

# **AWS MODULE**

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L3- Launch AWS EC2 Ubuntu Instance and configure the Security Group -  
Inbound Rule: 8080. Justify the usage of Inbound Rules.

## **Step 1: Launch an EC2 Instance**

1. Log in to the AWS Management Console.
2. Navigate to the EC2 instance
3. Add key pair.
4. Add default security group.
5. Add volume
6. Add required configuration for instance as per requirement.
7. Launch instance.

## **Step 2: Configure security group**

- 1.select instance and navigate to security group.
- 2.Go to inbound rule and Edit the inbound rule
3. Set configuration as per requirement

**Type: Custom TCP Rule**

**Protocol: TCP**

**Port Range: 8080**

- 4.Save the rule

## Justification for Inbound Rules

Inbound rules in a security group act as a virtual firewall to control incoming traffic to your EC2 instances. By allowing specific inbound rule we can grant access to a specific source or destination.

### Ec2 dashboard:

The screenshot displays the AWS Management Console's EC2 dashboard for the Mumbai region. The left sidebar contains navigation links for EC2 Dashboard, EC2 Global View, Events, Instances, Images, and Elastic Block Store. The main content area is divided into three sections: Resources, Launch instance, and Service health.

**Resources**

You are using the following Amazon EC2 resources in the Asia Pacific (Mumbai) Region:

Instances (running)	1	Auto Scaling Groups	0	Capacity Reservations	0
Dedicated Hosts	0	Elastic IPs	0	Instances	1
Key pairs	3	Load balancers	1	Placement groups	1
Security groups	11	Snapshots	2	Volumes	6

**Launch instance**

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

[Launch instance](#) [Migrate a server](#)

Note: Your instances will launch in the Asia Pacific (Mumbai) Region

**Service health**

[AWS Health Dashboard](#)

Region  
Asia Pacific (Mumbai)

Status  
✔ This service is operating normally.

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## 2.Addition of key pair

aws

Services

Search

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Mumbai

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EC2

▼ Instance type

Info | Get advice

Instance type

t2.micro

Family: t2 1 vCPU 1 GiB Memory Current generation: true

On-Demand Linux base pricing: 0.0124 USD per Hour

On-Demand Windows base pricing: 0.017 USD per Hour

On-Demand RHEL base pricing: 0.0268 USD per Hour

On-Demand SUSE base pricing: 0.0124 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 - required

SSS

Create new key pair

▼ Network settings

Info

Edit

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## 3.Security group addition

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EC2

Additional charges apply when outside of free tier allowance

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

We'll create a new security group called 'launch-wizard-11' with the following rules:

☒ Allow SSH traffic from

Helps you connect to your instance

My IP

103.249.241.61/32

☐ 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

▼ Configure storage

Info

Advanced

1x

8

GiB

gp3

Root volume (Not encrypted)

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

×

Add new volume

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## 4 launching of instance

**Success**  
Successfully initiated launch of instance ([i-033dacc04dd00aa3b](#))

► Launch log

**Next Steps**

What would you like to do next with this instance, for example "create alarm" or "create backu" < 1 2 3 4 5 6 7 8 >

**Create billing and free tier usage alerts**

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

Create billing alerts

**Connect to your instance**

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

Connect to instance

[Learn more](#)

**Connect an RDS database**

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

Connect an RDS database

[Create a new RDS database](#)

[Learn more](#)

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**Instances (1/1)** Info

Last updated less than a minute ago

Connect Instance state Actions Launch instances

Find Instance by attribute or tag (case-sensitive) All states

Instance ID = [i-033dacc04dd00aa3b](#) Clear filters

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check
<input checked="" type="checkbox"/>	AAA	<a href="#">i-033dacc04dd00aa3b</a>	Running	t2.micro	Initializing

**i-033dacc04dd00aa3b (AAA)**

Details Status and alarms Monitoring Security Networking Storage Tags

**▼ Instance summary Info**

Instance ID <a href="#">i-033dacc04dd00aa3b</a>	Public IPv4 address <a href="#">13.126.117.46</a>   open address	Private IPv4 addresses <a href="#">172.31.12.152</a>
IPv6 address -	Instance state Running	Public IPv4 DNS <a href="#">ec2-13-126-117-46.ap-south-1.compute.amazonaws.com</a>

## 5. configuration of inbound rule

aws

Services

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Mumbai

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EC2

Port range

Info

22

Source type

Info

Custom

Source

Info

103.249.241.61/32

Description - optional

Info

Inbound rule 2

Delete

Security group rule ID

-

Type

Info

Custom TCP

Protocol

Info

TCP

Port range

Info

8080

Source type

Info

My IP

Source

Info

103.249.241.61/32

Description - optional

Info

Add rule

aws

Services

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Mumbai

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EC2

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

Elastic Block Store

Volumes

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Details

Security group name

launch-wizard-11

Security group ID

sg-08414b431010ba149

Description

launch-wizard-11 created 2024-10-23T11:30:39.036Z

VPC ID

vpc-0a0886b15d82efd91

Owner

120569631866

Inbound rules count

2 Permission entries

Outbound rules count

1 Permission entry

Inbound rules

Outbound rules

Tags

Inbound rules (2)

Manage tags

Edit inbound rules

Search

< 1 >

	Security group rule...	IP version	Type	Protocol	Port range	Source
	sgr-0f664477b7b8bee...	IPv4	SSH	TCP	22	103.249.
	sgr-0ca703d14bc2a68d7	IPv4	Custom TCP	TCP	8080	103.249.

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**Thank you.**