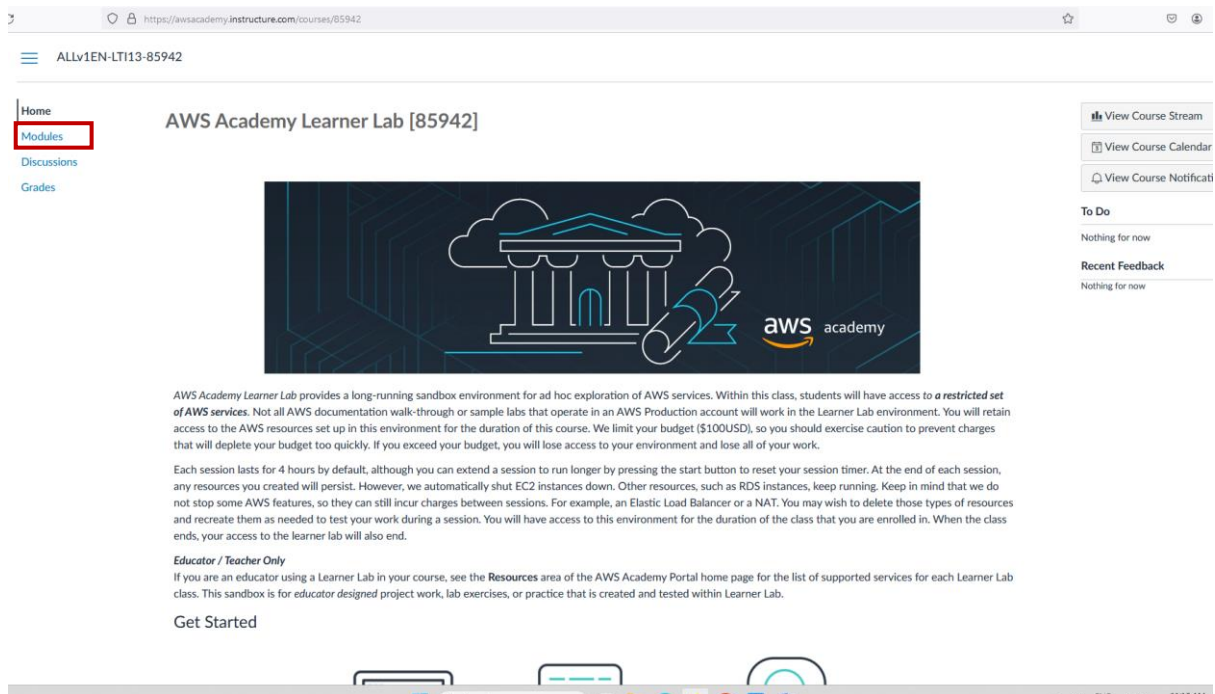


PRACTICAL 1

AIM: to Configure EC2 instance for window server using Aws

Step 1: enter your login and password and click on your course


Step 2: after come in home page click on modules option as shown in below



ALLv1EN-LT113-85942

Home
Modules
Discussions
Grades

AWS Academy Learner Lab [85942]



AWS Academy Learner Lab provides a long-running sandbox environment for ad hoc exploration of AWS services. Within this class, students will have access to a **restricted set of AWS services**. Not all AWS documentation walk-through or sample labs that operate in an AWS Production account will work in the Learner Lab environment. You will retain access to the AWS resources set up in this environment for the duration of this course. We limit your budget (\$100USD), so you should exercise caution to prevent charges that will deplete your budget too quickly. If you exceed your budget, you will lose access to your environment and lose all of your work.

Each session lasts for 4 hours by default, although you can extend a session to run longer by pressing the start button to reset your session timer. At the end of each session, any resources you created will persist. However, we automatically shut EC2 instances down. Other resources, such as RDS instances, keep running. Keep in mind that we do not stop some AWS features, so they can still incur charges between sessions. For example, an Elastic Load Balancer or a NAT. You may wish to delete those types of resources and recreate them as needed to test your work during a session. You will have access to this environment for the duration of the class that you are enrolled in. When the class ends, your access to the learner lab will also end.

Educator / Teacher Only
If you are an educator using a Learner Lab in your course, see the **Resources** area of the AWS Academy Portal home page for the list of supported services for each Learner Lab class. This sandbox is for *educator designed* project work, lab exercises, or practice that is created and tested within Learner Lab.

