

## KEY-PAIR AND LAUNCH CONNECT TO EC2 :

The screenshot shows the AWS Service Quotas console. The left sidebar has a 'Service Quotas' tab selected. The main content area shows the 'Amazon Elastic Compute Cloud (Amazon EC2)' service quota details. It includes a brief description of EC2 and a table of quotas. The table has columns for Quota name, Applied quota value, AWS default quota value, and Adjustability. All listed quotas have an applied value of 0 and are account-level.

Quota name	Applied quota value	AWS default quota value	Adjustability
All DL Spot Instance Requests	0	0	Account-level
All F Spot Instance Requests	0	0	Account-level
All G and VT Spot Instance Requests	0	0	Account-level
All Ix Spot Instance Requests	0	0	Account-level
All P4, P3 and P2 Spot Instance Requests	0	0	Account-level

To launch instance

The screenshot shows the AWS EC2 Instances console. The left sidebar has an 'Instances' section selected, with 'Instances' also highlighted. The main content area shows the 'Instances Info' page, which displays a table with no instances found. A prominent orange 'Launch instances' button is visible. A modal window titled 'Select an instance' is open at the bottom, indicating no instances are currently selected.

The screenshot shows the 'Launch an instance' wizard in the AWS EC2 console. The 'Name and tags' section has a single tag named 'windows-server'. The 'Application and OS Images (Amazon Machine Image)' section shows an Amazon Linux 2023.2.2 AMI. The 'Summary' panel indicates 1 instance, uses the selected AMI, and includes a note about the Free tier. The 'Launch instance' button is prominent.

This screenshot shows the same 'Launch an instance' wizard with more detailed tag configuration. A tooltip for the 'Free tier' is visible, explaining its benefits. The 'Resource types' dropdown is expanded, showing 'Instances' (which is checked) and other options like 'Volumes', 'Elastic graphics', 'Spot instance requests', and 'Network interfaces'.

This screenshot shows the expanded 'Resource types' dropdown again, with 'Instances' still checked. The 'Free tier' tooltip is fully visible, detailing the included resources for the first year. The overall interface remains consistent with the previous screenshots.

- Here we can add specific tags to resources and at most we can add a maximum of 50 tags.
- Tags are used to automate and identify the resources.
- When we launch the EC2 instances then other resources such as volumes, network interface are also launched

AWS Services Search [Alt+S] N. Virginia Varun1234

Key Info Value Info Resource types Info

- Q Name X Q windows-server X Select resource ty... Remove
- Instances X
- Volumes X

Key Info Value Info Resource types Info

- Q Project X Q Learning X Select resource ty... Remove
- Instances X
- Volumes X

Key Info Value Info Resource types Info

- Q Costcenter X Q UV-Project X Select resource ty... Remove
- Instances X
- Volumes X

Key Info Value Info Resource types Info

- Q Environment X Q Testing X Select resource ty... Remove
- Instances X
- Volumes X

Key Info Value Info Resource types Info

- Q Owner X Q UV X Select resource ty... Remove
- Instances X
- Volumes X

Key Info Value Info Resource types Info

- Q Platform X Q Windows X Select resource ty... Remove
- Instances X
- Volumes X

Summary

Number of instances info  
1

Storage summary  
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, 30 GiB of EBS storage, 2 million IOPS, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch instance Review commands

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CloudShell Feedback

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Instances X

Key Info Value Info Resource types Info

- Q Environment X Q Testing X Select resource ty... Remove
- Instances X
- Volumes X

Key Info Value Info Resource types Info

- Q Owner X Q UV X Select resource ty... Remove
- Instances X
- Volumes X

Key Info Value Info Resource types Info

- Q Platform X Q Windows X Select resource ty... Remove
- Instances X
- Volumes X

Summary

Number of instances info  
1

Storage summary  
1 volume(s) - 8 GiB

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CloudShell Feedback

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Instances X

Key Info Value Info Resource types Info

- Q Platform X Q Windows X Select resource ty... Remove
- Instances X
- Volumes X

Key Info Value Info Resource types Info

- Q Application X Q Webserver X Select resource ty... Remove
- Instances X
- Volumes X

Add new tag  
You can add up to 45 more tags.

Application and OS Images (Amazon Machine Image) Info

Summary

Number of instances info  
1

Storage summary  
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, 30 GiB of EBS storage, 2 million IOPS, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch instance Review commands

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CloudShell Feedback

**Function name:** HelloWorld

**Runtime:** Node.js 14.x

**Handler:** index.handler

**Create**

**Function name:** HelloWorld

**Runtime:** Node.js 14.x

**Handler:** index.handler

**Create**

- IN OS we have different versions we need to select the base free tier eligible otherwise hourly charges.
- Every OS has a particular image known as AMI which has IDs (64 bit architecture)
- Virtualization HVM – Hardware virtual machine

**Function name:** HelloWorld

**Runtime:** Node.js 14.x

**Handler:** index.handler

**Create**

Screenshot of the AWS EC2 Key Pair creation page.

The page shows the following details:

- Key pair name - required:** demo23
- Key pair type:** RSA (selected)
- Private key file format:** .pem (selected)
- Network settings:** Network info: vpc-05f7dr951hc12rc49

At the bottom right, there is a "Create key pair" button.

Screenshot of the AWS EC2 Key Pair creation page, showing the "Create key pair" button highlighted.

The page shows the following details:

- Key pair name - required:** demo23
- Key pair type:** RSA (selected)
- Private key file format:** .pem (selected)
- Network settings:** Network info: vpc-05f7dr951hc12rc49

A callout box highlights the "Create key pair" button.

Screenshot of the AWS EC2 Key Pair creation page, showing the "Create key pair" button highlighted.

The page shows the following details:

- Key pair name - required:** demo23
- Key pair type:** RSA (selected)
- Private key file format:** .pem (selected)
- Network settings:** Network info: vpc-05f7dr951hc12rc49

A callout box highlights the "Create key pair" button.

**Key pair (login)**

Key pair name - required: demo23

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**

Network: vpc-05f7dd951bc12cc49

Subnet: No preference (Default subnet in any availability zone)

Auto-assign public IP: Info

**VPC - required**

vpc-05f7dd951bc12cc49 (default)

**Subnet Info**

- No preference
- No preference
- subnet-04c53bd6d5fb79b
 

VPC: vpc-05f7dd951bc12cc49 Owner: 357309620538 Availability Zone: us-east-1d  
IP addresses available: 4091 CIDR: 172.31.0.0/16
- subnet-016aca05f63bb395a
 

VPC: vpc-05f7dd951bc12cc49 Owner: 357309620538 Availability Zone: us-east-1f  
IP addresses available: 4091 CIDR: 172.31.64.0/20
- subnet-0518c3885aa73f2f6
 

VPC: vpc-05f7dd951bc12cc49 Owner: 357309620538 Availability Zone: us-east-1a  
IP addresses available: 4091 CIDR: 172.31.0.0/20
- subnet-06af44ffe6d49e0f9
 

VPC: vpc-05f7dd951bc12cc49 Owner: 357309620538 Availability Zone: us-east-1b  
IP addresses available: 4091 CIDR: 172.31.1.0/20

launch-wizard-1 created 2023-10-04T16:24:48.974Z

- In network section we can see subnets (for default VPC the total no of subnets are equal to total no of availability zones as for e.g. : for N Virginia we have 6 AZ and 6 subnets)

172.31.0.0/16

**Subnet Info**

subnet-0518c3885aa73f2f6
 

VPC: vpc-05f7dd951bc12cc49 Owner: 357309620538 Availability Zone: us-east-1a  
IP addresses available: 4091 CIDR: 172.31.0.0/20

**Auto-assign public IP**

Enable

**Firewall (security groups)**

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group

Select existing security group

**Common security groups**

Select security groups

default
 

VPC: vpc-05f7dd951bc12cc49

**Configure storage**

Advanced

- Here we have selected subnet as 1a and enabled the auto-assign public IP we have also selected the existing security group which is the default security group of the default VPC

The screenshot shows the 'Configure storage' section of the EC2 instance creation wizard. It displays a summary of the selected storage: 1x 30 GiB gp2 Root volume (Not encrypted). A tooltip indicates that free-tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. Below this, there is a link to 'Add new volume'. A note at the bottom states: '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.'

