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AWS

Here we discuss 4 type of Amazon Web Service component:

- EC2 (Here we discuss Instance, AMIs, Load balancer (+ target group), Auto Scaling (+ Template))



- S3 (Here we discuss only S3 bucket. In bucket Charge applicable to file view, download)



- DynamoDB



- SQS



Remember:

- In EC2 when we create *instance, load balancer, target group* and *auto scaling* (*sir said free*) which will be charged by aws but *AMIs* (*Image*), *Launch Template* are free
- When need to terminate instance check also volume terminate or not (otherwise charged will be apply)
- When need to terminate AMIs then also check snapshot terminate or not (otherwise charged will be apply)

(I) EC2

How to create an EC2 instance:

The screenshot shows the AWS EC2 Instances page. At the top right, there are two red circles: one around the 'N. Virginia' region selection and another around the 'Launch instances' button. Below the header, the main content area displays 'No instances' and a 'Launch instances' button. On the left sidebar, under 'Instances', there is a 'Launch instances' link.

next

The screenshot shows the 'Launch an instance' wizard. Step 3 is titled 'Select 1 instance (more instance more cost)'. It includes a 'Number of instances' input field containing the value '1', which is circled in red. To the left, there is a 'Name and tags' section with a 'Name' input field containing 'MSA', also circled in red.

next

The screenshot shows the 'Amazon Machine Image (AMI)' selection screen. A red circle highlights the 'Ubuntu' option in the 'Quick Start' section. Below it, a detailed view of the 'Ubuntu Server 22.04 LTS (HVM), SSD Volume Type' AMI is shown, including its ID, virtualization type, and root device type. The 'Free tier eligible' status is also indicated. At the bottom, there is a 'Description' section and an 'Architecture' dropdown set to '64-bit (x86)'.

next

▼ Instance type [Info](#)

Instance type 7. Select **t2.micro**

 t2.micro

Free tier eligible

Family: t2 1 vCPU 1 GiB Memory Current generation: true
 On-Demand Windows base pricing: 0.0162 USD per Hour
 On-Demand SUSE 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) [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*

 vockey

6. Create Key

[Create new key pair](#)

Create key pair



Key pair name

Key pairs allow you to connect to your instance securely.

 newKey

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

8. Give name and then create

 RSA

RSA encrypted private and public key pair

 ED25519

ED25519 encrypted private and public key pair

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](#)

Network settings

Edit (circled)

11. If need launch-wizard-1 rename the click Edit

Summary

Number of instances: 1

Software Image (AMI): Canonical, Ubuntu, 22.04 LTS, ... [read more](#)

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

9. Select this three

We'll create a new security group called 'launch-wizard-1' with the following rules:

- Allow SSH traffic from 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.

10. Click Launch

Launch instance (circled)

Configure storage

Root volume (Not encrypted): 1x 8 GiB gp2

next

Instances (1) Info

Pending (circled)

Wait upto status change...

next

Instances (1/1) Info

Connect (circled)

12. Click Connect

13. When Running status will be show then select row

Instance: i-08446ec5c66fe9101 (Linux)

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

Instance summary

Instance ID: i-08446ec5c66fe9101 (Linux)	Public IPv4 address: 52.6.168.45 open address	Private IPv4 addresses: 172.31.39.171
IPv6 address: -	Instance state: Running	Public IPv4 DNS: ec2-52-6-168-45.compute-1.amazonaws.com

[EC2](#) > [Instances](#) > [i-0e83546c847fea988](#) > Connect to instance

Connect to instance Info

Connect to your instance i-0e83546c847fea988 (Demo) using any of these options

If we select Windows OS then it will show this type of page after click connect. We will select **RDP**

Session Manager **RDP client** EC2 serial console

Instance ID

i-0e83546c847fea988 (Demo)

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 Client, download the file below and run it on your local machine.

[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:

[!\[\]\(b538fe54c1f3a7343e37e85cc2d00497_img.jpg\) Download remote desktop file](#)

When prompted, connect to your instance using the following details:

Public DNS

ec2-54-167-140-166.compute-1.amazonaws.com

User name

Administrator

Password

[Get password](#)



We will click here

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

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

Instance ID

i-0e83546c847fea988 (Demo)

Key pair associated with this instance

demo

Private key

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

[!\[\]\(7f7ceb95e119107bb8f141b3a39179cf_img.jpg\) Upload private key file](#)

Private key contents - optional We upload private key pair what we create before

Private key contents

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: ec2-54-167-140-166.compute-1.amazonaws.com
User name: Administrator
Password copied: jzwGNbcifZT2MU-F;OStfhvPCDQ(S&

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



Windows Security

Enter your credentials

These credentials will be used to connect to ec2-54-167-140-166.compute-1.amazonaws.com.

Administrator
DESKTOP-48QHTC5\Administrator

Remember me

[More choices](#)

[OK](#) [Cancel](#)

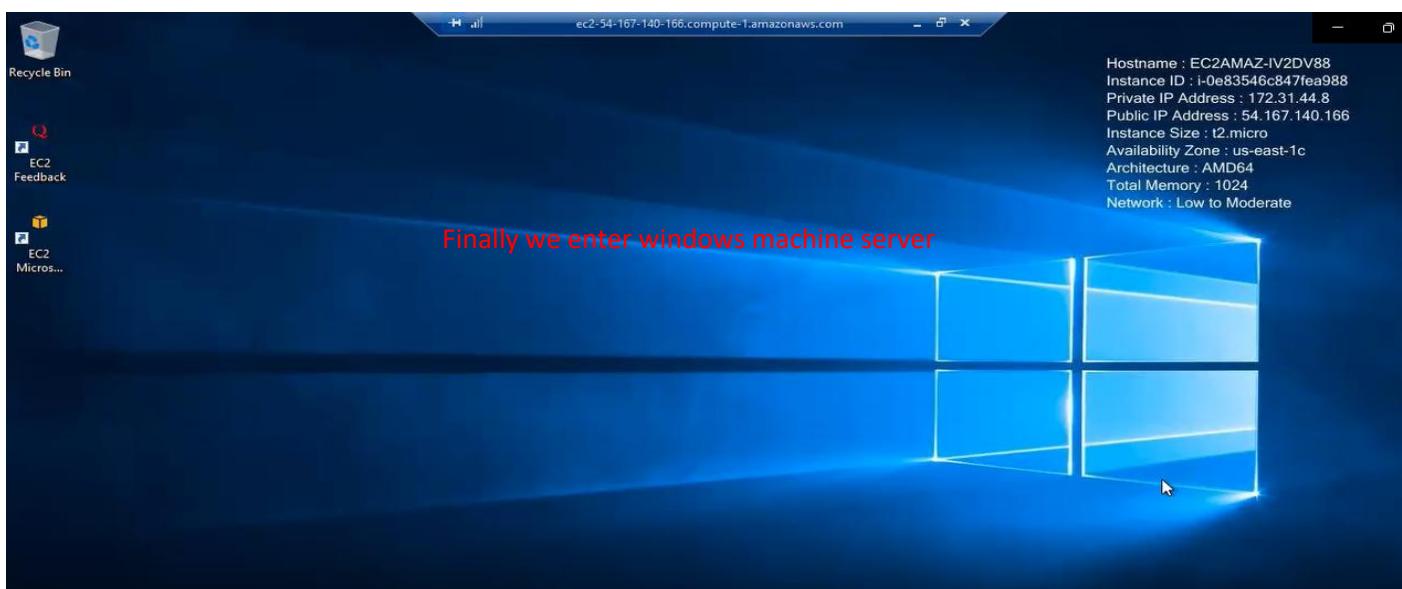
Instance ID: i-0e83546c847fea988 (Demo)

Connection Type: Connect using RDP client

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

[Download remote desktop file](#)

Public DNS: ec2-54-167-140-166.compute-1.amazonaws.com
User name: Administrator



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EC2 Instances i-08446ec5c66fe9101 Connect to instance

Connect to instance Info

Connect to your instance i-08446ec5c66fe9101 (Linux) using any of these options

EC2 Instance Connect Session Manager **SSH client** EC2 serial console

Instance ID i-08446ec5c66fe9101 (Linux)

14. Select SSH (Now we back what happen when connection will be on linux)

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is demo.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.
chmod 400 demo.pem
4. Connect to your instance using its Public DNS:
ec2-52-6-168-45.compute-1.amazonaws.com

15. Copy example from here: *ubuntu@ec2-52....computer-1.amazonaws.com*

Example:
ssh -i "demo.pem" ubuntu@ec2-52-6-168-45.compute-1.amazonaws.com

Before goto point 18 SSH we should convert ppm key to private key like this (If I have already have a specific private and public key then ignore this step)

Public key for pasting into OpenSSH authorized_keys file:

```
ssh-rsa
AAAAAB3NzaC1yc2EAAAQABAAQCBENyRQDFYXKPS2yKN79R78719mRbcSucFwWEGZc1QsmjLphWlnhwKN0TeB84SNcRndDWR0zXmSiRpZLS3gbTfckiwN4dIZLZcS90/mzQGmnBag
+G5E0r1SjtPfMqxwKpI8OR8YMKNM5Zw8yXZzCaMXdcZTDY9As5Vd9PTFKGZ82PblcYbcdvshW4658/ABTD
N7Bj6BMZxPQGcoQmbf91NcQwwS5fbfAWdpNOSl0ImjGTBkNXIXGjNJoC47O2F10NA21IpGwMqtPcsUo2
```

