

Key Pair and Launch Connect to EC2

The screenshot shows the AWS Service Quotas console. The left sidebar has a 'Service Quotas' section with links for Dashboard, AWS services, Quota request history, Organization (Quota request template), CloudShell, and Feedback. The main content area shows the 'Amazon Elastic Compute Cloud (Amazon EC2)' service quotas. 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. The quotas listed are:

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 Iinf Spot Instance Requests	0	0	Account-level
All P4, P3 and P2 Spot Instance Requests	0	0	Account-level

At the bottom, there are links for © 2023, Amazon Web Services India Private Limited or its affiliates., Privacy, Terms, and Cookie preferences.

To launch instance

The screenshot shows the AWS Instances console. The left sidebar has sections for 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), CloudShell, and Feedback. The main content area shows the 'Instances Info' page with a search bar and a table header for Name, Instance ID, Instance state, Instance type, Status check, Alarm status, and Availability Zone. Below the table, it says 'No instances' and 'You do not have any instances in this region'. A 'Launch instances' button is visible. A modal window titled 'Select an instance' is open at the bottom.

The screenshot shows the 'Launch an instance' wizard on the AWS EC2 service. The first step, 'Name and tags', has a single tag named 'windows-server'. The second step, 'Application and OS Images (Amazon Machine Image)', shows an selected AMI: 'Amazon Linux 2023.2.2...'. The third step, 'Summary', shows the configuration: 1 instance, AMI selected, New security group, 1 volume(s) - 8 GiB, and a 'Launch instance' button.

This screenshot shows the 'Launch an instance' wizard with a more detailed view of the 'Name and tags' section. It includes fields for Key (Name) and Value (windows-server), and a dropdown for Resource types. A tooltip for the 'Free tier' is visible on the right, explaining usage details. The other steps remain the same as the previous screenshot.

In this final screenshot, the 'Name and tags' section is expanded to show checkboxes for selecting resource types. 'Instances' is checked, while 'Volumes', 'Elastic graphics', 'Spot instance requests', and 'Network interfaces' are unchecked. The rest of the interface is identical to 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 is also launched.

AWS Services Search [Alt+S] N. Virginia

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 I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch instance Review commands

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AWS Services Search [Alt+S] N. Virginia

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

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Cancel Launch instance Review commands

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AWS Services Search [Alt+S] N. Virginia

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 I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch instance Review commands

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Function name: HelloWorld

Runtime: Node.js 16.x

Handler: index.handler

Memory size: 128 MB

Timeout: 3 seconds

Role: Lambda execution role (aws-lambda-execution-role)

Code

Logs

Create Function

Function name: HelloWorld

Runtime: Node.js 16.x

Handler: index.handler

Memory size: 128 MB

Timeout: 3 seconds

Role: Lambda execution role (aws-lambda-execution-role)

Code

Logs

Create Function

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

Screenshot of the AWS EC2 Instance Type configuration page.

Instance type: t2.micro (Free tier eligible)

Key pair (login): Select (Create new key pair)

Network settings: Network info (vpc-05f7d951hc12rc49)

Screenshot of the AWS EC2 Instance Type configuration page.

Instance type: t2.micro (Free tier eligible)

Key pair (login): Select (Create new key pair)

Network settings: Network info (vpc-05f7d951hc12rc49)

Screenshot of the AWS EC2 Key Pair creation dialog.

Key pair name: demo23

Key pair type: RSA (selected) / ED25519

Private key file format: .pem (selected) / .ppk

Note: 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](#)

Buttons: Cancel / Create key pair

The screenshot shows the AWS EC2 instance configuration page. In the top right corner, there is a file browser window displaying several files: demo23.pem, ec13.jpg, ec122.jpg, ec11.jpg, ec10.jpg, ec9.jpg, ec8.jpg, and ec7.jpg. The main configuration area includes sections for 'Additional costs apply for AMIs with pre-installed software', 'Key pair (login)', and 'Network settings'. The 'Key pair (login)' section shows a dropdown menu with 'demo23' selected and a 'Create new key pair' button. The 'Network settings' section shows a VPC selection dropdown with 'vpc-05f7dd951bc12cc49' selected and an 'Edit' button.

This screenshot is identical to the one above, showing the AWS EC2 instance configuration page with the same network settings and key pair configuration details. The file browser window in the top right corner is also present.