This screenshot shows the same storage configuration as the previous one, but with a different AMI selected. The note at the bottom now reads: '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.'

- The minimum required storage capacity for windows is 30GB.

This screenshot shows the storage configuration dropdown expanded. The 'gp2' option is selected. A tooltip provides information about the storage types: 'General Purpose (SSD) or Magnetic storage'. Other options listed include 'Select', 'General purpose SSD (gp3)', 'General purpose SSD (gp2)', 'Provisioned IOPS SSD (io1)', 'Provisioned IOPS SSD (io2)', 'Cold HDD (sc1)', 'Throughput Optimized HDD (st1)', and 'Magnetic (standard)'. A note at the bottom states: '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.'

- Instead of GP2 GP3 is preferable bcoz of more IOPS

The screenshot shows the AWS EC2 EBS Volumes configuration page. A modal dialog is open, stating: "Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage". The configuration fields for the volume are as follows:

- Storage type: EBS
- Device name - required: /dev/sda1
- Snapshot: snap-006bca3a8aca5e8fc
- Size (GiB): 30
- Volume type: gp2
- IOPS: 100 / 3000
- Delete on termination: Yes
- Encrypted: Not encrypted
- KMS key: Select

A note states: "KMS keys are only applicable when encryption is set on this volume."

The screenshot shows the same configuration page as above, but the volume type is now gp3. The IOPS field contains the value "30005", which is highlighted with a red box and has a tooltip: "IOPS must be between 3000 and 16000." The rest of the configuration is identical to the gp2 example.

- Here we get more IOPS because of GP3 in GP we get (120/3000 IOP's)

The screenshot shows the configuration page again. A red circle highlights the message: "Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage". The configuration fields are identical to the previous examples.

**New EC2 Experience** Tell us what you think

EC2 Dashboard EC2 Global View Events

Instances Instances Instance Types Launch Templates Spot Requests Savings Plans Reserved Instances Dedicated Hosts Capacity Reservations

Images AMIs AMI Catalog

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Search [Alt+S]

Yes Not encrypted SEARCH

KMS keys are only applicable when encryption is set on this volume.

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

File systems Show details

Advanced details Info

Purchasing option Info Request Spot Instances

Domain join directory Info Select Create new directory

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**IOPS**

The requested number of I/O operations per second that the volume can support.

It is applicable to Provisioned IOPS SSD (io1 and io2) and General Purpose SSD (gp2 and gp3) volumes only.

**Provisioned IOPS SSD (io1 and io2)** volumes support between 100 and 64,000 IOPS depending on the volume size. For io1 volumes, you can provision up to 50 IOPS per GiB. For io2 volumes, you can provision up to 500 IOPS per GiB.

**For General Purpose SSD (gp2)** volumes, baseline performance scales linearly at 3 IOPS per GiB.

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Search [Alt+S]

Volume 2 (Custom)

Storage type Info EBS Device name - required Info Snapshot Info Select

Size (GiB) Info 1 Volume type Info gp3 IOPS Info 3000

Delete on termination Info No Encrypted Info Not encrypted KMS key Info Select

KMS keys are only applicable when encryption is set on this volume.

Throughput Info 125

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

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**IOPS**

The requested number of I/O operations per second that the volume can support.

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EC2 Dashboard EC2 Global View Events

Instances Instances Instance Types Launch Templates Spot Requests Savings Plans Reserved Instances Dedicated Hosts Capacity Reservations

Images AMIs AMI Catalog

CloudShell Feedback

Search [Alt+S]

EC2 > Instances > Launch an instance

Launching instance Launch initiation 75%

Details

Please wait while we launch your instance.

Do not close your browser while this is loading.

**IOPS**

The requested number of I/O operations per second that the volume can support.

It is applicable to Provisioned IOPS SSD (io1 and io2) and General Purpose SSD (gp2 and gp3) volumes only.

**Provisioned IOPS SSD (io1 and io2)** volumes support between 100 and 64,000 IOPS depending on the volume size. For io1 volumes, you can provision up to 50 IOPS per GiB. For io2 volumes, you can provision up to 500 IOPS per GiB.

**For General Purpose SSD (gp2)** volumes, baseline performance scales linearly at 3 IOPS per GiB.

The screenshot shows the AWS EC2 Instances page. A single instance, "windows-server" (ID: i-0e3b2ba077f4374f1), is listed in the "Pending" state. The instance type is t2.micro, and it is located in the us-east-1a availability zone. The "Launch Instances" button is visible at the top right.

- To connect to windows server

The screenshot shows the "Instance summary for i-0e3b2ba077f4374f1 (windows-server)" page. Key details include:

- Public IPv4 address: 44.193.196.57
- Private IP DNS name (IPv4 only): ip-172-31-8-57.ec2.internal
- Instance type: t2.micro
- VPC ID: vpc-05f7dd951bc12cc49
- Subnet ID: subnet-051bc3885aa73f2f6

The screenshot shows the "RDP client" tab of the EC2 serial console wizard. It provides instructions for connecting using an RDP client or Fleet Manager. It also lists connection details:

