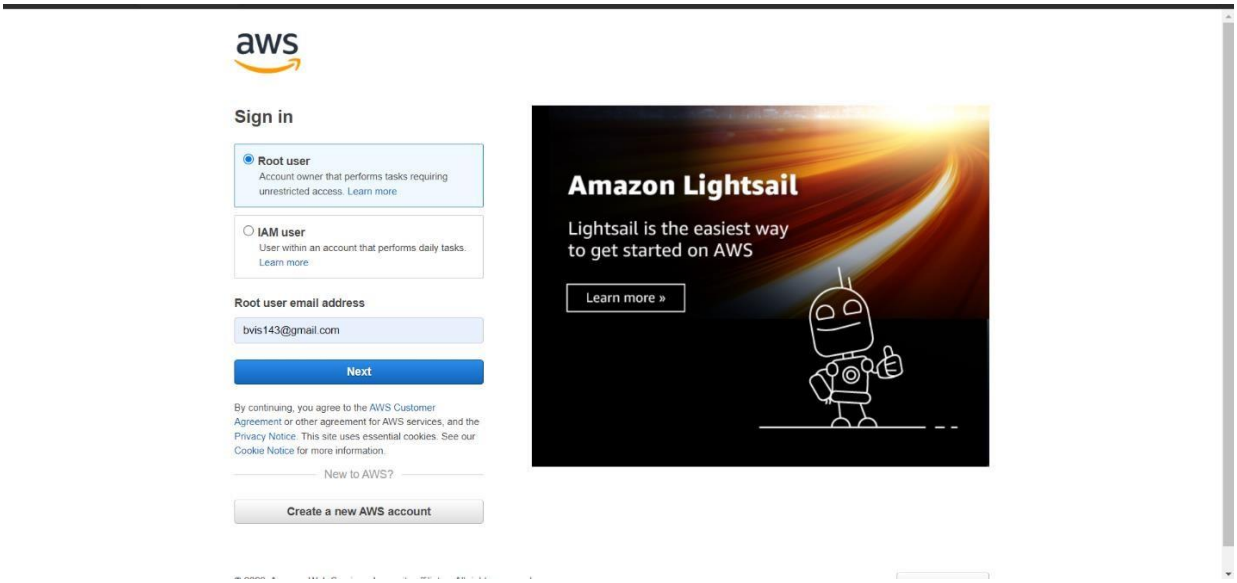
EXPERIMENT NO 9

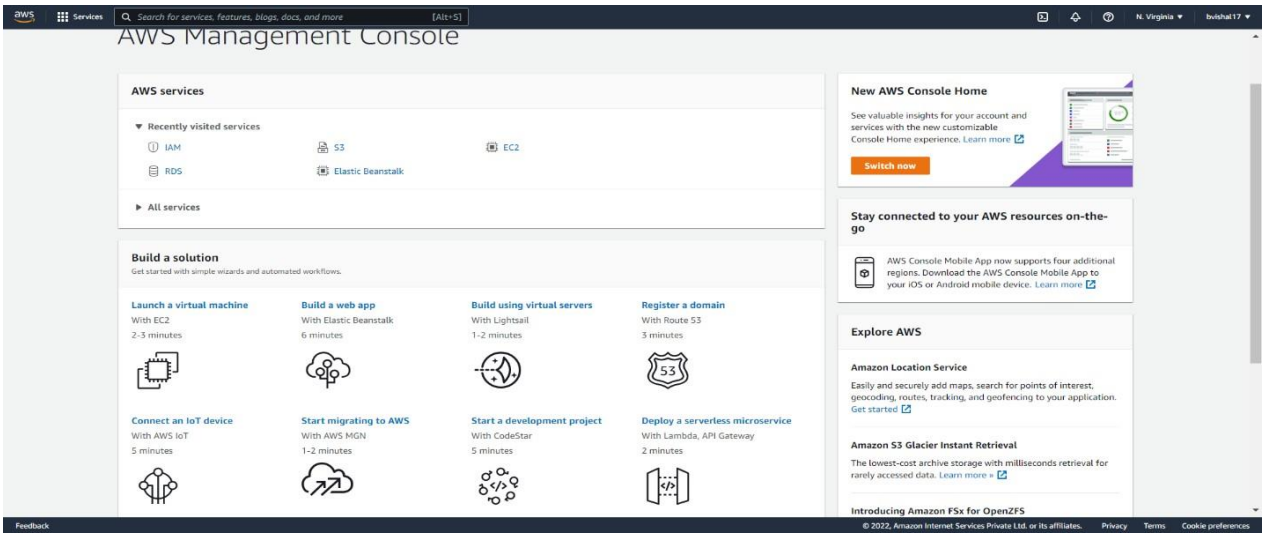
Aim: To study and Implement Security as a Service on AWS/Azure

