

**WEL COME**



**LockThreat Technologies**

EC2 (ELASTIC COMPUTE  
CLOUD)

AWS

Several thin, white, parallel lines of varying lengths and slopes are positioned on the right side of the image, extending from the top right towards the bottom left.

- ▶ Elastic Compute Cloud is used to launch virtual Servers when on demand.
- ▶ Provides scalable computing capacity.
- ▶ Faster development and deployment of applications.
- ▶ Eliminates invest in hardware.
- ▶ Configures security, networking and manage storage.

## WHAT IS EC2 ?

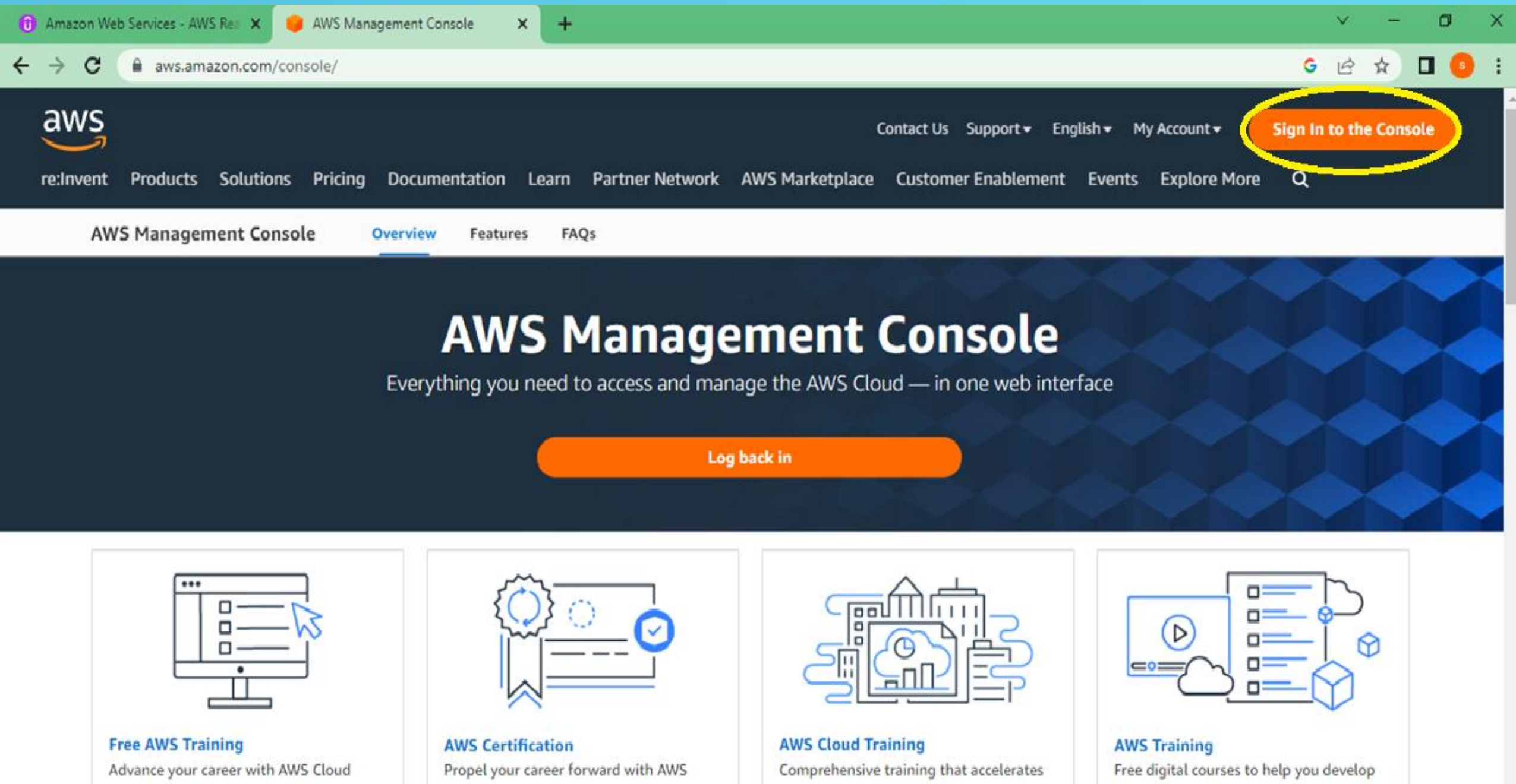
- ▶ Virtual computing environments, known as **instances**
- ▶ Preconfigured templates for your instances, known as **Amazon Machine Images (AMIs)**, that package the bits you need for your server (including the operating system and additional software)
- ▶ Various configurations of CPU, memory, storage, and networking capacity for your instances, known as **instance types**
- ▶ Secure login information for your instances using **key pairs** (AWS stores the public key, and you store the private key in a secure place)
- ▶ A firewall that enables you to specify the protocols, ports, and source IP ranges that can reach your instances using **security groups**
- ▶ **Static IPv4** addresses for dynamic cloud computing, known as *Elastic IP addresses*
- ▶ Virtual networks you can create that are logically isolated from the rest of the AWS Cloud, and that you can optionally connect to your own network, known as *virtual private clouds (VPCs)*