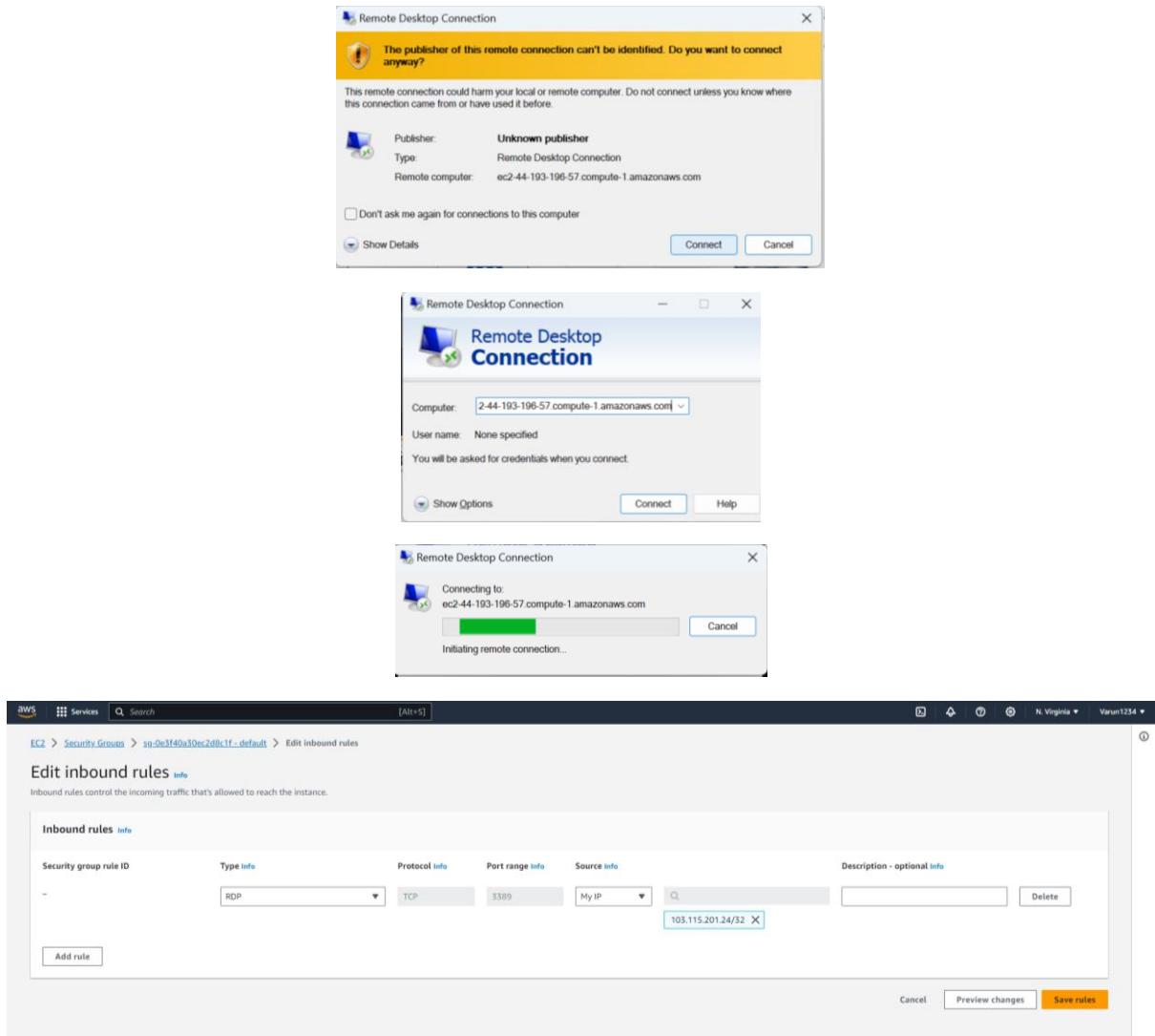
- Public DNS: ec2-44-193-196-57.compute-1.amazonaws.com
- User name: Administrator
- Password: Get password

A note at the bottom states: "If you've joined your instance to a directory, you can use your directory credentials to connect to your instance."

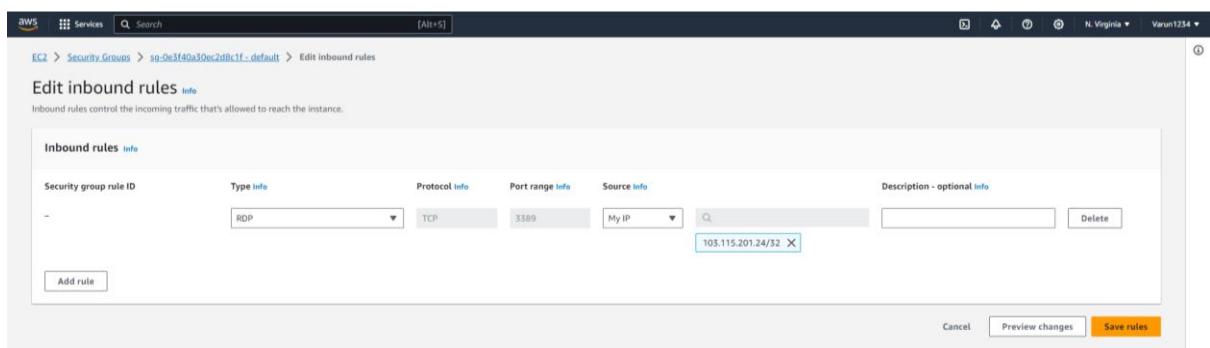
Screenshot of the AWS EC2 Session Manager interface showing the RDP client tab selected. It displays connection details for instance i-0e3b2ba077f4374f1 (windows-server). A sidebar on the right shows recent downloads including files like demo23.pem, ec13.jpg, and ec122.jpg.

Screenshot of the AWS EC2 Instances page for instance i-0e3b2ba077f4374f1, showing the "Get Windows password" option. It displays the private key content and a "Decrypt password" button.

Screenshot of the AWS EC2 Session Manager interface showing the RDP client tab selected. It displays connection details for instance i-0e3b2ba077f4374f1 (windows-server). A message indicates that the password has been copied to the clipboard.



- Here connection is failed bcoz first no RDP allowed in the SG of the inbound rules of windows server.



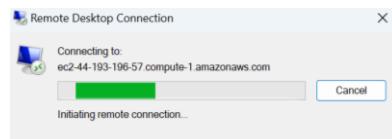
- So we have now allowed RDP for the windows server

Screenshot of the AWS EC2 Security Groups page showing three security groups: Test-SG, default, and Linux-SG.

Name	Security group ID	Security group name	VPC ID	Description	Owner	Inbound rules count	Outbound rules co...
sg-06c80fc1431596841	Test-SG	vpc-05f7dd951bc12cc49	Test-SG	357309620558	0 Permission entries	1 Permission entry	
sg-0e3f40a30ec2db1f1	default	vpc-05f7dd951bc12cc49	default VPC security gr...	357109620538	1 Permission entry	1 Permission entry	
sg-0e34a9beef12e4a44	Linux-SG	vpc-05f7dd951bc12cc49	Linux-SG	357309620538	1 Permission entry	1 Permission entry	

The "Inbound rules" tab is selected, showing one rule:

Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Description
sgr-07152854724ae6...	IPv4	RDP	TCP	3389	105.115.201.24/32	-	



Screenshot of the AWS EC2 Connect page for an instance with Instance ID i-0e3b2ba077f4374f1 (windows-server).

Use your private key to retrieve and decrypt the instance's public IP address.

Instance ID: i-0e3b2ba077f4374f1 (windows-server)

Key pair associated with this instance: demo23

Private key: Either upload your private key file or copy and paste its contents.

Upload private key file

Private key contents - optional

Private key contents

Windows Security dialog box: Enter your credentials. These credentials will be used to connect to ec2-3-226-47-103.compute-1.amazonaws.com.