Step 1: Open the AWS Webpage

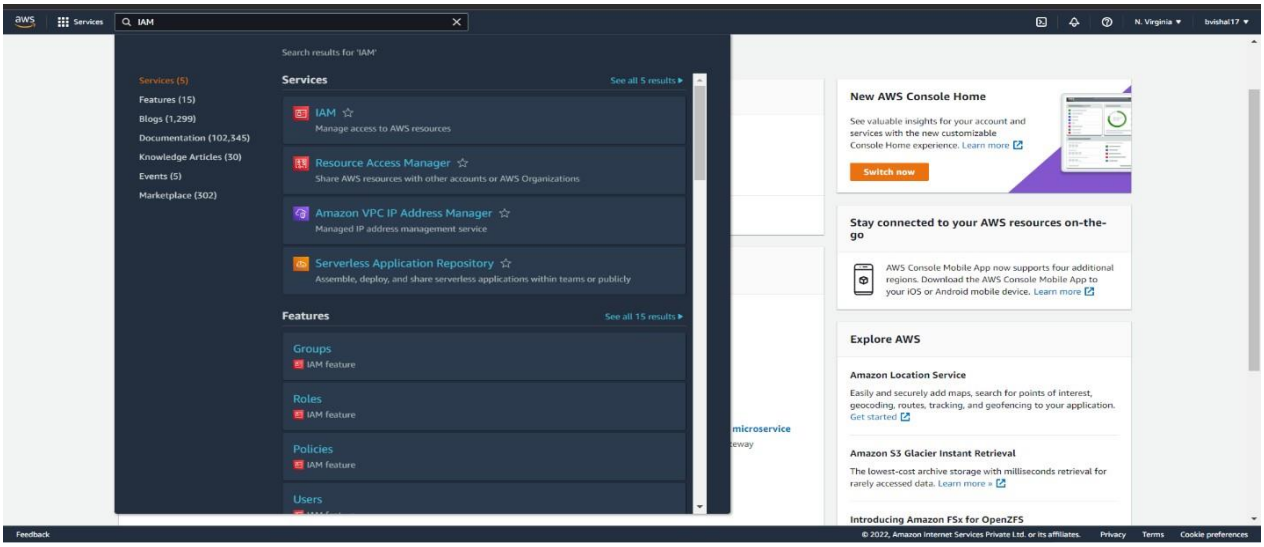


Step 2: Sign up and Log in in AWS

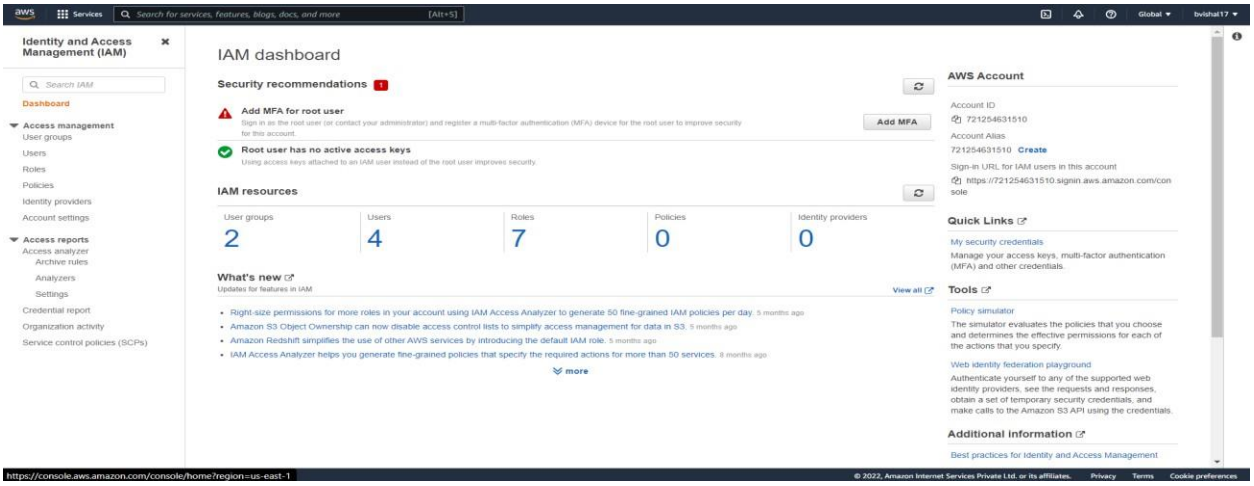




Step 3: Go to Service & Search the IAM

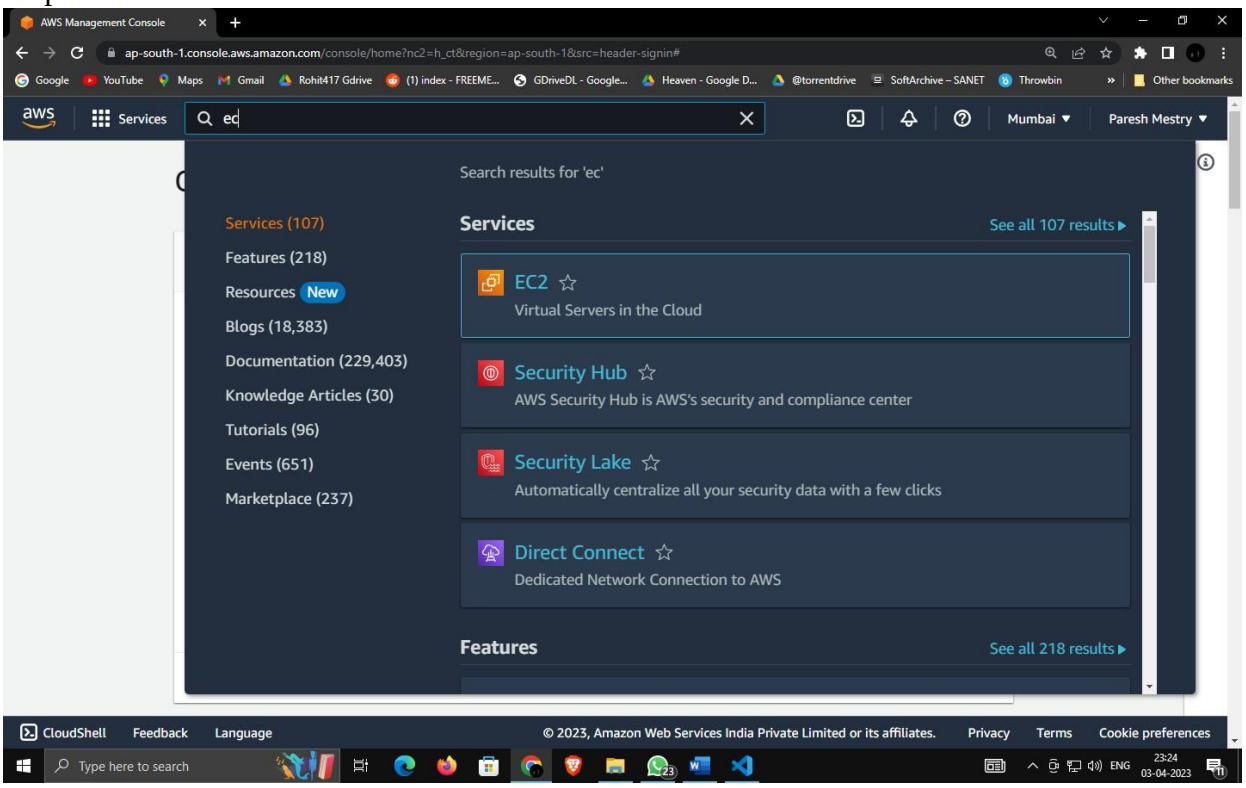


