

AWS Educate

AMAZON EC2 INSTANCE

Click “Go to classroom”

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My Classrooms

View your list of Classroom invitations and accept or decline the invitation. Access a Classroom by clicking Go to my classroom.




Course Name ↕	Description	Educator ↕	Course End Date ↕	Credit Allocated Per Student ↕	Status
Intro. to Network Programming	The course is to introduce the basics of network programming, from basic TCP/IP concept to socket APIs. Multi-process and multi-thread programming are also covered.	Shyan-Ming Yuan	07/24/2020	\$50	Accepted

Go to classroom ➔

Click “AWS Console”

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Your AWS Account Status

	Active full access ([redacted] @nctu.edu.tw)
	\$50 remaining credits (estimated)
	2:60 session time

[Account Details](#) [AWS Console](#)

Click “All services” and “EC2”

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AWS Management Console

AWS services

Find Services



You can enter names, keywords or acronyms.



 Example: Relational Database Service, database, RDS


▼ Recently visited services


 EC2

▼ All services

 **Compute**
EC2
Lightsail 
Lambda
Batch

 **Customer Enablement**
AWS IQ 
Support
Managed Services

 **Machine Learning**
Amazon SageMaker
Amazon CodeGuru
Amazon Comprehend
Amazon Forecast

 **Mobile**
AWS Amplify
Mobile Hub
AWS AppSync
Device Farm

Click “Launch Instance”

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EC2

Resources

You are using the following Amazon EC2 resources in the US East (N. Virginia) Region:

Running instances	0	Elastic IPs	0	Dedicated Hosts	0
Snapshots	0	Volumes	0	Load balancers	-
Key pairs	0	Security groups	1	Placement groups	0

Launch instance

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

Launch instance ▼

Note: Your instances will launch in the US East (N. Virginia) Region

Service health

Region

US East (N. Virginia)

Status

✔ This service is operating normally

Availability Zone status

Select the Free tier operating system for your machine and click “select”

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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 ⓘ

**Amazon Linux 2 AMI (HVM), SSD Volume Type** - ami-0fc61db8544a617ed (64-bit x86) / ami-0f90a34c9df977efb (64-bit Arm)
Free tier eligible


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 ENA Enabled: Yes

**Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type** - ami-0e2ff28bfb72a4e45
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 ENA Enabled: Yes

**Red Hat Enterprise Linux 8 (HVM), SSD Volume Type** - ami-0c322300a1dd5dc79 (64-bit x86) / ami-03587fa4048e9eb92 (64-bit Arm)
Free tier eligible

Red Hat Enterprise Linux version 8 (HVM), EBS General Purpose (SSD) Volume Type
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

**SUSE Linux Enterprise Server 15 SP1 (HVM), SSD Volume Type** - ami-0df6cfabfbc4385b7 (64-bit x86) / ami-0e83525f58b2878f0 (64-bit Arm)
Free tier eligible

SUSE Linux Enterprise Server 15 Service Pack 1 (HVM), EBS General Purpose (SSD) Volume Type. Public Cloud, Advanced Systems Management, Web and Scripting, and Legacy modules enabled.
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

**Ubuntu Server 18.04 LTS (HVM), SSD Volume Type** - ami-07ebfd5b3428b6f4d (64-bit x86) / ami-0400a1104d5b9caa1 (64-bit Arm)
Free tier eligible

Ubuntu Server 18.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

1 to 18 of 18 AMIs

Select

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

Select

64-bit (x86)

Select

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

Select

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

Select

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

Choose a free instance type and click “Next”

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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, and storage 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)
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only
<input checked="" type="checkbox"/>	General purpose	t2.micro Free tier eligible	1	1	EBS only
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only

[Cancel](#)

[Previous](#)

[Review and Launch](#)

[Next: Configure Instance Details](#)

Configure Instance Details and click “Next”

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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 t

Number of instances	<input type="text" value="1"/>	Launch into Auto Scaling Group
Purchasing option	<input type="checkbox"/> Request Spot instances	
Network	<input type="text" value="vpc-7afdc500 (default)"/>	Create new VPC
Subnet	<input type="text" value="No preference (default subnet in any Availability Zone)"/>	Create new subnet
Auto-assign Public IP	<input type="text" value="Use subnet setting (Enable)"/>	
Placement group	<input type="checkbox"/> Add instance to placement group	
Capacity Reservation	<input type="text" value="Open"/>	Create new Capacity Reservation

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

Add storage

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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-0e078112eedec9db	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](#)

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[Review and Launch](#)

[Next: Add Tags](#)

Add tag

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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 ⓘ

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](#)

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[Review and Launch](#)

[Next: Configure Security Group](#)

Select the type you want to connect to your instance.
Select the ip you want to allow to access your instance.