The screenshot shows the AWS EC2 instance configuration page with a focus on the 'Network settings' section. The 'VPC - required' dropdown is set to 'vpc-05f7dd951bc12cc49'. The 'Subnet Info' dropdown is open, showing a list of subnets: 'No preference', 'subnet-04c53bd6dd5fb79b', 'subnet-016aca05f63bb395a', 'subnet-0518c3885aa73f2f6', 'subnet-05af4fffe6d49e0f9', and 'subnet-06af4fffe6d49e0f9'. The 'Create new subnet' button is visible. A tooltip for 'No preference' states: 'No preference. This option allows traffic from all subnets in your VPC to reach your instance.' A note at the bottom of the list says: 'group is created. Max length is 255'.

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)

The screenshot shows the AWS EC2 Subnet configuration page. In the left sidebar, under 'Instances', 'Auto-assign public IP' is set to 'Enable'. Under 'Firewall (security groups)', 'Select existing security group' is selected, and 'default' is chosen from the dropdown. In the 'Configure storage' section, a root volume of 30 GB gp2 is selected. The status bar at the bottom indicates '© 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences'.

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 AWS EC2 Subnet configuration page. In the 'Configure storage' section, a root volume of 30 GB gp2 is selected. A note states: 'Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage'. The status bar at the bottom indicates '© 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences'.

The screenshot shows the AWS EC2 Subnet configuration page. In the 'Configure storage' section, a root volume of 30 GB gp2 is selected. A note 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'. Below this, it says '0 x File systems'. The status bar at the bottom indicates '© 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences'.

The minimum required storage capacity for windows is 30GB.

The screenshot shows the 'Configure storage' section of the EC2 instance creation wizard. A dropdown menu is open for selecting a volume type, with 'gp2' currently selected. Other options shown include 'gp3', 'io1', 'io2', 'sc1', 'st1', and 'standard'. A tooltip indicates that 'Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage'. The 'Root volume (Not encrypted)' is set to 30 GiB.

Instead of GP2 GP3 is preferable bcoz of more IOPS

The screenshot shows the 'EBS Volumes' configuration for a custom root volume. The volume type is set to 'gp2', which is highlighted in blue. The size is 30 GiB, and the volume type is gp2. The IOPS value is set to 100 / 3000. A tooltip for 'gp2' states: 'Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage'.

The screenshot shows the same 'EBS Volumes' configuration, but the volume type is now set to 'gp3'. The size is 30 GiB, and the volume type is gp3. The IOPS value is set to 30005, which is highlighted in red and has a validation error message: 'IOPS must be between 3000 and 16000.' A tooltip for 'gp3' states: 'Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage'.

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

EBS Volumes

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.

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

File systems

Advanced details

Purchasing option: Request Spot Instances

Domain join directory: Select

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

The screenshot shows the AWS EC2 'Launch an instance' wizard. The main panel displays a progress bar at 75% completion, indicating the instance is launching. A message says 'Please wait while we launch your instance.' Below it, another message cautions 'Do not close your browser while this is loading.' To the right, a sidebar titled 'IOPS' provides information about I/O operations per second for Provisioned IOPS SSD (io1 and io2) and General Purpose SSD (gp2) volumes. It states that io1 volumes support up to 100 IOPS per GiB, io2 up to 64,000 IOPS, and gp2 scales linearly up to 3 IOPS per GiB.

The screenshot shows the AWS EC2 'Instances' page. A table lists one instance: 'windows-server' with Instance ID 'i-0e3b2ba077f4374f1'. The status is 'Pending'. The instance type is 't2.micro'. It is located in the 'us-east-1' availability zone. A modal window titled 'Select an instance' is open, showing the same instance details.

To connect to windows server

The screenshot shows the AWS EC2 'Instance summary' page for the instance 'i-0e3b2ba077f4374f1'. The instance is running with a Public IP address of '44.193.196.57'. Other details include its VPC ID ('vpc-05f7dd951bc12cc49'), Subnet ID ('subnet-0518c3885aa73f2f6'), and IAM Role (''). The instance was launched on '2023-09-13T12:00:00Z'. The sidebar on the left shows the navigation menu for EC2 services.

Screenshot of the AWS Session Manager interface showing connection options for an EC2 instance.

Session Manager | RDP client | EC2 serial console

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

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 details:

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

Screenshot of the AWS Session Manager interface showing connection options for an EC2 instance, with a sidebar showing recent downloads.

Session Manager | RDP client | EC2 serial console

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

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 details:

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

Password: Get password

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

Recent Downloads

- windows-server.rdp 98 B • Done
- demo23.pem 1,678 B • 1 hour ago
- ec13.jpg 154 KB • 2 hours ago
- ec122.jpg 181 KB • 2 hours ago
- ec11.jpg 165 KB • 2 hours ago
- ec10.jpg 165 KB • 2 hours ago
- ec9.jpg 187 KB • 2 hours ago
- ec8.jpg 158 KB • 2 hours ago

Show all downloads

Cancel

Screenshot of the AWS Session Manager interface showing connection options for an EC2 instance, with a sidebar showing recent downloads.