## FEATURES OF AMAZON EC2

# PRACTICAL



# OPEN AWS MANAGEMENT CONSOLE IN GOOGLE



The image shows a Google Chrome browser window with two tabs: "Amazon Web Services - AWS Re..." and "AWS Management Console". The address bar shows the URL "aws.amazon.com/console/". The AWS logo is in the top left corner. In the top right corner, there are links for "Contact Us", "Support", "English", and "My Account", followed by a prominent orange button labeled "Sign In to the Console" which is circled in yellow. Below the navigation bar, there are links for "re:Invent", "Products", "Solutions", "Pricing", "Documentation", "Learn", "Partner Network", "AWS Marketplace", "Customer Enablement", "Events", and "Explore More". The main heading is "AWS Management Console" with sub-links for "Overview", "Features", and "FAQs". The central banner features the text "AWS Management Console" and "Everything you need to access and manage the AWS Cloud — in one web interface", with a large orange button labeled "Log back in". At the bottom, there are four promotional cards: "Free AWS Training" (Advance your career with AWS Cloud), "AWS Certification" (Propel your career forward with AWS), "AWS Cloud Training" (Comprehensive training that accelerates), and "AWS Training" (Free digital courses to help you develop).

Amazon Web Services - AWS Re... x AWS Management Console x +

aws.amazon.com/console/

aws

Contact Us Support English My Account **Sign In to the Console**


re:Invent Products Solutions Pricing Documentation Learn Partner Network AWS Marketplace Customer Enablement Events Explore More

AWS Management Console Overview Features FAQs


## AWS Management Console

Everything you need to access and manage the AWS Cloud — in one web interface


**Log back in**




**Free AWS Training**  
Advance your career with AWS Cloud



**AWS Certification**  
Propel your career forward with AWS



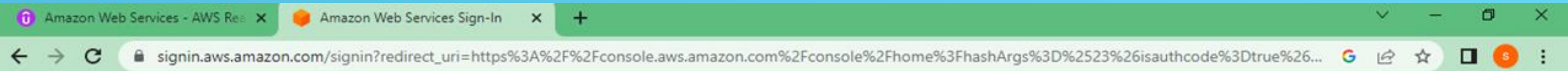
**AWS Cloud Training**  
Comprehensive training that accelerates



**AWS Training**  
Free digital courses to help you develop



# ALWAYS LOGIN IN ROOT USER



## Sign in

☒ **Root user**

Account owner that performs tasks requiring unrestricted access. [Learn more](#)

☐ **IAM user**

User within an account that performs daily tasks. [Learn more](#)

Root user email address

`username@example.com`

Next

By continuing, you agree to the [AWS Customer Agreement](#) or other agreement for AWS services, and the [Privacy Notice](#). This site uses essential cookies. See our [Cookie Notice](#) for more information.

New to AWS?

