

Amazon EC2

Amazon EC2 Instance

AWS ELastic Compute Cloud (EC2) provides Scalable computing capacity in the AWS cloud. Using Amazon EC2, eliminates your need to invest in hardware upfront cost, so you can develop & deploy your applications fastely

- Amazon EC2 provides scalable virtual servers in the cloud
- Virtual Server can run different OS, but most commonly runs a flavour of linux or Windows

Features of Amazon EC2:

- Virtual Computing Environment known as instances
- Preconfigured templates for your instances, know as (AMI's)
- Various Configurations of CPU, Memory, Storage & Networking capacity for your instances known as instance types
- Secure login info for your instances using key pairs (AWS store the public key, you store the private key in secure places)
- Storage volumes for temporary data that's deleted when you stop.terminate instance known as Instance Store Volume or Ephemeral Storage (Temporary Storage).
- Persistence Storage volumes for your data using Amazon Elastic Block Storages (EBS) known as EBS Volumes

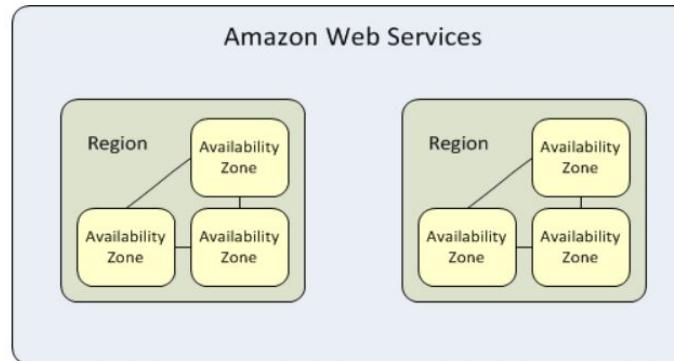
- Multiple Physical locations for your resources, such as instances, EBS volumes etc known as Regions & Availability Zones
- A Firewall that enables you to specify the protocol, ports, source ip ranges that can reach your instances using security groups
- Static IP address for dynamic cloud computing known as Elastic IP address
- Meta Data, known as tags, that you can create and assign to your Amazon EC2 instances for recognitions
- Virtual Networking, you can create that are logically isolates from the rest of AWS cloud & that you can optionally connect to your own network known as Virtual Private Clouds (VPC)

Q) Difference between Instance Store & EBS

Q) What is EIP (Elastic IP)

Regions & Availability Zones

- Amazon EC2 is hosted in multiple locations world-wide. These locations are composed of regions and Availability Zones. Each *region* is a separate geographic area. Each region has multiple, isolated locations known as *Availability Zones*. Amazon EC2 provides you the ability to place resources, such as instances, and data in multiple locations. Resources aren't replicated across regions unless you do so specifically.
- Amazon operates state-of-the-art, highly-available data centers. Although rare, failures can occur that affect the availability of instances that are in the same location. If you host all your instances in a single location that is affected by such a failure, none of your instances would be available.
- Each region is completely independent. Each Availability Zone is isolated, but the Availability Zones in a region are connected through low-latency links. The following diagram illustrates the relationship between regions and Availability Zones.



US East (N. Virginia)

US East (Ohio)

US West (N. California)

US West (Oregon)

Asia Pacific (Mumbai)

Asia Pacific (Seoul)

Asia Pacific (Singapore)

Asia Pacific (Sydney)

Asia Pacific (Tokyo)

Canada (Central)

EU (Frankfurt)

EU (Ireland)

EU (London)

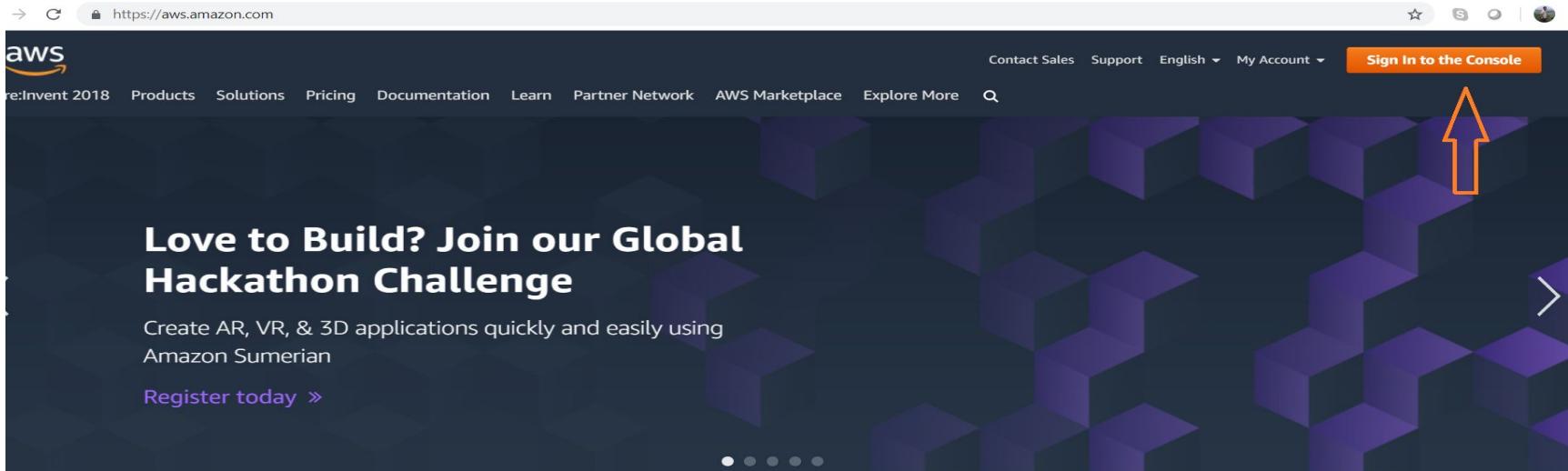
EU (Paris)

EU (Stockholm)

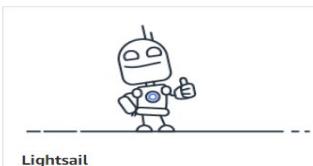
South America (São Paulo)

1. Left side image shows all available 16 Regions in AWS
2. Again each Region is divided into zones and every Region is having minimum two zones and max five to six
3. These Regions are divided into regions by considering geographical locations
4. Through this Regions and Zones only lost data is recovered and up time is very high

Creating EC2 Instance & Connecting Instance via putty



The screenshot shows the AWS homepage. At the top right, there is a yellow arrow pointing upwards towards the "Sign In to the Console" button. The page features a dark background with a hexagonal geometric pattern. A banner at the top left promotes the "re:Invent 2018 Global Hackathon Challenge". Below the banner, there is a call-to-action for "Register today" and a section about Amazon Sumerian. At the bottom, there are four cards showcasing AWS services: Lightsail, AWS Security Hub, AWS Well-Architected Tool, and AWS TechChat.