Session Manager | RDP client | EC2 serial console

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

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

Password: Get password

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

EC2 > Instances > i-0e3b2ba077f4374f1 > 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-0e3b2ba077f4374f1 (windows-server)

Key pair associated with this instance: demo23

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

[Upload private key file](#)

demo23.pem 1.678KB

Private key contents - optional

```
-----BEGIN RSA PRIVATE KEY-----  
MIIEpqIBAAKCAQEAIC6mWl/wL6TOU/aofQwpUsr/HEdSZ2Y13knqYz0B9hpFa  
Lg9ganc8wJYF0b63HNNiq0lPkUZK1YqaEB3UBPQregq+AJ2/y6c8Ytcmi  
iHTWijYf62ssseee4ajnf5R80kTauoYX4ck4RbrlvRmlz2mfzOTNeDOOK1MdV  
2WBbz7YdavqAb5sQsf0/x87BOOs/woj+ayXfK6YsAdvh3BAQrl+5gE6Kxq+JD  
WMJqyTpBX/Bizw5KEs01RQRgL3x30mQ9t6v7P+5nRdDpDvOZQnqptAwzhHKWIT  
8nYTMygTbiSeTsKLH78MkYz99m22vcv5WvDQAQABaoilADbrlc7Q10ZeZI  
v2Om3VloIN5OKHW7v4qkN6NWpMs2B8Ec6hLyR5Cr7eqSA2gN/IQc3tgR
```

Decrypt password

Cancel

The screenshot shows a sequence of four windows illustrating the process of connecting to an AWS Lambda function via RDP.

Step 1: AWS Lambda RDP Connection

This dialog box displays the Lambda function's ARN (arn:aws:lambda:us-east-1:123456789012:function:my-lambda-function) and its RDP port (3389). It also includes a warning from AWS Lambda about the publisher being untrusted.

Step 2: Remote Desktop Connection - Publisher Warning

This dialog box shows a warning from Microsoft Security Center stating: "The publisher of this remote connection can't be identified. Do you want to connect anyway?". It provides details about the connection and a checkbox for "Don't ask me again for connections to this computer".

Step 3: Remote Desktop Connection - Connection Details

This dialog box shows the connection details: Computer: 2-44-193-196-57.compute-1.amazonaws.com, User name: None specified, and a note that credentials will be requested at connection.

Step 4: Remote Desktop Connection - Initiating Connection

This dialog box shows the connection status: "Connecting to: ec2-44-193-196-57.compute-1.amazonaws.com" and "Initiating remote connection...".

Step 5: AWS Lambda Security Group Inbound Rules

This screenshot shows the AWS Lambda console's security group inbound rules configuration. A new rule is being added for the RDP protocol (TCP port 3389) from the user's IP address (103.115.201.24/32).

Here connection is failed bcoz First no RDP was allowed in the SG of the inbound rules of windows server

Inbound rules info

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
-	RDP	TCP	3389	My IP 103.115.201.24/32	

Add rule Cancel Preview changes Save rules

So we have now allowed RDP for the windows server

Security Groups (1/3) Info

Name	Security group ID	Security group name	VPC ID	Description	Owner	Inbound rules count	Outbound rules co...
sg-0680fc1431596841	Test-SG	vpc-05f7dd951bc12cc49	Test-SG	357309620538	0 Permission entries	1 Permission entry	
sg-0e3f40a30ec2d8c1f	default	vpc-05f7dd951bc12cc49	default VPC security gr...	357309620538	1 Permission entry	1 Permission entry	
sg-0e34a9beef12e4a44	Linux-SG	vpc-05f7dd951bc12cc49	Linux-SG	357309620538	1 Permission entry	1 Permission entry	

Inbound rules (1/1)

Name	Security group rule ID	IP version	Type	Protocol	Port range	Source	Description
sgr-07132834724ae6...		IPv4	RDP	TCP	3389	103.115.201.24/32	

Remote Desktop Connection

Connecting to: ec2-44-193-196-57.compute-1.amazonaws.com

Initiating remote connection...

