

How to Create a Ubuntu 20.04 Server on AWS EC2 (Elastic Cloud Computing) | by Rahul Gupta | Nerd For Tech | Medium

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How to Create a Ubuntu 20.04 Server on AWS EC2 (Elastic Cloud Computing)



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Here , we will learn about how to create a **Ubuntu 20.04 LTS** server on AWS EC2 .

All of this is Free tier eligible :

1. The Amazon **EC2 Free Tier** is available to you for **12 months** .
2. **750 hrs** per month of Amazon EC2 in a Single-AZ db.t2.micro Instance.

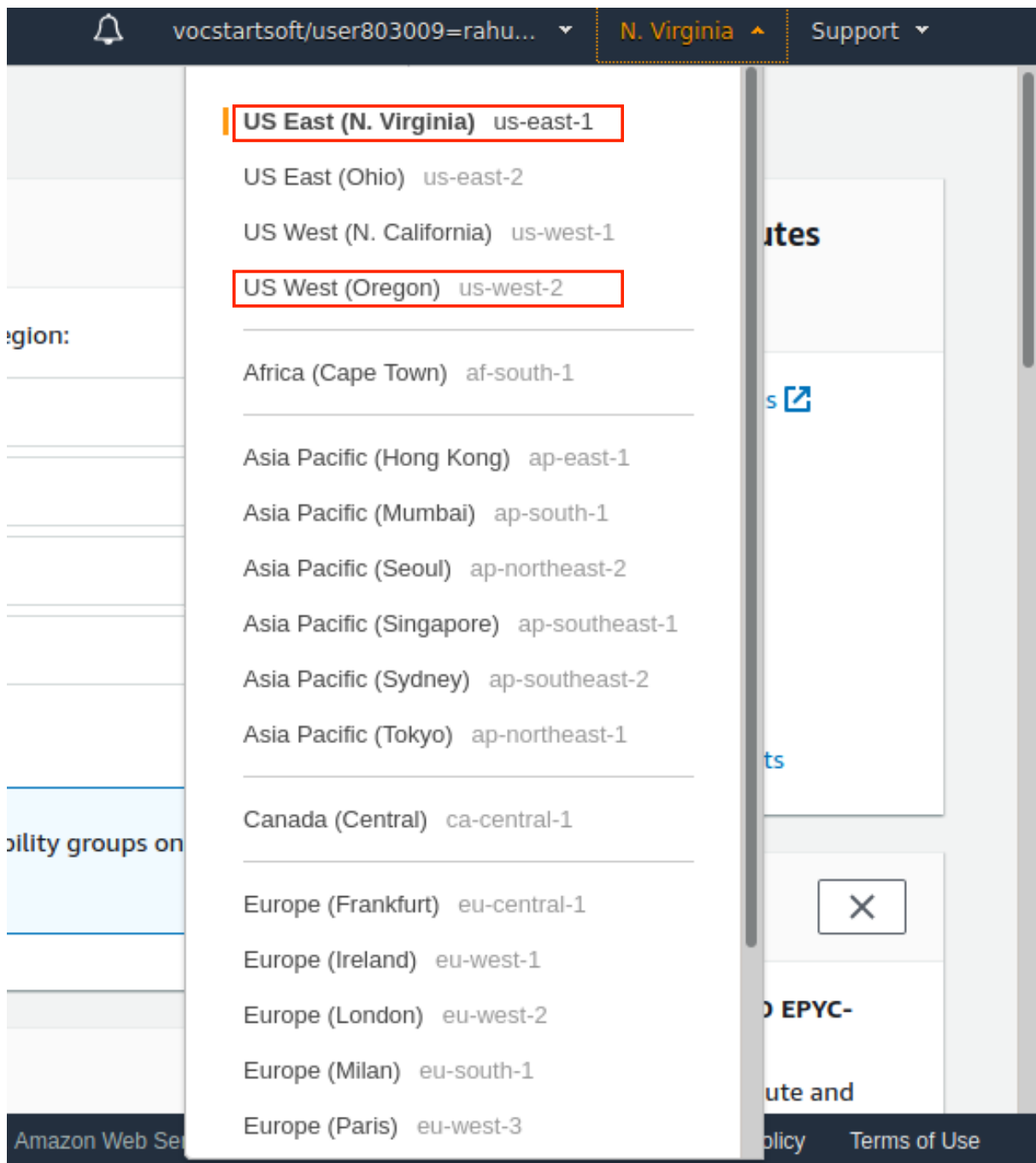
Prerequisites

Create a AWS Account .

Steps To Create a Ubuntu Instance

1. Login with your AWS Account and go to **console**.
2. Search for **EC2** in Services and Go to EC2 .

3. (optional) In the top right corner of the Amazon EC2 , select the **Region** in which you want to create the EC2 instance .



4. Click on **Launch** Instance On **EC2 Dashboard**

5. Choose AMI (Amazon Machine Image) i.e Select Ubuntu 20.04 LTS .

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)

Cancel and Exit

Root device type: ebsVirtualization type: hvmENA Enabled: Yes


**Amazon Linux 2 with .Net Core, PowerShell, Mono, and MATE Desktop Environment** - ami-0652d6c7a2e2d090a

Free tier eligible

.NET Core 3.1, Mono 6.8, PowerShell 6.2, and MATE DE pre-installed to run your .NET applications on Amazon Linux 2 with Long Term Support (LTS).