Key fingerprint: ssh-rsa 2048 SHA256:sUkAePIW2Xb+dIk5AQHcA6mqLeZD1TkGv2OPBeNr6w

Key comment: importedOpenssh-key

Key passphrase:

Confirm passphrase:

Actions

Generate a public/private key pair **Generate**

Load an existing private key file **Load**

Save the generated key **Save public key** **Save private key**

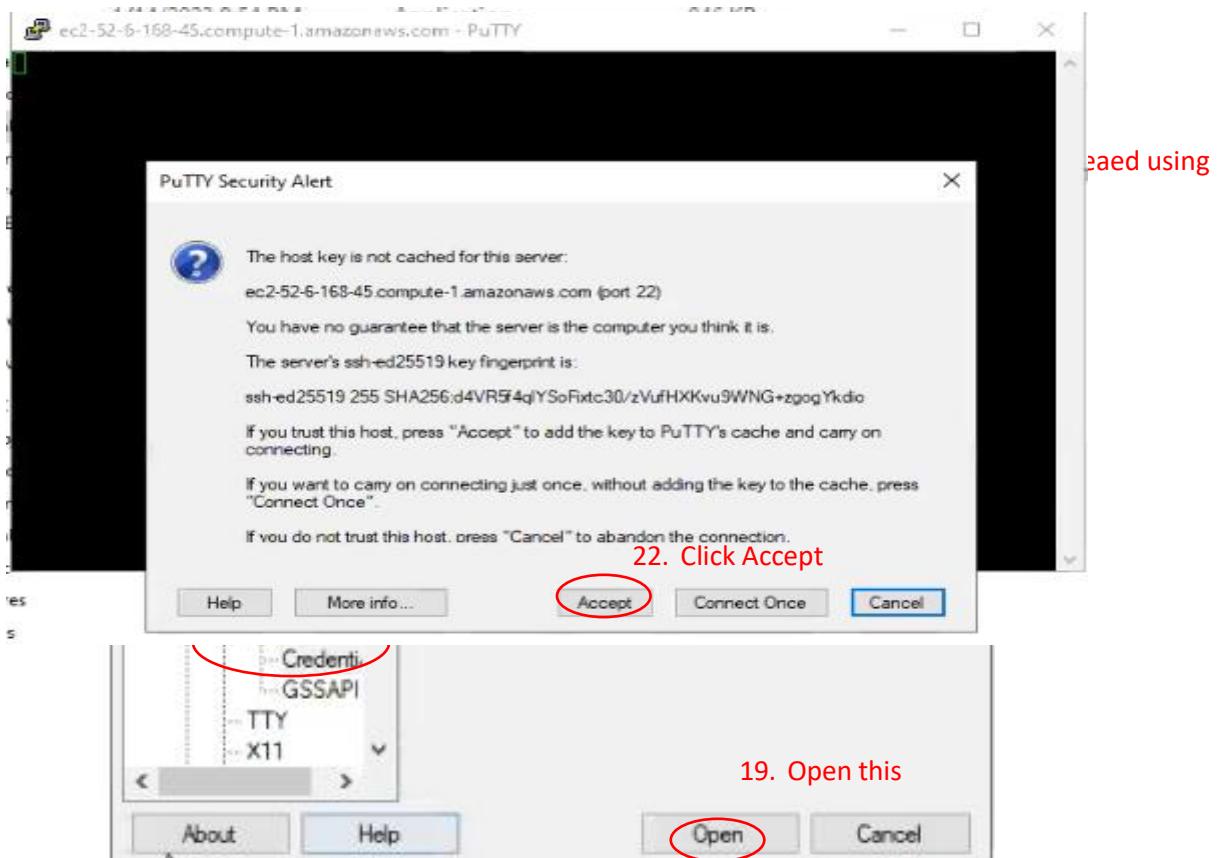
Parameters

Type of key to generate: RSA DSA ECDSA EdDSA SSH-1 (RSA)

Number of bits in a generated key: 2048

Colours Connection Data Proxy **SSH** Serial Telnet Rlogin SUPDUP Default Settings Load Save Delete Close window on exit: Always Never Only on clean exit

17. Click this SSH



New EC2 Experience	X
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	

Instance ID	i-08446ec5c66fe9101 (Linux)	Public IPv4 address	52.6.168.43 open address	Private IPv4 addresses
IPv6 address	-	Instance state	Running	172.31.39.171
Hostname type	IP name: ip-172-31-39-171.ec2.internal	Private IP DNS name (IPv4 only)	ip-172-31-39-171.ec2.internal	
Answer private resource DNS name	IPv4 (A)	Instance type	t2.micro	Elastic IP addresses
Auto-assigned IP address	52.6.168.43 [Public IP]	VPC ID	vpc-81497cfa (default)	AWS Compute Optimizer finding
IAM Role	-	Subnet ID	subnet-1fd02e43 (default_public)	Opt-in to AWS Compute Optimizer for recommendations.
IMDSv2	Optional			Learn more
				Auto Scaling Group name
				-

```

sudo su
apt-get update
apt-get install -y apache2
cd var/www/html
ls

vim hello.html
i
Press Esc and write :wq

```

(We can see all directory using this)
 (Using this command we update linux)
 (Using this command we install apache)
 (We go to html directory)
 (We can see existing html here)

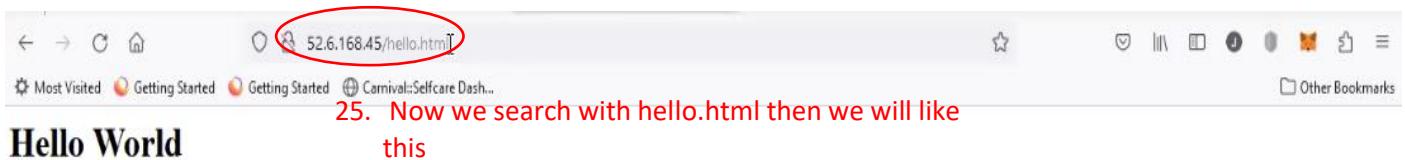
(We create a file using vim)
 (press i for insert text)
 (For exit vim)

```

root@ip-172-31-39-171:/var/www/html
<html>
  <body>
    <h1>Hello World</h1>
  </body>
</html>

```

24. Write some html and exit from vim like this



26. Now we *Create a image* from a instance

Instance summary for i-08446ec5c66fe9101 (Linux) Info	
Updated less than a minute ago	C Connect Actions ▾
Instance ID i-08446ec5c66fe9101 (Linux)	Public IPv4 address 52.6.168.45 open address
IPv6 address -	Private IPv4 address 172.31.3
Hostname type IP name: ip-172-31-39-171.ec2.internal	Instance state Running
Answer private resource DNS name IPv4 (A)	Public IPv4 DNS name (IPv4) ip-172-31-39-171.ec2.internal
Auto-assigned IP address 52.6.168.45 [Public IP]	Private IP DNS name (IPv4) ip-172-31-39-171.ec2.internal
Instance type t2.micro	Instance type t2.micro
VPC ID vpc-81497cfa (default)	VPC ID vpc-81497cfa (default)
IAM Role -	Elastic IP addresses -
Javascript	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations.
AMIs	Launch more like this Learn more
Images	Image and templates Create image ← Create template from instance → Monitor and troubleshoot

EC2

An image (also referred to as an AMI) defines the programs and settings that are applied when you launch an EC2 instance. You can create an image from the configuration of an existing instance.

Instance ID: i-08446ec5c66fe9101 (Linux)

28. Give a image name

Image name: demo (highlighted with a red circle)

Maximum 127 characters. Can't be modified after creation.

Image description - optional: Image description

Maximum 255 characters

No reboot: Enable

Instance volumes:

Storage type	Device	Snapshot	Size	Volume type	IOPS	Throughput	Delete on termination	Encrypted

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aws Services Search [Alt+S]

EC2

Create new snapshot from: /dev... Create new snapshot fr... 8 EBS General Purpose S... 100 Enable

Id volume

During the image creation process, Amazon EC2 creates a snapshot of each of the above volumes.

optional: A label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Tag image and snapshots together: Tag the image and the snapshots with the same tag.

Tag image and snapshots separately: Tag the image and the snapshots with different tags.