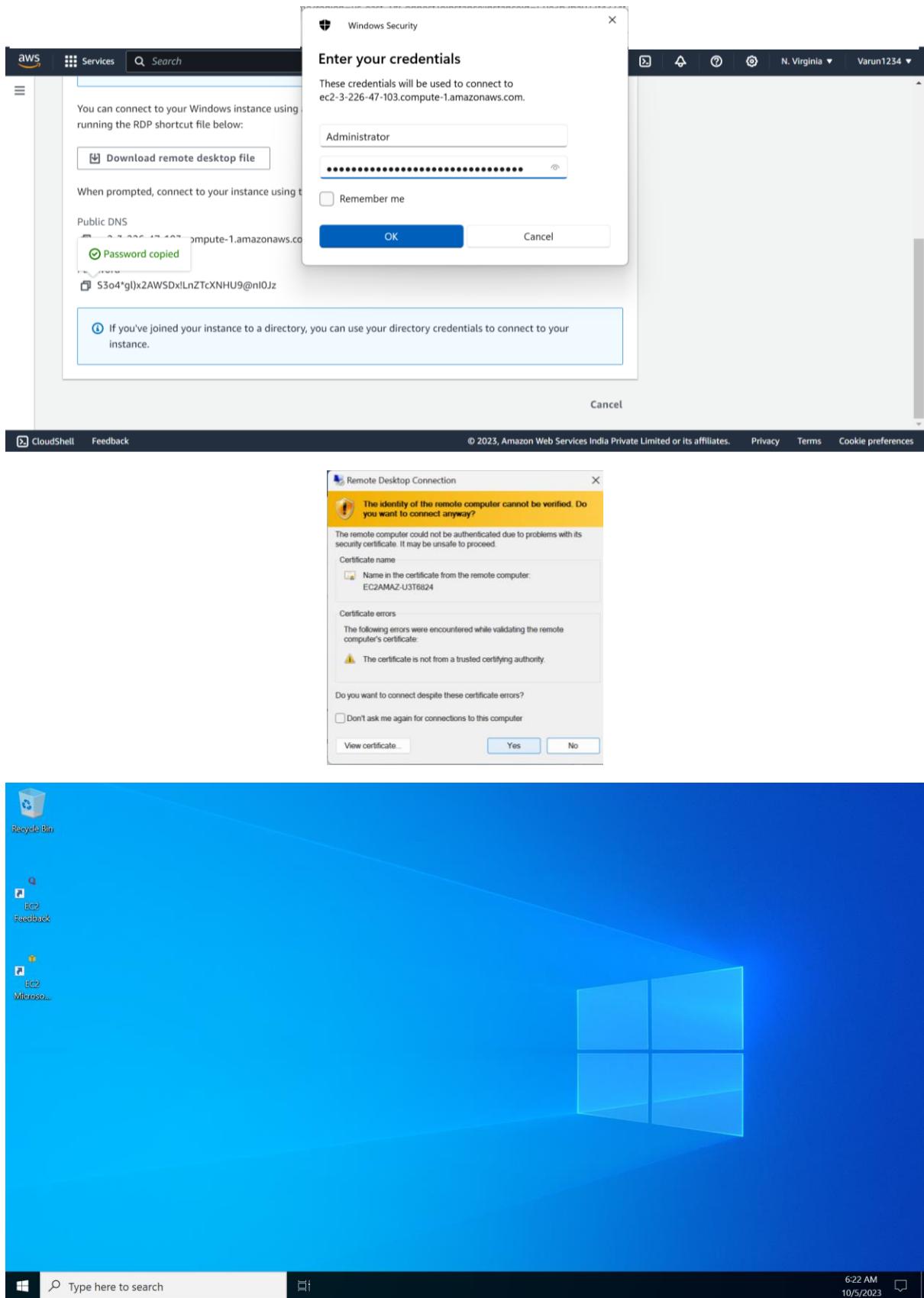
User name: [Input field]

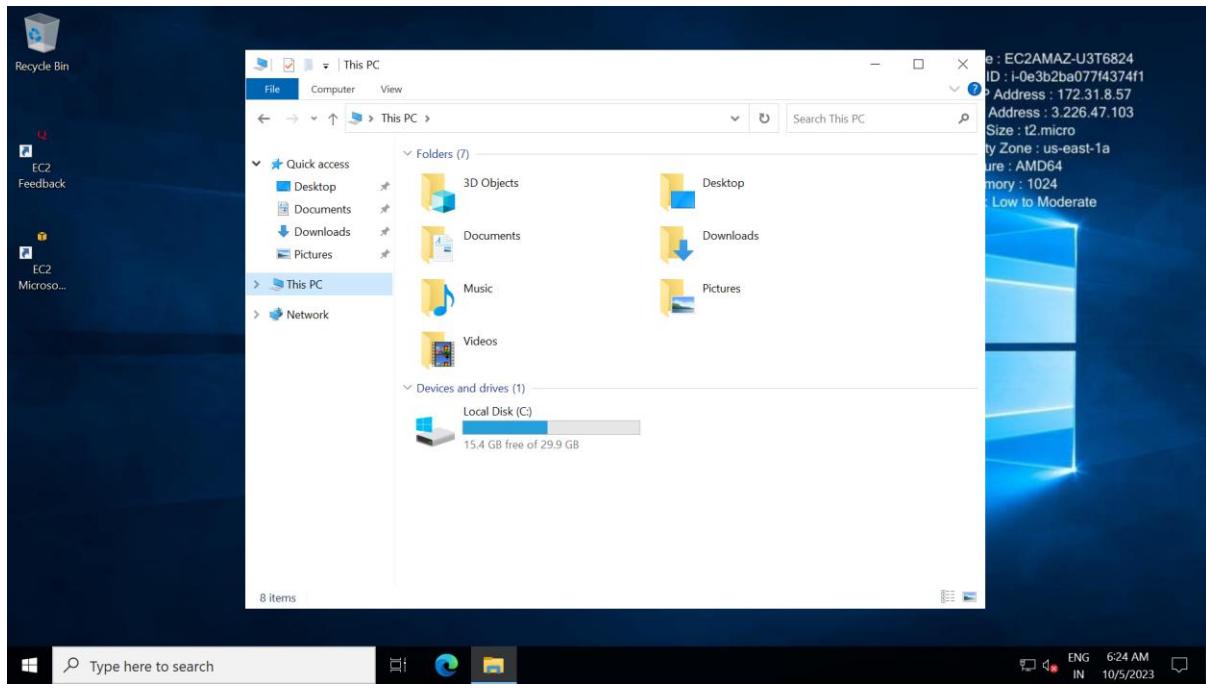
Password: [Input field]

Remember me

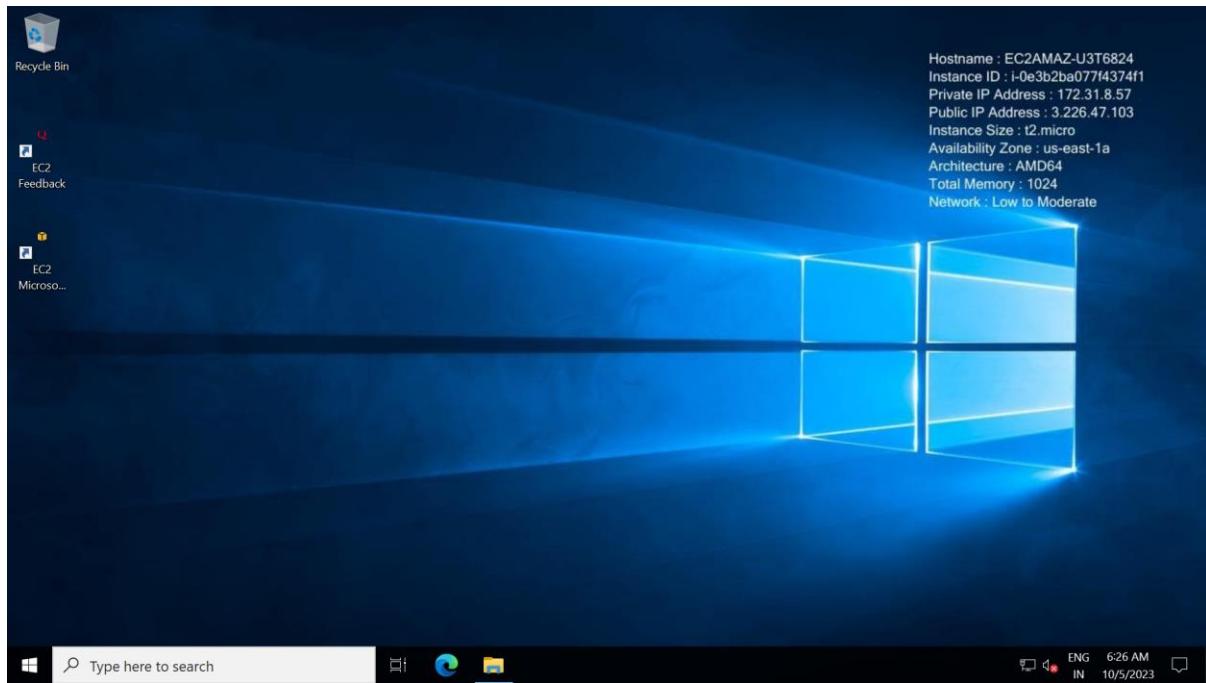
OK Cancel

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A screenshot of the AWS Management Console, specifically the EC2 Instances page. The top navigation bar includes the AWS logo, 'Services' dropdown, and a search bar. The main content area shows the 'Instance summary for i-0e3b2ba077f4374f1 (windows-server)'. The instance is listed as 'Running' with a public IP of 3.226.47.103 and a private IP of 172.31.8.57. Other details shown include the instance type (t2.micro), VPC ID (vpc-05f7dd951bc12cc49), and various DNS names. The left sidebar has a 'New EC2 Experience' section and a detailed 'Instances' section with links for EC2 Dashboard, EC2 Global View, Events, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, and Images. The bottom of the page includes links for CloudShell, Feedback, and a footer with copyright information and links for Privacy, Terms, and Cookie preferences.