Lightsail



AWS Security Hub



AWS Well-Architected Tool



AWS TechChat



https://signin.aws.amazon.com/signin?redirect_uri=https%3A%2F%2Fconsole.aws.amazon.com%2Fconsole%2Fhome%3Fnc2%3Dh_ct%26src%3Dheader-signin%26state%3DhashArgs%252...



Root user sign in ?

Give your Email & password and click
on sign in button

Email: rajeshdeveloper09@gmail.com

Password

[Forgot password?](#)

.....

Sign in

[Sign in to a different account](#)

[Create a new AWS account](#)



Introducing AWS Ground Station

Fully managed Ground Station as a Service to easily control satellites and ingest satellite data



About Amazon.com Sign In

Amazon Web Services uses information from your Amazon.com account to identify you and allow access to Amazon Web Services. Your use of this site is governed by our Terms of Use and Privacy Policy linked below. Your use of Amazon Web Services products and services is governed by the AWS Customer Agreement linked below unless you have entered into a separate agreement with Amazon Web Services or an AWS Value Added Reseller to purchase these products and services. The AWS Customer Agreement was updated on March 21, 2017. For more information about these updates, see [Recent Changes](#).

AWS - Google Drive AWS Management Console https://ap-south-1.console.aws.amazon.com/console/home?nc2=h_ct®ion=ap-south-1&src=header-signin# Rajesh Developer Mumbai Support

Services ▾ Resource Groups ▾

History

Console Home

EC2

IAM

Compute

- EC2
- Lightsail ↗
- ECR
- ECS
- EKS
- Lambda
- Batch
- Elastic Beanstalk

Storage

- S3
- EFS
- FSx
- S3 Glacier
- Storage Gateway

Database

- RDS
- DynamoDB
- ElastiCache

Blockchain

- Amazon Managed Blockchain

Satellite

- Ground Station

Management & Governance

- CloudWatch
- AWS Auto Scaling
- CloudFormation
- CloudTrail
- Config
- OpsWorks
- Service Catalog
- Systems Manager
- Trusted Advisor
- Managed Services
- Control Tower
- AWS License Manager
- AWS Well-Architected Tool
- Personal Health Dashboard ↗

Analytics

- Athena
- EMR
- CloudSearch
- Elasticsearch Service
- Kinesis
- QuickSight ↗
- Data Pipeline
- AWS Glue
- MSK

Customer Engagement

- Amazon Connect
- Pinpoint
- Simple Email Service

Business Applications

- Alexa for Business
- Amazon Chime ↗
- WorkDocs
- WorkMail

Security, Identity, & Compliance

- IAM
- Resource Access Manager
- Cognito
- Secrets Manager
- GuardDuty
- Inspector
- Amazon Macie ↗
- AWS Organizations
- AWS Single Sign-On
- Certificate Manager

Desktop & App Streaming

- WorkSpaces
- AppStream 2.0

Internet Of Things

- IoT Core
- Amazon FreeRTOS
- IoT 1-Click
- IoT Analytics

Find a service by name or feature (for example, EC2, S3 or VM, storage).

Group A-Z

close

AWS Google Drive EC2 Management Console https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Home: Rajesh Developer Mumbai Support

EC2 Dashboard

- Events
- Tags
- Reports
- Limits

INSTANCES

- Instances
- Launch Templates
- Spot Requests
- Reserved Instances
- Dedicated Hosts
- Capacity Reservations

IMAGES

- AMIs
- Bundle Tasks

ELASTIC BLOCK STORE

- Volumes
- Snapshots
- Lifecycle Manager

NETWORK & SECURITY

- Security Groups
- Elastic IPs

Services Resource Groups

Resources

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

1 Running Instances	0 Elastic IPs
0 Dedicated Hosts	0 Snapshots
4 Volumes	0 Load Balancers
1 Key Pairs	3 Security Groups
0 Placement Groups	

Learn more about the latest in AWS Compute from AWS re:Invent by viewing the [EC2 Videos](#).

Create Instance

To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.

Launch Instance 

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

Service Health

Service Status:

- ✓ Asia Pacific (Mumbai):

Availability Zone Status:

- ✓ ap-south-1a: Availability zone is operating normally
- ap-south-1b:

Scheduled Events

Asia Pacific (Mumbai): No events

AWS Marketplace

Find free software trial products in the AWS Marketplace from the [EC2 Launch Wizard](#). Or try these popular AMIs:

Barracuda CloudGen Firewall for AWS - PAYG
By Barracuda Networks, Inc.
Rating ★★★★☆
Starting from \$0.60/hr or from \$4,599/yr (12%)

Resources Account Attributes Additional Information

Supported Platforms VPC Default VPC vpc-7f371417 Resource ID length management Console experiments

Getting Started Guide Documentation All EC2 Resources Forums Pricing Contact Us

AWS - Google Drive EC2 Management Console https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard: Rajesh Developer Mumbai Support

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 1: Choose an Amazon Machine Image (AMI)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Search for an AMI by entering a search term e.g. "Windows"

Quick Start

- My AMIs
- AWS Marketplace
- Community AMIs

Free tier only (i)

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-06bcd1131b2f55803

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras.

Root device type: ebs Virtualization type: hvm

Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type - ami-0ad42f4f66f6c1cc9

The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.

