

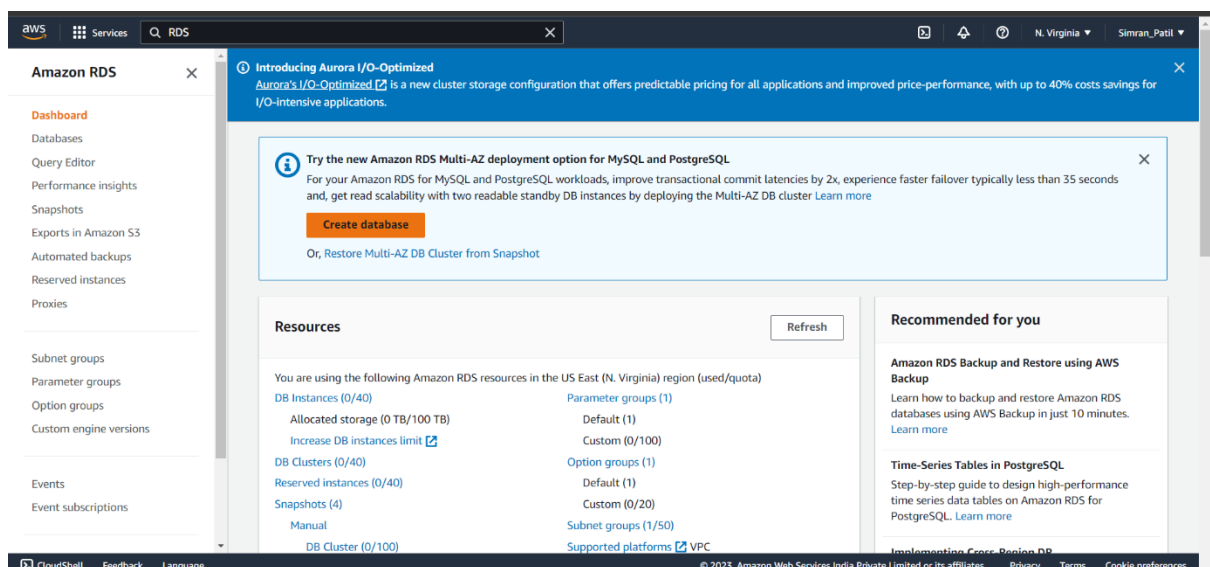
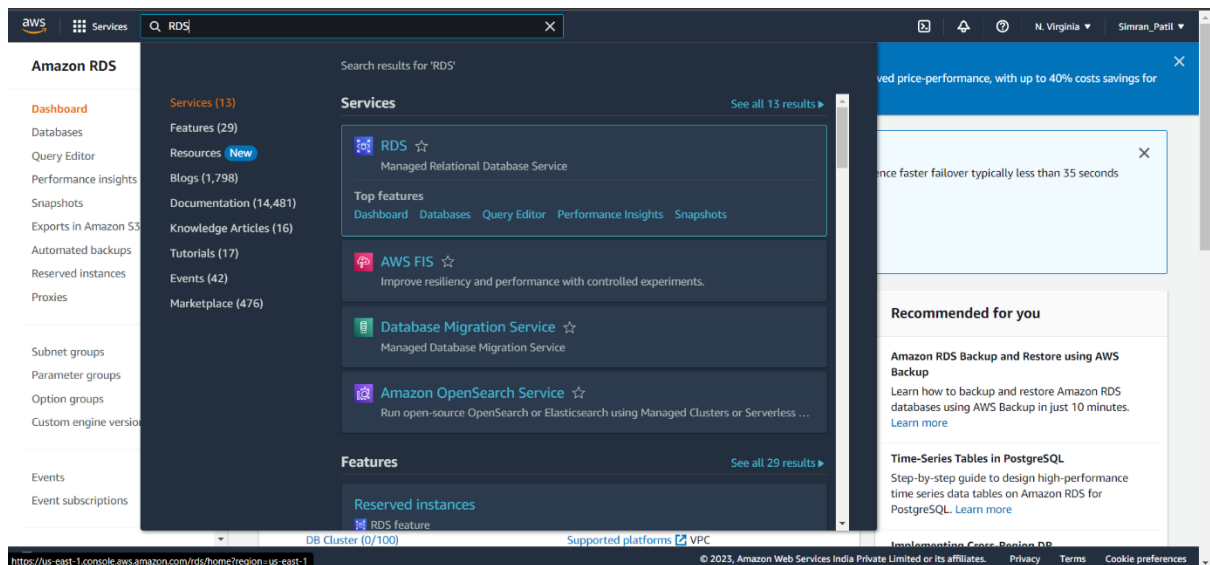
Name : Madhavi Suratkar