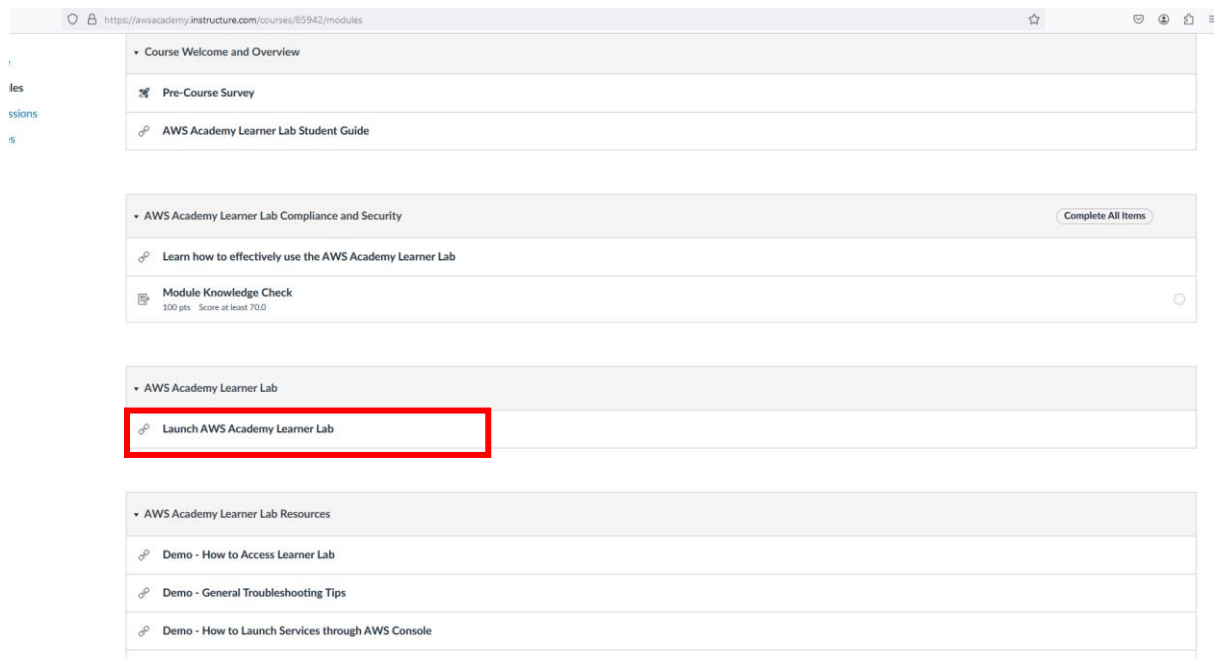
Get Started

View Course Stream
View Course Calendar
View Course Notifications

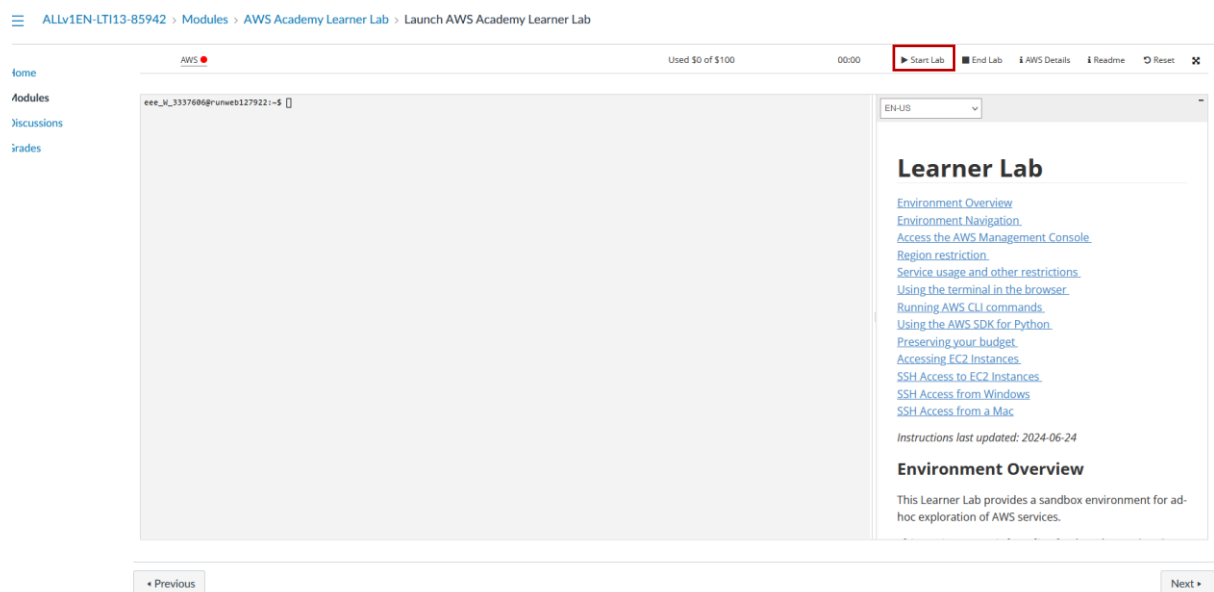
To Do
Nothing for now

Recent Feedback
Nothing for now