Step 4: Open the IAM dashboard

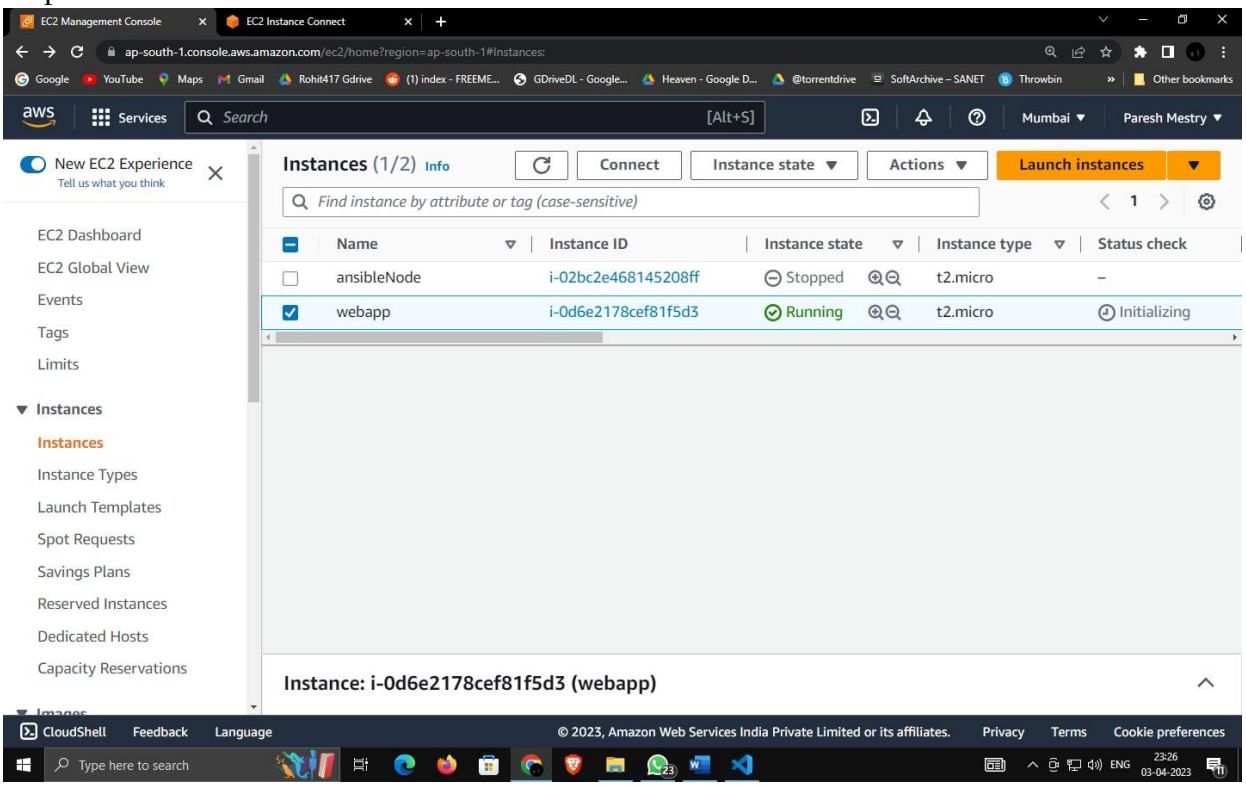


EXPERIMENT NO 10

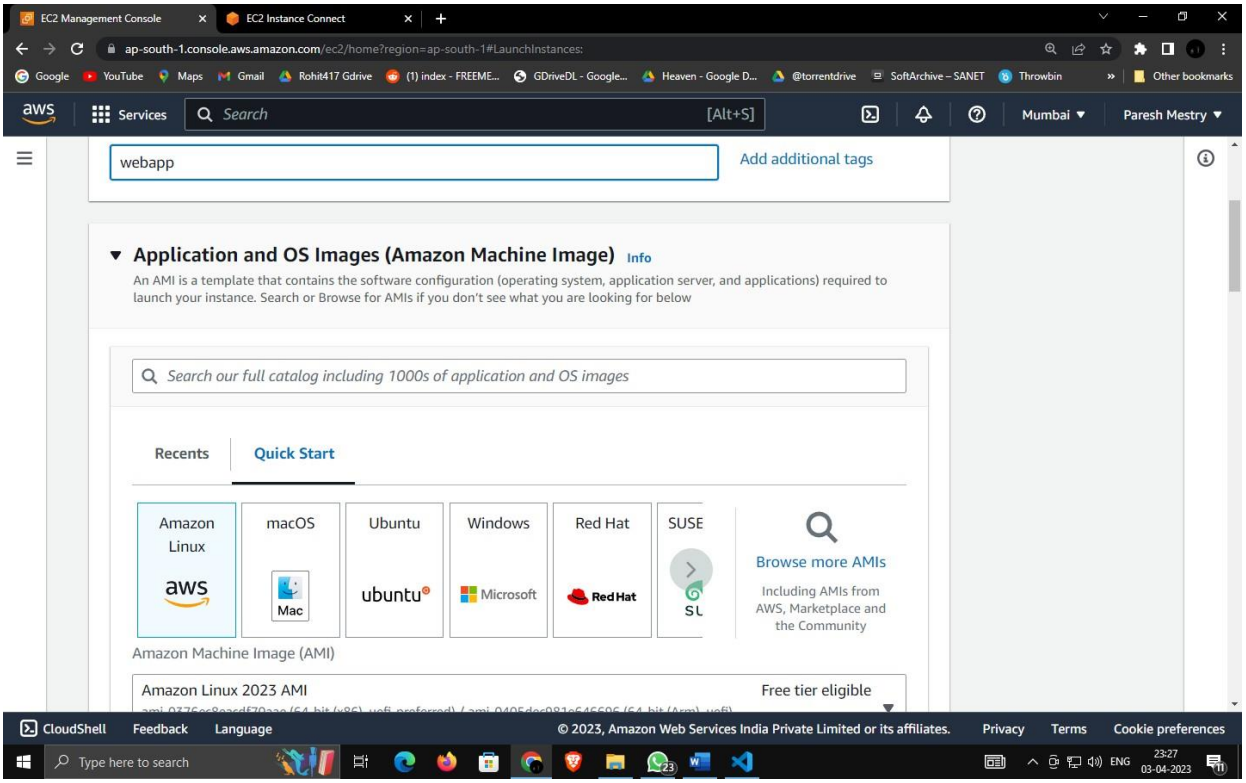
Step 1: Launch a EC2 Instance

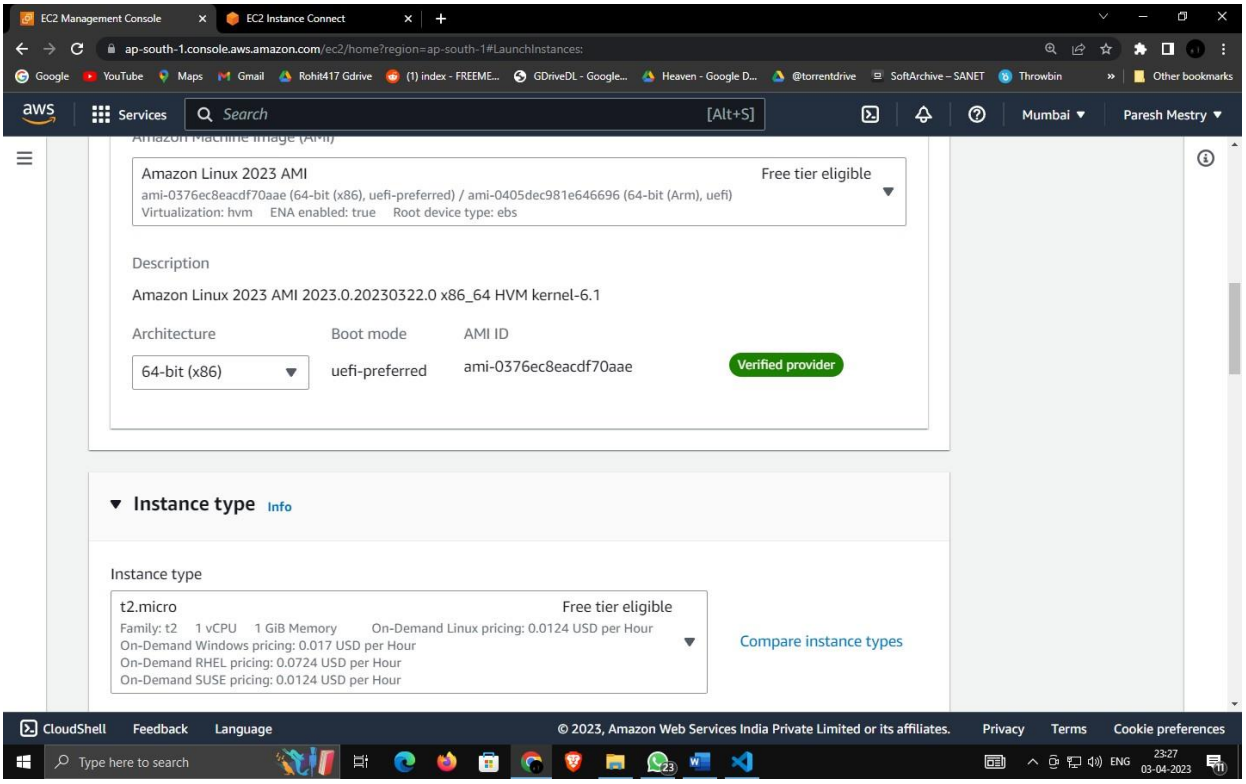