Root device type: ebs Virtualization type: hvm

Red Hat Enterprise Linux 7.5 (HVM), SSD Volume Type - ami-5b673c34

Red Hat Enterprise Linux version 7.5 (HVM), EBS General Purpose (SSD) Volume Type

Root device type: ebs Virtualization type: hvm

SUSE Linux Enterprise Server 15 (HVM), SSD Volume Type - ami-025d8258d76079367

Select 64-bit (x86)
Select 64-bit (x86)
Select 64-bit (x86)



AWS - Google Drive EC2 Management Console https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard: Rajesh Developer Mumbai Support

aws Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance types Current generation Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	-
<input checked="" type="checkbox"/>	General purpose	t2.micro <small>Free tier eligible</small>	1	1	EBS only	-	Low to Moderate	-
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	-
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	-
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate	-
<input type="checkbox"/>	General purpose	t2.xlarge	4	16	EBS only	-	Moderate	-
<input type="checkbox"/>	General purpose	t2.2xlarge	8	32	EBS only	-	Moderate	-
<input type="checkbox"/>	General purpose	m5.large	2	8	EBS only	Yes	Up to 10 Gigabit	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

AWS - Google Drive EC2 Management Console https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard:

Services Resource Groups Rajesh Developer Mumbai Support

Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances 1 **Launch into Auto Scaling Group** 

Purchasing option Request Spot Instances

Network vpc-7f371417 (default)  Create new VPC

Subnet No preference (default subnet in any Availability Zone)  Create new subnet

Auto-assign Public IP Use subnet setting (Enable)

Placement group Add instance to placement group.

Capacity Reservation Open  Create new Capacity Reservation

IAM role None  Create new IAM role

Shutdown behavior Stop

Enable termination protection Protect against accidental termination

Monitoring Enable CloudWatch detailed monitoring
Additional charges apply.

Tenancy Shared - Run a shared hardware instance
Additional charges will apply for dedicated tenancy

 **Cancel** **Previous** **Review and Launch** **Next: Add Storage**

AWS - Google Drive EC2 Management Console https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard: Rajesh Developer Mumbai Support

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encrypted
Root	/dev/xvda	snap-0a6f807f22240325d	8	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

Add New Volume 



Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.



Cancel Previous Review and Launch Next: Add Tags

AWS - Google Drive EC2 Management Console

https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard:

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1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 5: Add Tags

Tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.

copy of a tag can be applied to volumes, instances or both.

ags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key	(127 characters maximum)	Value	(255 characters maximum)	Instances	Volumes
This resource currently has no tags					
Choose the Add tag button or click to add a Name tag . 					
Make sure your IAM policy includes permissions to create tags.					
Add Tag	(Up to 50 tags maximum)				

Cancel Previous **Review and Launch** Next: Configure Security Group

AWS - Google Drive EC2 Management Console https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard:

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1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.
A copy of a tag can be applied to volumes, instances or both.
Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key	(127 characters maximum)	Value	(255 characters maximum)	Instances	Volumes
Name		Ubuntu server		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Add another tag (Up to 50 tags maximum)

Cancel Previous Review and Launch Next: Configure Security Group



AWS - Google Drive EC2 Management Console

https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard:

Services Resource Groups

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1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more about Amazon EC2 security groups.](#)

Assign a security group: Create a new security group Select an existing security group

Security group name: launch-wizard-2

Description: launch-wizard-2 created 2018-12-26T21:24:28.020+05:30

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	Anywhere	0.0.0.0/0, ::/0 e.g. SSH for Admin Desktop
HTTP	TCP	80	Anywhere	0.0.0.0/0, ::/0 e.g. SSH for Admin Desktop
HTTPS	TCP	443	Anywhere	0.0.0.0/0, ::/0 e.g. SSH for Admin Desktop
Custom TCP F	TCP	8080	Anywhere	0.0.0.0/0, ::/0 e.g. SSH for Admin Desktop

Add Rule

Warning
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.

Cancel Previous Review and Launch



Services ▾

Resource Groups ▾



Rajesh Developer ▾

Mumbai ▾

Support ▾

1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review

Step 7: Review Instance Launch

You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. [Edit security groups](#)

AMI Details

[Edit AMI](#)**Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type - ami-0ad42f4f66f6c1cc9****Free tier eligible**

The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.

Root Device Type: ebs Virtualization type: hvm

Instance Type

[Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

Security Groups

[Edit security groups](#)**Security group name** launch-wizard-2**Description** launch-wizard-2 created 2018-12-26T21:24:28.020+05:30

Type (i)	Protocol (i)	Port Range (i)	Source (i)	Description (i)
SSH	TCP	22	0.0.0.0/0	
SSH	TCP	22	..::/0	

[Cancel](#)[Previous](#)[Launch](#)

ts in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. [Edit security groups](#)

Select an existing key pair or create a new key pair X

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

vCPUs

1

Create a new key pair

Key pair name

DevOps



Download Key Pair



You have to download the **private key file** (*.pem file) before you can continue. **Store it in a secure and accessible location.** You will not be able to download the file again after it's created.

Cancel

Launch Instances

EC2 Management Console

https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard:

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Launch Status

Your instances are now launching

The following instance launches have been initiated: i-0041e226567fbd28f [View launch log](#)

Get notified of estimated charges

Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).

How to connect to your instances

Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.

Click [View Instances](#) to monitor your instances' status. Once your instances are in the **running** state, you can **connect** to them from the Instances screen. [Find out](#) how to connect to your instances.

Here are some helpful resources to get you started

- [How to connect to your Linux instance](#)
- [Amazon EC2: User Guide](#)
- [Learn about AWS Free Usage Tier](#)
- [Amazon EC2: Discussion Forum](#)

While your instances are launching you can also

[Create status check alarms](#) to be notified when these instances fail status checks. (Additional charges may apply)

[Create and attach additional EBS volumes](#) (Additional charges may apply)

[Manage security groups](#)



[View Instances](#)

EC2 Management Console

https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Instances:

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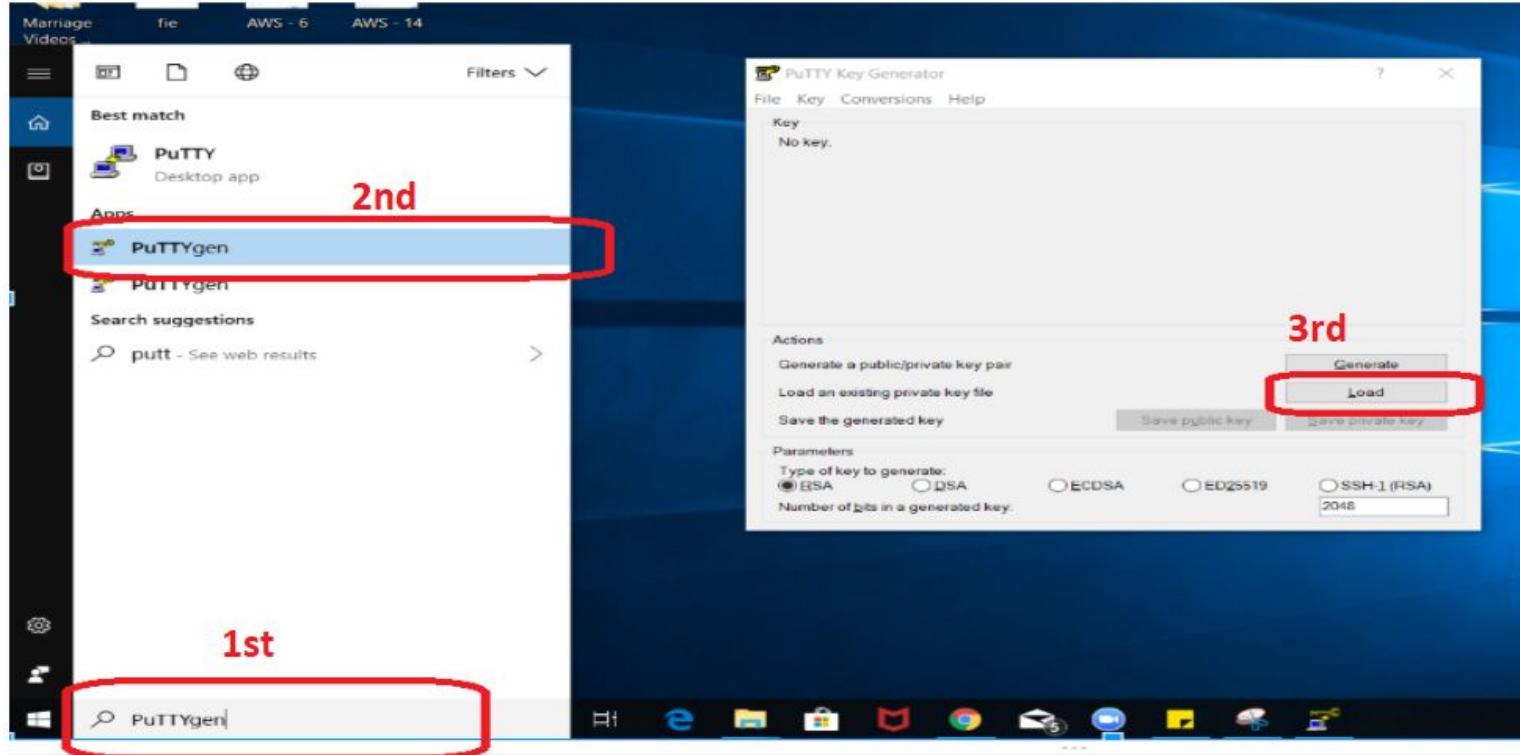
Launch Instance Connect Actions

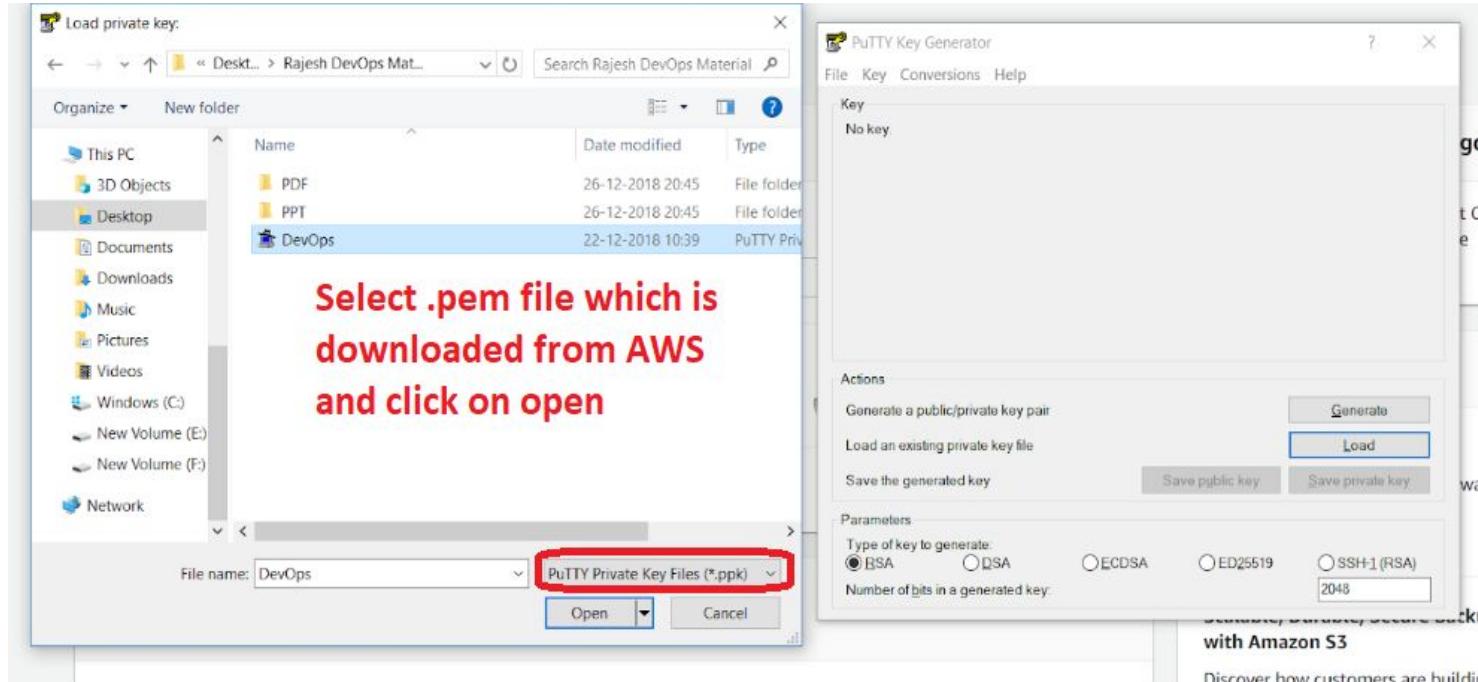
Filter by tags and attributes or search by keyword

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs
Ubuntu new ...	i-0041e226567fdb28f	t2.micro	ap-south-1a	running	Initializing	None	ec2-13-234-19-233.ap...	13.234.19.233	-
Normal	i-06043da5169b419fa	t2.micro	ap-south-1a	running	2/2 checks ...	None	ec2-13-233-244-1.ap.s...	13.233.244.1	-
	i-0a61c609c63f800ab	t2.micro	ap-south-1a	stopped		None		-	-
Distribution	i-0ab4221799a84d7...	t2.micro	ap-south-1a	stopped		None		-	-
Ubuntu server	i-0d2d139764d6c36f5	t2.micro	ap-south-1a	stopped		None		-	-

Select an instance above

EC2 Dashboard Events Tags Reports Limits INSTANCES Instances Launch Templates Spot Requests Reserved Instances Dedicated Hosts Capacity Reservations IMAGES AMIs Bundle Tasks ELASTIC BLOCK STORE Volumes Snapshots Lifecycle Manager NETWORK & SECURITY Security Groups





The image shows two windows from the PuTTY Key Generator application.