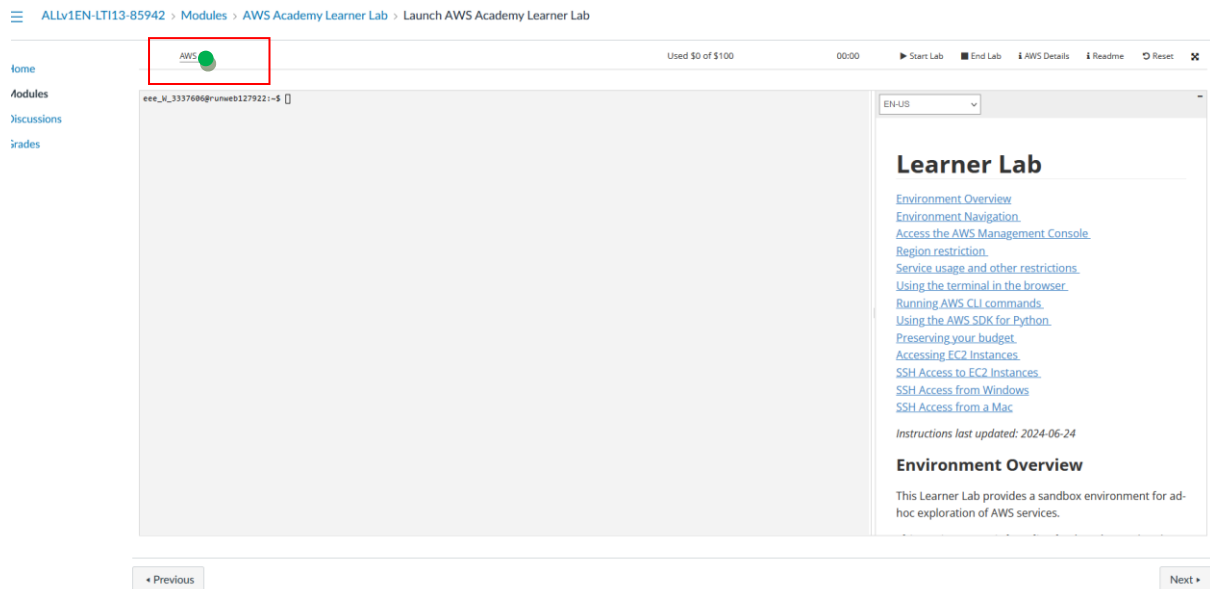
Step 3: click on launch aws academy learner lab



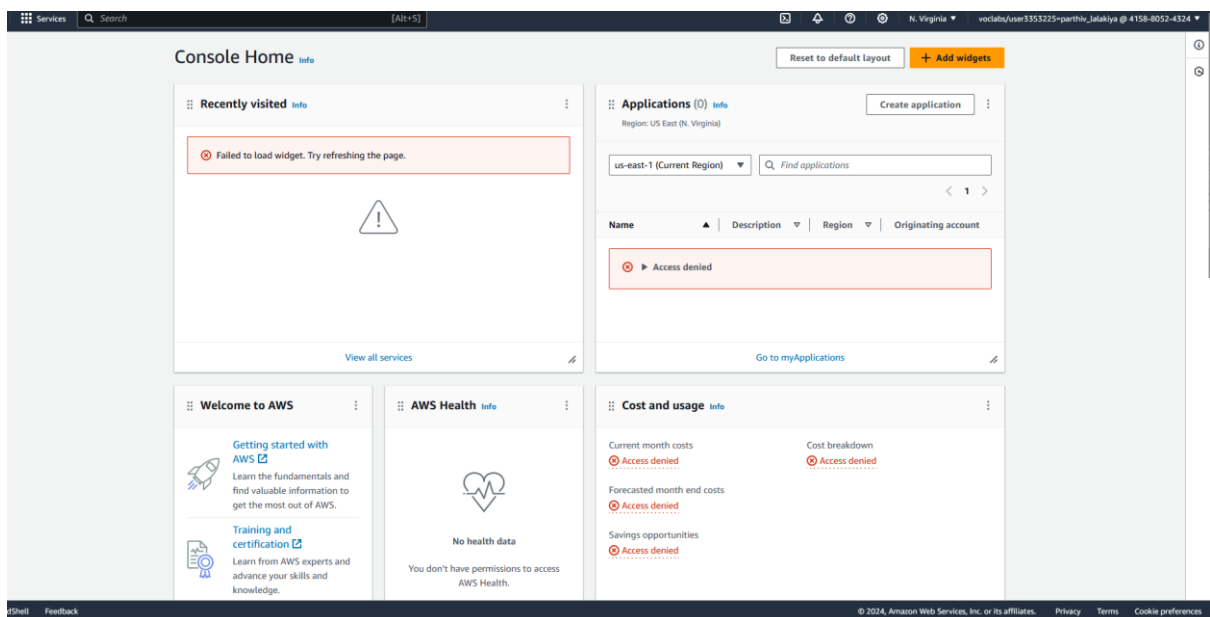
Step 4: as shown in below we click on star lab and wait until aws became green