Add new tag

Cancel **Create image** (highlighted with a red circle)

aws Services Search [Alt+S]

EC2

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

Images **AMIs** (highlighted with a red circle) AMI Catalog

Elastic Block Store Volumes Snapshots Lifecycle Manager

Amazon Machine Images (AMIs) (1) Info Recycle Bin EC2 Image Builder Actions Launch instance from AMI

Owned by me Find AMI by attribute or tag

Name	AMI ID	AMI name	Source	Owner
ami-Offa00be243faae97	demo	847888492411/demo	847888492411	

Select an AMI

29. In AMIs we see our created image and in AMI Catalog we can publish image

33. Now we will terminate this instance (Check Volume auto shut or not)

30. Select this (I have already a image so we don't need this) = Instance: i-08446ec5c66fe9101 (Linux)

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

Instance summary Info

Instance ID i-08446ec5c66fe9101 (Linux)	Public IPv4 address 52.6.168.45 open address	Private IPv4 addresses 172.31.39.171
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-52-6-168-45.compute-1.amazonaws.com

31. Click **Launch Instance** (Now we create as many instance we need from image. Here we need 2 instance to see how load balacing work)

32. We set a name for **AMIs** (images)

AMI ID: ami-Offa00be243faae97

Details | Permissions | Storage | Tags

AMI ID ami-Offa00be243faae97	Image type machine	Platform details Linux/UNIX	Root device type EBS
AMI name demo	Owner account ID 847888492411	Architecture x86_64	Usage operation RunInstances
Root device name	Status	Source	Virtualization type

34. Now we create load balancer manually

Load balancers

Elastic Load Balancing scales your load balancer capacity automatically in response to changes in traffic.

Create load balancer

O load balancers selected

Select a load balancer above.

Application Load Balancer Info

Choose an Application Load Balancer when you need a flexible feature set for your applications with HTTP and HTTPS traffic. Operating at the request level, Application Load Balancers provide advanced routing and visibility features targeted at application architectures, including microservices and containers.

Create

Network Load Balancer Info

Choose a Network Load Balancer when you need ultra-high performance, TLS offloading at scale, centralized certificate deployment, support for UDP, and static IP addresses for your applications. Operating at the connection level, Network Load Balancers are capable of handling millions of requests per second securely while maintaining ultra-low latencies.

Create

Gateway Load Balancer Info

Choose a Gateway Load Balancer when you need to deploy and manage a fleet of third-party virtual appliances that support GENEVE. These appliances enable you to improve security, compliance, and policy controls.

Create

▶ Classic Load Balancer - previous generation

Close

35. Select this

Network mapping Info

The load balancer routes traffic to targets in the selected subnets, and in accordance with your IP address settings.

VPC Info

Select the initial private cloud (VPC) for your targets or you can [create a new VPC](#). Only VPCs with an internet gateway are enabled for selection. The selected VPC can't be changed after the load balancer is created. To confirm the VPC for your targets, view your [target groups](#).

default
vpc-8149...
IPv4: 172.31.0.0/16

Mappings Info

Select at least two Availability Zones and one subnet per zone. The load balancer routes traffic to targets in these Availability Zones only. Availability Zones that are not supported by the load balancer or the VPC are not available for selection.

us-east-1a (use1-az2)
36. Set a name

us-east-1c (use1-az6)

Network mapping Info

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38. Check both

Security group 37.info

Select previously created security group

A security group is a set of firewall rules that control the traffic to your load balancer. Select an existing security group, or you can [create a new security group](#).

Security groups

Select up to 5 security groups

default
sg-fc358bb4 VPC: vpc-81497cfa

launch-wizard-1
sg-0d53ad6fee99dd3d8 VPC: vpc-81497cfa

launch-wizard-3
sg-0b7924c8001f5d1e7 VPC: vpc-81497cfa

launch-wizard-12
sg-023c369e05e397af5 VPC: vpc-81497cfa

AF_Security

Determine how the load balancer routes requests

39. Keep only this and remove default one

A security group is a set of network rules that control the traffic to your AWS resources. Select an existing security group, or you can create a new security group [\[+\]](#).

Security groups

Select up to 5 security groups

launch-wizard-3 [X](#)

sg-0b7924c8001f5d1e7 VPC: vpc-81497cfa

aws Services Search [Alt+S] N. Virginia devskill

EC2 > Target groups > Create target group

Step 1 Specify group details

Your load balancer routes requests to the targets in a target group and performs health checks on the targets.

Step 2 Register targets

Basic configuration

Settings in this section can't be changed after the target group is created.

Choose a target type

Instances **40. Create a target group**

- Supports load balancing to instances within a specific VPC.
- Click here to learn about Amazon EC2 Auto Scaling [\[+\]](#) to manage and scale your EC2 capacity.

IP addresses

- Supports load balancing to VPC and on-premises resources.
- Facilitates routing to multiple IP addresses and network interfaces on the same instance.
- Offers flexibility with microservice based architectures, simplifying inter-application communication.
- Supports IPv6 targets, enabling end-to-end IPv6 communication, and IPv4-to-IPv6 NAT.

41. Select this

42. Set a name

Target group name

A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

Protocol Port
HTTP : ▼
1-65535

VPC
Select the VPC with the instances that you want to include in the target group.

vpc-81497cfa
IPv4: 172.31.0.0/16

Protocol version
 HTTP1
 Send requests to targets using HTTP/1.1. Supported when the request protocol is HTTP/1.1 or HTTP/2.
 HTTP2
Send requests to targets using HTTP/2. Supported when the request protocol is HTTP/2 or RDS.

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This is an optional step to create a target group. However, to ensure that your load balancer routes traffic to this target group you must register your targets.

Available instances (2/2)

< 1 >

<input checked="" type="checkbox"/> Instance ID	Name	State	Security groups
<input checked="" type="checkbox"/> i-047412706ffa69c8b	Linux Server	<input checked="" type="checkbox"/> Running	launch-wizard-3
<input checked="" type="checkbox"/> i-0b3315e5cc9a081f6	Linux Server	<input checked="" type="checkbox"/> Running	launch-wizard-3

2 selected

Ports for the selected instances

Ports for routing traffic to the selected instances.

1-65535 (separate multiple ports with commas)

44. Select all instance and click ***Include***

1-65535 (separate multiple ports with commas)

Include as pending below

2 selections are now pending below. Include more or register targets when ready.

Review targets**Targets (2)** Show only pending[Remove all pending](#) Filter resources by property or value

< 1 > ⌂

Remove	Health status	Instance ID	Name	Port	State	Security groups
X	Pending	i-047412706ffa69c8b	Linux Server	80	Running	launch-wizard-3

2 selections are now pending below. Include more or register targets when ready.

Review targets

Targets (2)

Show only pending Remove all pending

Filter resources by property or value

Remove	Health status	Instance ID	Name	Port	State	Security groups
X	Pending	i-047412706ffa69c8b	Linux Server	80	Running	launch-wizard-3
X	Pending	i-0b3315e5cc9a081f6	Linux Server	80	Running	launch-wizard-3

2 pending

Cancel Previous Create target group

45. Finally press create

Listeners and routing Info

A listener is a process that checks for connection requests using the port and protocol you configure. The rules that you define for a listener determine how the load balancer routes requests to its registered targets.

▼ Listener HTTP:80

48. After creating **Target Group** come here then read and select

Protocol : Port

HTTP : 80
1-65535

Default action

Info

Forward to

Select a target group

Create target

You must set

DemoLB

Target type: Instance, IPv4

HTTP

Remove

Listener tags - optional

Consider adding tags to your listener. Tags enable you to categorize your AWS resources so you can more easily manage them.

Add listener tag

You can add up to 50 more tags.

DemoLB

- Internet-facing
- IPv4

- launch-wizard-3
[sg-0b7924c8001f5d1e7](#)

VPC [vpc-81497cfa](#)
default

- us-east-1a
[subnet-07fd432bd0b858655](#)
 - us-east-1c
[subnet-1fd02e43](#)
- default_public

- HTTP:80 defaults to
[DemoLB](#)

Add-on services Edit

None

Tags Edit

None

Attributes

Certain default attributes will be applied to your load balancer. You can view and edit them after creating the load balancer.

47. Press create

Cancel

Create load balancer

EC2 > Load balancers

Load balancers (1)

Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.

Actions Create load balancer

Filter by property or value

46. Wait 2-3 minute to change status

<input type="checkbox"/>	Name	DNS name	State	VPC ID	Availability Zones
<input type="checkbox"/>	DemoLB	DemoLB-487749586.us-ea...	Active	vpc-81497cfa	2 Availability Zones

0 load balancers selected

Select a load balancer above.

Details

Load balancer type	Status	VPC	IP address type
Application	Active	vpc-81497cfa	IPv4
Scheme	Hosted zone	Availability Zones	Date created
Internet-facing	Z35SXDOTRQ7X7K	subnet-07fd432bd0b858655 us-east-1a (use1-az2)	September 9, 2023, 21:11 (UTC+06:00)
		subnet-1fd02e43 us-east-1c (use1-az6)	
Load balancer ARN	DNS name info		
arn:aws:elasticloadbalancing:us-east-1:847888492411:loadbalancer/app/DemoLB/51f3792cb0c15a45	DemoLB-487749586.us-east-1.elb.amazonaws.com Record		

49. Now copy this link and paste this in browser as a result public cannot understand which server they have

Listeners and rules | Network mapping | Security | Monitoring | Integrations | Attributes | Tags

Listeners and rules (1) Info

Instances (2/2) Info

Name	Instance ID	Instance state	Actions
Linux Server	i-047412706ffa69c8b	Running	Stop instance
Linux Server	i-0b3315e5cc9a081f6	Running	Start instance

50. Remove all instance (Instance will be auto create if we set auto scaling)

Instances: i-047412706ffa69c8b (Linux Server), i-0b3315e5cc9a081f6 (Linux Server)

Monitoring

EC2 > Launch templates

Launch templates Info

Launch template ID	Launch template name	Default version	Actions
--------------------	----------------------	-----------------	---------

Create launch template

Select a launch template

51. Now we create launch template for auto scaling

Create launch template

Creating a launch template allows you to create a saved instance configuration that can be reused, shared and launched at a later time. Templates can have multiple versions.