Create a new AWS account

A graphic featuring a dark blue background with a white outline of a cloud. Inside the cloud is a teal bar chart with four bars of increasing height. Two teal arrows point upwards from the bottom left and top right of the cloud.

## Explore the business value of Cloud Migration

Learn how migrating on-premises IT to AWS improves resiliency, agility, cost savings, and staff productivity

# ONCE LOGIN YOU ALL VISIBLE TO SEE AWS LOGIN PAGE

Amazon Web Services - AWS Rea x

AWS Management Console x

+

← → ↻ 🔒 ap-south-1.console.aws.amazon.com/console/home?nc2=h\_ct&region=ap-south-1&src=header-signin#

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🔑 IAM

🖥 EC2

🔒 VPC

Console Home [Info](#)

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+ Add widgets

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🖥 EC2

📁 S3

🔥 AWS Amplify

📊 AWS Budgets

🔒 VPC

🌱 Elastic Beanstalk

🔑 IAM

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⋮ Welcome to AWS

🚀 [Getting started with AWS](#) [🔗](#)

Learn the fundamentals and find valuable information to get the most out of AWS.

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Learn from AWS experts and advance your skills and knowledge.

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Discover new AWS services, features, and Regions.

Feedback

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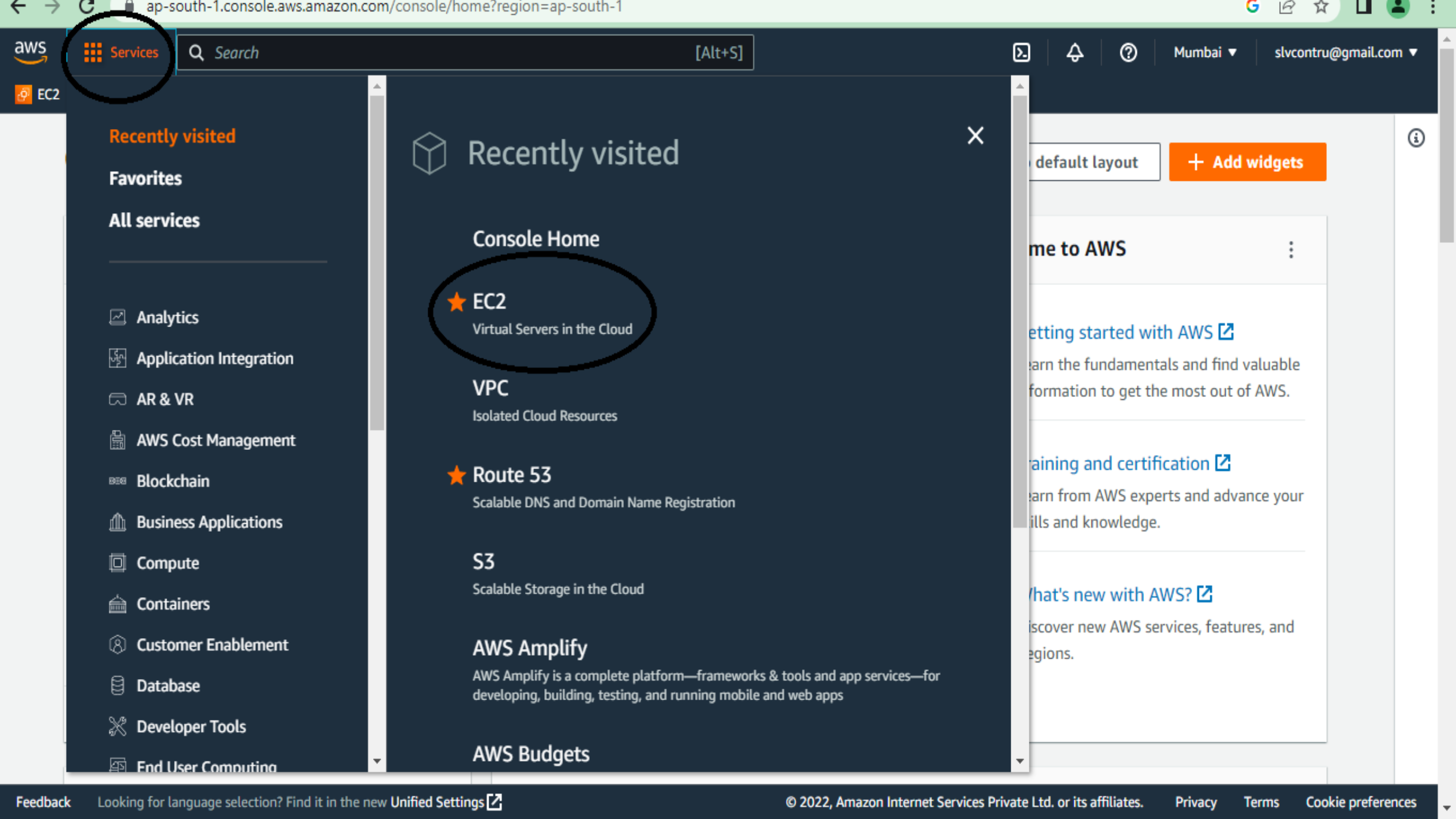
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## Recently visited