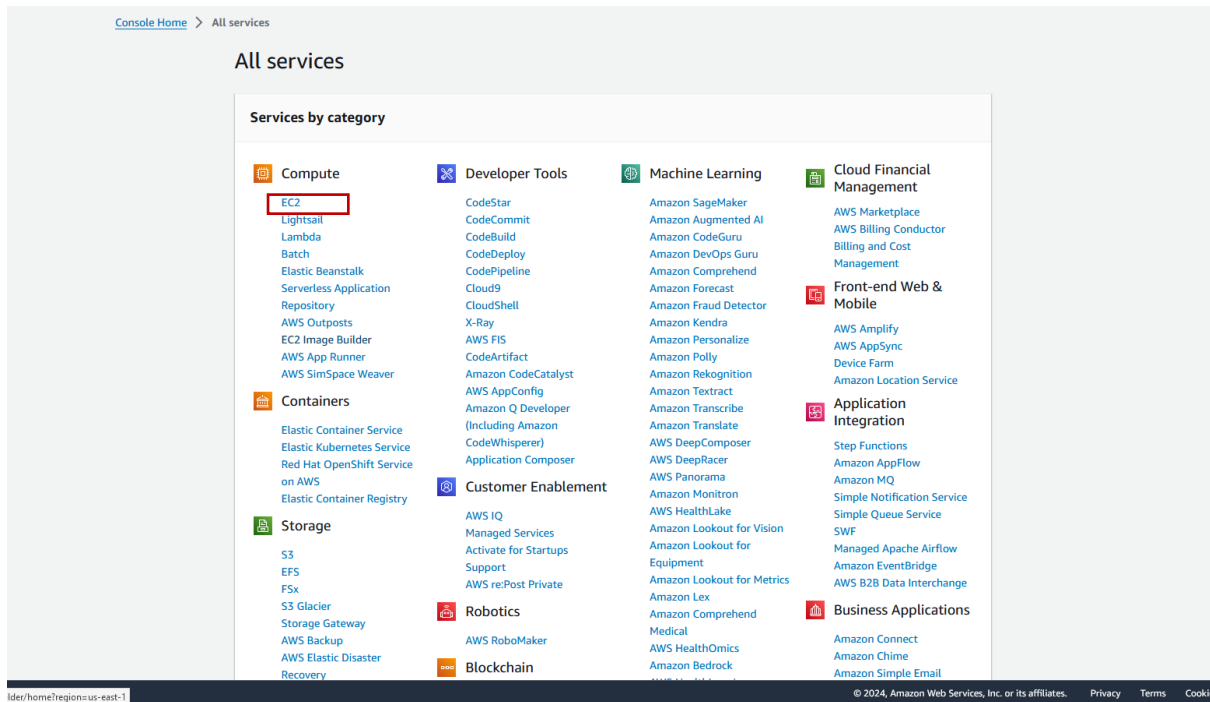
Step 5: after we click on aws bottom



Step 6: next we come in console home page and click on all services



Step 7: now we select EC2



Step 8: here we can see that there are no instances are running, next we click on launch instance

Resources

EC2 Global view

You are using the following Amazon EC2 resources in the US East (N. Virginia) Region:

| | | | | | |
|---------------------|---|---------------------|---|-----------------|---|
| Instances (running) | 0 | Auto Scaling Groups | 0 | Dedicated Hosts | 0 |
| Elastic IPs | 0 | Instances | 0 | Key pairs | 1 |
| Load balancers | 0 | Placement groups | 0 | Security groups | 1 |
| Snapshots | 0 | Volumes | 0 | | |

Launch instance

To get started, launch an Amazon EC2 Instance, which is a virtual server in the cloud.

Launch instance

Migrate a server

Note: Your instances will launch in the US East (N. Virginia) Region

Instance alarms

View in CloudWatch

0 in alarm 0 OK 0 insufficient data

Instances in alarm

Scheduled events

US East (N. Virginia)

No scheduled events

Service health

AWS Health Dashboard

Region: US East (N. Virginia) Status: This service is operating normally.

Zones

| Zone name | Zone ID |
|------------|----------|
| us-east-1a | use1-az2 |
| us-east-1b | use1-az4 |
| us-east-1c | use1-az6 |
| us-east-1d | use1-az1 |
| us-east-1e | use1-az3 |
| us-east-1f | use1-az5 |

Account attributes

Default VPC

vpc-05c485f8acf8299d8

Settings

Data protection and security

Zones

EC2 Serial Console

Default credit specification

EC2 console preferences

Explore AWS

Enable Best Price-Performance with AWS Graviton2

AWS Graviton2 powered EC2 instances enable up to 40% better price performance for a broad spectrum of cloud workloads. Learn more

Save up to 90% on EC2 with Spot Instances

Optimize price-performance by combining EC2 purchase options in a single EC2 ASG. Learn more

10 Things You Can Do Today to Reduce AWS Costs

Explore how to effectively manage your AWS costs without compromising on performance or capacity. Learn more

Additional information

Getting started guide

Documentation

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Step 9: first we enter a name for example: my server

EC2 > Instances > Launch an instance

Launch an instance

Info

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags

Info

Name

e.g. My Web Server

Add additional tags

Application and OS Images (Amazon Machine Image)

Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Quick Start

Amazon Linux

macOS

Ubuntu

Windows

Red Hat

SUSE Linux

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI

ami-01b799c439fd5516a (64-bit (x86), uefi-preferred) / ami-0e1ef59154d415994 (64-bit (Arm), uefi)

Free tier eligible

Summary

Number of instances

Info

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.5.2...read more

ami-01b799c439fd5516a

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

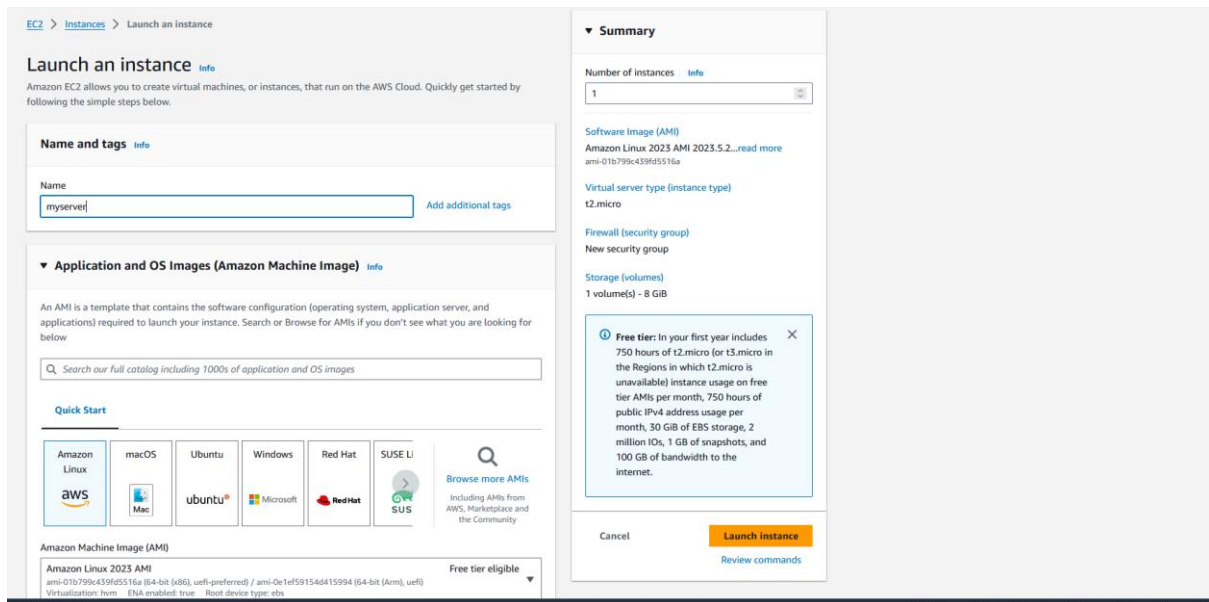
1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