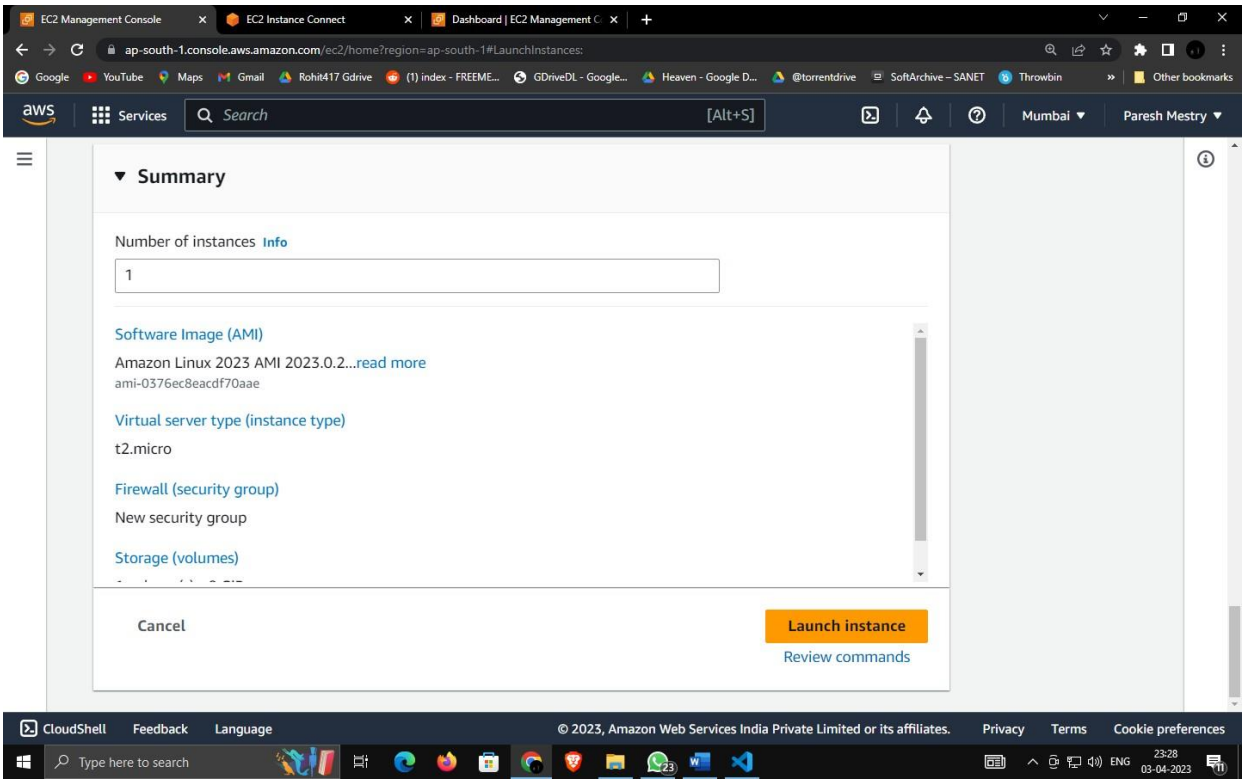
Step 2: click on instances -> Launch Instances



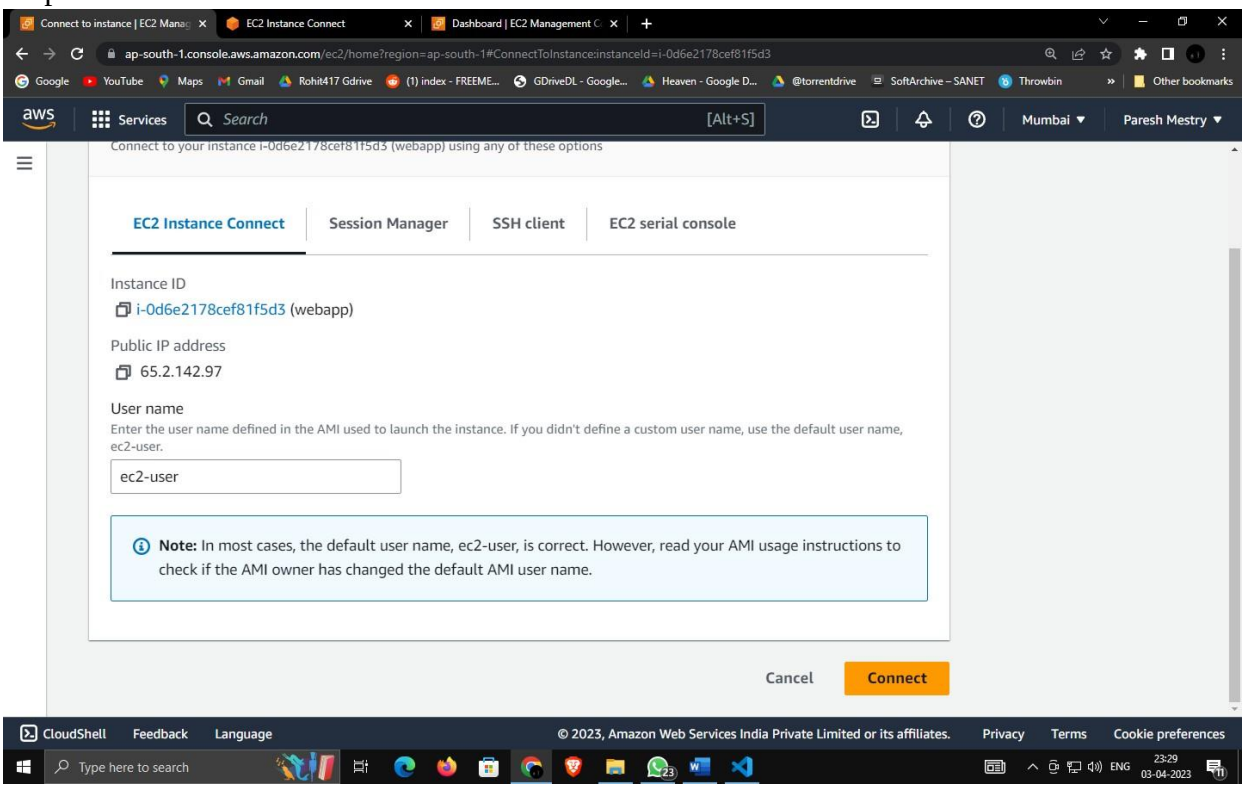
Step 3: give name and select amazon Linux with proper configuration