Launch template name and description

Launch template name - required

DemoLT 53. Set a name

Must be unique to this account. Max 128 chars. No spaces or special characters like '&', ',', '@'.

Template version description

A prod webserver for MyApp

Max 255 chars

Auto Scaling guidance [Info](#)

Select this if you intend to use this template with EC2 Auto Scaling

Provide guidance to help me set up a template that I can use with EC2 Auto

Summary

Software Image (AMI)

Virtual server type (instance type)

Firewall (security group)

Storage (volumes)

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which

Cancel **Create launch template**

52. Select My Created AMIs

Recents My AMIs Quick Start

Don't include in launch template Owned by me Shared with me

Amazon Machine Image (AMI)

demo 53. Select My Created AMIs

ami-0ffa0be243faae97 2023-09-09T10:01:48.000Z Virtualization: hvm ENA enabled: true Root device type: ebs

Summary

Software Image (AMI)

Virtual server type (instance type)

Firewall (security group)

Storage (volumes)

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which

Cancel **Create launch template**

Instance type [Info](#) **Advanced**

Instance type

t2.micro 54. Keep t2.micro

Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.0162 USD per Hour
On-Demand SUSE 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

Free tier eligible

All generations

Compare instance types

Additional costs apply for AMIs with pre-installed software

▼ 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

demo

56. Select existing key

 Create new key pair

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.

Select existing security group

Create security group

Security groups Info

Select security groups

launch-wizard-3 sg-0b7924c8001f5d1e7 X
VPC: vpc-81497cfa

 Compare security group rules

55. Select existing security group

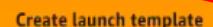
► Advanced network configuration

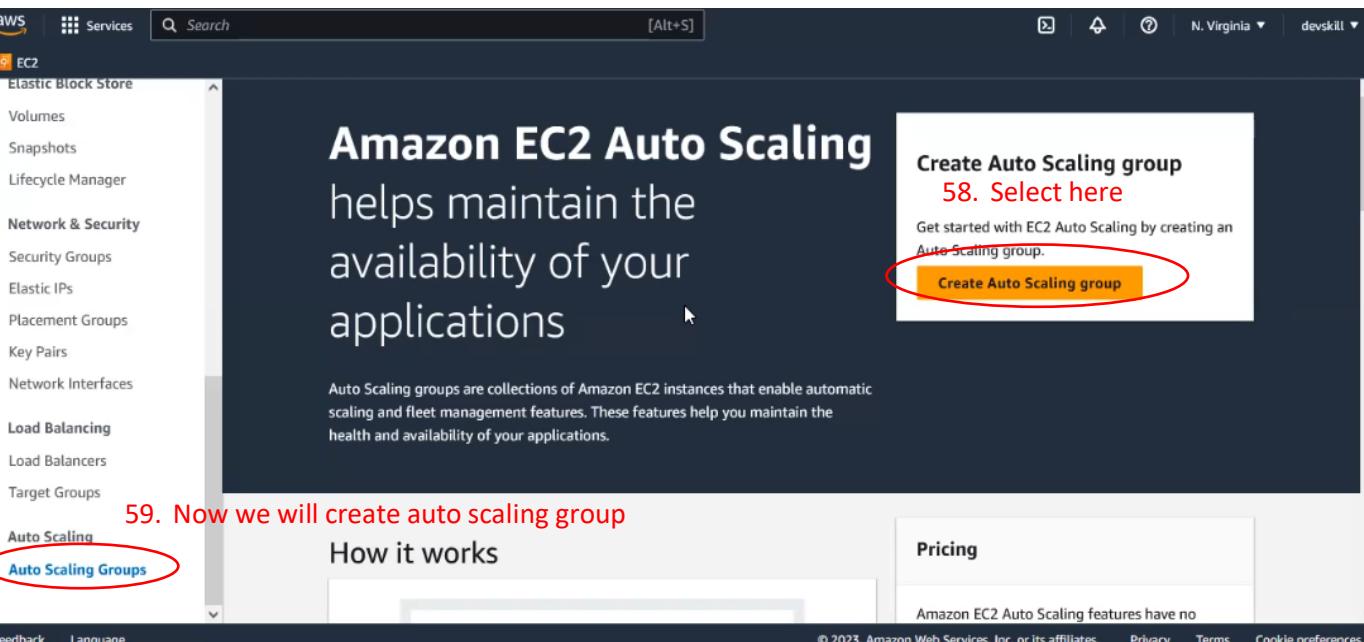
The selected AMI contains more instance store volumes than the instance allows. Only the first 0 instance store volumes from the AMI will be accessible from the instance

 Free tier: In your first year includes 750 hours of t2.micro (or

57. Press on create

Cancel

 Create launch template



The screenshot shows the AWS EC2 Auto Scaling landing page. On the left, there's a navigation sidebar with links like Services, EC2, Elastic Block Store, Network & Security, Load Balancing, and Auto Scaling. Under Auto Scaling, 'Auto Scaling Groups' is circled in red. The main content area features a large heading 'Amazon EC2 Auto Scaling helps maintain the availability of your applications'. Below it, a call-to-action button 'Create Auto Scaling group' is also circled in red. A note above the button says 'Get started with EC2 Auto Scaling by creating an Auto Scaling group.' At the bottom of the main content, there's a section titled 'How it works' and a 'Pricing' table.

59. Now we will create auto scaling group

Pricing

Amazon EC2 Auto Scaling features have no

Step 1
Choose launch template or configuration

Step 2
Choose instance launch options

Step 3 - optional
Configure advanced options

Step 4 - optional
Configure group size and scaling policies

Step 5 - optional
Add notifications

Step 6 - optional
Add tags

Choose launch template or configuration Info

Specify a launch template that contains settings common to all EC2 instances that are launched by this Auto Scaling group. If you currently use launch configurations, you might consider migrating to launch templates.

Name

60. Set a name

Auto Scaling group name

Enter a name to identify the group.



Must be unique to this account in the current Region and no more than 255 characters.

Launch template Info

[Switch to launch configuration](#)

Launch template

Choose a launch template that contains the instance-level settings, such as the Amazon Machine Image (AMI), instance type, key pair, and security groups.

Launch template Info

[Switch to launch configuration](#)

Launch template

Choose a launch template that contains the instance-level settings, such as the Amazon Machine Image (AMI), instance type, key pair, and security groups.

63. Select launch template what we created before

DemoLT

created before



[Create a launch template](#)

Version

62. Select all

Create a VPC Info

Availability Zones and subnets

Define which Availability Zones and subnets your Auto Scaling group can use in the chosen VPC.

Select Availability Zones and subnets



us-east-1a | subnet-07fd432bd0b858655 (subnet 2)

172.31.16.0/20

us-east-1c | subnet-1fd02e43 (default_public) X

172.31.32.0/20 Default

us-east-1c | subnet-083cc24762f6badc3 (subnet3) X

172.31.64.0/20

[Create a subnet](#)



[Overrid](#)

Instance type requirements Info

You can keep the same instance attributes or instance type from your launch template, or you can choose to override the launch template by specifying different instance attributes or manually adding instance ty

61. Attach an existing load balancer (but aws not show exact load balancer name)

No load balancer

Traffic to your Auto Scaling group will not be fronted by a load balancer.

Attach to an existing load balancer

Choose from your existing load balancers.

Attach to a new load balancer

Quickly create a basic load balancer to attach to your Auto Scaling group.

[Attach to an existing load balancer](#)

Attach to an existing load balancer

Select the load balancers that you want to attach to your Auto Scaling group.

- Choose from your load balancer target groups
This option allows you to attach Application, Network, or Gateway Load Balancers.

- Choose from Classic Load Balancers

Existing load balancer target groups

Only instance target groups that belong to the same VPC as your Auto Scaling group are available for selection.

64. Select target group what we created before

Select target groups ▾ C

DemoLB | HTTP X
Application Load Balancer: DemoLB

VPC Lattice integration options Info

Health checks

Health checks increase availability by replacing unhealthy instances. When you use multiple health checks, all are evaluated, and if at least one fails, instance replacement occurs.

EC2 health checks

Always enabled

65. Turn on

Additional health check types - optional Info

- Turn on Elastic Load Balancing health checks Recommended

Elastic Load Balancing monitors whether instances are available to handle requests. When it reports an unhealthy instance, EC2 Auto Scaling can replace it on its next periodic check.

i EC2 Auto Scaling will start to detect and act on health checks performed by Elastic Load Balancing. To avoid unexpected terminations, first verify the settings of these health checks in the [Load Balancer console](#) X

Turn on VPC Lattice health checks

Group size - optional Info

Specify the size of the Auto Scaling group by changing the desired capacity. You can also specify minimum and maximum capacity limits. Your desired capacity must be within the limit range.

