

# Amazon ECS

Explore how Amazon Elastic Container Service simplifies running and managing your applications in the cloud



# What is Amazon ECS?

## Elastic Container Service

A service by Amazon Web Services (AWS).

## Container Management

Helps run and manage applications in containers.

## Serverless Option

AWS can manage the underlying servers for you.

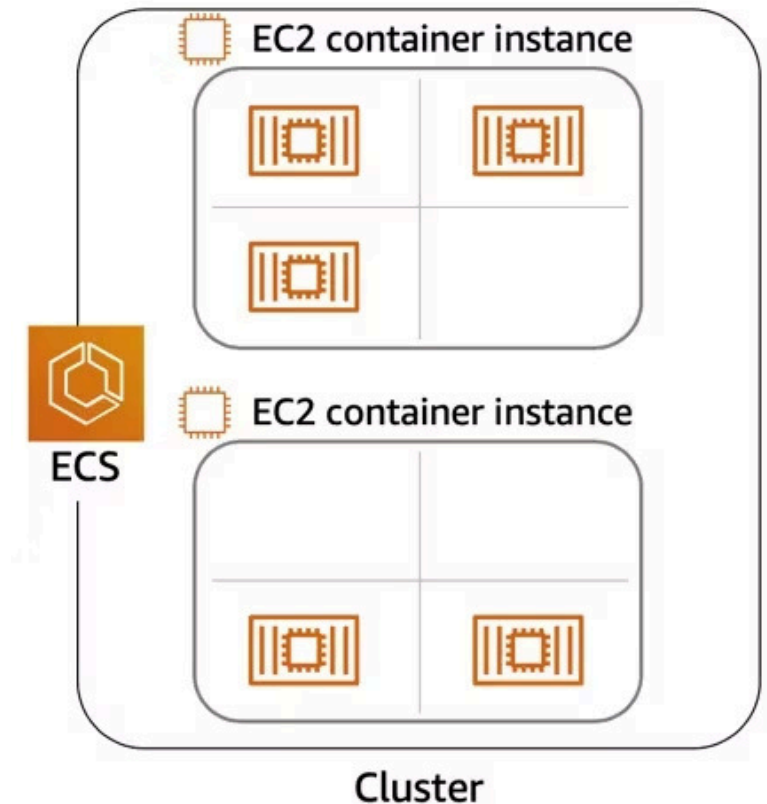
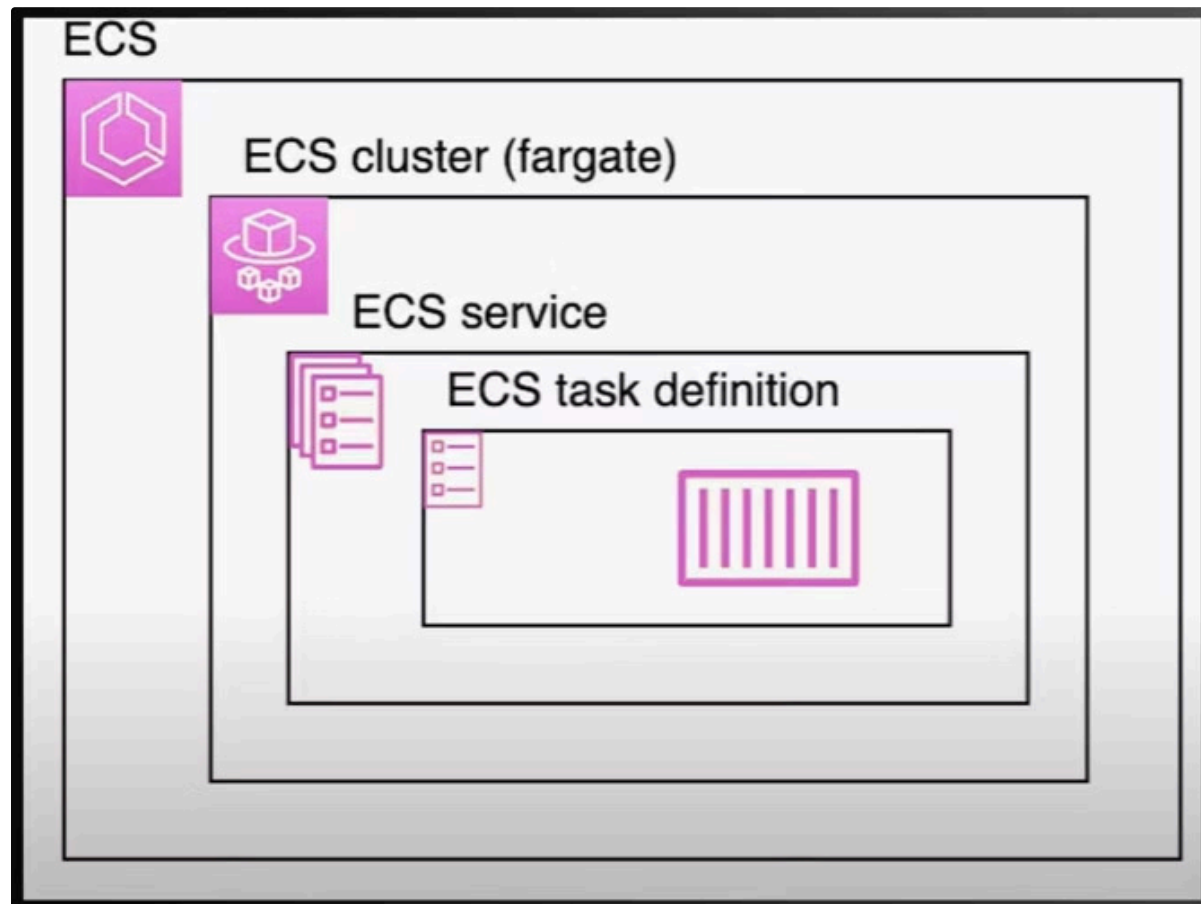