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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:

open

Description:

Open to everyone

Type <small>i</small>	Protocol <small>i</small>	Port Range <small>i</small>	Source <small>i</small>	Description <small>i</small>
All traffic ▼	All	0 - 65535	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

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Review and Launch

Review the information and click “Launch”

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Step 7: Review Instance Launch

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.



Improve your instances' security. Your security group, open, is open to the world.

Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only.

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



Ubuntu Server 18.04 LTS (HVM), SSD Volume Type - ami-07ebfd5b3428b6f4d

Free tier
eligible

Ubuntu Server 18.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Root Device Type: ebs Virtualization type: hvm

▼ 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

[Cancel](#)

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Launch

Create a key pair and DOWNLOAD IT

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Click “Launch Instances”

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

MyKeyPair

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

You will see the instances you created in EC2

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EC2

Resources

You are using the following Amazon EC2 resources in the US East (N. Virginia) Region:

Running instances

1

Elastic IPs

Snapshots

0

Volumes

Key pairs

1

Security groups

Launch instance

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

Launch instance

Note: Your instances will launch in the US East (N. Virginia) Region

Launch Instance

Connect

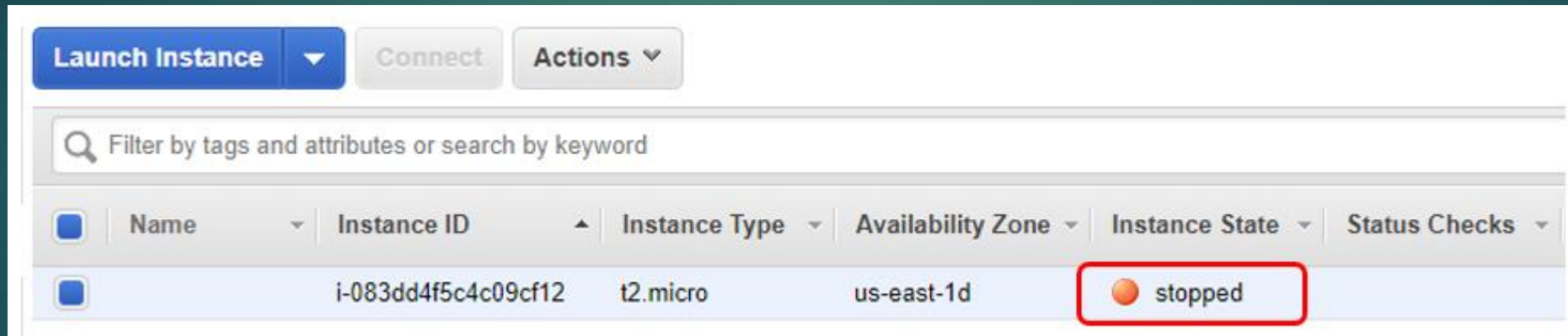
Actions

Filter by tags and attributes or search by keyword

	Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Sta
<input checked="" type="checkbox"/>		i-083dd4f5c4c09cf12	t2.micro	us-east-1d	● running	✓ 2/2 checks ...	None

Important!!!

To save your money, please stop your instances when you are not using it.



The screenshot displays the AWS Management Console interface for EC2 instances. At the top, there are buttons for 'Launch Instance', 'Connect', and 'Actions'. Below these is a search bar with the placeholder text 'Filter by tags and attributes or search by keyword'. A table lists the instances with columns: Name, Instance ID, Instance Type, Availability Zone, Instance State, and Status Checks. One instance is listed with ID 'i-083dd4f5c4c09cf12', type 't2.micro', and availability zone 'us-east-1d'. The 'Instance State' column for this instance shows a red circle icon and the text 'stopped', which is highlighted by a red rectangular box.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks
	i-083dd4f5c4c09cf12	t2.micro	us-east-1d	stopped	