Topic : Cloud Concepts

Date : 12-05-2023

## RDS

## RDS Service



## Postgres Engine

The screenshot displays the AWS Management Console for the 'Create database' page under the RDS service. The interface is in the 'N. Virginia' region, with the user 'Simran\_Patil' logged in. A blue notification banner at the top states: 'We listened to your feedback! Now, create a database with a single click using our pre-built configurations! Or choose your own configurations.' A 'Share your feedback' button is also present.

The main heading is 'Create database'. Below it, the 'Choose a database creation method' section offers two options: 'Standard create' (selected) and 'Easy create'. The 'Standard create' option is described as: 'You set all of the configuration options, including ones for availability, security, backups, and maintenance.' The 'Easy create' option is described as: 'Use recommended best-practice configurations. Some configuration options can be changed after the database is created.'

The 'Engine options' section, titled 'Engine type', shows several database engines as selectable options, each with a radio button and an icon:

- ☐ Aurora (MySQL Compatible) - Icon: Database cylinder with a star.
- ☐ Aurora (PostgreSQL Compatible) - Icon: Database cylinder with a star.
- ☐ MySQL - Icon: MySQL logo.
- ☐ MariaDB - Icon: MariaDB logo (a seal).
- ☒ PostgreSQL - Icon: PostgreSQL logo (a green elephant).
- ☐ Oracle - Icon: Oracle logo.
- ☐ Microsoft SQL Server - Icon: Microsoft SQL Server logo.

Below the engine options, the 'Engine Version' dropdown menu is set to 'PostgreSQL 14.6-R1'.

The footer of the console shows links for 'CloudShell', 'Feedback', and 'Language', along with the copyright notice '© 2023, Amazon Web Services India Private Limited or its affiliates.' and links for 'Privacy', 'Terms', and 'Cookie preferences'.

aws

Services

RDS

N. Virginia

Simran\_Patil

☐ Production

Use defaults for high availability and fast, consistent performance.

☐ Dev/Test

This instance is intended for development use outside of a production environment.

☒ Free tier

Use RDS Free Tier to develop new applications, test existing applications, or gain hands-on experience with Amazon RDS.  
[Info](#)

Availability and durability

Deployment options [Info](#)

The deployment options below are limited to those supported by the engine you selected above.

☐ Multi-AZ DB Cluster – new

Creates a DB cluster with a primary DB instance and two readable standby DB instances, with each DB instance in a different Availability Zone (AZ). Provides high availability, data redundancy and increases capacity to serve read workloads.

☐ Multi-AZ DB instance (not supported for Multi-AZ DB cluster snapshot)

Creates a primary DB instance and a standby DB instance in a different AZ. Provides high availability and data redundancy, but the standby DB instance doesn't support connections for read workloads.

☒ Single DB instance (not supported for Multi-AZ DB cluster snapshot)

Creates a single DB instance with no standby DB instances.

Settings

DB instance identifier [Info](#)

Type a name for your DB instance. The name must be unique across all DB instances owned by your AWS account in the current AWS Region.

postgres-1

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Feedback

Language

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RDS

N. Virginia

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Master username [Info](#)

Type a login ID for the master user of your DB instance.

postgres

1 to 16 alphanumeric characters. First character must be a letter.

☐ Manage master credentials in AWS Secrets Manager

Manage master user credentials in Secrets Manager. RDS can generate a password for you and manage it throughout its lifecycle.

If you manage the master user credentials in Secrets Manager, some RDS features aren't supported.  
[Learn more](#)

☐ Auto generate a password

Amazon RDS can generate a password for you, or you can specify your own password.

Master password [Info](#)

\*\*\*\*\*

Constraints: At least 8 printable ASCII characters. Can't contain any of the following: / (slash), ' (single quote), " (double quote) and @ (at sign).

Confirm master password [Info](#)

\*\*\*\*\*

Instance configuration

The DB instance configuration options below are limited to those supported by the engine that you selected above.