Desired capacity

2

66. Set how many instance auto create

Minimum capacity

1

Maximum capacity

3

Choose whether to use a scaling policy to dynamically resize your Auto Scaling group to meet changes in demand. [Info](#) 68. Select this

Target tracking scaling policy

Choose a desired outcome and leave it to the scaling policy to add and remove capacity as needed to achieve that outcome.

None

Scaling policy name

Target Tracking Policy

Metric type [Info](#)

Monitored metric that determines if resource utilization is too low or high. If using EC2 metrics, consider enabling detailed monitoring for better scaling performance.

Average CPU utilization

Target value

50

67. Make this 80%

Instance warmup [Info](#)

Remove

▼ Notification 1

SNS Topic

Choose an SNS topic to use to send notifications

aspnetb6topic (jalal.exe@gmail.com)

Create a topic

Option: This is for mail notification

Event types

Notify subscribers whenever instances

- Launch
- Terminate
- Fail to launch
- Fail to terminate

Add notification

Cancel

Skip to review

Previous

Next

69. Here is our auto scaling. If we

delete instance accidentally or

manually, this auto scaling
created new instances

Auto Scaling groups (1) [Info](#)

Search your Auto Scaling groups

Name

DemoGroup

Launch template/configuration

DemoLT | Version Default

Instances

2

Status

-

Desired capacity

2

Min

1

Max

3

(II) S3

How to create an S3 bucket:

1. Select bucket

2. Select this

Buckets (11) Info

Name	AWS Region	Access	Creation date
batch4new	Europe (Frankfurt) eu-central-1	Bucket and objects not public	December 9, 2022, 22:48:56 (UTC+06:00)
devskill-dev-private-bucket	US East (N. Virginia) us-east-1	Bucket and objects not public	October 2, 2022, 16:52:16 (UTC+06:00)
devskill-dev-public-bucket	US East (N. Virginia) us-east-1	Public	October 2, 2022, 16:52:42 (UTC+06:00)

3. Set a name

4. Set region global

Bucket name: aspnetb8

AWS Region: US East (N. Virginia) us-east-1

5. Uncheck all otherwise no work will be done

Block all public access

Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

- Block public access to buckets and objects granted through new access control lists (ACLs)**
- Block public access to buckets and objects granted through any access control lists (ACLs)**
- Block public access to buckets and objects granted through new public bucket or access point policies**
- Block public and cross-account access to buckets and objects through any public bucket or access point policies**

S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

Bucket Versioning

Disable
 Enable

6. Set this file versioning disable

Tags - optional (0)
 You can use bucket tags to track storage costs and organize buckets. [Learn more](#)

No tags associated with this bucket.

[Add tag](#)

Default encryption [Info](#)
 Server-side encryption is automatically applied to new objects stored in this bucket.

Encryption type [Info](#)

Server-side encryption with Amazon S3 managed keys (SSE-S3)
 Server-side encryption with AWS Key Management Service keys (SSE-KMS)
 Dual-layer server-side encryption with AWS Key Management Service keys (DSSE-KMS)
 Secure your objects with two separate layers of encryption. For details on pricing, see DSSE-KMS pricing on the Storage tab of the [Amazon S3 pricing page](#).

Bucket Key [Info](#)
 Using an S3 Bucket Key for SSE-KMS reduces encryption costs by lowering calls to AWS KMS. S3 Bucket Keys aren't supported for DSSE-KMS. [Learn more](#)
 Disable
 Enable

7. Set encryption also disable (if enable we can not see out database, even aws not see, charged applicable for this, only use this when client want)

Advanced settings

Object Lock
 Store objects using a write-once-read-many (WORM) model to help you prevent objects from being deleted or overwritten for a fixed amount of time or indefinitely. [Learn more](#)

Disable
 Enable
 Permanently allows objects in this bucket to be locked. Additional Object Lock configuration is required in bucket details after bucket creation to protect objects in this bucket from being deleted or overwritten.

Object Lock works only in versioned buckets. Enabling Object Lock automatically enables Bucket Versioning.

After creating the bucket, you can upload files and folders to the bucket, and configure additional bucket settings.

8. Now press create

[Cancel](#) **Create bucket**

EC2

Successfully created bucket "aspnetb8"
 To upload files and folders, or to configure additional bucket settings choose [View details](#).

Storage lens provides visibility into storage usage and activity trends. [Learn more](#)

Buckets (12) [Info](#)
 Buckets are containers for data stored in S3. [Learn more](#)

Q. Find buckets by name [Go](#) [Copy ARN](#) [Empty](#) [Delete](#) **Create bucket**

Name	AWS Region	Access	Creation date
aspnetb8	US East (N. Virginia) us-east-1		September 16, 2023, 19:36:00 (UTC+06:00)

9. Now enter this bucket

Objects (0)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to see your objects, you must grant them permission. [Learn more](#)

Create folder (highlighted with a red circle)

No objects
You don't have any objects in this bucket.

Upload

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Amazon S3 > Buckets > aspnetb8 > Create folder

Create folder Info

Use folders to group objects in buckets. When you create a folder, S3 creates an object using the name that you specify followed by a slash (/). This object then appears as folder on the console. [Learn more](#)

Your bucket policy might block folder creation
If your bucket policy prevents uploading objects without specific tags, metadata, or access control list (ACL) grantees, you will not be able to create a folder using this configuration. Instead, you can use the [upload configuration](#) to upload an empty folder and specify the appropriate settings.

Folder

11. Set a name

Folder name /

Folder names can't contain "/". [See rules for naming](#)

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Server-side encryption Info

Server-side encryption protects data at rest.

The following encryption settings apply only to the folder object and not to sub-folder objects.

Server-side encryption

Do not specify an encryption key
The bucket settings for default encryption are used to encrypt the folder object when storing it in Amazon S3.

Specify an encryption key
The specified encryption key is used to encrypt the folder object before storing it in Amazon S3.

If your bucket policy requires objects to be encrypted with a specific encryption key, you must specify the same encryption key when you create a folder. Otherwise, folder creation will fail.

12. Press on create

Create folder (highlighted with a red circle)

Successfully created folder "images".

aspnetb8 [Info](#)

[Objects](#) [Properties](#) [Permissions](#) [Metrics](#) [Management](#) [Access Points](#)

Objects (1)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	<input checked="" type="checkbox"/> images	Folder	-	-	-

13. Click folder

[Objects](#) [Properties](#)

Objects (0)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>				No objects	

You don't have any objects in this folder.

13. Upload file

[Upload](#)

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. [Learn more](#)

Drag and drop files and folders you want to upload here, or choose **Add files** or **Add folder**.

14. Add file

Files and folders (0)

All files and folders in this table will be uploaded.

	Name	Folder	Type	Size
			No files or folders	

You have not chosen any files or folders to upload.

[Add files](#)

Destination

Destination
s3://aspnetb8/images/

► **Destination details**
Bucket settings that impact new objects stored in the specified destination.

▼ **Permissions**
Grant public access and access to other AWS accounts.

ⓘ This bucket has the **bucket owner enforced** setting applied for Object Ownership. Use bucket policies to control access. [Learn more](#)

► **Properties**
Specify storage class, encryption settings, tags, and more.

15. Press on upload

[Cancel](#) [Upload](#)

16. Click file

Upload succeeded
View details below.

Destination	Succeeded	Failed
s3://aspnetb8/images/	1 file, 77.5 KB (100.00%)	0 files, 0 B (0%)

Files and folders Configuration

Files and folders (1 Total, 77.5 KB)

Name	Folder	Type	Size	Status
ClassScreenshot.png	-	image/png	77.5 KB	Succeeded

17. We can download file but not view file via link (to see file via link we need to change policy)

18. Click on bucket

Amazon S3 > Buckets > aspnetb8 > images/ > ClassScreenshot.png

Object overview

Properties Permissions Versions

Copy S3 URI Download Open Object actions

19. Click on permission

Amazon S3 > Buckets > aspnetb8

Buckets

Objects Properties Permissions Metrics Management Access Points

Actions

Objects (1)

Create folder Upload

Find objects by prefix

Name Type Last modified Size Storage class

images/ Folder

20. Click on edit

Amazon S3 > Buckets > aspnetb8

Buckets

Access Points Object Lambda Access Points Multi-Region Access Points Batch Operations IAM Access Analyzer for S3

Block Public Access settings for this account

Storage Lens Dashboards AWS Organizations settings

Individual Block Public Access settings for this bucket

Bucket policy

Edit Delete

No policy to display.

Bucket policy
The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts.

Policy examples 21. Click here

Bucket ARN

Policy

Select Type of Policy

Step 2: Add Statement(s)

A statement is the formal description of a single permission. See a [description of elements](#) that you can use in statements.

Effect Allow Deny

Principal

Use a comma to separate multiple values.