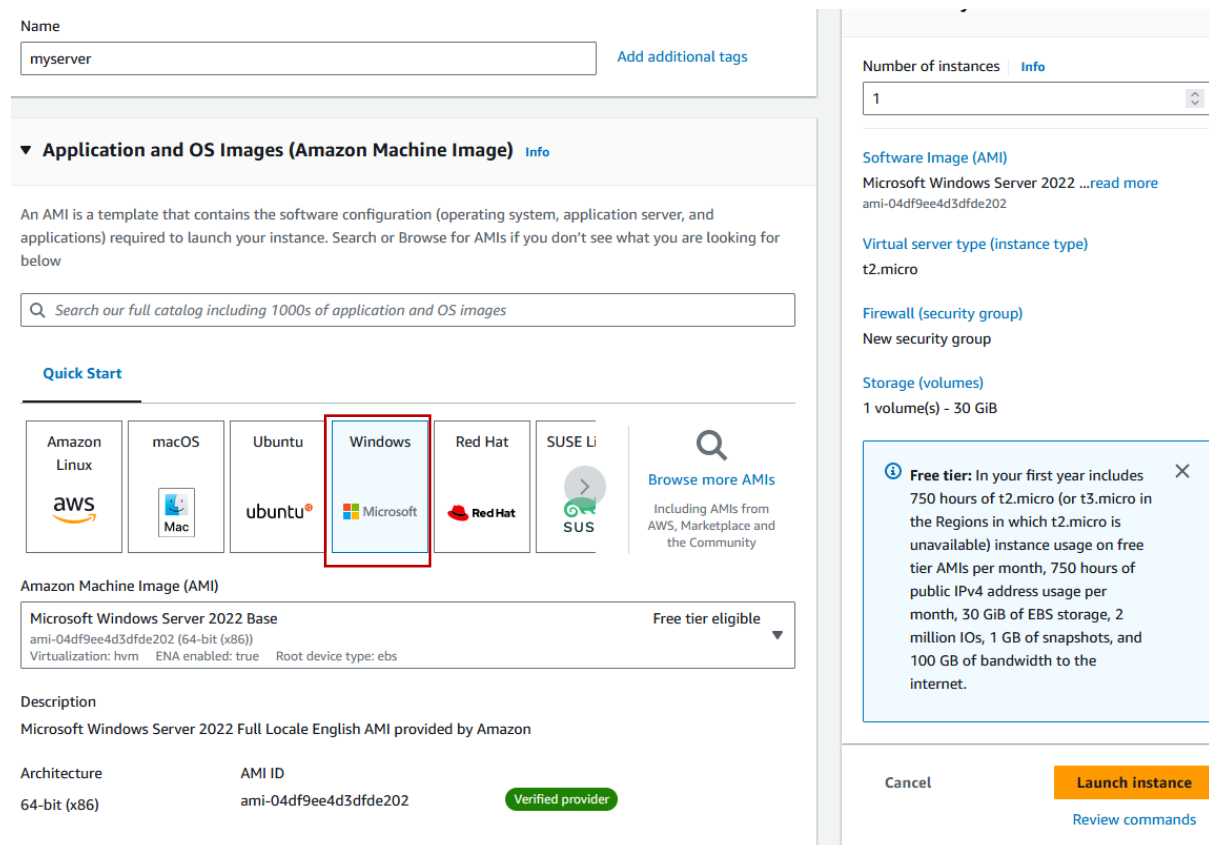
Cancel

Launch instance

Review command



Step 10: here we make Microsoft windows server so we click on it



Step 11: next we enter a key pair, it is allow you to your instance security

The screenshot shows the 'Create key pair' dialog box in the AWS Management Console. The dialog has a title bar 'Create key pair' with a close button (X). Below the title bar, there is a section 'Key pair name' with a text input field containing the placeholder 'Enter key pair name'. A red rectangle highlights this input field. Below the input field, a note states: 'The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.' Below this, there is a section 'Key pair type' with two options: 'RSA' (selected with a blue radio button) and 'ED25519' (unselected with a grey radio button). The 'RSA' option is described as 'RSA encrypted private and public key pair'. The 'ED25519' option is described as 'ED25519 encrypted private and public key pair (Not supported for Windows instances)'. Below this, there is a section 'Private key file format' with two options: '.pem' (selected with a blue radio button) and '.ppk' (unselected with a grey radio button). The '.pem' option is described as 'For use with OpenSSH'. The '.ppk' option is described as 'For use with PuTTY'. At the bottom of the dialog, there is a yellow warning box with a triangle icon and the text: 'When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance. [Learn more](#)'. At the bottom right of the dialog, there are two buttons: 'Cancel' and 'Create key pair' (highlighted in orange).

Number of instances Info

Create key pair X

Key pair name
Key pairs allow you to connect to your instance securely.

Enter key pair name

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

☒ **RSA**
RSA encrypted private and public key pair

☐ **ED25519**
ED25519 encrypted private and public key pair (Not supported for Windows instances)

Private key file format

☒ **.pem**
For use with OpenSSH

☐ **.ppk**
For use with PuTTY

⚠ When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance. [Learn more](#)

Cancel Create key pair

Step 12: here we enter 29062014_1 as a key pair

Amazon Machine Image (AMI)

Microsoft Windows Server 2022 Base
ami-04df9ee4d3dfde202 (64-bit (x86))
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Description
Microsoft Windows Server 2022 Full Locale English AMI provided by Amazon

Architecture 64-bit (x86) AMI ID ami-04df9ee4d3dfde202 Verified provider

► Instance type Info | Get advice

▼ Key pair (login) Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required
29062014_1 Create new key pair

For Windows instances, you use a key pair to decrypt the administrator password. You then use the decrypted password to connect to your instance.

▼ Network settings Info Edit

Network Info

Number of instances Info
1

Software Image (AMI)
Microsoft Windows Server 2022 ...read more
ami-04df9ee4d3dfde202

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)
1 volume(s) - 30 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch instance Review commands

Step 13: next we enter launch instance

Services

Search

[Alt+T]

N. Virginia

vocalabs/user353522

☒ Allow RDP traffic from

Helps you connect to your instance

Anywhere

0.0.0.0/0

☐ Allow HTTPS traffic from the internet

To set up an endpoint, for example when creating a web server

☐ Allow HTTP traffic from the internet

To set up an endpoint, for example when creating a web server

Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

▼ Configure storage

Info

Advanced

1x 30 GiB gp2 Root volume (Not encrypted)

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage

Add new volume

The selected AMI contains more instance store volumes than the instance allows. Only the first 0 instance store volumes from the AMI will be accessible from the instance

Click refresh to view backup information

The tags that you assign determine whether the instance will be backed up by any Data Lifecycle Manager policies.

0 x File systems

Edit

► Advanced details

Info

▼ Summary

Number of instances

Info

1

Software Image (AMI)

Microsoft Windows Server 2022 ...read more

ami-04d9ee4d5d5dfe202

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 30 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel

Launch instance

Review, compare

budShell

Feedback

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EC2

Instances

Launch an instance

Success

Successfully initiated launch of instance (i-01e9c1aaf02d89132)

► Launch log

Next Steps

What would you like to do next with this instance, for example "create alarm" or "create backup"

Create billing and free tier usage alerts

To manage costs and avoid surprise bills, set up email notifications for billing and free tier usage thresholds.