- Windows server are identified by the instance ID ,Public IP
- All instances are identified by the instance id

## Linux

A screenshot of the AWS EC2 "Launch an instance" wizard. The page is titled "Launch an instance" and includes the following sections:

- Name and tags**: A section where the user can name the instance ("Linux-server") and add tags. It also includes a link to "Add additional tags".
- Application and OS Images (Amazon Machine Image)**: A section where the user can choose an AMI. It includes a search bar ("Search our full catalog including 1000s of application and OS images") and a note about what an AMI is.
- Summary**: A summary panel on the right side showing the configuration details:
  - Number of instances: 1
  - Software Image (AMI): Amazon Linux 2023 AMI 2023.2.2... (with a "read more" link)
  - Virtual server type (instance type): t2.micro
  - Firewall (security group): New security group
  - Storage (volumes): 1 volume(s) - 8 GiB
- Buttons**: At the bottom right are "Cancel", "Launch Instance" (in a large orange button), and "Review commands".

**Amazon Machine Image (AMI)**

Amazon Linux 2023 AMI  
ami-067d1e60475437da2 (64-bit (x86)) / ami-04a3fea0ceec717e5 (64-bit (Arm))  
Virtualization: hvm ENA enabled: true Root device type: ebs

Description  
Amazon Linux 2023 AMI 2023.2.20231002.0 x86\_64 HVM kernel-6.1

Architecture  
64-bit (x86)      AMI ID  
ami-067d1e60475437da2      Verified provider

**Summary**

Number of instances **1**

Software Image (AMI)  
Amazon Linux 2023 AMI 2023.2.2...read more  
ami-067d1e60475437da2

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 8 GiB

**Launch instance**

**Instance type**

t2.micro  
Family: t2 1 vCPU 1 GiB Memory Current generation: true  
On-Demand Windows base pricing: 0.0162 USD per Hour  
On-Demand SLICE base pricing: 0.0116 USD per Hour  
On-Demand RHEL base pricing: 0.0716 USD per Hour  
On-Demand Linux base pricing: 0.0116 USD per Hour

All generations      Compare instance types

**Key pair (login)**

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  
demo23

**Summary**

Number of instances **1**

Software Image (AMI)  
Amazon Linux 2023 AMI 2023.2.2...read more  
ami-067d1e60475437da2

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 8 GiB

**Launch instance**

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  
demo23      Create new key pair

**Network settings**

Network **Info**  
vpc-05f7dd951bc12cc49

Subnet **Info**  
No preference (Default subnet in any availability zone)

Auto-assign public IP **Info**  
Enable

**Firewall (security groups)** **Info**  
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.  
Create security group      Select existing security group

**Summary**

Number of instances **1**

Software Image (AMI)  
Amazon Linux 2023 AMI 2023.2.2...read more  
ami-067d1e60475437da2

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 8 GiB

**Launch instance**

**Firewall (security groups) Info**  
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group    Select existing security group

Security group name - required  
Linux-SG

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and \_-./[{}@+=;<,>]\$\*

Description - required Info  
Linux-SG

Inbound Security Group Rules

Security group rule 1 (TCP, 22, 0.0.0.0/0)

Type Info Protocol Info Port range Info  
ssh TCP 22

Source type Info Source Info Description - optional Info  
Anywhere  e.g. SSH for admin desktop

Remove

Cancel Launch instance Review commands

Description - required Info  
Linux-SG

Inbound Security Group Rules

Security group rule 1 (TCP, 22, 0.0.0.0/0)

Type Info Protocol Info Port range Info  
ssh TCP 22

Source type Info Source Info Description - optional Info  
Anywhere  e.g. SSH for admin desktop

0.0.0.0/0

⚠️ 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.

Add security group rule

Number of instances info  
1

Software image (AMI)  
Amazon Linux 2023 AMI 2023.2.2...read more  
ami-067d1e60475437da2

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 8 GiB

Cancel Launch instance Review commands

SSH is a protocol by which we can securely login to the Linux server

Source type → the IP's which can access the server

- 1) Anywhere—anyone can access my server
- 2) Custom—Here custom range of IP's can access the server.
- 3) My IP—only my IP can access the server

**Description - required [Info](#)**  
Linux-SG

**Inbound Security Group Rules**

▼ Security group rule 1 (TCP, 22, 0.0.0.0/0)

Type [Info](#) Protocol [Info](#) Port range [Info](#)  
ssh TCP 22

Source type [Info](#) Source [Info](#) Description - optional [Info](#)  
Anywhere [CIDR, prefix list or security group](#) e.g. SSH for admin desktop

Anywhere  
Custom  
My IP

I allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Add security group rule

**Summary**

Number of instances [Info](#)  
1

Software Image (AMI)  
Amazon Linux 2023 AMI 2023.2.2...[read more](#)  
ami-067d1e60475437da2

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 8 GiB

Cancel **Launch instance** Review commands

**EBS Volumes**

**Volume 1 (AMI Root)**

Storage type [Info](#) Device name - required [Info](#) Snapshot [Info](#)  
EBS /dev/xvda snap-0b4897bc6d94469a1

Size (GiB) [Info](#) Volume type [Info](#) IOPS [Info](#)  
8 gp3 3000

Delete on termination [Info](#) Encrypted [Info](#) KMS key [Info](#)  
Yes Not encrypted Select  
KMS keys are only applicable when encryption is set on this volume.

Throughput [Info](#)  
125

**Volume 2 (Custom)**

Remove

**Summary**

Number of instances [Info](#)  
1

Software Image (AMI)  
Amazon Linux 2023 AMI 2023.2.2...[read more](#)  
ami-067d1e60475437da2

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
2 volume(s) - 9 GiB

Cancel **Launch instance** Review commands

**Volume 2 (Custom)**

Storage type [Info](#) Device name - required [Info](#) Snapshot [Info](#)  
EBS /dev/sdb Select

Size (GiB) [Info](#) Volume type [Info](#) IOPS [Info](#)  
1 gp3 3000

Delete on termination [Info](#) Encrypted [Info](#) KMS key [Info](#)  
Yes Encrypted (default) aws/ebs Key ID: 7ed9bf04-0e3b-4300-a1...