AWS Service 22. Fill like this

All Services (*)

Actions 3 Action(s) Selected All Actions (*)

Amazon Resource Name (ARN)

- GetObjectARNAccessPointRoutes
- GetObject
- GetObjectAcl
- GetObjectAttributes
- GetObjectLegalHold
- GetObjectRetention
- GetObjectTagging

ARN should follow the following format: arn:aws:s3:::\${BucketName}/\${KeyName}.

more Principals.

Edit bucket policy

Bucket policy
The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. [Learn more](#)

Policy examples 23. Copy this

Bucket ARN

Policy

Select Type of Policy

Step 2: Add Statement(s)

A statement is the formal description of a single permission. See a [description of elements](#) that you can use in statements.

Effect Allow Deny

Principal 24. Fill like this and press generate

Use a comma to separate multiple values.

AWS Service All Services (*)

Use multiple statements to add permissions for more than one service.

Actions 3 Action(s) Selected All Actions (*)

Amazon Resource Name (ARN)

ARN should follow the following format: arn:aws:s3:::\${BucketName}/\${KeyName}.

Use a comma to separate multiple values.

Add Conditions (Optional)

24. Fill like this and press generate

Step 3: Generate Policy

A **policy** is a document (written in the Access Policy Language) that acts as a container for one or more statements.

Add one or more statements above to generate a policy.

Policy JSON Document

Click below to edit. To save the policy, copy the text below to a text editor. Changes made below will not be reflected in the policy generator tool.

```
{
  "Id": "Policy1694871925695",
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "Stmt1694871922798",
      "Action": [
        "s3:GetObject",
        "s3:GetObjectAcl",
        "s3:GetObjectAttributes"
      ],
      "Effect": "Allow",
      "Resource": "arn:aws:s3:::aspnetb8",
      "Principal": "*"
    }
  ]
}
```

25. We get auto generate json what should copy and paste it **permission -> policy box** at point 20. (If now work then follow point 26)

Close

aws Services Search [Alt+S] Global devskill ▾

EC2

```
{
  "Version": "2012-10-17",
  "Id": "Policy1694872145089",
  "Statement": [
    {
      "Sid": "Stmt1694871922798",
      "Effect": "Allow",
      "Principal": "*",
      "Action": [
        "s3:GetObject"
      ],
      "Resource": "arn:aws:s3:::aspnetb8/*"
    }
  ]
}
```

26. Change Action: * and Resource: .../*
(Hopefully it will work)

Copy

aws Services Search [Alt+S] Global devskill ▾

EC2

Amazon S3 X Object overview

Buckets Owner S3 URI
Access Points jalal <https://s3://aspnetb8/images/ClassScreenshot.png>

Object Lambda Access Points AWS Region Amazon Resource Name (ARN)
Multi-Region Access Points US East (N. Virginia) us-east-1 <arn:aws:s3:::aspnetb8/images/ClassScreenshot.png>

Last modified Entity tag
September 16, 2023, 19:51:18 (UTC+06:00) [f0e67f34dacfc4c7881796cd4523577f](#)

Size Object URL
77.5 KB <https://aspnetb8.s3.amazonaws.com/images/ClassScreenshot.png>

Type png

Key images/ClassScreenshot.png

27. Go to file and copy this like and paste it in browser. Then it will be accesible via link (it not work delete file and reupload because after adding policy maybe old file not affect on it)

If we enter into Edit then we can see save storage type

Storage class

Amazon S3 offers a range of storage classes designed for different use cases. [Learn more](#) or see [Amazon S3 pricing](#).

Storage class: Standard

Server-side encryption settings

Server-side encryption protects data at rest.

Encryption type: [Info](#)

Server-side encryption with Amazon S3 managed keys (SSE-S3)

Additional checksums

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<input type="radio"/>	Standard	Frequently accessed data (more than once a month) with milliseconds access	≥ 3	-	-	-
<input type="radio"/>	Intelligent-Tiering	Data with changing or unknown access patterns	-	-	-	-
<input type="radio"/>	Standard-IA	Infrequently accessed data (once a month) with milliseconds access	≥ 3	30 days	1	-
<input checked="" type="radio"/>	One Zone-IA	Recreatable, infrequently accessed data (once a month) stored in a single Availability Zone with milliseconds access	1	30 days	1	-
<input type="radio"/>	Glacier Instant Retrieval	Long-lived archive data accessed once a quarter with instant retrieval in milliseconds	≥ 3	90 days	1	-
<input type="radio"/>	Glacier Flexible Retrieval (formerly Deep Archive)	Long-lived archive data accessed once a year with retrieval of minutes to hours	≥ 3	90 days	-	-

Amazon S3 > Buckets > aspnetb8

aspnetb8

We can set lifecycle. We can move file one server to another server if we set at is

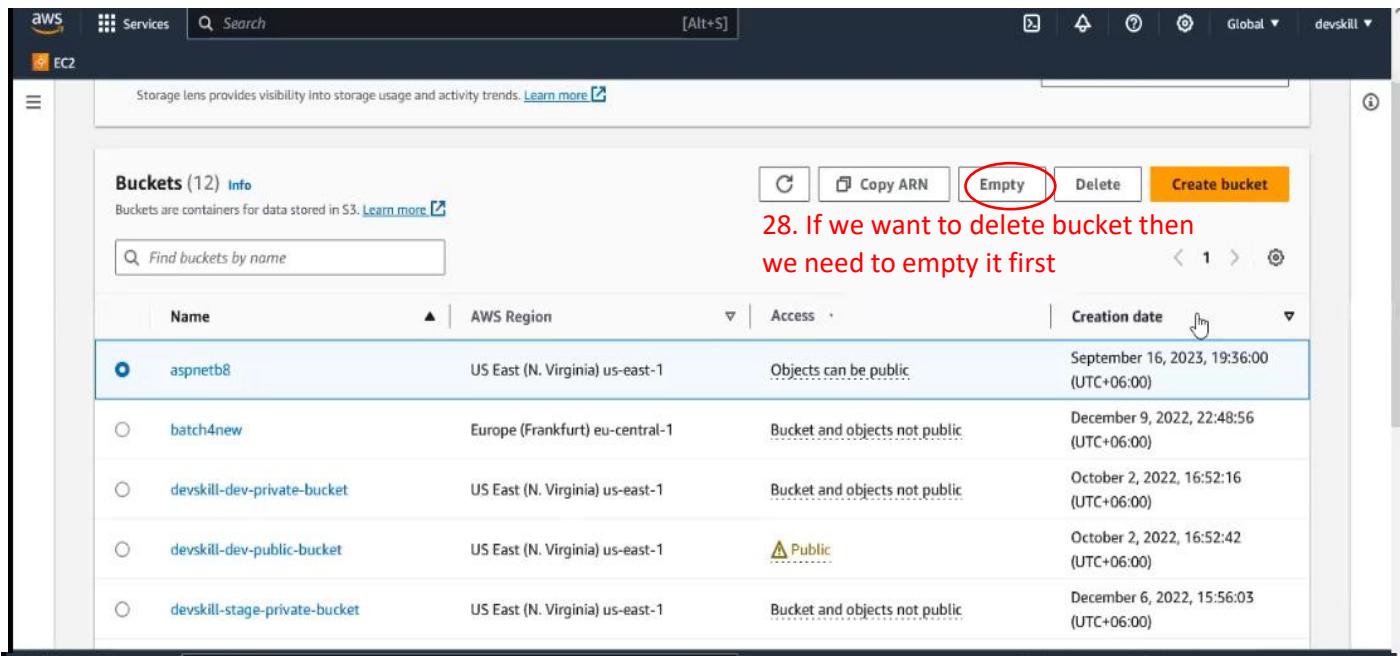
Objects Properties Permissions Metrics Management Access Points

Lifecycle rules (0)

Use lifecycle rules to define actions you want Amazon S3 to take during an object's lifetime such as transitioning objects to another storage class, archiving them, or deleting them after a specified period of time. [Learn more](#)

Create lifecycle rule

Lifecycle rule name	Status	Scope	Current version actions	Noncurrent versions actions	Expired object delete markers	Incomplete multipart uploads
No lifecycle rules						
There are no lifecycle rules for this bucket.						
Create lifecycle rule						