Left Window (PuTTY Key Generator):

- Public key for pasting into OpenSSH authorized_keys file:**
ssh-rsa AAAAB3NzaC1yc2EAAAQABAAQCZTkEJiiJi4No3J2MmS2QXrkM7n8E63rA+PM +WRJHbpdhrlTpq36ldRrTLwusiEc6bKFzyVPwDyGzP9+NL50nQrlra0FIVCT2vEIhbJ43UmIX KwacLnx8FF9ZxgBywFj1PWYHUy4kg5l4QUu4tApR4KJbTfvUnpZ4E3Di76s6Ycz7EU9gO bhyoPMelLxYp6PRTV2MLHJiajMQIPysveowBoBPYjVS9omfu9IdUk6/8H
- Key fingerprint:** ssh-rsa 2048 f0:c5:11:47:3d:e8:40:4c:f0:06:b0:5b:90:65:0a:90
- Key comment:** imported-openssh-key
- Key passphrase:** [empty]
- Confirm passphrase:** [empty]
- Actions:**
 - Generate a public/private key pair
 - Load an existing private key file
 - Save the generated key
- Parameters:**
 - Type of key to generate:
 RSA DSA ECDSA ED25519 SSH-1(RSA) **1st**
 - Number of bits in a generated key:

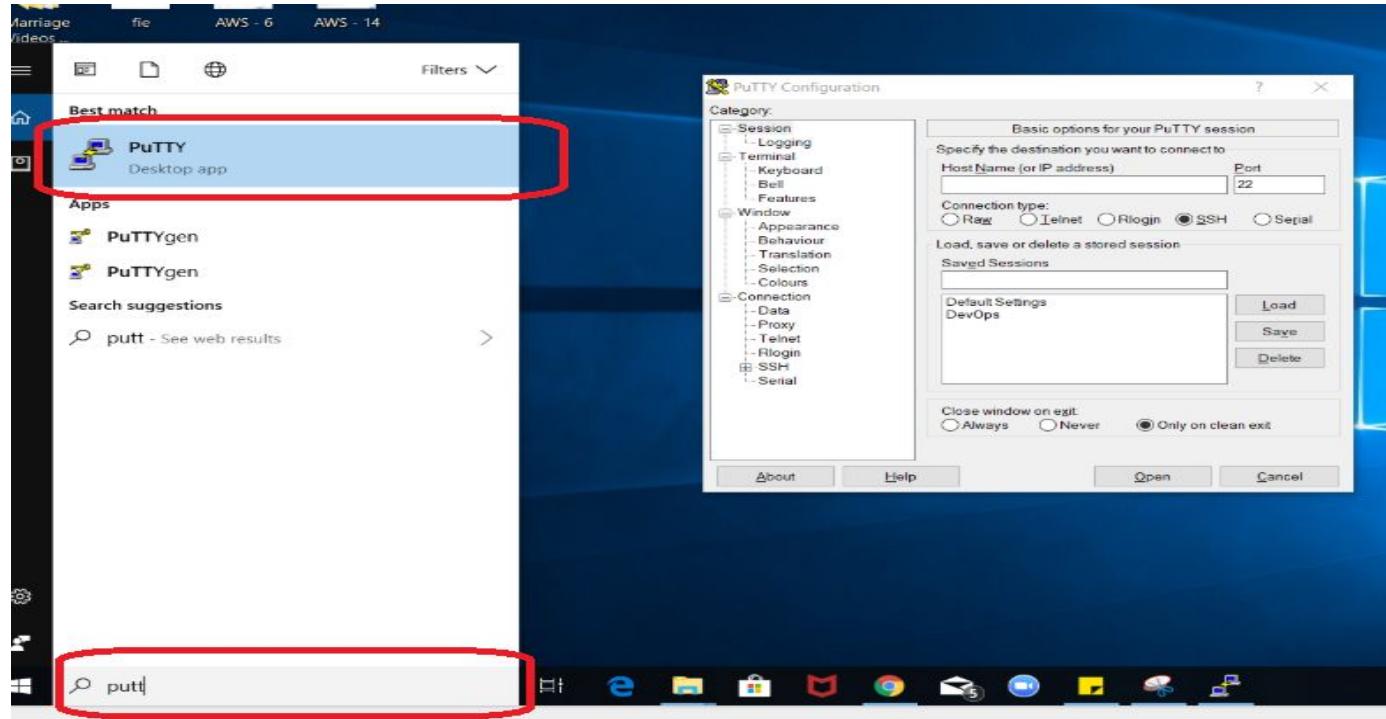
Right Window (PuTTYgen Warning):