Throughput [Info](#)  
125

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

Add more volumes

**Summary**

Number of instances [Info](#)  
1

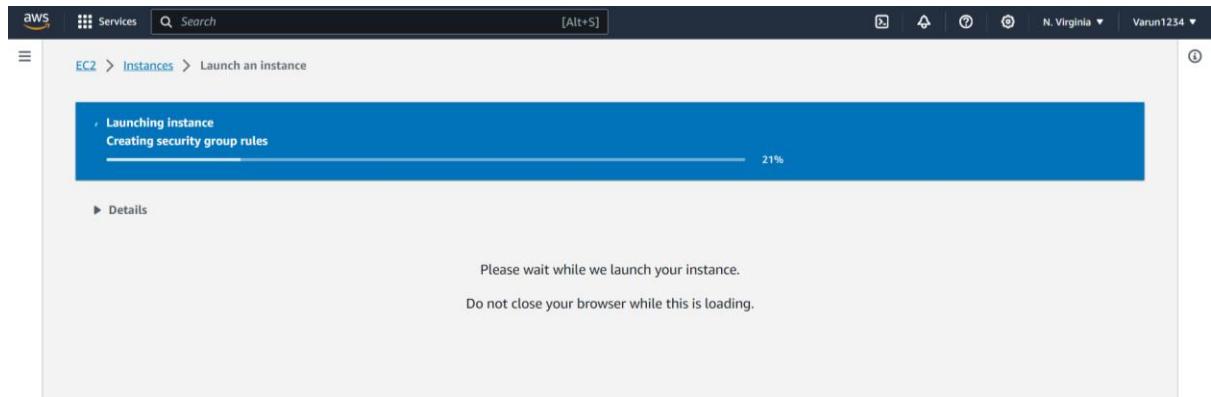
Software Image (AMI)  
Amazon Linux 2023 AMI 2023.2.2...[read more](#)  
ami-067d1e60475437da2

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
2 volume(s) - 9 GiB

Cancel **Launch instance** Review commands



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Security Groups (2) Info Actions Export security groups to CSV Create security group

Name	Security group ID	Security group name	VPC ID	Description	Owner
-	sg-0e3f40a30ec2d8c1f	default	vpc-05f7dd951bc12cc49	default VPC security gr...	357305
-	sg-0e34a9beef12e4a44	Linux-SG	vpc-05f7dd951bc12cc49	Linux-SG	357305

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Key pairs (1) Info Actions Create key pair

Name	Type	Created	Fingerprint	ID
demo23	rsa	2023/10/04 22:22 GMT+5:30	df:ce:4c:40:68:da:00:5d:51:16:37:f5:85:...	key-08229d8acc

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Screenshot of the AWS EC2 Instances page showing two running instances: windows-server and Linux-server.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
windows-server	i-0e3b2ba077f4374f1	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a
Linux-server	i-0f3fd608d79eb436f	Running	t2.micro	Initializing	No alarms	us-east-1b

Screenshot of the AWS EC2 Security Groups page showing one security group named Linux-SG selected.

Name	Security group ID	Security group name	VPC ID	Description	Owner
-	sg-0e3f40a30ec2d8c1f	default	vpc-05f7dd951bc12cc49	default VPC security gr...	357305
<b>Linux-SG</b>	<b>sg-0e34a9beef12e4a44</b>	<b>Linux-SG</b>	<b>vpc-05f7dd951bc12cc49</b>	<b>Linux-SG</b>	<b>357305</b>

Screenshot of the AWS EC2 Security Groups page showing the Inbound rules tab selected for the Linux-SG security group.

Name	Security group ID	Security group name	VPC ID	Description	Owner	Inbound rules count	Outbound rules count
-	sg-0e3f40a30ec2d8c1f	default	vpc-05f7dd951bc12cc49	default VPC security gr...	357309620538	1 Permission entry	1 Permission entry
<b>Linux-SG</b>	<b>sg-0e34a9beef12e4a44</b>	<b>Linux-SG</b>	<b>vpc-05f7dd951bc12cc49</b>	<b>Linux-SG</b>	<b>357309620538</b>	<b>1 Permission entry</b>	<b>1 Permission entry</b>

Inbound rules (1/1)

Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Description
<b>sgr-0c1c4acbd1bb2e7a3</b>	<b>IPv4</b>	<b>SSH</b>	<b>TCP</b>	<b>22</b>	<b>103.115.201.24/32</b>	<b>-</b>	<b>-</b>

- In linux SG we have allowed SSH port 22 in the inbound rules for My IP i.e. Source IP

Name	Security group ID	Security group name	VPC ID	Description	Owner	Inbound rules count	Outbound rules count
sg-0e3f40a30ec2d8c1f	default	vpc-05f7dd951bc12cc49	default VPC security gr...	357309620538	1 Permission entry	1 Permission entry	1 Permission entry
sg-0e34a9beef12e4a44	Linux-SG	vpc-05f7dd951bc12cc49	Linux-SG	357309620538	1 Permission entry	1 Permission entry	1 Permission entry

**Outbound rules (1/1)**

Name	Security group rule...	IP version	Type	Protocol	Port range	Destination	Description
sgr-0598ca6ed31906f28	IPv4	All traffic	All	All	0.0.0.0/0	-	-

- In outbound by default all traffic is allowed for any IP
- E.g.—as shown in fig

### Create one Security group:

**Basic details**

Security group name **Info**  
Test-SG  
Name cannot be edited after creation.

Description **Info**  
Test-SG

VPC **Info**  
vpc-05f7dd951bc12cc49

**Inbound rules** **Info**

This security group has no inbound rules.

**Add rule**

**Outbound rules** **Info**

Type info	Protocol info	Port range info	Destination info	Description - optional info
All traffic	All	All	Custom 0.0.0.0/0	Delete

**Security group (sg-06c80fc1431596841 | Test-SG) was created successfully**

**Details**

EC2 > Security Groups > sg-06c80fc1431596841 - Test-SG

**sg-06c80fc1431596841 - Test-SG**

**Details**

Security group name	Security group ID	Description	VPC ID
Test-SG	sg-06c80fc1431596841	Test-SG	vpc-05f7dd951bc12cc49
Owner	357309620538	Inbound rules count 0 Permission entries	Outbound rules count 1 Permission entry

**Inbound rules**

No security group rules found

- By default, inbound rules are denied as we have mention.

Security group sg-06c80fc1431596841 | Test-SG was created successfully

sg-06c80fc1431596841 - Test-SG

**Details**

Security group name	sg-06c80fc1431596841	Description	vpc-05f7dd951bc12cc49
Owner	357309620538	Inbound rules count	0 Permission entries
		Outbound rules count	1 Permission entry

**Outbound rules (1/1)**

Name	Security group rule...	IP version	Type	Protocol	Port range	Destination	Description
-	sgr-0d92ed8cd06d399...	IPv4	All traffic	All	0.0.0.0/0	-	-

- Outbound rules are allowed for every IP.
- By default outbound rules are allowed.

EC2 > Security Groups > sg-06c80fc1431596841 - Test-SG > Edit outbound rules

Edit outbound rules [Info](#)

Outbound rules [Info](#)

This security group has no outbound rules.

Add rule

Cancel [Preview changes](#) [Save rules](#)

We can delete the outbound rules

Security Groups (1/3) [Info](#)

Name	Security group ID	Security group name	VPC ID	Description	Owner	Inbound rules count	Outbound rule
-	sg-0e3f40a30ec2d8c1f	default	vpc-05f7dd951bc12cc49	default VPC security group	357309620538	1 Permission entry	1 Permission entry
-	sg-0e34dbef12e4a44	Linux-SG	vpc-05f7dd951bc12cc49	Linux-SG	357309620538	1 Permission entry	1 Permission entry
-	sg-06c80fc1431596841	Test-SG	vpc-05f7dd951bc12cc49	Test-SG	357309620538	0 Permission entries	1 Permission entry

**Inbound rules (1/1)**

Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Description
-	sgr-0709d6f6f0c217c45	-	All traffic	All	All	sg-0e3f40a30ec2d8c1...	-

Default SG inbound has all traffic allowed.