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Feedback

Language

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Terms

Cookie preferences

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Services

RDS

N. Virginia

Simran\_Patil

☒ Burstable classes (includes t classes)

db.t3.micro

2 vCPUs 1 GiB RAM Network: 2,085 Mbps

☒ Include previous generation classes

Storage

Storage type [Info](#)

General Purpose SSD (gp2)

Baseline performance determined by volume size

Allocated storage [Info](#)

200

GiB

The minimum value is 20 GiB and the maximum value is 6,144 GiB

Storage autoscaling [Info](#)

Provides dynamic scaling support for your database's storage based on your application's needs.

☒ Enable storage autoscaling

Enabling this feature will allow the storage to increase after the specified threshold is exceeded.

Maximum storage threshold [Info](#)

Charges will apply when your database autoscales to the specified threshold

1000

GiB

CloudShell

Feedback

Language

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Privacy

Terms

Cookie preferences

Services

Q RDS

X

N. Virginia

Simran\_Patil

Storage autoscaling

info

Provides dynamic scaling support for your database's storage based on your application's needs.

☒ **Enable storage autoscaling**  
 Enabling this feature will allow the storage to increase after the specified threshold is exceeded.

Maximum storage threshold

info

Charges will apply when your database autoscales to the specified threshold

GIB

The minimum value is 220 GiB and the maximum value is 6,144 GiB

Connectivity

info

↻

Compute resource

Choose whether to set up a connection to a compute resource for this database. Setting up a connection will automatically change connectivity settings so that the compute resource can connect to this database.

☒ **Don't connect to an EC2 compute resource**  
 Don't set up a connection to a compute resource for this database. You can manually set up a connection to a compute resource later.

☐ **Connect to an EC2 compute resource**  
 Set up a connection to an EC2 compute resource for this database.

Network type

info

To use dual-stack mode, make sure that you associate an IPv6 CIDR block with a subnet in the VPC you specify.

☒ **IPv4**  
 Your resources can communicate only over the IPv4 addressing protocol.

☐ **Dual-stack mode**  
 Your resources can communicate over IPv4, IPv6, or both.

Virtual private cloud (VPC)

info

CloudShell

Feedback

Language

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Services

Q RDS

X

N. Virginia

Simran\_Patil

☒ **IPv4**  
 Your resources can communicate only over the IPv4 addressing protocol.

☐ **Dual-stack mode**  
 Your resources can communicate over IPv4, IPv6, or both.

Virtual private cloud (VPC)

info

Choose the VPC. The VPC defines the virtual networking environment for this DB instance.

Default VPC (vpc-09239e0111ebcfea8)

▼

6 Subnets, 6 Availability Zones

Only VPCs with a corresponding DB subnet group are listed.

ⓘ After a database is created, you can't change its VPC.

DB subnet group

info

Choose the DB subnet group. The DB subnet group defines which subnets and IP ranges the DB instance can use in the VPC that you selected.

default-vpc-09239e0111ebcfea8

▼

6 Subnets, 6 Availability Zones

Public access

info

☐ **Yes**  
 RDS assigns a public IP address to the database. Amazon EC2 instances and other resources outside of the VPC can connect to your database. Resources inside the VPC can also connect to the database. Choose one or more VPC security groups that specify which resources can connect to the database.

☒ **No**  
 RDS doesn't assign a public IP address to the database. Only Amazon EC2 instances and other resources inside the VPC can connect to your database. Choose one or more VPC security groups that specify which resources can connect to the database.

VPC security group (firewall)

info

Choose one or more VPC security groups to allow access to your database. Make sure that the security group rules allow the

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Feedback

Language

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## Creating Database

The screenshot shows the 'Create database' page in the AWS RDS console. The page is titled 'Additional configuration' and includes a summary of the configuration: Database options, encryption turned on, backup turned on, backtrack turned off, maintenance, CloudWatch Logs, delete protection turned off.

**Estimated monthly costs**

The Amazon RDS Free Tier is available to you for 12 months. Each calendar month, the free tier will allow you to use the Amazon RDS resources listed below for free:

- 750 hrs of Amazon RDS in a Single-AZ db.t2.micro, db.t3.micro or db.t4g.micro Instance.
- 20 GB of General Purpose Storage (SSD).
- 20 GB for automated backup storage and any user-initiated DB Snapshots.