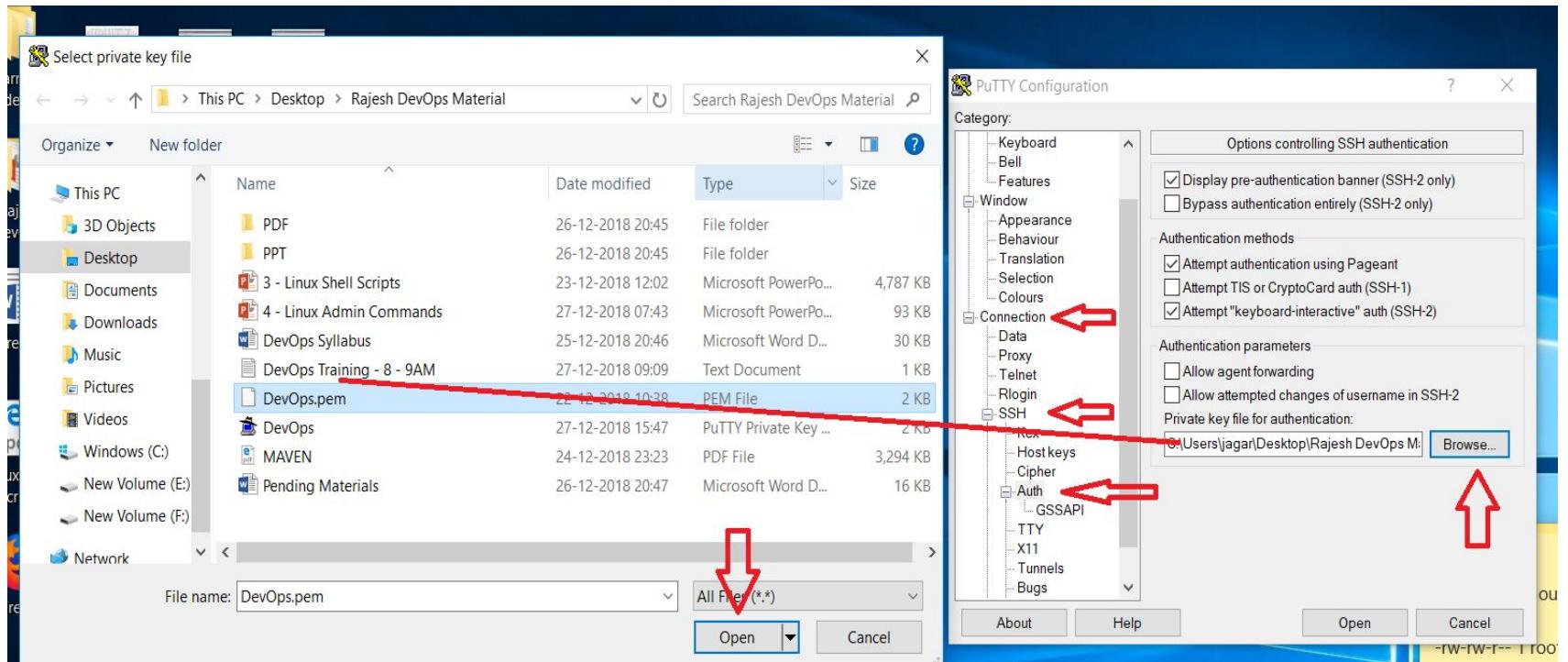
Are you sure you want to save this key without a passphrase to protect it?

Yes **No**

2nd

By click on “YES” it will ask path to store PPK file





Launch Instance ▾ Connect Actions ▾

Filter by tags and attributes or search by keyword ? < 1 to 5 of 5

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP
Ubuntu new ...	i-0041e226567fbdb28f	Normal	i-06043da5169b419	running	Initializing	None	ec2-52-66-212-72.ap-s...	52.66.212.72
				stopped		None		-
				stopped		None		-
				stopped		None		-
				stopped		None		-

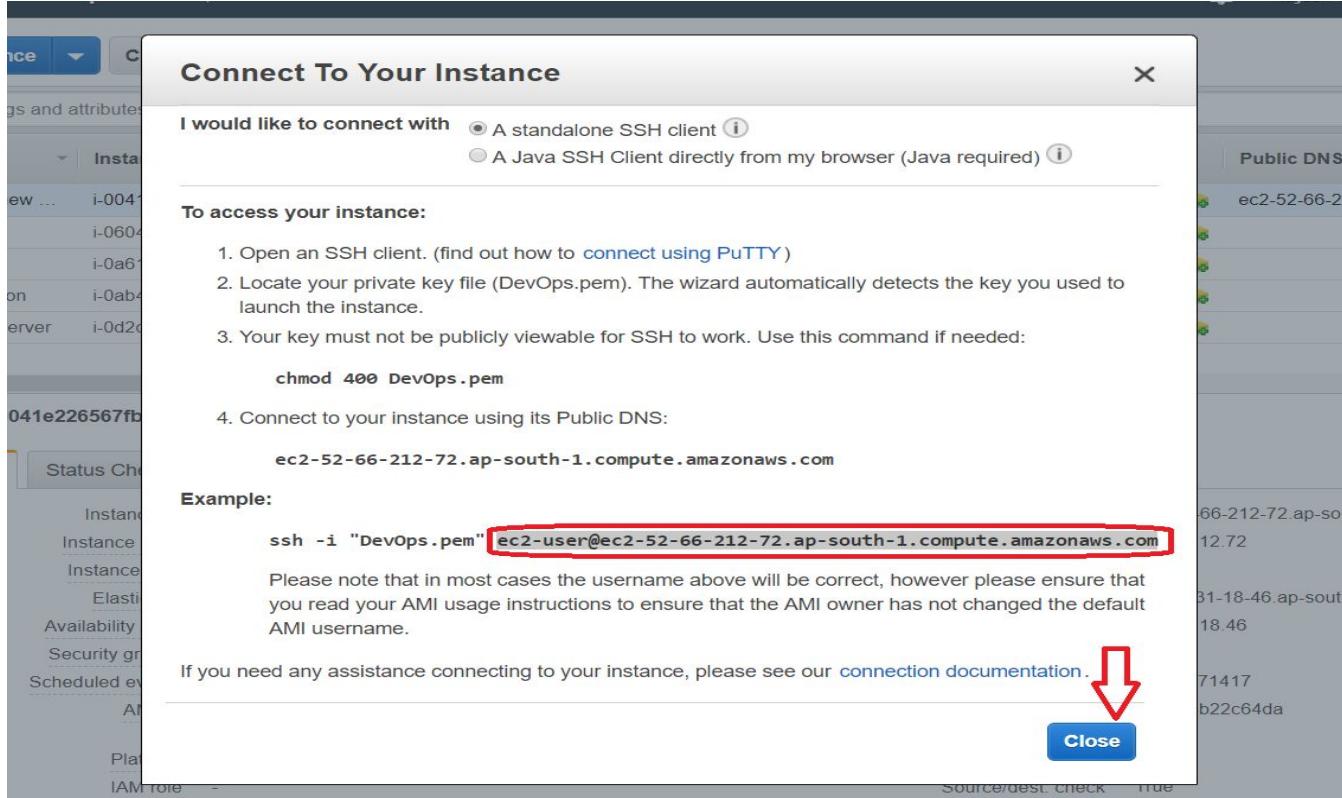
Ubuntu new ... i-0041e226567fbdb28f (Ubuntu) 52.66.212.72.ap-south-1.compute.amazonaws.com