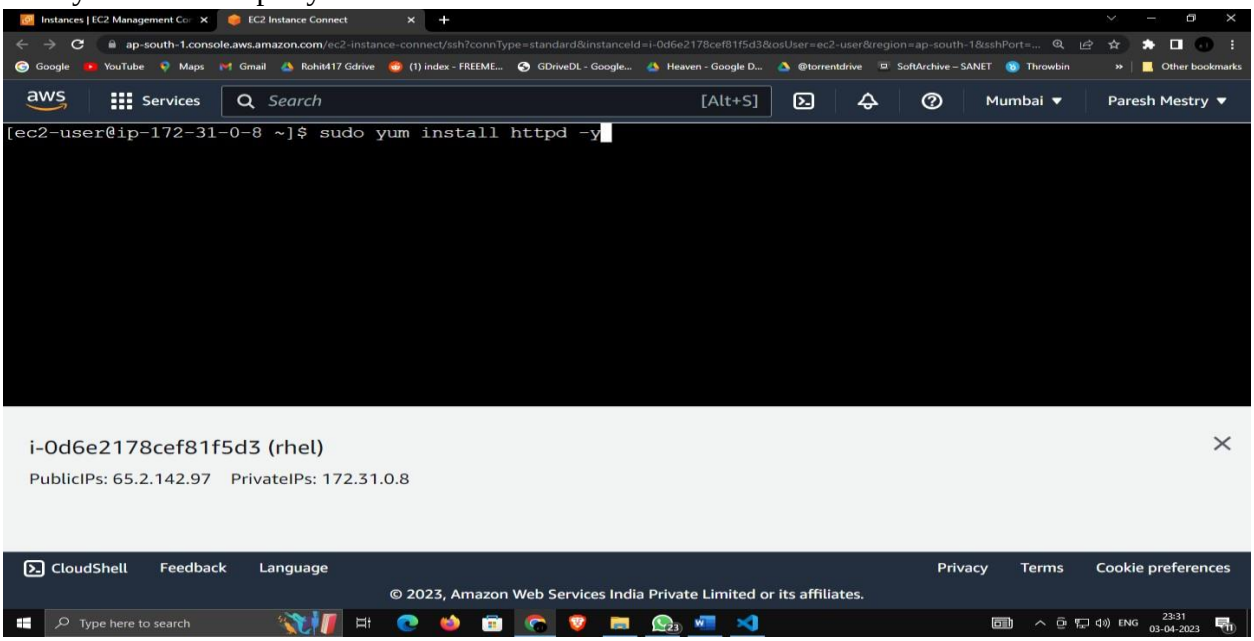




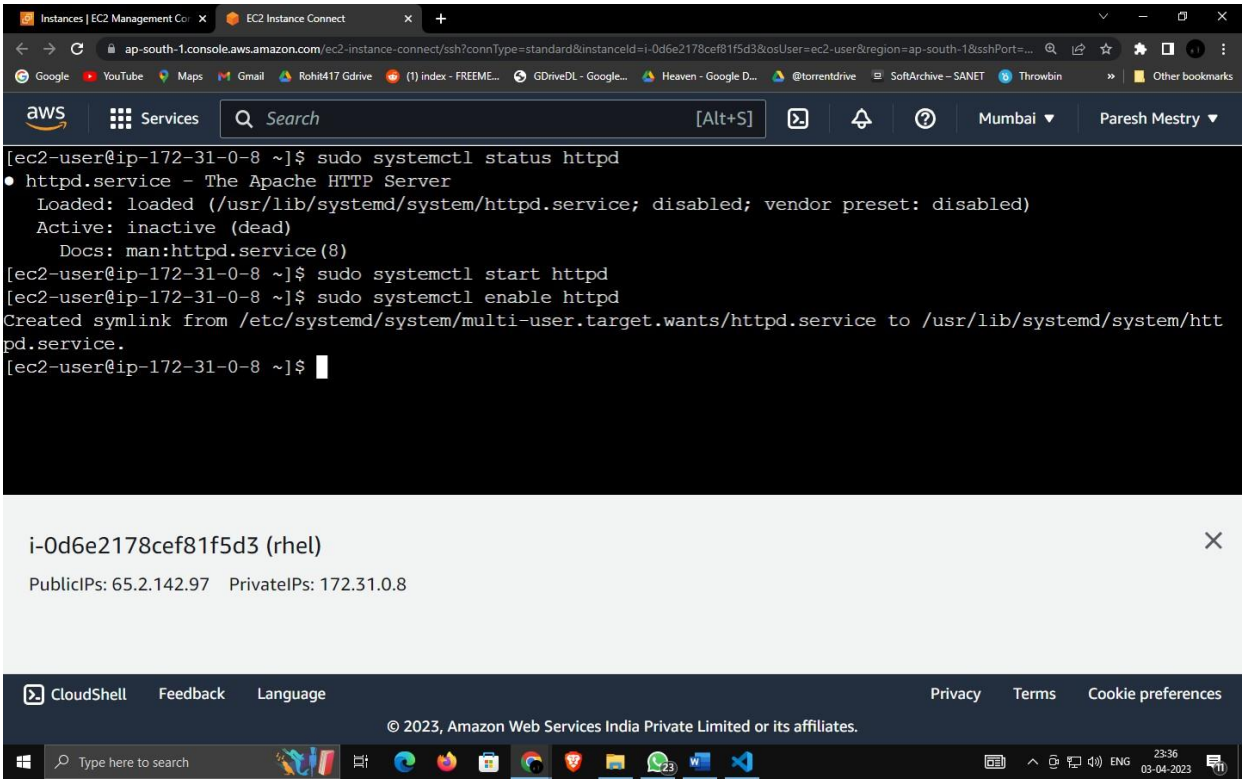
Step 4: Connect the Instance



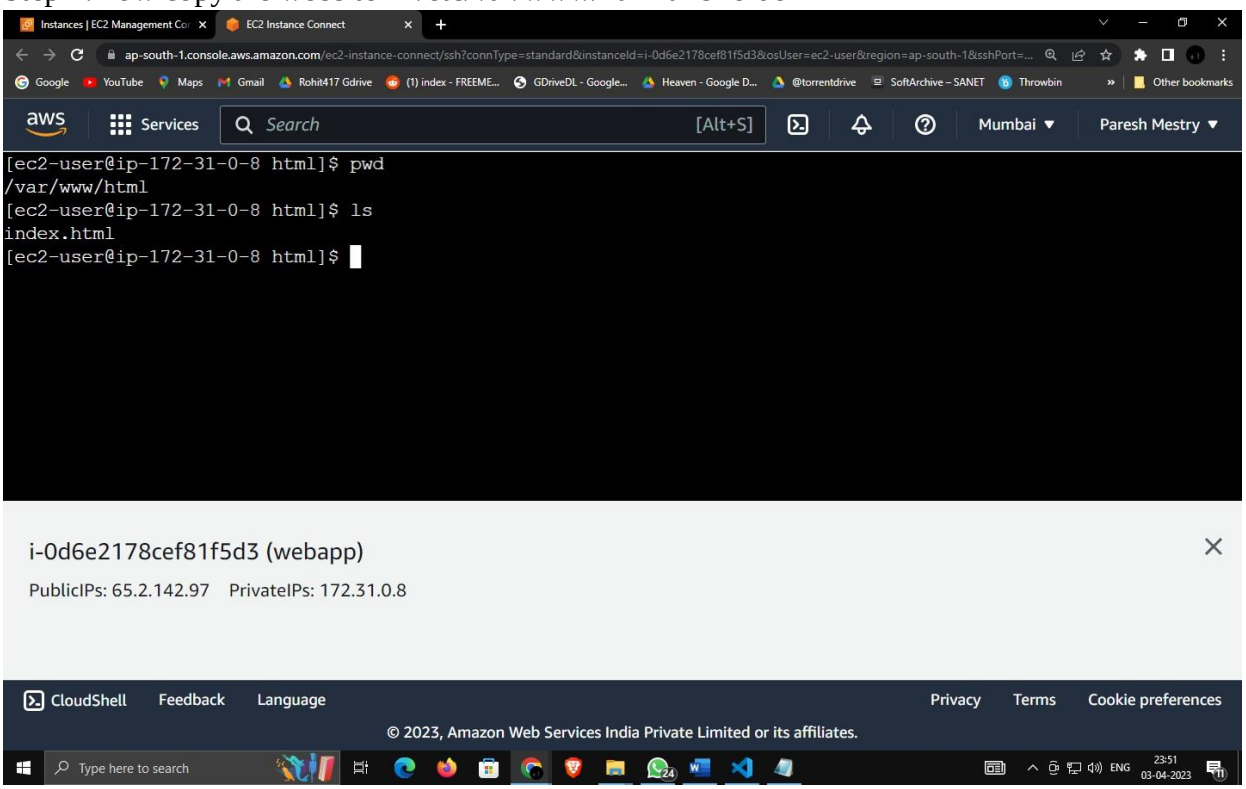
Step 5: To host the website we need server for that we using Apache httpdInstall the httpd