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

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

Key pair associated with this instance: demo23

Private key: Upload private key file

Private key contents - optional:

Windows Security

Enter your credentials

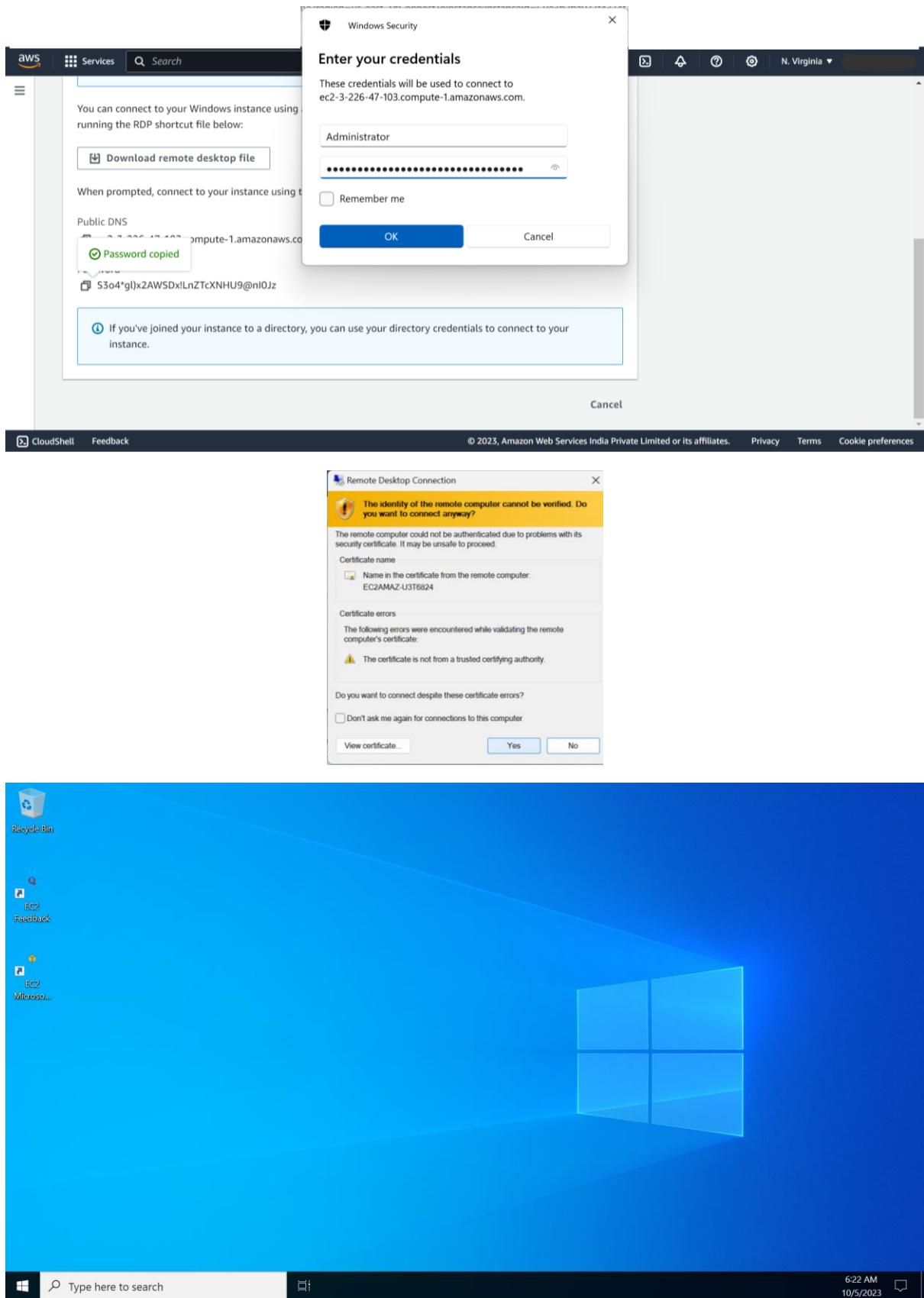
These credentials will be used to connect to ec2-3-226-47-103.compute-1.amazonaws.com.

User name: i-0e3b2ba077f4374f1

Password:

Remember me

OK Cancel



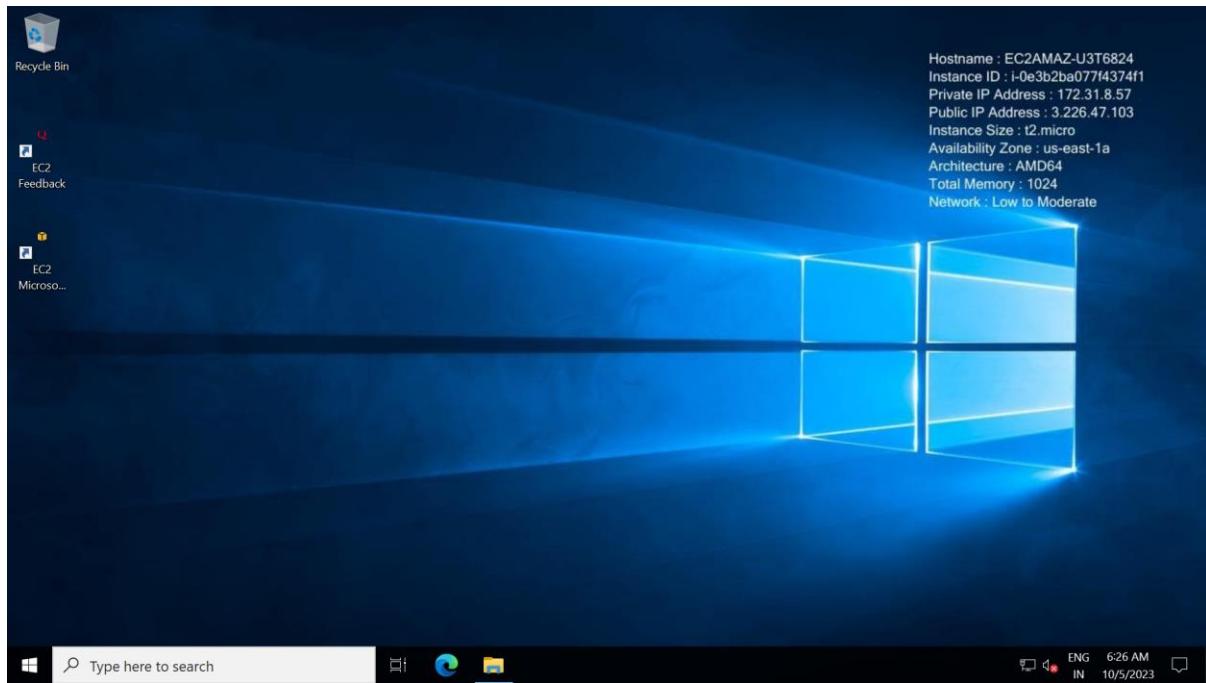
The screenshot displays two windows side-by-side on a Windows 10 desktop.

File Explorer Window:

- Shows the "This PC" contents.
- Folders: Desktop, Documents, Downloads, Pictures.
- Devices and drives: Local Disk (C) - 15.4 GB free of 29.9 GB.
- Right pane shows detailed information for an EC2 instance:
 - ID: i-0e3b2ba077f4374f1
 - IP Address: 172.31.8.57
 - Address: 3.226.47.103
 - Size: t2.micro
 - Priority Zone: us-east-1a
 - Architecture: AMD64
 - Memory: 1024
 - Performance: Low to Moderate

AWS Management Console - EC2 Instances Window:

- Shows the instance summary for i-0e3b2ba077f4374f1 (windows-server).
- Details:
 - Instance ID: i-0e3b2ba077f4374f1 (windows-server)
 - Public IPv4 address: 3.226.47.103
 - Private IPv4 addresses: 172.31.8.57
 - Public IPv4 DNS: ec2-3-226-47-103.compute-1.amazonaws.com
 - Instance state: Running
 - Private IP DNS name (IPv4 only): ip-172-31-8-57.ec2.internal
 - Instance type: t2.micro
 - VPC ID: vpc-05f7dd951bc12cc49
 - Elastic IP addresses: -
 - AWS Compute Optimizer finding: Opt-in to AWS Compute Optimizer for recommendations.



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

Linux

A screenshot of the AWS EC2 "Launch an instance" wizard. The page has a header with the AWS logo and navigation links for Services, Search, and N. Virginia. The main content area is titled "Launch an instance" and includes the following sections:

- Name and tags**: A section where the user can enter the instance name ("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 search for AMIs. It includes a search bar with placeholder text "Search our full catalog including 1000s of application and OS images".
- Summary**: A summary panel on the right containing the following details:
 - Number of instances: 1
 - Software Image (AMI): Amazon Linux 2023 AMI 2023.2.2...read more
 - Virtual server type (instance type): t2.micro
 - Firewall (security group): New security group
 - Storage (volumes): 1 volume(s) - 8 GiB

At the bottom right of the summary panel is a large orange "Launch Instance" button. Other buttons include "Cancel", "Review commands", and links for "CloudShell", "Feedback", "Privacy", "Terms", and "Cookie preferences".

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

Cancel **Launch instance** Review commands

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

Additional costs apply for AMIs with pre-installed software

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 Create new key pair

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

Cancel **Launch instance** Review commands

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

Cancel **Launch instance** Review commands

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 X

⚠️ 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. X

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 0.0.0.0/0

Custom My IP [Add CIDR, prefix list or security group](#) 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-e3b-4300-a1...