AWS Services Search [Alt+S] N. Virginia Varun1234

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**Security Groups (1/3) Info**

Filter security groups

Name	Security group ID	Security group name	VPC ID	Description	Owner	Inbound rules count	Outbound rule
sg-0e3f40a30ec2d8c1f	default	vpc-05f7dd951bc12cc49	default VPC security group	357309620538	1 Permission entry	1 Permission entry	
sg-0e34a9beef12e4a44	Linux-SG	vpc-05f7dd951bc12cc49	Linux-SG	357309620538	1 Permission entry	1 Permission entry	
sg-06c80f1431596841	Test-SG	vpc-05f7dd951bc12cc49	Test-SG	357309620538	0 Permission entries	1 Permission entry	

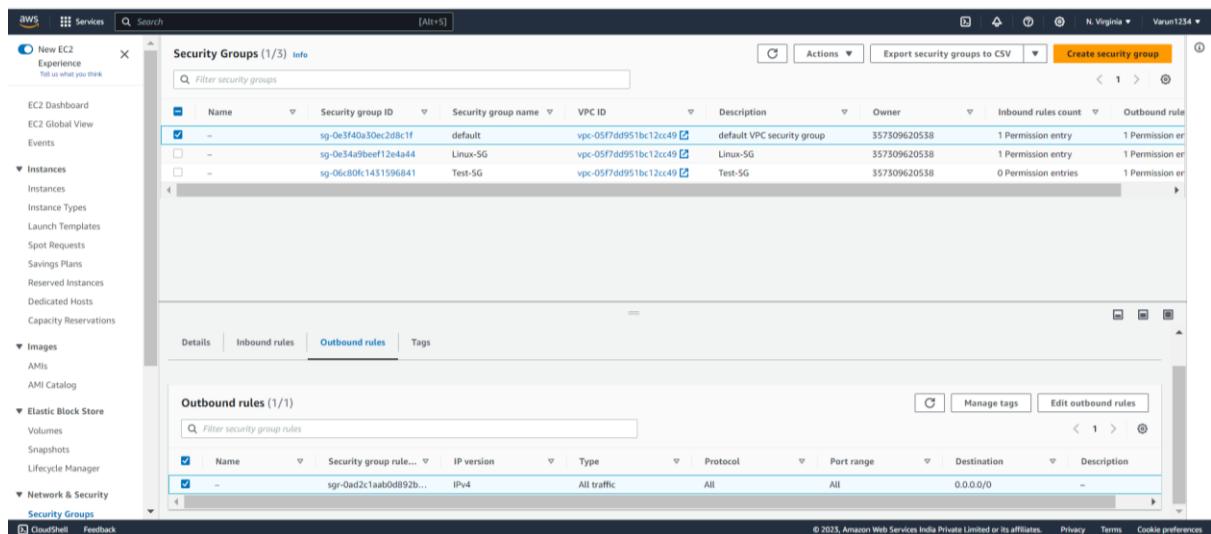
Details Inbound rules **Outbound rules** Tags

**Outbound rules (1/1)**

Filter security group rules

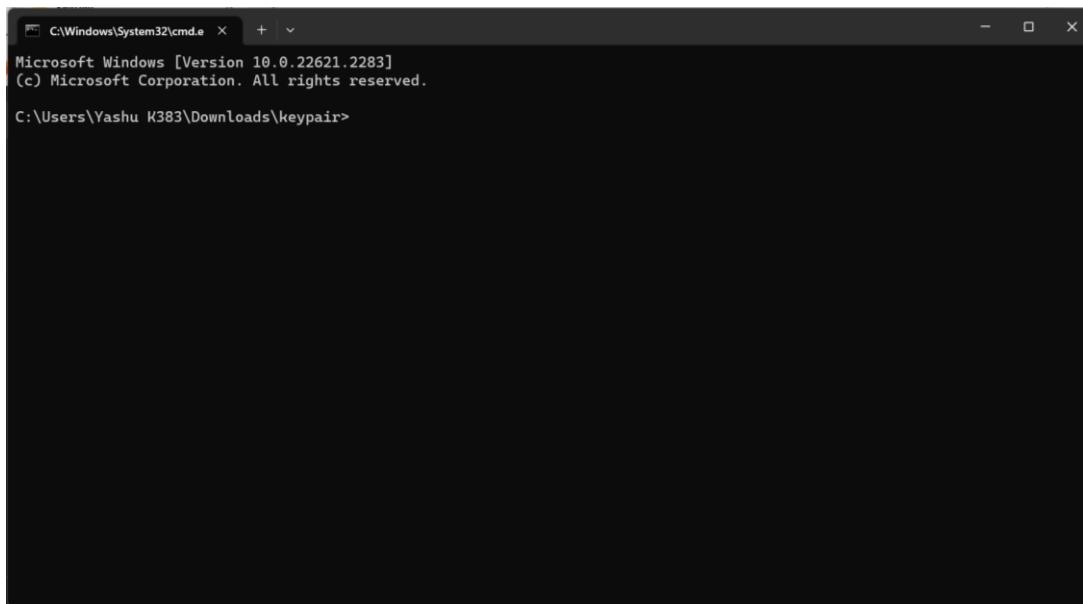
Name	Security group rule...	IP version	Type	Protocol	Port range	Destination	Description
sgr-0ad2c1aab0d892b...	IPv4	All traffic	All	All	0.0.0.0/0	-	-

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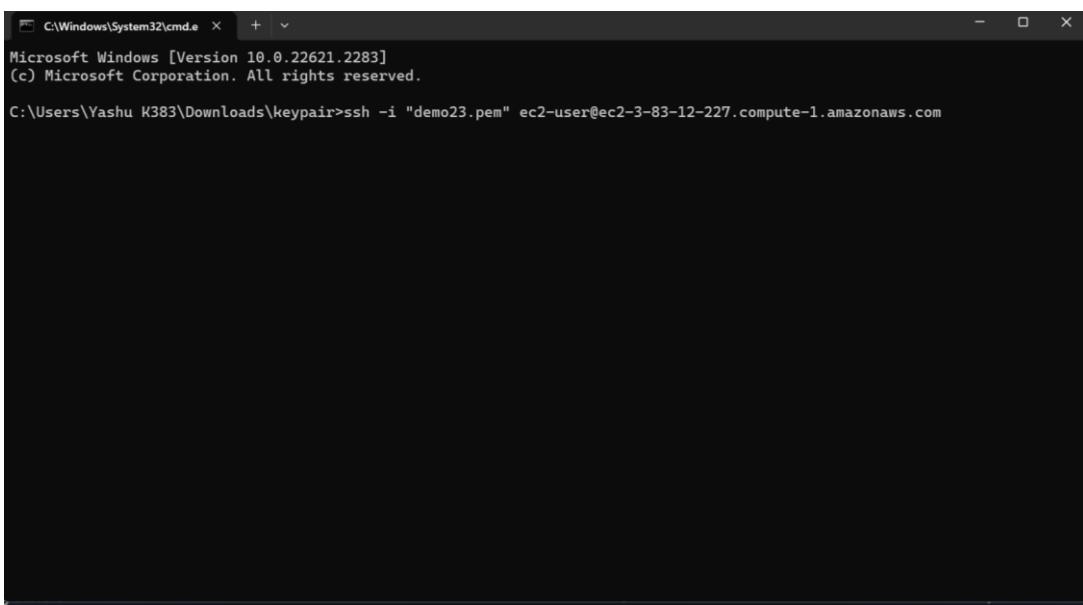
C:\Windows\System32\cmd.e Microsoft Windows [Version 10.0.22621.2283] (c) Microsoft Corporation. All rights reserved.