sudo yum install httpd -y



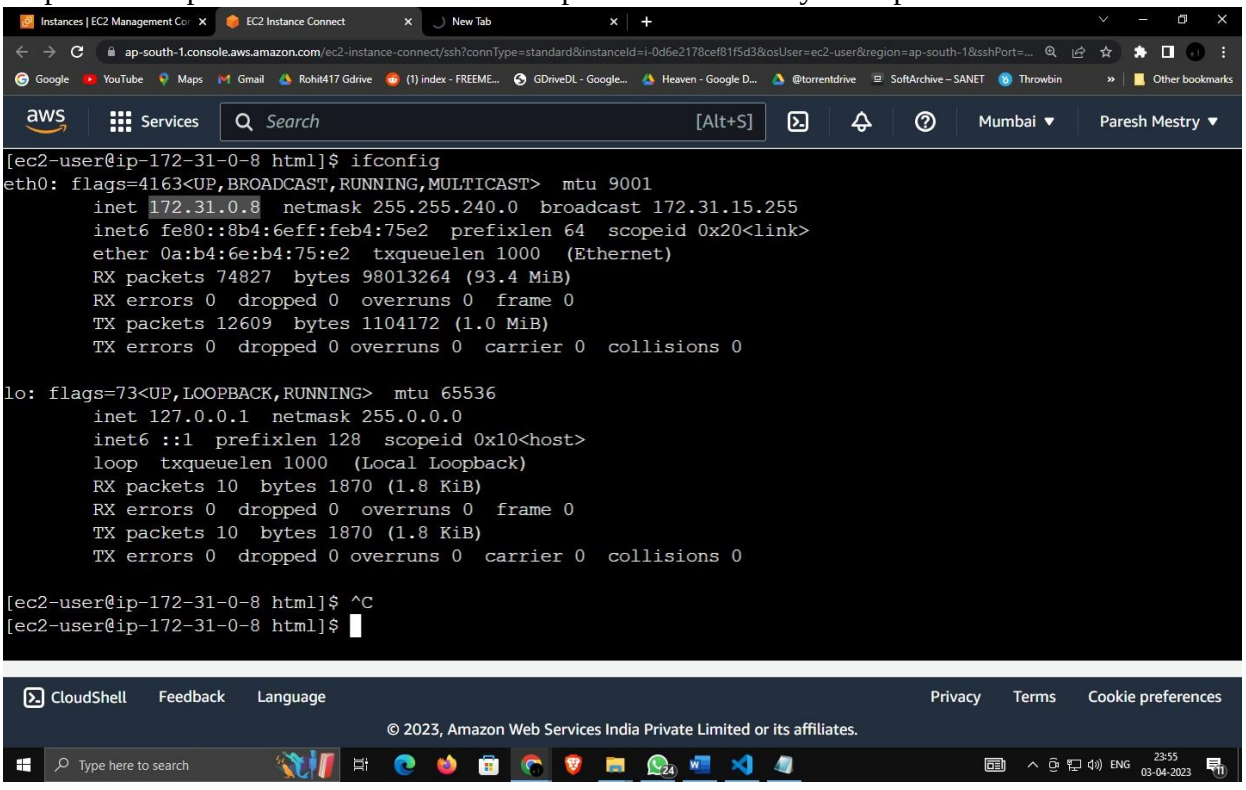
Step 6: start the httpd services and enable it on
Startup.sudo systemctl status httpd
sudo systemctl start httpd
sudo systemctl enable
httpd