Throughput [Info](#)
125

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

Add new volumes

Summary

Number of instances [Info](#)
1

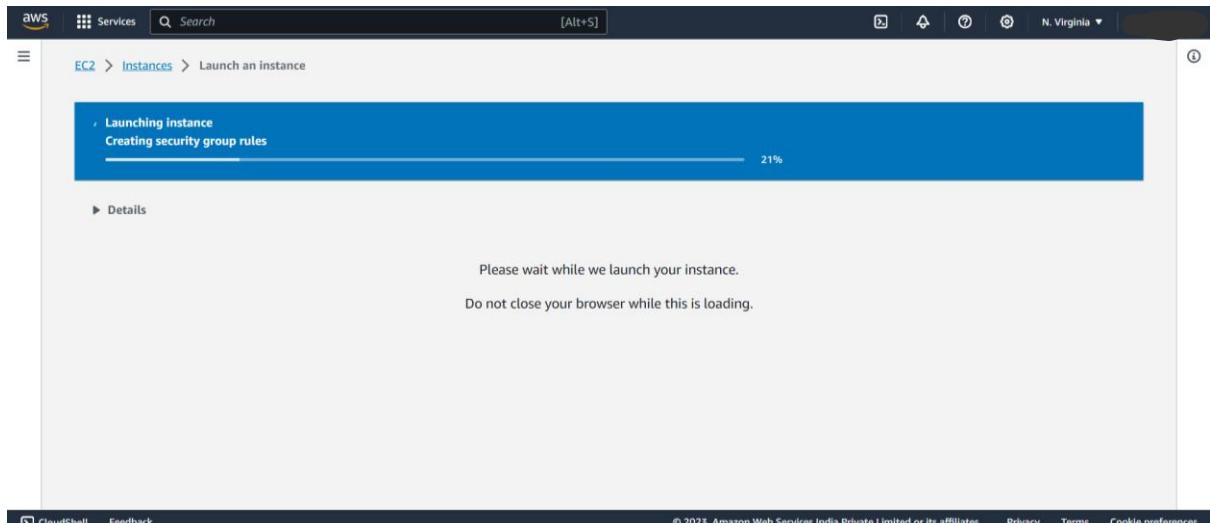
Software Image (AMI)
Amazon Linux 2023 AMI 2023.2.2...[read more](#)
ami-067d1e60475437da2

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



Please wait while we launch your instance.
Do not close your browser while this is loading.

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New EC2 Experience Tell us what you think

Security Groups (2) Info

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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New EC2 Experience Tell us what you think

Key pairs (1) Info

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-08229d82acc

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The screenshot shows the AWS EC2 Instances page. The left sidebar includes options like EC2 Dashboard, Global View, Events, Instances (selected), Images, and CloudShell. The main content displays two instances:

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

A modal window titled "Select an instance" is open at the bottom.

The screenshot shows the AWS Security Groups page. The left sidebar includes EC2 Dashboard, Global View, Events, Instances, Images, and CloudShell. The main content shows a list of security groups:

Name	Security group ID	Security group name	VPC ID	Description	Owner
-	sg-0e3f40a30ec2d8c1f	default	vpc-05f7dd951bc12cc49	default VPC security gr...	357305
<input checked="" type="checkbox"/>	sg-0e34a9beef12e4a44	Linux-SG	vpc-05f7dd951bc12cc49	Linux-SG	357305

A details panel for the selected "Linux-SG" group is shown below:

Security group name	Security group ID	Description	VPC ID
Linux-SG	sg-0e34a9beef12e4a44	Linux-SG	vpc-05f7dd951bc12cc49

Owner information and rule counts are also displayed.

The screenshot shows the AWS Security Groups page with the "Inbound rules" tab selected. The left sidebar includes EC2 Dashboard, Global View, Events, Instances, Images, and Network & Security (selected). The main content shows the inbound rules for the Linux-SG group:

Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Description
<input checked="" type="checkbox"/>	sgr-0c14acbd1bb2e7a3	IPv4	SSH	TCP	22	103.115.201.24/32	-

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

The screenshot shows the AWS EC2 Security Groups page. On the left sidebar, under 'Network & Security', 'Security Groups' is selected. The main table lists two security groups: 'default' and 'Linux-SG'. For 'Linux-SG', the 'Outbound rules' tab is active, displaying a single rule: 'sgr-0598ca6ed31906f28' allowing All traffic (Protocol All) from 0.0.0.0/0 to All. The 'Details' tab is also visible.

In outbound by default all traffic is allowed for any IP

E.g.—as shown in fig

This screenshot shows the 'Create New Security Group' wizard. Step 1: Basic details. Step 2: Inbound rules (info) - This security group has no inbound rules. Step 3: Outbound rules (info) - A rule is defined: Type: All traffic, Protocol: All, Port range: All, Destination: 0.0.0.0/0. The 'Description - optional info' field is empty.