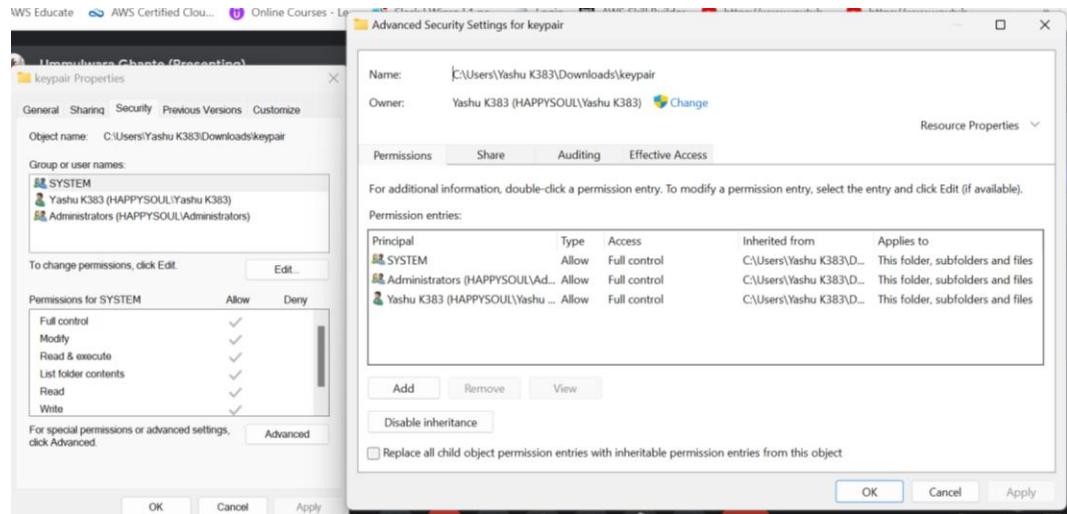
C:\Users\Yashu K383\Downloads\keypair>



C:\Windows\System32\cmd.e Microsoft Windows [Version 10.0.22621.2283] (c) Microsoft Corporation. All rights reserved.

C:\Users\Yashu K383\Downloads\keypair>ssh -i "demo23.pem" ec2-user@ec2-3-83-12-227.compute-1.amazonaws.com





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Instances (1/2) Info

Terminate instance?

On an EBS-backed instance, the default action is for the root EBS volume to be deleted when the instance is terminated. Storage on any local drives will be lost.

Are you sure you want to terminate these instances?

Instance ID: i-0f3fd608d79eb436f (Linux-server) | Termination protection: Disabled

To confirm that you want to terminate the instances, choose the terminate button below. Instances with termination protection enabled will not be terminated. Terminating the instance cannot be undone.

Cancel | Terminate

**New EC2 Experience**

Instances (1/2) Info

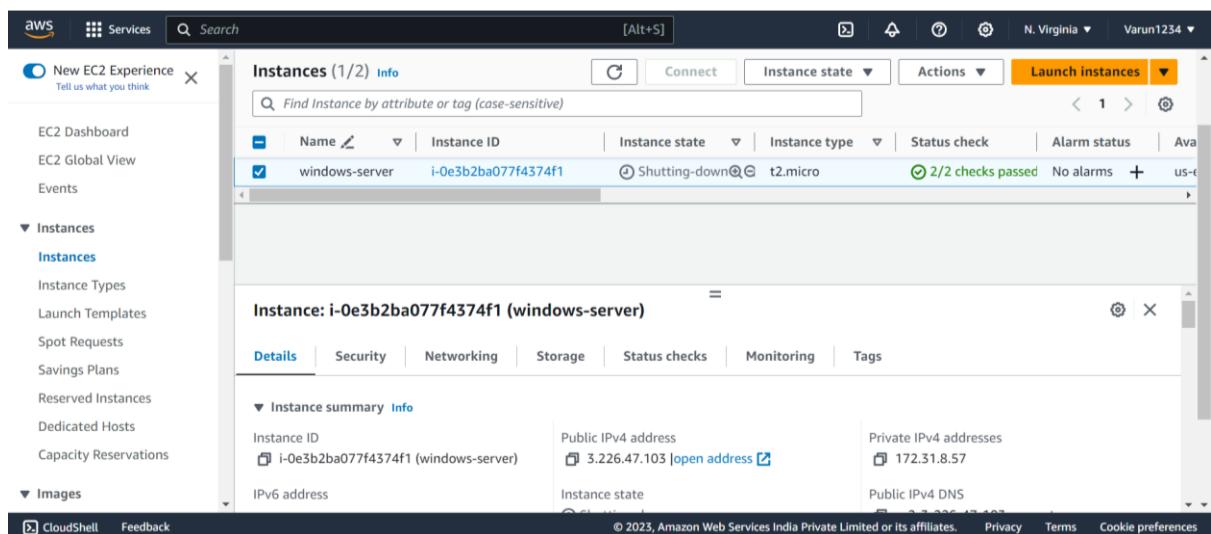
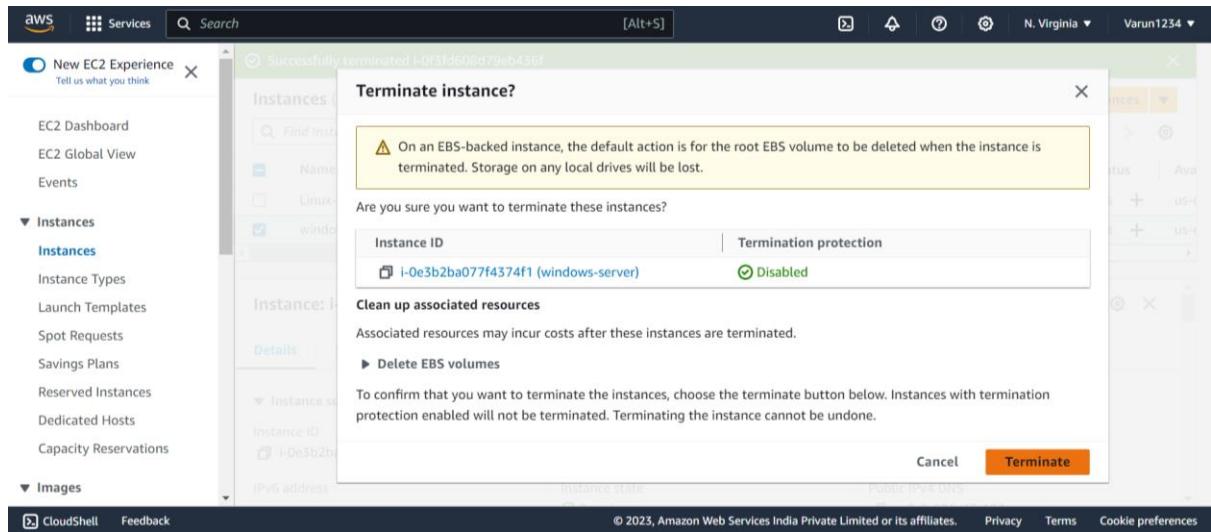
Successfully terminated i-0f3fd608d79eb436f

Instances (1/2) Info

Instance: i-0f3fd608d79eb436f (Linux-server)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

Instance summary: Instance ID i-0f3fd608d79eb436f, Instance state Shutting-down, Instance type t2.micro, Status check 2/2 checks passed, Alarm status No alarms, Public IPv4 address 3.83.12.227, Private IPv4 addresses 172.31.93.128, Public IPv4 DNS 3.83.12.227, Instance state Running, Status check 2/2 checks passed, Alarm status No alarms, Public IPv4 address 3.83.12.227, Private IPv4 addresses 172.31.93.128, Public IPv4 DNS 3.83.12.227.



Note :if you have multiple windows servers launched using same key pair then the password for all the server's all the servers will be different

But for single instance server the keypairs password will be same