[Learn more about AWS Free Tier.](#)

When your free usage expires or if your application use exceeds the free usage tiers, you simply pay standard, pay-as-you-go service rates as described in the [Amazon RDS Pricing page.](#)

**Additional configuration**

You are responsible for ensuring that you have all of the necessary rights for any third-party products or services that you use with AWS services.

[Cancel](#) [Create database](#)

The screenshot shows the 'Deleting DB instance madhavi' page in the AWS RDS console. The page is titled 'Deleting DB instance madhavi' and includes a summary of the instance details.

**Summary**

DB identifier	CPU	Status	Class
madhavi1	7.76%	Available	db.t3.micro

Role	Current activity	Engine	Region & AZ
Instance	1.00 sessions	PostgreSQL	us-east-1a

**Connectivity & security**

Endpoint & port | Networking | Security

aws

Services

Search

[Alt+S]

N. Virginia

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Amazon RDS

Dashboard

Databases

Query Editor

Performance insights

Snapshots

Exports in Amazon S3

Automated backups

Reserved instances

Proxies

Subnet groups

Parameter groups

Option groups

Custom engine versions

Events

Connectivity & security

Monitoring

Logs & events

Configuration

Maintenance & backups

Tags

Connectivity & security

Endpoint & port

Endpoint  
madhavi1.cptjmzim4rfl.us-east-1.rds.amazonaws.com

Port  
5432

Networking

Availability Zone  
us-east-1a

VPC  
vpc-09239e0111ebcfea8

Subnet group  
default-vpc-09239e0111ebcfea8

Subnets  
subnet-05a4f29e092ebb708  
subnet-0058a7bb6523be7cf  
subnet-0fab4ef4dd973d400  
subnet-07c3289338caa9ac4  
subnet-0883b7b5069df5587  
subnet-03da3e230cbe77cc1

Network type

Security

VPC security groups  
madhavi (sg-0e17a0a6916974c20)  
Active

Publicly accessible  
Yes

Certificate authority  
rds-ca-2019

Certificate authority date  
August 22, 2024, 22:38 (UTC+05:30)

DB instance certificate expiration date  
August 22, 2024, 22:38 (UTC+05:30)