Create billing alerts

Connect to your instance

Once your instance is running, log into it from your local computer.

Connect to instance

Learn more

Connect an RDS database

Configure the connection between an EC2 instance and a database to allow traffic flow between them.

Connect an RDS database

Create a new RDS database

Learn more

Create EBS snapshot policy

Create a policy that automates the creation, retention, and deletion of EBS snapshots

Create EBS snapshot policy

Manage detailed monitoring

Enable or disable detailed monitoring for the instance. If you enable detailed monitoring, the Amazon EC2 console displays monitoring graphs with a 1-minute period.

Manage detailed monitoring

Create Load Balancer

Create an application, network gateway or classic Elastic Load Balancer

Create Load Balancer

Create AWS budget

AWS Budgets allows you to create budgets, forecast spend, and take action on your costs and usage from a single location.

Create AWS budget

Manage CloudWatch alarms

Create or update Amazon CloudWatch alarms for the instance.

Manage CloudWatch alarms

Instances (1) [Info](#)

[All states](#) Refresh Connect Instance state Actions Launch instances < 1

| <input type="checkbox"/> | Name ↗ | Instance ID | Instance state | Instance type | Status check | Alarm status | Availability Zone | Public IPv4 DNS | Public IPv4 ... | Elastic IP |
|--------------------------|------------------------|---------------------|----------------------|---------------|---------------------------|-----------------------------|-------------------|-------------------------|-----------------|------------|
| <input type="checkbox"/> | myserver | i-01e9c1aafe2d89132 | Running | t2.micro | Initializing | View alarms | us-east-1b | ec2-34-228-6-69.comp... | 34.228.6.69 | - |

Select an instance

Step 14: here we wait until status check passed

Instances (1) [Info](#)

[All states](#) Refresh Connect Instance state Actions Launch instances < 1 ⌕

| <input type="checkbox"/> | Name ↗ | Instance ID | Instance state | Instance type | Status check | Alarm status | Availability Zone | Public IPv4 DNS | Public IPv4 ... | Elastic IP | IF |
|--------------------------|------------------------|---------------------|----------------------|---------------|--------------------------------|-----------------------------|-------------------|-------------------------|-----------------|------------|----|
| <input type="checkbox"/> | myserver | i-01e9c1aafe2d89132 | Running | t2.micro | 2/2 checks passed | View alarms | us-east-1b | ec2-34-228-6-69.comp... | 34.228.6.69 | - | - |

Step 15: now we click on instance id

Instances (1/1) Info

Find Instance by attribute or tag (case-sensitive)

All states

| Name | Instance ID | Instance state | Instance type | Status check | Alarm status | Availability Zone | Public IPv4 DNS | Public IPv4 ... | Elastic IP |
|----------|---------------------|----------------|---------------|-------------------|--------------|-------------------|-------------------------|-----------------|------------|
| myserver | i-01e9c1aafe2d89132 | Running | t2.micro | 2/2 checks passed | View alarms | us-east-1b | ec2-34-228-6-69.comp... | 34.228.6.69 | - |

Services Search [Alt+S]

EC2 > Instances > i-01e9c1aafe2d89132 > Connect to instance

Connect to instance Info

Connect to your instance i-01e9c1aafe2d89132 (myserver) using any of these options

Session Manager RDP client EC2 serial console

SSM Agent is not online

The SSM Agent was unable to connect to a Systems Manager endpoint to register itself with the service.

Session Manager usage:

- Connect to your instance without SSH keys, a bastion host, or opening any inbound ports.
- Sessions are secured using an AWS Key Management Service key.
- You can log session commands and details in an Amazon S3 bucket or CloudWatch Logs log group.
- Configure sessions on the Session Manager [Preferences](#) page.

Cancel Connect

Step 16: now we click RDP client

[EC2](#) > [Instances](#) > [i-01e9c1aafe2d89132](#) > Connect to instance

Connect to instance [Info](#)

Connect to your instance i-01e9c1aafe2d89132 (myserver) using any of these options

Session Manager

RDP client

EC2 serial console

Instance ID
i-01e9c1aafe2d89132 (myserver)

Connection Type

☒ **Connect using RDP client**
Download a file to use with your RDP client and retrieve your password.

☐ **Connect using Fleet Manager**
To connect to the instance using Fleet Manager Remote Desktop, the SSM Agent must be installed and running on the instance. For more information, see [Working with SSM Agent](#)

You can connect to your Windows instance using a remote desktop client of your choice, and by downloading and running the RDP shortcut file below:

[Download remote desktop file](#)

When prompted, connect to your instance using the following username and password:

Public DNS
ec2-34-228-6-69.compute-1.amazonaws.com

Username [Info](#)
Administrator

Password [Get password](#)

? If you've joined your instance to a directory, you can use your directory credentials to connect to your instance.