**AWS ECS**

# What is a Container?

A container is a small, lightweight package that includes the application, required files, and settings. It runs consistently on any computer or cloud environment.

📦 Think of it like a Tiffin Box – all ingredients in one place, ready to eat (run).



## ECS components



### ECS Cluster

Group of resources where containers run. AWS manages servers with Fargate.



### ECS Service

Ensures the number of running tasks matches desired count. Restarts tasks if they fail.



### ECS Task Definition

A blueprint for your application, defining container image, CPU, and memory.



### Container

The actual running application packaged in a container, like a website.

# How ECS Works



## ECS Cluster

Runs containers on a group of machines.



## Fargate

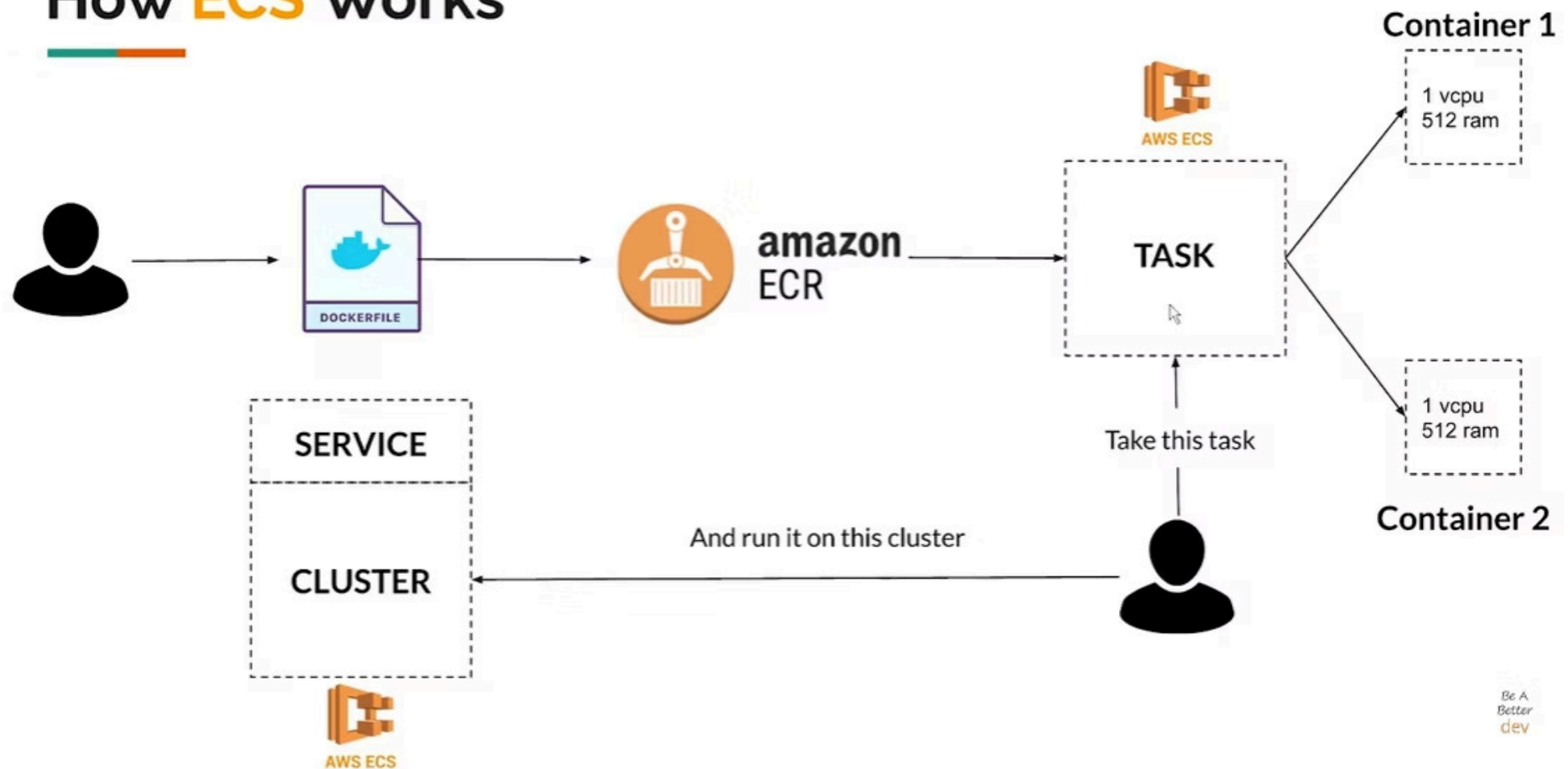
AWS manages everything for you.



## EC2

You manage the machines.

## How ECS Works



Be A  
Better  
dev

# Why Use ECS?



## Auto-scaling

Handles more users automatically.



## Cost-saving

Pay only for what you use.



## Secure

Uses IAM roles, encryption, private networks.



## Integrated

Works with other AWS tools.

# Key ECS Terms

Container	Small app package
Cluster	Group of EC2 machines
Fargate	Serverless option (AWS manages it)
EC2	Virtual machine (you manage)
Service	Keeps tasks running always
Task	A running container

# ECS Launch Types & Auto Scaling

## Fargate Launch

- You provide basic info (CPU, RAM).
- No server management needed.

## EC2 Launch

- You choose and manage servers.
- More control, more setup.

## Auto Scaling

- Adds/removes EC2 machines based on traffic.
- Example: CPU > 80% → Add 1 EC2 instance.



# Using ECS & FAQs

## How to Use ECS?

1. AWS Console (Graphical interface)
2. AWS CLI (Command Line)
3. AWS SDK (Use code)

## FAQs

- **ECS vs. Docker?** ECS uses Docker but provides full management.
- **EC2 vs. ECS?** EC2 offers virtual machines; ECS runs apps in containers.