CloudShell

Feedback

Language

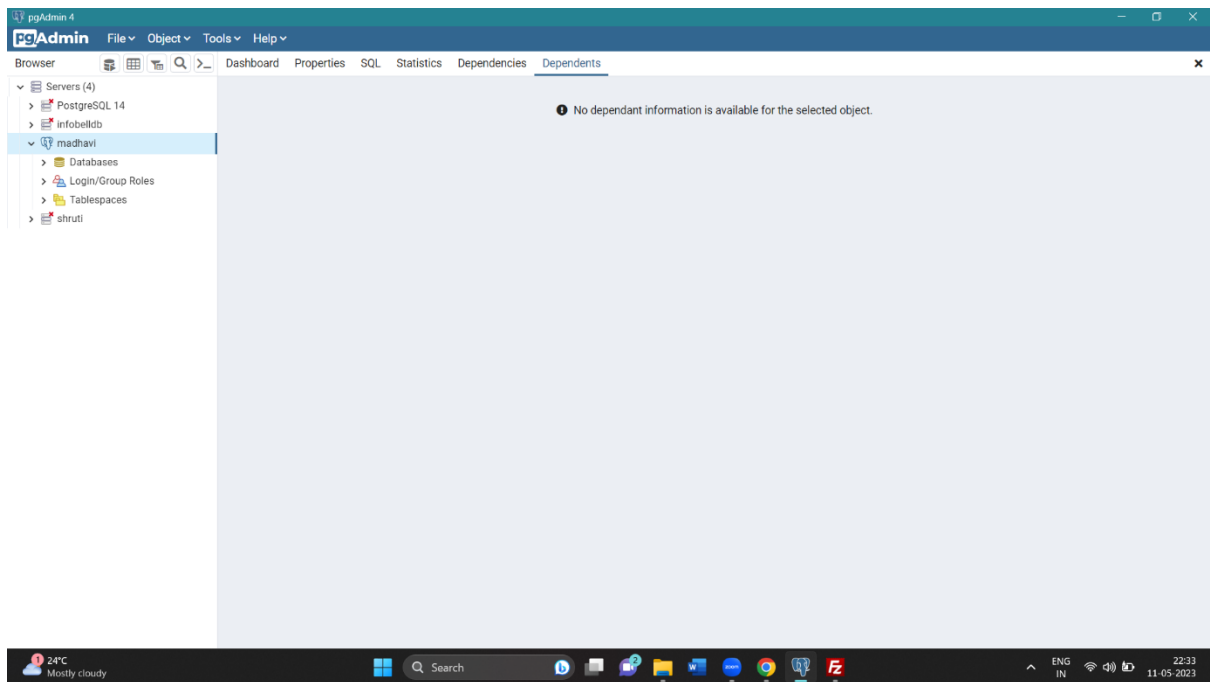
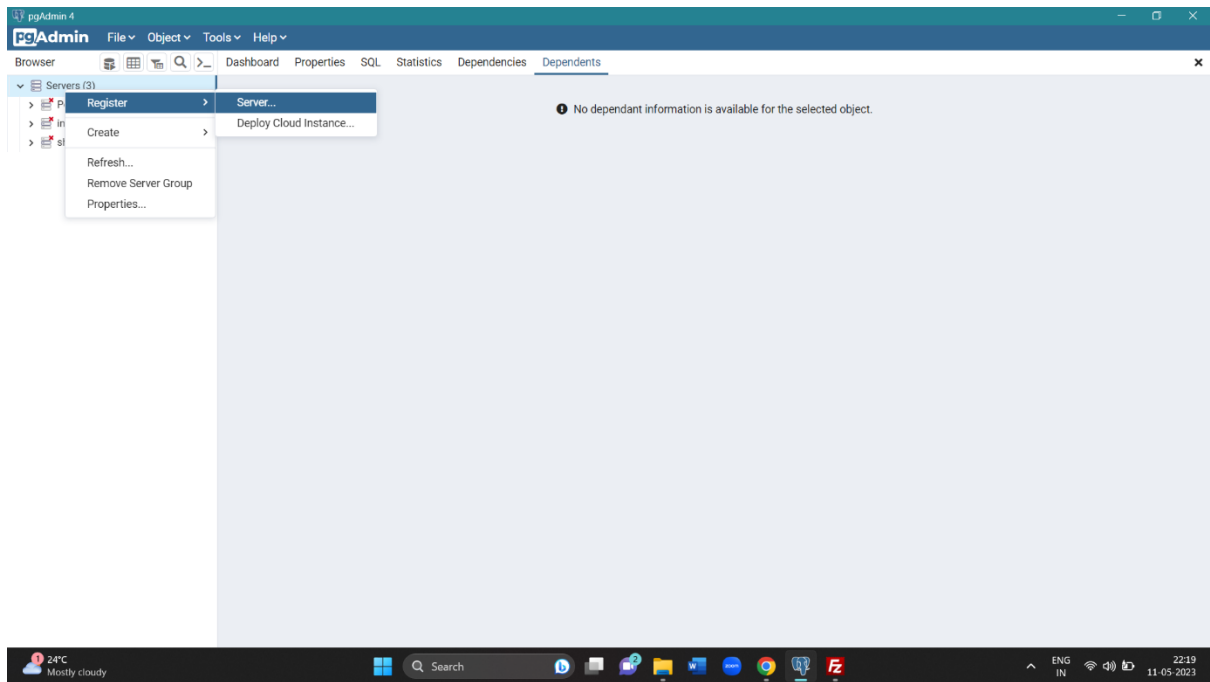
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pgAdmin Server





## EC2

This screenshot shows the AWS Management Console search results for 'EC2'. The left sidebar contains the 'Amazon RDS' navigation menu. The main content area displays search results for 'EC2', including a list of services and features. The 'Services' section lists EC2, EC2 Image Builder, Amazon Inspector, and AWS Firewall Manager. The 'Features' section lists the EC2 Dashboard and EC2 feature. A 'New EC2 Experience' notification is visible on the right side of the console.