### Favorites

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Developer Tools

End User Computing



## Recently visited

### Console Home



EC2

Virtual Servers in the Cloud

### VPC

Isolated Cloud Resources



Route 53

Scalable DNS and Domain Name Registration

### S3

Scalable Storage in the Cloud

### AWS Amplify

AWS Amplify is a complete platform—frameworks & tools and app services—for developing, building, testing, and running mobile and web apps

### AWS Budgets

default layout

+ Add widgets

## Welcome to AWS

Getting started with AWS

Learn the fundamentals and find valuable information to get the most out of AWS.

Training and certification

Learn from AWS experts and advance your skills and knowledge.

What's new with AWS?

Discover new AWS services, features, and regions.

# LAUNCHING EC2 SYSTEM

← → ↻ 🔒 ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Home: 🔍 🔔 🔗 🌐 📱 🔴 ⋮

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**EC2**

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

**EC2 Dashboard**

- EC2 Global View
- Events
- Tags
- Limits
- Instances** New
- Instance Types
- Launch Templates
- Spot Requests
- Savings Plans
- Reserved Instances New
- Dedicated Hosts
- Capacity Reservations

**Resources** EC2 Global view 🔄 ⚙️

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

Instances (running)	0	Dedicated Hosts	0
Elastic IPs	0	Instances	0
Key pairs	0	Load balancers	0
Placement groups	0	Security groups	2
Snapshots	0	Volumes	0

📘 Easily size, configure, and deploy Microsoft SQL Server Always On availability groups on AWS using the AWS Launch Wizard for SQL Server. [Learn more](#) ×

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

**Service health** 🔄 AWS Health Dashboard

**Account attributes** 🔄

[Supported platforms](#)

- VPC

[Default VPC](#)  
vpc-08127f5a7973d0bc5

**Settings**

- EBS encryption
- Zones
- EC2 Serial Console
- Default credit specification
- Console experiments

**Explore AWS** ×

**Enable Best Price-Performance with AWS Graviton2**

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New EC2 Experience

Tell us what you think

EC2 Dashboard

EC2 Global View

Events

Tags

Limits

Instances

Instances

New

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

New

Dedicated Hosts

Capacity Reservations

Images

AMIs

Instances (1)

Info

Connect

Instance state

Actions

Launch instances

Find instance by attribute or tag (case-sensitive)

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
	ttd	i-0bd2d6464cdc3a360	Stopped	t2.micro	-	No alarms	ap-south-1a

Select an instance

EC2 > Instances > Launch an instance

# Launch an instance [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

**Name and tags** [Info](#)

Name

Add additional tags

**Application and OS Images (Amazon Machine Image)** [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Q Search our full catalog including 1000s of application and OS images

▼ Summary

Number of instances [Info](#)

Software Image (AMI)

Amazon Linux 2 Kernel 5.10 AMI...[read more](#)  
ami-074dc0a6f6c764218

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Cancel

Launch instance

# AMI IS SOFTWARE & APPLICATION PACKAGES/OS

← → ↻ 🔒 ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances: 🔍 🔗 ★ ☰ 🗖 👤 ⋮