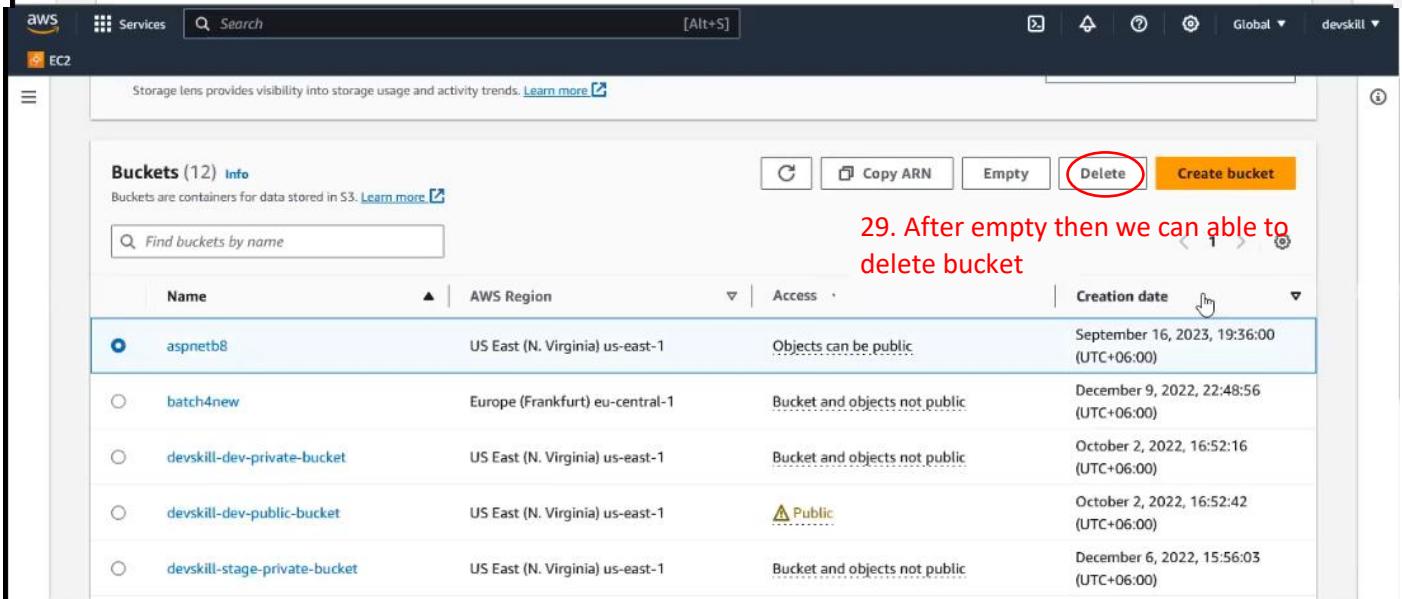


Buckets (12) [Info](#)
Buckets are containers for data stored in S3. [Learn more](#)

Find buckets by name

[C](#) [Copy ARN](#) [Empty](#) [Delete](#) [Create bucket](#)

Name	AWS Region	Access	Creation date
aspnetb8	US East (N. Virginia) us-east-1	Objects can be public	September 16, 2023, 19:36:00 (UTC+06:00)
batch4new	Europe (Frankfurt) eu-central-1	Bucket and objects not public	December 9, 2022, 22:48:56 (UTC+06:00)
devskill-dev-private-bucket	US East (N. Virginia) us-east-1	Bucket and objects not public	October 2, 2022, 16:52:16 (UTC+06:00)
devskill-dev-public-bucket	US East (N. Virginia) us-east-1	⚠️ Public	October 2, 2022, 16:52:42 (UTC+06:00)
devskill-stage-private-bucket	US East (N. Virginia) us-east-1	Bucket and objects not public	December 6, 2022, 15:56:03 (UTC+06:00)



Buckets (12) [Info](#)
Buckets are containers for data stored in S3. [Learn more](#)

Find buckets by name

[C](#) [Copy ARN](#) [Empty](#) [Delete](#) [Create bucket](#)

Name	AWS Region	Access	Creation date
aspnetb8	US East (N. Virginia) us-east-1	Objects can be public	September 16, 2023, 19:36:00 (UTC+06:00)
batch4new	Europe (Frankfurt) eu-central-1	Bucket and objects not public	December 9, 2022, 22:48:56 (UTC+06:00)
devskill-dev-private-bucket	US East (N. Virginia) us-east-1	Bucket and objects not public	October 2, 2022, 16:52:16 (UTC+06:00)
devskill-dev-public-bucket	US East (N. Virginia) us-east-1	⚠️ Public	October 2, 2022, 16:52:42 (UTC+06:00)
devskill-stage-private-bucket	US East (N. Virginia) us-east-1	Bucket and objects not public	December 6, 2022, 15:56:03 (UTC+06:00)

(III) SIMPLE QUEUE SERVICE (SQS)

How to create SQS:

Amazon SQS
A message queuing service

Amazon SQS provides queues for high-throughput, system-to-system messaging. You can use queues to decouple heavyweight processes and to buffer and batch work. Amazon SQS stores messages until microservices and serverless applications process them.

Get started

Learn how to use Amazon SQS by creating a queue, sending a message to the queue, and receiving and processing the message.

Create queue

1. Select this

Pricing (US)

You can get started with Amazon SQS for free. All customers can make 1 million Amazon SQS requests for free each month. Some applications might be able to

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Type

Choose the queue type for your application or cloud infrastructure.

Standard Info

At least once delivery, message ordering isn't preserved

- At-least once delivery
- Best-effort ordering

FIFO Info

First-in-first-out delivery, message ordering is preserved

- First-in-first-out delivery
- Exactly-once processing

2. Select standard (Standard info not maintain serial, if need serial use FIFO)

You can't change the queue type after you create a queue.

Name

MyQueue

3. Set a name

A queue name is case-sensitive and can have up to 80 characters. You can use alphanumeric characters, hyphens (-), and underscores (_).

Configuration

Set the maximum message size, visibility to other consumers, and message retention.

Visibility timeout **Info** 30 Seconds

Message retention period **Info** 4 Days

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Dead-letter queue - Optional

Send undeliverable messages to a dead-letter queue.

Set this queue to receive undeliverable messages.

Disabled

Enabled

Tags - Optional

A tag is a label assigned to an AWS resource. Use tags to search and filter your resources or track your AWS costs.

Key	Value - optional
<input type="text"/>	<input type="text"/>
Add new tag	

You can add 49 more tags.

4. Create

Cancel **Create queue**

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5. Now we create message (Here **Purge** use for all message delete)

Queue aspnetb8 created successfully
You can now send and receive messages.

[Amazon SQS](#) > [Queues](#) > aspnetb8

aspnetb8

Details [Info](#)

Name aspnetb8	Type Standard	ARN arn:aws:sqs:us-east-1:847888492411:aspnetb8
Encryption Amazon SQS key (SSE-SQS)	URL https://sns.us-east-1.amazonaws.com/847888492411/aspnetb8	Dead-letter queue -

[More](#)

[Edit](#) [Delete](#) [Purge](#) [Send and receive messages](#) [Start DLQ redrive](#)

6. If we create Pull then message count will be increase

Should be between 0 seconds and 15 minutes.

[Message attributes - Optional](#) [Info](#)

Receive messages [Info](#)

Messages available 1	Polling duration 30	Maximum message count 10	Polling progress 10% 1 receives/second
-------------------------	------------------------	-----------------------------	--

[Edit poll settings](#) [Stop polling](#) [Poll for messages](#)

Messages (1)

ID	Sent	Size	Receive count
da68fa16-18ae-4dc5-9561-d2647131f3ff	2023-09-16T20:52+06:00	10 bytes	1

[View details](#) [Delete](#)

7. For delete message first press **Purge** and then Press **Delete**

Queue aspnetb8 has been purged successfully.

[Amazon SQS](#) > [Queues](#) > aspnetb8

aspnetb8

Details [Info](#)

Name aspnetb8	Type Standard	ARN arn:aws:sqs:us-east-1:847888492411:aspnetb8
Encryption Amazon SQS key (SSE-SQS)	URL https://sns.us-east-1.amazonaws.com/847888492411/aspnetb8	Dead-letter queue -

[More](#)

[Edit](#) [Delete](#) [Purge](#) [Send and receive messages](#) [Start DLQ redrive](#)

(IV) DYNAMODB

How to create DynamoDB:

4. Enter name
4. Enter name

3. Enter column name (this will work like a primary key)

1. Enter another column name (this will work more specific search with partition key)

Read/write capacity settings [Info](#)

4. Select **Provisioned**

Capacity mode

On-demand
Simplify billing by paying for the actual reads and writes your application performs.

Provisioned
Manage and optimize your costs by allocating read/write capacity in advance.

Read capacity

Auto scaling [Info](#)
Dynamically adjusts provisioned throughput capacity on your behalf in response to actual traffic patterns.

On
 Off

Minimum capacity units	Maximum capacity units	Target utilization (%)
1	10	70

EC2

Deletion protection is turned off by default. Deletion protection protects the table from being deleted unintentionally. You can turn on deletion protection now, and you can also turn it on after the table has been created.

Turn on deletion protection

Tags
Tags are pairs of keys and optional values, that you can assign to AWS resources. You can use tags to control access to your resources or track your AWS spending.

No tags are associated with the resource.

Add new tag

You can add 50 more tags.

5. Create

Create table

The Customers table was created successfully.

6. Select this row

Name	Status	Partition key	Sort key	Indexes	Deletion protection	Read capacity mode
Customers	Active	Age (N)	Location (S)	0	Off	Provisioned with auto scale

7. Select this for creating table

8. Create item for insert data into noSql

Customers

Create item

General information

Partition key: Age (Number) Sort key: Location (String)

9. Click here to view database

Customers

Explore table items

General information

Partition key: Age (Number) Sort key: Location (String)

10. Search using this (Do not use scan which is so much slow)

Scan or query items

Query (circled in red)

Select a table or index: Table - Customers

Select attribute projection: All attributes

Age (Partition key): Enter partition key value

Location (Sort key): Enter sort key value, Sort descending

Filters

Run Reset

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(V) CLI

Here we use command Line instead of user interface to use AWS.