**Amazon RDS**

- Dashboard
- Databases
- Query Editor
- Performance insights
- Snapshots
- Exports in Amazon S3
- Automated backups
- Reserved instances
- Proxies
- Subnet groups
- Parameter groups
- Option groups
- Custom engine versions
- Events
- Event subscriptions

**Search results for 'EC2'**

**Services** [See all 12 results](#)

- EC2** ☆  
Virtual Servers in the Cloud  
Top features: [Dashboard](#) [Launch templates](#) [Instances](#) [Spot Instance requests](#) [Savings plans](#)
- EC2 Image Builder** ☆  
A managed service to automate build, customize and deploy OS images
- Amazon Inspector** ☆  
Continual vulnerability management at scale
- AWS Firewall Manager** ☆  
Central management of firewall rules

**Features** [See all 53 results](#)

- Dashboard**
- EC2 feature**

**Notifications:**

- for you.
- ved price-performance, with up to 40% costs savings for
- des. A Blue/Green Deployment provides a staging

[Restore from S3](#) [Create database](#)

Size: db.t3.micro Status: Creating Actions: -

https://us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1 © 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences

This screenshot shows the AWS Management Console EC2 Dashboard. The left sidebar contains the 'EC2 Dashboard' navigation menu. The main content area displays the 'Launch instance' section, which includes a 'Launch instance' button and a 'Migrate a server' button. The 'Service health' section shows the status of the EC2 service in the US East (N. Virginia) region. The 'Supported platforms' section lists VPC, Default VPC, EBS encryption, Zones, EC2 Serial Console, Default credit specification, and Console experiments. The 'Explore AWS' section provides information about AWS Graviton2 and Amazon GuardDuty Malware Protection.

**EC2 Dashboard**

- EC2 Global View
- Events
- Limits
- Instances
  - Instances
  - Instance Types
  - Launch Templates
  - Spot Requests
  - Savings Plans
  - Reserved Instances
  - Dedicated Hosts
  - Scheduled Instances
  - Capacity Reservations
- Images
  - AMIs
  - AMI Catalog
- Elastic Block Store

**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 US East (N. Virginia) Region

**Service health**

[AWS Health Dashboard](#)

Region: US East (N. Virginia)

Status: ✔ This service is operating normally

**Supported platforms**

- VPC
- Default VPC [vpc-09239e0111ebcfca8](#)
- Settings
- EBS encryption
- Zones
- EC2 Serial Console
- Default credit specification
- Console experiments

**Explore AWS**

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

AWS Graviton2 powered EC2 Instances enable up to 40% better price performance for a broad spectrum of cloud workloads. [Learn more](#)

**Amazon GuardDuty Malware Protection**

GuardDuty now provides agentless malware detection in Amazon EC2 & EC2 container workloads. [Learn more](#)

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Services

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N. Virginia

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EC2 > Instances > Launch an instance

## Launch an instance

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

Name

Add additional tags

### Application and OS Images (Amazon Machine Image)

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

Quick Start

#### Summary

Number of instances

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.0.2...read more

ami-0889a44b331db0194

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

Cancel

Launch instance

Review commands

CloudShell

Feedback

Language

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Services

Search

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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 2023 AMI

ami-0889a44b331db0194 (64-bit (x86)) / ami-08fc6fb8ad2e794bb (64-bit (Arm))

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

Free tier eligible

Description

Amazon Linux 2023 AMI 2023.0.20230503.0 x86\_64 HVM kernel-6.1

Architecture

AMI ID

64-bit (x86)

ami-0889a44b331db0194

Verified provider

### Instance type

Instance type

t2.micro

Free tier eligible

#### Summary

Number of instances

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.0.2...read more

ami-0889a44b331db0194

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

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Cancel

Launch instance

Review commands

CloudShell

Feedback

Language

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Terms

Cookie preferences

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Services

Search

[Alt+S]

N. Virginia

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Instance type

t2.micro

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

On-Demand Windows pricing: 0.0162 USD per Hour

On-Demand SUSE pricing: 0.0116 USD per Hour

On-Demand RHEL pricing: 0.0716 USD per Hour

On-Demand Linux pricing: 0.0116 USD per Hour

Free tier eligible

All generations

Compare instance types

### Key pair (login)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

madhavi

Create new key pair

### Network settings

Network

vpc-09239e0111ebcfea8

Edit

#### Summary

Number of instances

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.0.2...read more

ami-0889a44b331db0194

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Cancel

Launch instance

Review commands

CloudShell

Feedback

Language

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