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🔧 **EC2** 🔧 **Route 53**

☰






▼ **Application and OS Images (Amazon Machine Image)** Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

🔍 *Search our full catalog including 1000s of application and OS images*

**Recents** **My AMIs** **Quick Start**

**Amazon Linux** **macOS** **Ubuntu** **Windows** **Red Hat** **S**

     >

**Browse more AMIs**

Including AMIs from AWS, Marketplace and the Community

**Amazon Machine Image (AMI)**

**Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type** Free tier eligible ▾

ami-074dc0a6f6c764218 (64-bit (x86)) / ami-019774e5caffd1685 (64-bit (Arm))

Virtualization: hvm ENA enabled: true Root device type: ebs

**Description**

Amazon Linux 2 Kernel 5.10 AMI 2.0.20221103.3 x86\_64 HVM gp2

▼ **Summary**

**Number of instances** Info

1

**Software Image (AMI)**

Amazon Linux 2 Kernel 5.10 AMI...[read more](#)

ami-074dc0a6f6c764218

**Virtual server type (instance type)**

t2.micro

**Firewall (security group)**

New security group

**Storage (volumes)**

1 volume(s) - 8 GiB

**Cancel** **Launch instance**

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# INSTANCE TYPE T2.MICRO IS THE HARDWARE

## ▼ Instance type [Info](#)

### Instance type

t2.micro

Family: t2 1 vCPU 1 GiB Memory

On-Demand Linux pricing: 0.0124 USD per Hour

On-Demand Windows pricing: 0.017 USD per Hour

Free tier eligible

[Compare instance types](#)

## ▼ 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*

Select

↻ [Create new key pair](#)

## ▼ Network settings [Info](#)

[Edit](#)

## ▼ Summary

Number of instances [Info](#)

1

### Software Image (AMI)

Amazon Linux 2 Kernel 5.10 AMI...[read more](#)  
ami-074dc0a6f6c764218

### Virtual server type (instance type)

t2.micro

### Firewall (security group)

New security group

### Storage (volumes)

1 volume(s) - 8 GiB

Cancel

**Launch instance**



A KEY PAIR, CONSISTING OF A PUBLIC KEY AND A PRIVATE KEY, IS A SET OF SECURITY CREDENTIALS THAT YOU USE **TO PROVE YOUR IDENTITY WHEN CONNECTING TO AN AMAZON EC2 INSTANCE**

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EC2

Route 53

▼ 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

ebskey

↻ Create new key pair

▼ Network settings Info

VPC - required Info

vpc-08127f5a7973d0bc5  
172.31.0.0/16

(default)

↻

Subnet Info

subnet-05601bd8f5afb45f9  
VPC: vpc-08127f5a7973d0bc5  
Availability Zone: ap-south-1a  
Owner: 876119284053  
IP addresses available: 65529  
CIDR: 172.31.0.0/16

EBS Subnet

↻ Create new subnet

Auto-assign public IP Info

Disable

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

▼ Summary

Number of instances Info

1

Software Image (AMI)

Amazon Linux 2 Kernel 5.10 AMI...read more  
ami-074dc0a6f6c764218

Virtual server type (instance type)

t2.micro

Firewall (security group)

launch-wizard-1

Storage (volumes)

1 volume(s) - 8 GiB

Cancel

Launch instance

☰

▼ Key pair (login) Info

You can use a key pair to securely connect to your the instance.

Key pair name - *required*

Select

▼ Network settings Info

Network Info

vpc-01c1363890f202e6a

Subnet Info

No preference (Default subnet in any availability zone)

Auto-assign public IP Info

Enable

Firewall (security groups) Info

A security group is a set of firewall rules that control traffic to and from your instances.

Key pairs allow you to connect to your instance securely.