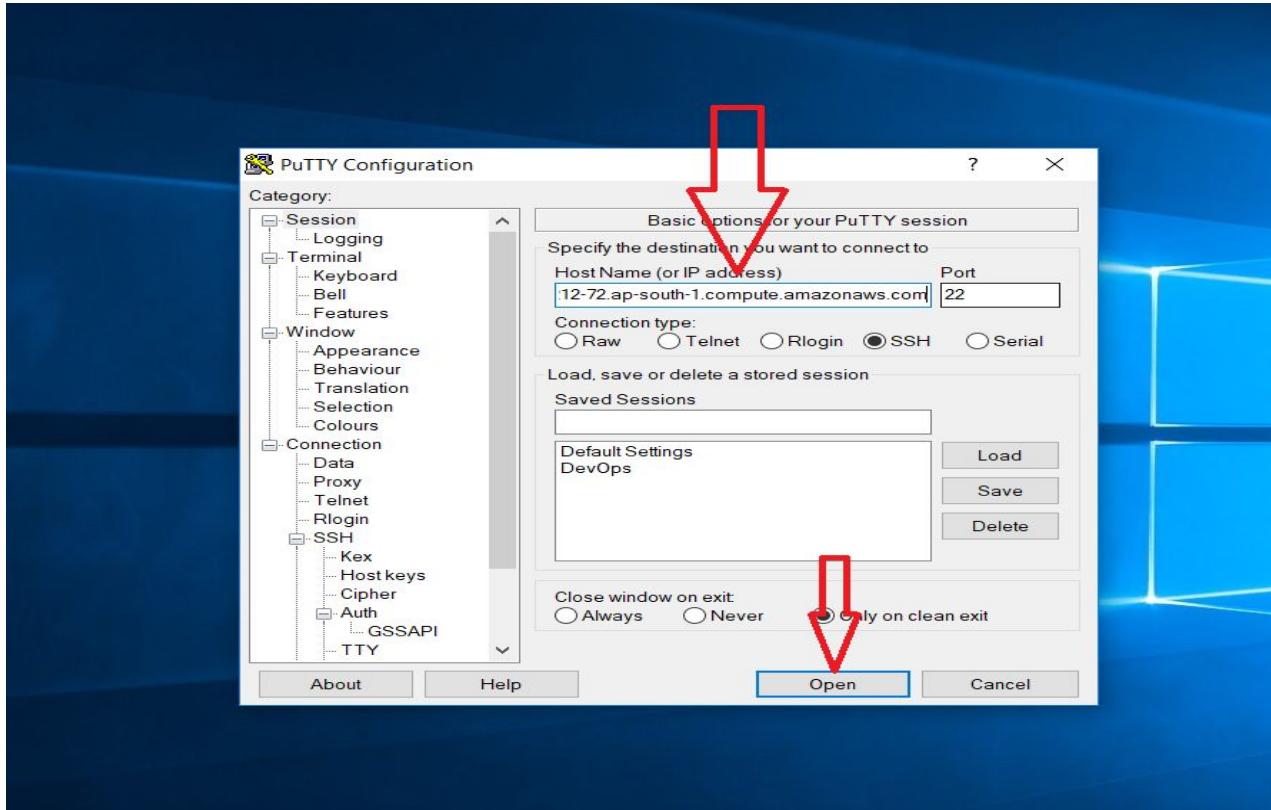
Connect Get Windows Password Create Template From Instance Launch More Like This

Instance State Instance Settings Image Networking CloudWatch Monitoring

Description Status Checks Monitoring Tags

Instance ID	i-0041e226567fbdb28f	Public DNS (IPv4)	ec2-52-66-212-72.ap-south-1.compute.amazonaws.com
Instance state	running	IPv4 Public IP	52.66.212.72





AWS - 6 AWS - 14 AWS - 21

ec2-52-66-212-72.ap-south-1.compute.amazonaws.com - PuTTY

PuTTY Security Alert



The server's host key is not cached in the registry. You have no guarantee that the server is the computer you think it is.

The server's ssh-ed25519 key fingerprint is:
ssh-ed25519 256 fe:1e:ce:dcb1:a8:32:4d:d7:73:9d:62:f6:d2:c4:92
If you trust this host, hit Yes to add the key to PuTTY's cache and carry on connecting.

If you want to carry on connecting just once, without adding the key to the cache, hit No.

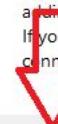
If you do not trust this host, hit Cancel to abandon the connection.

Yes

No

Cancel

Help



Login username

For Linux : ec2-user

For Ubuntu : ubuntu

Elastic IP

- For any instance one public ip and one private ip will be existing. Public ip is used to interact outside world with the instance. Private ip is used to interact by Amazon cloud only. By using private ip outside world will not be able to connect/interact with instance.
- Public ip is not static. I.e if instance is down & up, public ip will get changed.
- For example, some application is running and that application is given access to end users (app is in production), due to some issue, if instance is down for 1 min & up.
- Public IP will get changed in above scenario. This problem is solved by using Elastic IP
- Steps to create Elastic IP and assigning to instance is shown in below



Services

Resource Groups

EC2 Dashboard

Events

Tags

Reports

Limits

INSTANCES

Instances

Launch Templates

Spot Requests

Reserved Instances

Dedicated Hosts

Capacity Reservations

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORE

Volumes

Snapshots

Lifecycle Manager

NETWORK & SECURITY

Security Groups

Elastic IPs

Placement Groups

Resources

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

0 Running Instances

0 Elastic IPs

0 Dedicated Hosts

0 Snapshots

4 Volumes

0 Load Balancers

1 Key Pairs

4 Security Groups

0 Placement Groups

Learn more about the latest in AWS Compute from AWS re:Invent by viewing the [EC2 Videos](#).

Create Instance

To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.