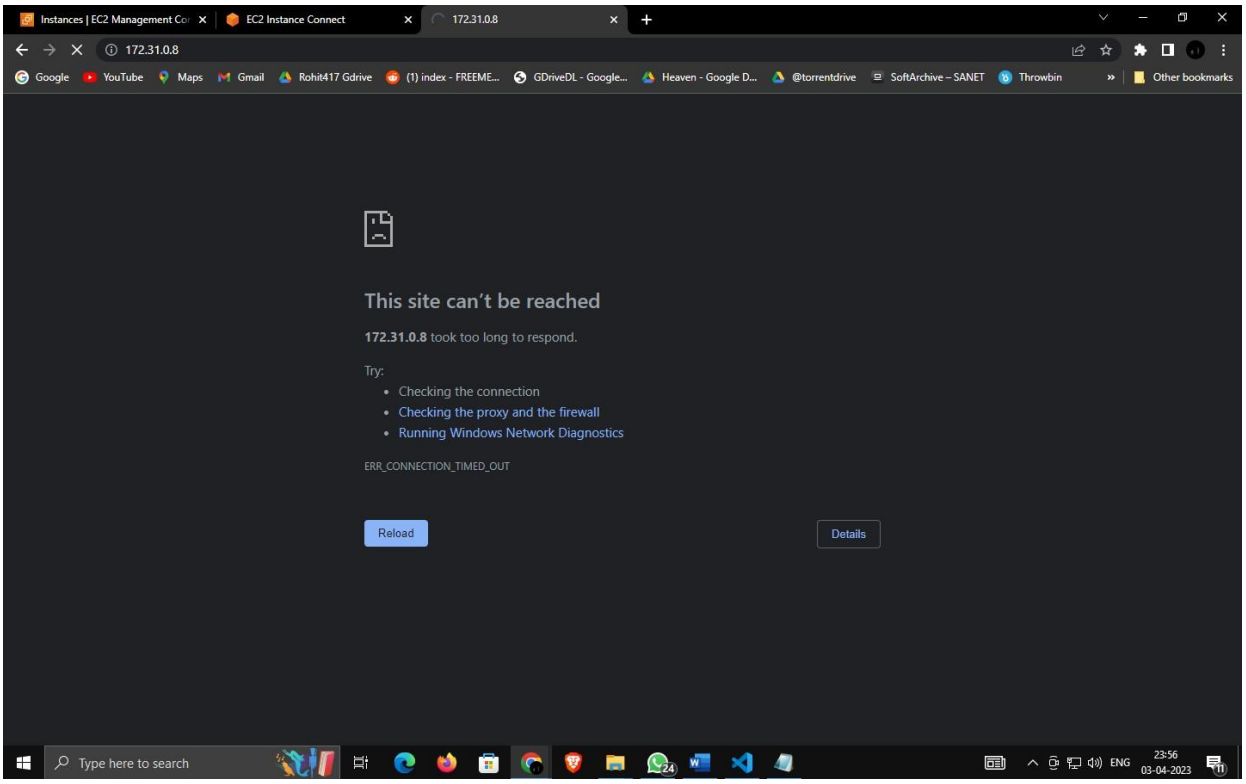


Step 7: now copy the website in /etc/var/www/html this folder



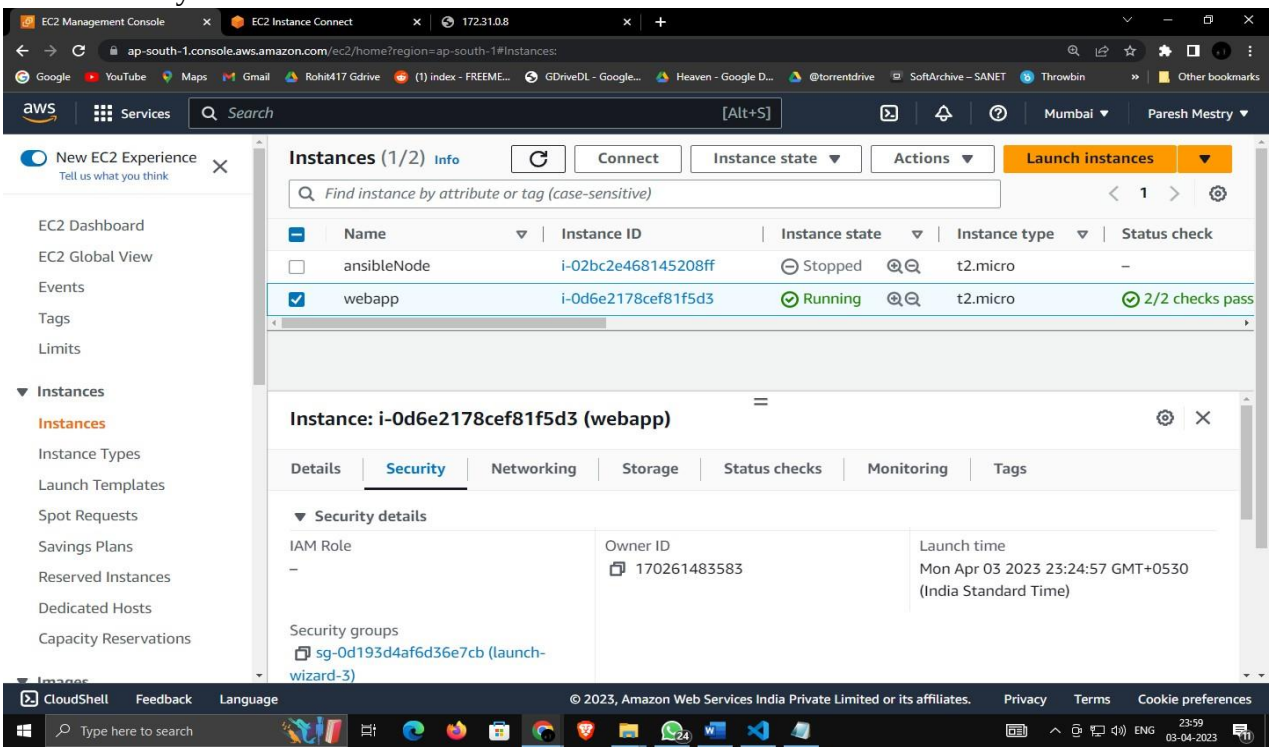
Step 8: now our website is on the server now check if it is working or not
Httpd runs on port Number 80. Connect on port 80. Grab the system Ip and hit it.