Enter the name of the key pair below. 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](#)

Key pair name

demokey

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

Key pair type

☒ RSA  
RSA encrypted private and public key pair

☐ ED25519  
ED25519 encrypted private and public key pair (Not supported for Windows instances)

Private key file format

☒ .pem  
For use with OpenSSH

☐ .ppk  
For use with PuTTY

Cancel

Create key pair

Instances Info

AMI

2 Kernel 5.10 AMI...[read more](#)

cf708f

type (instance type)

ty group)

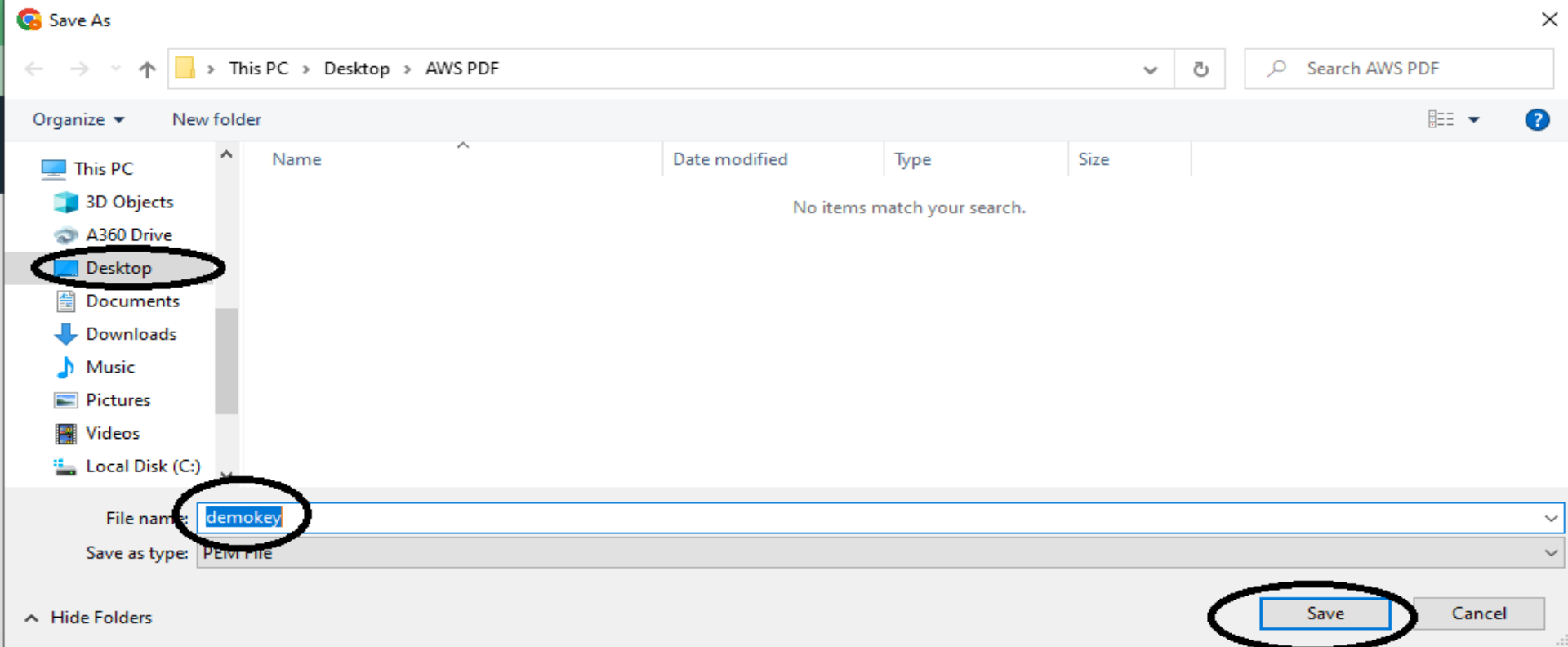
roup

es)

GiB

Launch instance

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ONCE YOU CREATE KEY PAIR PLEASE SAVE IT IN  
DESKTOP

▼ Network settings Info

VPC - required Info

vpc-08127f5a7973d0bc5 (default) ↻  
172.31.0.0/16

Subnet Info

subnet-05601bd8f5afb45f9 EBS Subnet ↻  
VPC: vpc-08127f5a7973d0bc5 Owner: 876119284053  
Availability Zone: ap-south-1a IP addresses available: 65529 CIDR: 172.31.0.0/16

Create new subnet

Auto-assign public IP Info

Disable ▼

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

Common security groups Info

Select security groups ▼

Compare security group rules

launch-wizard-1 sg-0c854ab1281aaa7ea ✕  
VPC: vpc-08127f5a7973d0bc5

Security groups that you add or remove here will be added to or removed from all your network interfaces.