Console Home [Info](#)

Recently visited [Info](#)

- DynamoDB
- Simple Queue Service
- S3
- EC2
- Route 53
- CloudFormation
- VPC

ElasticCache

IAM **(circled in red)**

AWS Budgets

Elastic Container Service

Elastic Kubernetes Service

Batch

[View all services](#)

Welcome to AWS

Getting started with AWS [\[i\]](#)
Learn the fundamentals and find valuable information to get the most out of AWS.

Training and certification [\[i\]](#)
Learn from AWS experts and advance your skills and knowledge.

What's new with AWS? [\[i\]](#)
Discover new AWS services, features, and Regions.

[Reset to default layout](#) [+ Add widgets](#)

3. First click here to make a user

Identity and Access Management (IAM) [X](#)

Users (2) [Info](#)

An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.

User name	Path	Group	Last activity	MFA	Password age
devskill_developers	/	0	0	-	⚠ 297 days
devskill_students	/	0	0	-	⚠ 221 days

[Create user](#) **(circled in orange)**

1. Click on User

2. Click on user

Dashboard
Access management
User groups
Users **(circled in orange)**
Roles
Policies
Identity providers
Account settings
Access reports
Access analyzer

Permissions policies (1/1224)

Choose one or more policies to attach to your new user.

[Create policy](#)

Filter by Type

All types 14 matches

Policy name	Type	Attached entities
AmazonDMSRedshiftS3Role	AWS managed	0
AmazonS3FullAccess (selected)	AWS managed	17
AmazonS3ObjectLambdaE...	AWS managed	0
AmazonS3OutpostsFullAcc...	AWS managed	0
AmazonS3OutpostsReadO...	AWS managed	0
AmazonS3ReadOnlyAccess	AWS managed	0
AWSBackupServiceRolePol...	AWS managed	0
AWSBackupServiceRolePol...	AWS managed	0

4. Search and S3

CloudShell Feedback © 2023, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

7. Search and SRS

Permissions policies (2/1224)

Choose one or more policies to attach to your new user.

Filter by Type

Policy name	Type	Attached entities
<input checked="" type="checkbox"/> AmazonSQSFullAccess	AWS managed	5
<input type="checkbox"/> AmazonSQSReadOnlyAccess	AWS managed	0
<input type="checkbox"/> AWSLambdaSQSQueueExe...	AWS managed	0

Set permissions boundary - optional

Cancel Previous Next

6. Search and DynamoDB

Permissions policies (3/1224)

Choose one or more policies to attach to your new user.

Filter by Type

Policy name	Type	Attached entities
<input checked="" type="checkbox"/> AmazonDynamoDBFullAccess	AWS managed	5
<input type="checkbox"/> AmazonDynamoDBFullAccesswithDataPip...	AWS managed	0
<input type="checkbox"/> AmazonDynamoDBReadOnlyAccess	AWS managed	0
<input type="checkbox"/> AWSApplicationAutoscalingDynamoDBTab...	AWS managed	1
<input type="checkbox"/> AWSLambdaDynamoDBExecutionRole	AWS managed	0
<input type="checkbox"/> AWSLambdaInvocation-DynamoDB	AWS managed	0
<input type="checkbox"/> DynamoDBCloudWatchMetricsSubscriptionPolicy	AWS managed	1

DynamoDBReplicationServiceRolePolicy AWS managed 1

Set permissions boundary - optional

Cancel Previous Next

5. Click on user (What is create somethings before)

User created successfully

You can view and download the user's password and email instructions for signing in to the AWS Management Console.

IAM > Users

Users (3) Info

An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.

User name	Path	Group	Last activity	MFA	Password age
aspnrb8	/	0	-	-	-

Create user

5. Click on user (What is create somethings before)

Identity and Access Management (IAM)

Dashboard

Access management

User groups

Users

Roles

Policies

User created successfully

You can view and download the user's password and email instructions for signing in to the AWS Management Console.

IAM > Users

Users (3) Info

An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.

User name	Path	Group	Last activity	MFA	Password age
aspnrb8	/	0	-	-	-

11. Select security

The screenshot shows the AWS IAM console with the 'Identity and Access Management (IAM)' service selected. In the top navigation bar, the 'Security credentials' tab is highlighted with a red circle. Below it, the 'Permissions policies' section is visible, showing a single policy named 'AmazonDynamoDBFullAccess' attached directly.

10. Click on accesskey

The screenshot shows the 'Access keys' section of the AWS IAM console. A red circle highlights the 'Create access key' button. Below it, a message states 'No access keys. As a best practice, avoid using long-term credentials like access keys. Instead, use tools which provide short term credentials.' A 'Create access key' button is also present here.

9. Select CLI

The screenshot shows the 'Use case' section of the AWS IAM console. A red circle highlights the 'Command Line Interface (CLI)' option, which is selected with a blue radio button. The description below says, 'You plan to use this access key to enable the AWS CLI to access your AWS account.' Another option, 'Local code', is also listed.

8. Click Next

The screenshot shows the 'Set permissions boundary - optional' section of the AWS IAM console. A red circle highlights the 'Next Step' button at the bottom right. Above it, there is a note about setting a permissions boundary and a checkbox for 'Use a permissions boundary to control the maximum permissions'.

Permissions summary

Name	Type	Used as
AmazonDynamoDBFullAccess	AWS managed	Permissions policy
AmazonS3FullAccess	AWS managed	Permissions policy
AmazonSQSFullAccess	AWS managed	Permissions policy

Tags - optional
Tags are key-value pairs you can add to AWS resources to help identify, organize, or search for resources. Choose any tags you want to associate with this user.

No tags associated with the resource.

Add new tag
You can add up to 50 more tags.

12. Create user now

Cancel Previous **Create user** (circled)

Identity and Access Management (IAM)

Created September 29, 2023, 20:07 (UTC+06:00) Last console sign-in -

Permissions Groups Tags **Security credentials** (circled) Access Advisor

Console sign-in

Console sign-in link <https://devskilltraining.signin.aws.amazon.com/console> Console password Not enabled

Multi-factor authentication (MFA) (0)
Use MFA to increase the security of your AWS environment. Signing in with MFA requires an authentication code from an MFA device. Each user can have a maximum of 8 MFA devices assigned. [Learn more](#)

13. Click console access (circled)

Enable console access

IAM > Users > [aspnetb8](#) > Create access key

Step 1 [Access key best practices & alternatives](#)

Step 2 - optional **Set description tag**

The description for this access key will be attached to this user as a tag and shown alongside the access key.

Description tag value
Describe the purpose of this access key and where it will be used. A good description will help you rotate this access key confidently later.

Maximum 256 characters. Allowed characters are letters, numbers, spaces representable in UTF-8, and: _ . : / = + - @

15. Click here (circled)

Cancel Previous **Create access key**

Access key created
This is the only time that the secret access key can be viewed or downloaded. You cannot recover it later. However, you can create a new access key any time.

Step 3 [Retrieve access keys](#)

Access key	Secret access key
AKIA4K2QXU557QCIUV63	SQvglwbrQavu4RktZkcBKi+ID6jHosSMmXSFTCo Hide

Access key best practices

- Never store your access key in plain text, in a code repository, or in code.
- Disable or delete access key when no longer needed.
- Enable least-privilege permissions.
- Rotate access keys regularly.

14. We should download password file (circled)

For more details about managing access keys, see the [best practices for managing AWS access keys](#).

Download .CSV file (circled) **Done**

19. Click here

The screenshot shows a Google search results page for 'aws cli'. The top result is a link to 'Amazon Web Services' with the title 'Command Line Interface - AWS CLI'. This link is circled in red.

18. Download this to use with pc CMD (Just download and install, no need to run, if installed then we can use it using cmd)

The screenshot shows the AWS Command Line Interface (CLI) landing page. It features a brief introduction, a 'Get started' button, and sections for Windows, MacOS, and Linux download links. The 'Windows' section is highlighted with a red circle around the '64 bit Windows installer' link.

A screenshot of an Excel spreadsheet. Column A contains 'Access key ID' and 'Secret access key'. Row 1 has the headers. Row 2 contains the actual values: 'AKIA4K2QXU557QCIUV63' and 'SQvglwbrQvavU4RktZkcBKi+ID6jHOsSMmXSFTco' respectively. The 'Secret access key' value is also highlighted with a red box.

16. We connect this using Access key and secret access key (region and json keep empty)

A screenshot of a Windows Command Prompt window. The user runs the command 'aws configure'. The output shows the configuration with 'Access Key ID' and 'Secret Access Key' set to the previously copied values, and 'Default region name' and 'Default output format' both set to empty. The 'Secret Access Key' part of the output is highlighted with a red box.

17. Here is documentation (Sir also give a link)

The screenshot shows the AWS CLI documentation landing page. It includes a 'Getting Started' button, a circled 'AWS CLI Reference' button, a 'GitHub Project' link, and a 'Community Forum' link. The 'AWS CLI Reference' button is circled in red.