[Launch Instance](#)

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

Service Health

Service Status:

✓ Asia Pacific (Mumbai):

Availability Zone Status:

✓ ap-south-1a:

Availability zone is operating normally

✓ ap-south-1b:

Availability zone is operating normally

Scheduled Events

Asia Pacific (Mumbai):

No events

EC2 Management Console 16 - AWS EC2 - Google Slides

https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Addresses:sort=PublicIp

Rajesh Developer Mumbai Support

EC2 Dashboard Allocate new address Actions

Events Filter by tags and attributes or search by keyword

Tags None found

Reports

Limits

INSTANCES

- Instances
- Launch Templates
- Spot Requests
- Reserved Instances
- Dedicated Hosts
- Capacity Reservations

IMAGES

- AMIs
- Bundle Tasks

You do not have any Addresses in this region

Allocate new address



EC2 Management Console 16 - AWS EC2 - Google Slides

https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#AllocateAddress:

AWS Services Resource Groups 🔍

Rajesh Developer Mumbai Support

Addresses > Allocate new address

Allocate new address

Allocate a new Elastic IP address by selecting the scope in which it will be used

Scope VPC

Cancel Allocate



A screenshot of a web browser window showing the AWS EC2 Management Console. The title bar includes tabs for 'EC2 Management Console' and '16 - AWS EC2 - Google Slides'. The URL in the address bar is <https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#AllocateAddress:>. The AWS logo is at the top left, followed by 'Services' and 'Resource Groups' dropdown menus. On the right, there are notifications, user 'Rajesh Developer', location 'Mumbai', and support links.

Addresses > Allocate new address

Allocate new address

✓ New address request succeeded

Elastic IP 35.154.45.77



this is elastic ip

Close



EC2 Management Console 16 - AWS EC2 - Google Slides

https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Addresses:sort=PublicIP

Services Resource Groups

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EC2 Dashboard Events Tags Reports Limits

INSTANCES Instances Launch Templates Spot Requests Reserved Instances Dedicated Hosts Capacity Reservations

Allocate new address Actions

Filter by tags and attributes or search by keyword

1 to 1 of 1

Name	Elastic IP	Allocation ID	Instance	Private IP address	Scope	Association ID	Network Interface ID
	35.154.45.77	eipalloc-0048854ba...	-	-	vpc	-	-

This Elastic IP is not assigned to any of the instances

EC2 Management Console 16 - AWS EC2 - Google Slides

https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Addresses:sort=PublicIp

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EC2 Dashboard Allocate new address Actions ▾

Events Tags Reports Limits

INSTANCES

- Instances
- Launch Templates
- Spot Requests
- Reserved Instances
- Dedicated Hosts
- Capacity Reservations

Release addresses Associate address 

Disassociate address Add/Edit Tags

Name	Allocation ID	Instance	Private IP address	Scope	Association ID	Network Interface ID
35.184.43.11	eipalloc-0048854ba...	-	-	vpc	-	-

Associate address

Select the instance OR network interface to which you want to associate this Elastic IP address (35.154.45.77)

Resource type Instance i
 Network interface

select instance to which this elastic ip should map

Instance

Select an instance

C

Private IP

Filter by attributes



Reassociation

Instance ID	Name	State
i-06043da5169b419fa	Normal	stopped
i-0041e226567fdb28f	Ubuntu new server	stopped
i-0ab4221799a84d78b	Distribution	stopped
i-0d2d139764d6c36f5	Ubuntu server	stopped



Warning

If you associate an Elastic IP address with your instance, your current public IP address is released. [Learn more](#).

Addresses > Associate address

Associate address

Select the instance OR network interface to which you want to associate this Elastic IP address (35.154.45.77)

Resource type Instance i
 Network interface

Instance i-0041e226567fb28f



Private IP Select a private IP

C i **Select private IP of instance**

Reassociation

Filter by attributes

172.31.18.46



Warning

If you associate an Elastic IP address with your instance, your current public IP address is released. [Learn more](#).



Cancel

Associate

EC Management Console x 16 - AWS EC2 - Google Slides x | +

https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Addresses:sort=PublicIP

Services Resource Groups 🔍

Rajesh Developer Mumbai Support

EC Dashboard Events Tags Reports Limits

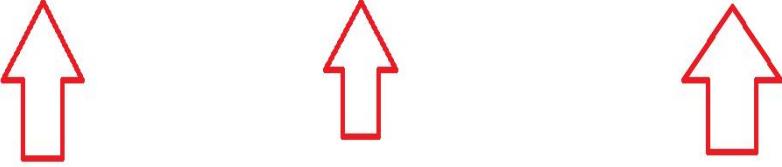
INSTANCES Instances Launch Templates Spot Requests Reserved Instances Dedicated Hosts Capacity Reservations

Allocate new address Actions

Filter by tags and attributes or search by keyword

1 to 1 of 1

Name	Elastic IP	Allocation ID	Instance	Private IP address	Scope	Association ID	Network Interface ID
	35.154.45.77	eipalloc-0048854ba...	i-0041e226567fbdb28f	172.31.18.46	vpc	eipassoc-0c216f26a...	eni-01a26791e96c6182e



Now this Elastic IP is assigned
to i-0041e226567fbdb... instance

Launch Instance Connect Actions

Filter by tags and attributes or search by keyword

1 to 5 of 5

	Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6
	Ubuntu new ...	i-0041e226567fdbd28f	t2.micro	ap-south-1a	stopped		None		ec2-35-154-45-77.ap-s...	35.154.45.77
	Normal	i-06043da5169b419fa	t2.micro	ap-south-1a	stopped		None		-	-
		i-0a61c609c63f800ab	t2.micro	ap-south-1a	terminated		None		-	-
	Distribution	i-0ab4221799a84d7...	t2.micro	ap-south-1a	stopped		None		-	-
	Ubuntu server	i-0d2d139764d6c36f5	t2.micro	ap-south-1a	stopped		None		-	-

Instance: i-0041e226567fdbd28f (Ubuntu new server) Elastic IP: 35.154.45.77

Description Status Checks Monitoring Tags

Instance ID	i-0041e226567fdbd28f	Public DNS (IPv4)	ec2-35-154-45-77.ap-south-1.compute.amazonaws.com
Instance state	stopped	IPv4 Public IP	35.154.45.77
Instance type	t2.micro	IPv6 IPs	-
Elastic IPs	35.154.45.77*	Private DNS	ip-172-31-18-46.ap-south-1.compute.internal
Availability zone	ap-south-1a	Private IPs	172.31.18.46
Security groups	launch-wizard-2, view inbound rules, view outbound rules	Secondary private IPs	
Scheduled events	-	VPC ID	vpc-7f371417
AMI ID	amzn-ami-hvm-2018.03.0.20181129-x86_64-gp2 (ami-	Subnet ID	subnet-b22c64da