Cancel

Step 17: now we enter a password so we click on upload private key file

[EC2](#) > [Instances](#) > [i-01e9c1aafe2d89132](#) > Get Windows password

Get Windows password [Info](#)

Use your private key to retrieve and decrypt the initial Windows administrator password for this instance.

Instance ID


 [i-01e9c1aafe2d89132](#) (myserver)

Key pair associated with this instance

 29062024_1

Private key

Either upload your private key file or copy and paste its contents into the field below.

 Upload private key file

Private key contents - *optional*

Private key contents

Cancel

Decrypt password

Step 18: now we click on decrypt password

EC2 > Instances > i-01e9c1aafe2d89132 > Get Windows password

Get Windows password [Info](#)

Use your private key to retrieve and decrypt the initial Windows administrator password for this instance.

Instance ID
i-01e9c1aafe2d89132 (myserver)

Key pair associated with this instance
29062024_1

Private key
Either upload your private key file or copy and paste its contents into the field below.

[Upload private key file](#)

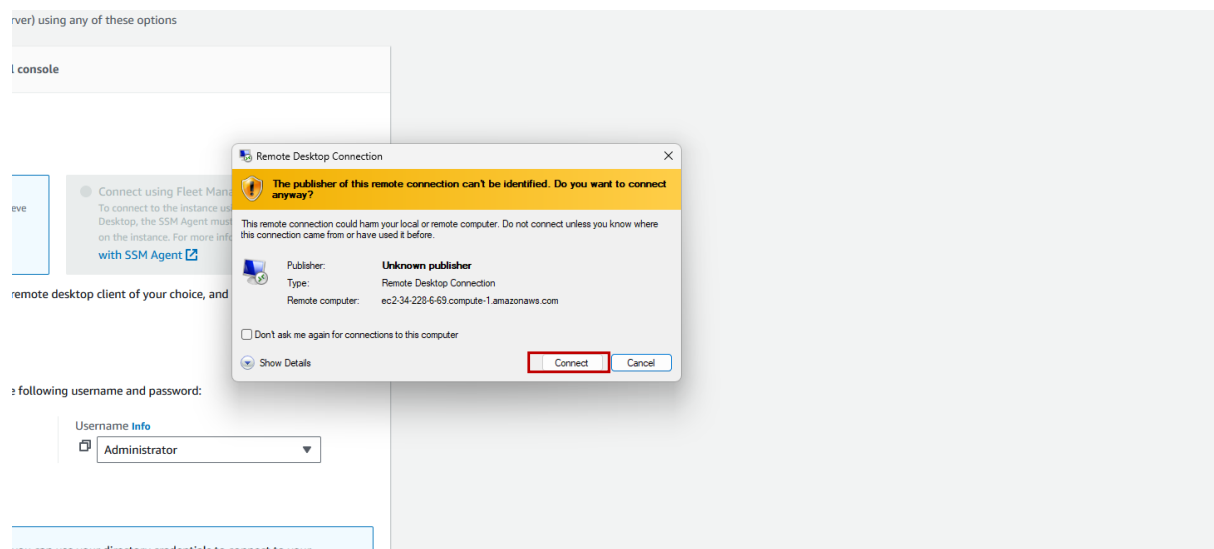
29062024_1.pem
1.678KB

Private key contents - optional

```
HMrf9Fk95DDHZ8m2pUYxk2h5/kZiWEHuP+o+gY9Ebn/F4XlxxXzwHttgxVdUjl2H
JcMvA7y/Cr3h381rjpOddQKBgQDDsbNBxBQK5groYRPQbNYglQC8ObzdN4FKVUhG
Rs2y3omMzCXemn2sZAEcbCnMDnJNO/KIV0ZKd4pU/52iwopNfDmthPjpV3T8hxS
OY/cdwJDBIDhoro6dTAIVFprAznKboqAXnnMTxV3L8gbaHgg7fXa9WNZtkdRkEdQ
GQ9+tQKBgQC2duEbFeJklwhH7AcXrGsvot2LFF2Zth2JOapT+9zkDChk7R8Z6Rj
1lVpyjWxMGYz9atJpn6bPEt52jdcyLIH+xGu7dUB7Hu3Frhgio/8RKRRlLrRHHG
3/jA4EaJTcNj0SdPSXJYm8sO7Nv1EOZWik9z3FgTs4J+epZ2x5j8Pg==
-----END RSA PRIVATE KEY-----
```

[Cancel](#) [Decrypt password](#)

Step 19: here we click on connect button for established connection



Step 20: finally over virtual server is ready

Hostname: EC2AMAZ-QUNBDRV
Instance ID: i-01e9c1aafe2d89132
Private IPv4 address: 172.31.26.241
Public IPv4 address: 34.228.6.69
Instance size: t2.micro
Availability Zone: us-east-1b
Architecture: AMD64
Total memory: 1024
Network: Low to Moderate



Step 21: after we click on instance state to terminate instance