Root device type: ebsVirtualization type: hvmENA Enabled: Yes

Select64-bit (x86)


**Amazon Linux 2 LTS with SQL Server 2019 Standard** - ami-0a28a1ad6f52a7332

Free tier eligible

Microsoft SQL Server 2019 Standard edition on Amazon Linux 2 LTS. The AMI also comes pre-installed with .NET Core 3.0 and PowerShell 6.2.

Root device type: ebsVirtualization type: hvmENA Enabled: Yes

Select64-bit (x86)

**Ubuntu Server 20.04 LTS (HVM), SSD Volume Type** - ami-02ae530dacc099fc9 (64-bit x86) / ami-0b21b141ea690ace5 (64-bit Arm)

Free tier eligible

Ubuntu Server 20.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services).

Root device type: ebsVirtualization type: hvmENA Enabled: Yes

Select64-bit (x86)
64-bit (Arm)

6. Choose and Instance Type in this Case we will choose **General purpose t2.micro**. Because that is **Free Tier Eligible** . Now click On Next : Configure Instance Details .

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 typesCurrent generationShow/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	Yes
<input checked="" type="checkbox"/>	General purpose	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes

Cancel

Previous

Review and Launch

Next: Configure Instance Details

7. (optional) Configure Instance. In this we can specify the No. of instances and User Roles for those instances by specifying **IAM Role** .

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	<input type="checkbox"/> Request Spot instances	
Network	vpc-7ffbe305 (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	<input type="checkbox"/> Add instance to placement group	
Capacity Reservation	Open	Create new Capacity Reservation
IAM role	None	Create new IAM role

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Add Storage](#)

8. Add Storage : In this we can change the **size** for our EC2 Instance . Free Tier is Eligible upto **30GB of Storage** .

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

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	Encryption
Root	/dev/sda1	snap-047ea662dc15e4918	20	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypte

[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](#)

9. (Optional) Add Tags : We can add Some tags to specify the Instance Type here .

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 (128 characters maximum)	Value (256 characters maximum)	Instances ⓘ	Volumes ⓘ
Environment	Test	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="button" value="Add another tag"/> (Up to 50 tags maximum)			

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Configure Security Group](#)

10. Configure Security Group

Here we will create a **new** Security Group in which we will specify which **Ports** will be Open for EC2 instance .

We will add **HTTP** , **HTTPS** and **SSH** Port for our EC2 Instance. HTTP and HTTPS to allow web request from anywhere in the world to our instance . And SSH to **Connect** to our EC2 Instance from **Local Machine** .

HTTP	80	Anywhere
HTTPS	443	Anywhere
SSH	20	Anywhere or Custom

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-3

Description: launch-wizard-3 created 2020-07-01T03:28:07.553+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	✕

Add Rule

Cancel Previous Review and Launch

11 . Review and Launch Instance

12 . Create a **key pair** to **connect** to our EC2 instance from local machine.
Download the Key Pair and keep it **Safely**. It will be used to connect to EC2 instance **Later** .

Instance Launch Wizard

launch-wizard-3
launch-wizard-3

Pro

TCP
TCP
TCP
TCP
TCP
TCP
TCP

Description ⓘ

Edit in

Cancel Previous

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

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](#).

Create a new key pair ▾

Key pair name

awskey

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

13 . Click on Launch Instance.

The screenshot displays the AWS Management Console interface for an EC2 instance. The left sidebar shows navigation options like 'EC2 Dashboard', 'Events', 'Tags', 'Limits', 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Scheduled Instances', 'Capacity Reservations', 'Images', and 'AMIs'. The main content area shows a table with one instance, 'i-0c12d845485eda28a', in the 'running' state. Below the table, the 'Description' tab is selected, showing details such as Instance ID, Instance state, Instance type, Private DNS, Private IPs, Secondary private IPs, VPC ID, Public DNS (IPv4), IPv4 Public IP, IPv6 IPs, Elastic IPs, Availability zone, Security groups, Scheduled events, and AMI ID.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)
	i-0c12d845485eda28a	t2.micro	us-east-1c	running	2/2 checks ...	None	ec2-18-234-27-85.com...

Instance: i-0c12d845485eda28a		Public DNS: ec2-18-234-27-85.compute-1.amazonaws.com	
<div> <div>Description</div> <div>Status Checks</div> <div>Monitoring</div> <div>Tags</div> </div>			
Instance ID	i-0c12d845485eda28a	Public DNS (IPv4)	ec2-18-234-27-85.compute-1.amazonaws.com
Instance state	running	IPv4 Public IP	18.234.27.85
Instance type	t2.micro	IPv6 IPs	-
Finding	You may not have permission to access AWS Compute Optimizer.		Elastic IPs
Private DNS	ip-172-31-34-15.ec2.internal	Availability zone	us-east-1c
Private IPs	172.31.34.15	Security groups	launch-wizard-3, view inbound rules, view outbound rules
Secondary private IPs		Scheduled events	No scheduled events
VPC ID	vpc-7f1be305	AMI ID	ubuntu/images/hvm-ssd/ubuntu-focal-

Your EC2 Instance is **Ready** to use. Please wait for while until **Instance State** change to **running** and **status check** is **done** . Now , **Connect to your EC2 Instance from your Local Machine (Window / Ubuntu)**