Create one SG that is test SG (no inbound rules and outbound all traffic allowed)

The screenshot shows the AWS EC2 Security Groups page after creating a new security group named 'Test-SG'. The 'Details' tab is selected, showing the security group's ID (sg-06c80fc1431596841), owner (357309620538), and VPC ID (vpc-05f7dd951bc12cc49). The 'Inbound rules' tab shows 'No security group rules found'. The 'Outbound rules' tab shows a single rule allowing all traffic to 0.0.0.0/0.

By default, inbound rules are denied

The screenshot shows the AWS EC2 Security Groups page. A success message at the top states "Security group sg-06c80fc1431596841 | Test-SG was created successfully". The main section displays the details of the security group "sg-06c80fc1431596841 - Test-SG". It includes fields for Security group ID (sg-06c80fc1431596841), Description (Test-SG), Owner (357309620538), Inbound rules count (0), and Outbound rules count (1). The "Outbound rules" tab is selected, showing one rule: "sgr-0d92ed8cd06d399... IPv4 All traffic All 0.0.0.0/0". There are buttons for "Manage tags" and "Edit outbound rules". The left sidebar shows navigation options like Instances, Images, and Network & Security.

outbound rules are allowed for every IP

The screenshot shows the "Edit outbound rules" interface for the "Test-SG" security group. The page title is "Edit outbound rules". It states "Outbound rules control the outgoing traffic that's allowed to leave the instance." Below this, it says "This security group has no outbound rules." There is a "Save rules" button at the bottom right. The left sidebar shows the same navigation options as the previous screenshot.

We can delete the outbound rules

The screenshot shows the "Security Groups (1/3) Info" page. It lists three security groups: "default" (selected), "Linux-SG", and "Test-SG". The "Inbound rules" tab is selected, showing one rule for each group. The "Create security group" button is visible at the top right. The left sidebar shows the same navigation options as the previous screenshots.

Default SG inbound has all traffic allowed

The screenshot shows the AWS EC2 Security Groups page. The left sidebar includes links for New EC2 Experience, EC2 Dashboard, EC2 Global View, Events, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images, AMIs, AMI Catalog, Elastic Block Store, Volumes, Snapshots, Lifecycle Manager, Network & Security, and Security Groups (which is selected). The main content area displays a table of security groups:

Name	Security group ID	Security group name	VPC ID	Description	Owner	Inbound rules count	Outbound rule
-	sg-0e3f40a30ec2d8c1f	default	vpc-05ff7dd951bc12cc49	default VPC security group	357309620538	1 Permission entry	1 Permission entry
-	sg-0e34abef12e4a44	Linux-SG	vpc-05ff7dd951bc12cc49	Linux-SG	357309620538	1 Permission entry	1 Permission entry
-	sg-06c80fc1431596841	Test-SG	vpc-05ff7dd951bc12cc49	Test-SG	357309620538	0 Permission entries	1 Permission entry

Below the table, tabs for Details, Inbound rules, Outbound rules, and Tags are visible. The Outbound rules section shows one rule:

Name	Security group rule...	IP version	Type	Protocol	Port range	Destination	Description
-	sgr-0ad2c1aab0db92b...	IPv4	All traffic	All	All	0.0.0.0/0	-

At the bottom right, there are links for CloudShell, Feedback, and the AWS footer.