▼ Summary

Number of instances Info

1

Software Image (AMI)

Amazon Linux 2 Kernel 5.10 AMI...read more  
ami-074dc0a6f6c764218

Virtual server type (instance type)

t2.micro

Firewall (security group)

launch-wizard-1

Storage (volumes)

1 volume(s) - 8 GiB

Cancel

Launch instance





launch-wizard-1 sg-0c854ab1281aaa7ea  
VPC: vpc-08127f5a7973d0bc5

Security groups that you add or remove here will be added to or removed from all your network interfaces.

► **Advanced network configuration**

▼ **Configure storage** [Info](#) Advanced

1x  GiB  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**

0 x File systems Edit

► **Advanced details** [Info](#)

▼ **Summary**

Number of instances [Info](#)

[Software Image \(AMI\)](#)

Amazon Linux 2 Kernel 5.10 AMI...[read more](#)  
ami-074dc0a6f6c764218

[Virtual server type \(instance type\)](#)

t2.micro

[Firewall \(security group\)](#)


launch-wizard-1

[Storage \(volumes\)](#)

1 volume(s) - 8 GiB

Cancel

**Launch instance**

 **Success**  
Successfully initiated launch of instance (i-0414d65f027227a24)  
[▶ Launch log](#)

## Next Steps

### 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 New

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](#)

[View all instances](#)



- New EC2 Experience
- EC2 Dashboard
- EC2 Global View
- Events
- Tags
- Limits
- Instances
- Instances New
- Instance Types
- Launch Templates
- Spot Requests
- Savings Plans
- Reserved Instances New
- Dedicated Hosts
- Capacity Reservations
- Images

Instances (2) Info

Find instance by attribute or tag (case-sensitive)

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input type="checkbox"/>	ttd	i-0bd2d6464cdc3a360	Stopped	t2.micro	-	No alarms +	ap-south-1a
<input type="checkbox"/>	DemoEC2	i-0414d65f027227a24	Running	t2.micro	2/2 checks passed	No alarms +	ap-south-1a

Select an instance

# STOP OR TERMINATE EC2 INSTANCE:

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

aws Services Search [Alt+S]

EC2 Route 53

New EC2 Experience Tell us what you think

EC2 Dashboard  
EC2 Global View  
Events  
Tags  
Limits

Instances

Instances New

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

Images

Instances (1/2) Info

Find instance by attribute or tag (case-sensitive)

Connect Instance state Actions Launch instances

	Name	Instance ID	Instance state	Inst	check	Alarm status	Availability Zone
<input type="checkbox"/>	ttd	i-0bd2d6464cdc3a360	Stopped	t2.m		No alarms +	ap-south-1a
<input checked="" type="checkbox"/>	DemoEC2	i-0414d65f027227a24	Running	t2.m	checks passed	No alarms +	ap-south-1a

Instance: i-0414d65f027227a24 (DemoEC2)

Details Security Networking Storage Status checks Monitoring Tags

▼ Instance summary Info

Instance ID	Public IPv4 address	Private IPv4 addresses
i-0414d65f027227a24 (DemoEC2)	-	172.31.216.56
IPv6 address	Instance state	Public IPv4 DNS
-	Running	-
Hostname type	Private IP DNS name (IPv4 only)	

- ▶ What is Amazon EC2?
- ▶ What is the difference between stopping and terminating an EC2 instance?
- ▶ What is the benefit of Amazon EC2?

## EC2 INTERVIEW QUESTIONS:



▶ THANK YOU