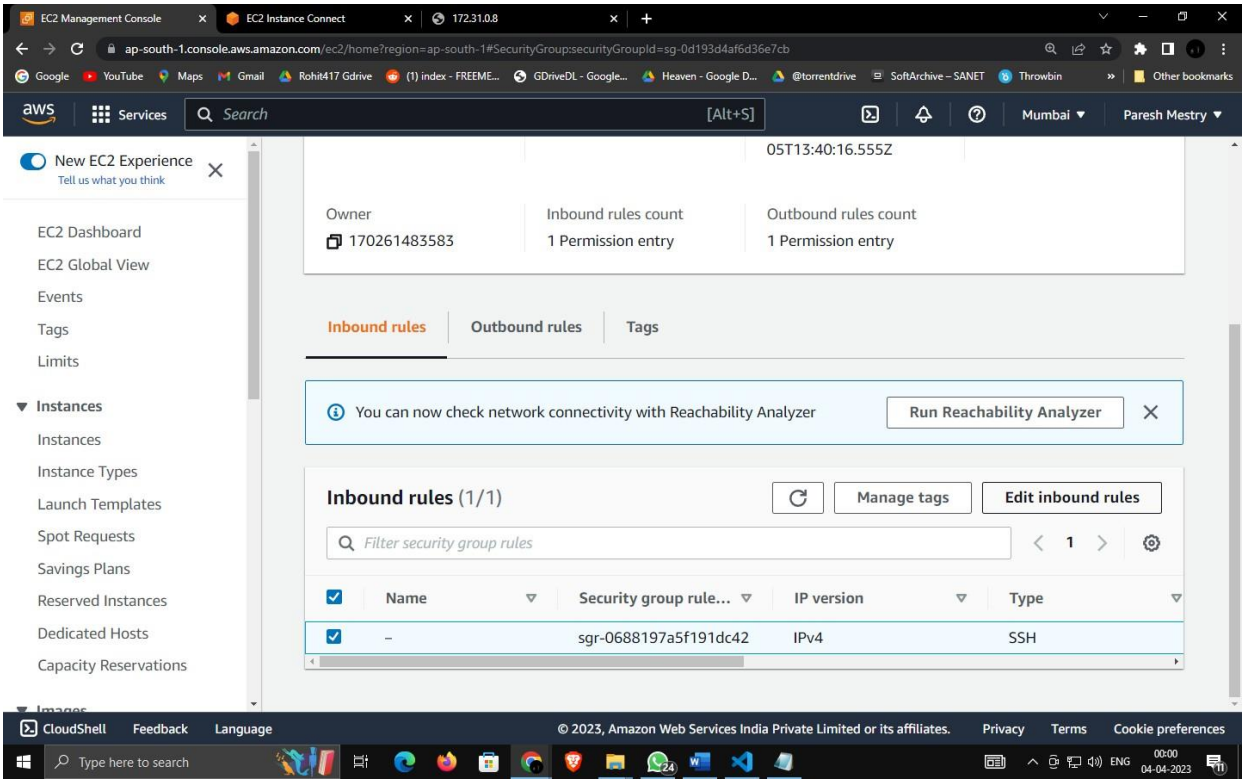


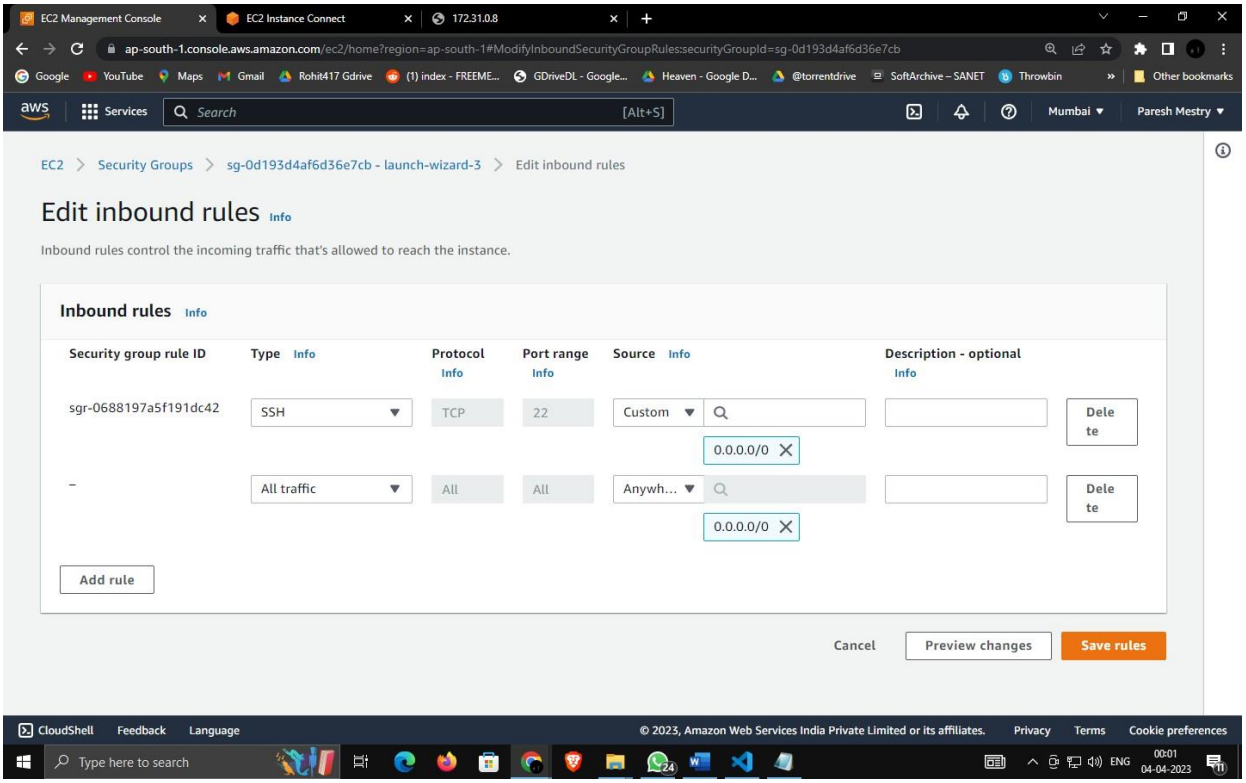
Looks like our website not working because. to connect from the outside world we need to connect onsystems public Ip

Go on security tab and set inbound rule.



Click on edit inbound rule -> add rule add All traffic rule from anywhere.





Now Try again with public Ip Now It’s Working.