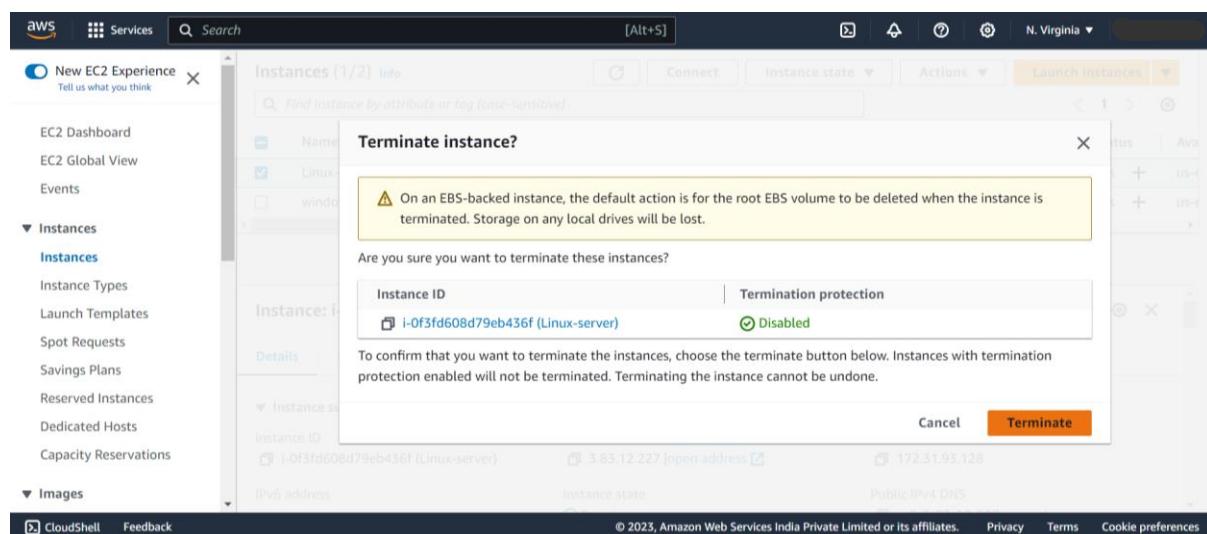
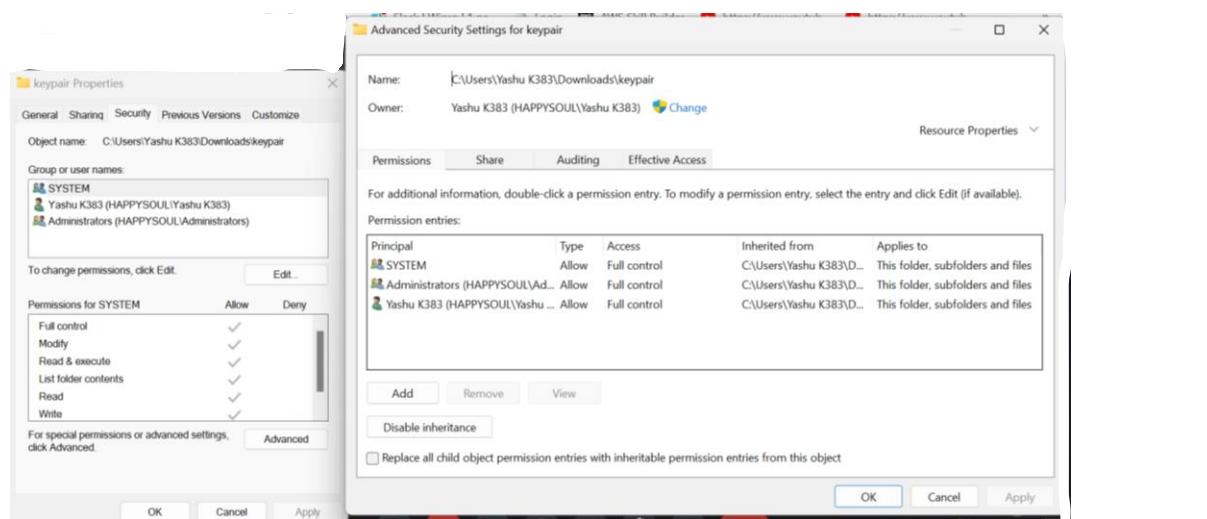
The screenshot shows a Windows Command Prompt window titled "C:\Windows\System32\cmd.e". The window displays the following text:

```
Microsoft Windows [Version 10.0.22621.2283]
(c) Microsoft Corporation. All rights reserved.

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

```
C:\Windows\System32\cmd.exe
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
```



The screenshot shows the AWS EC2 Instances page. The left sidebar includes options like EC2 Dashboard, EC2 Global View, Events, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, and Images. The main content area displays a table of instances. One instance, 'Linux-server' with ID i-0f3fd608d79eb436f, is marked as terminated ('Shutting-down'). Another instance, 'windows-server' with ID i-0e3b2ba077f4374f1, is running ('Running') and is a t2.micro type. Both instances have passed 2/2 checks. The status bar at the bottom indicates the region is N. Virginia.

This screenshot shows the 'Terminate instance?' dialog box. It contains a warning message about EBS-backed instances, a question asking if the user wants to terminate the instances, and a table showing the instance ID (i-0e3b2ba077f4374f1) and termination protection status (Disabled). Below the table are sections for 'Clean up associated resources' (with a note about costs) and 'Delete EBS volumes'. A note at the bottom states that instances with termination protection enabled will not be terminated. At the bottom right are 'Cancel' and 'Terminate' buttons.

This screenshot shows the 'Instances (1/2) Info' table. It lists the same two instances: 'Linux-server' (terminated) and 'windows-server' (running). The table includes columns for Name, Instance ID, Instance state, Instance type, Status check, Alarm status, and Availability zone. The status bar at the bottom indicates the region is N. Virginia.

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

