

AWS Certified Cloud Practitioner
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AWS Services Overview

Compute Services

AWS Compute Services Overview

- Amazon EC2 – Elastic Compute Cloud
- Amazon EC2 Container Service
- Amazon EC2 Container Registry
- Amazon Lightsail
- Amazon Batch
- Amazon Elastic Beanstalk
- Amazon Lambda
- Amazon Auto Scaling



Compute

EC2

Lightsail [↗](#)

ECR

ECS

EKS

Lambda

Batch

Elastic Beanstalk

Serverless Application
Repository

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Amazon EC2 – Elastic Compute Cloud

Amazon EC2 – Elastic Compute Cloud

- Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides secure, resizable compute capacity in the cloud.
- Amazon EC2 makes elastic computing possible, you have full control, flexible configuration, it's integrated with most AWS services, reliable (99.95% availability) secure and inexpensive



Amazon EC2

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Amazon EC2 Container Registry

Amazon EC2 Container Registry (ECR)

- Amazon Elastic Container Registry (ECR) is a fully-mngd Docker container registry that makes it easy for developers to store, manage and deploy Docker container images
- Amazon ECR hosts your images in a highly available and scalable architecture, allowing you to reliably deploy containers for your applications



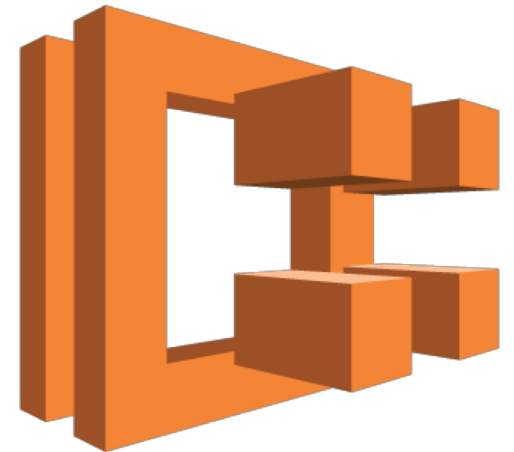
Amazon ECR

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Amazon EC2 Container Service

Amazon EC2 Container Service (ECS)

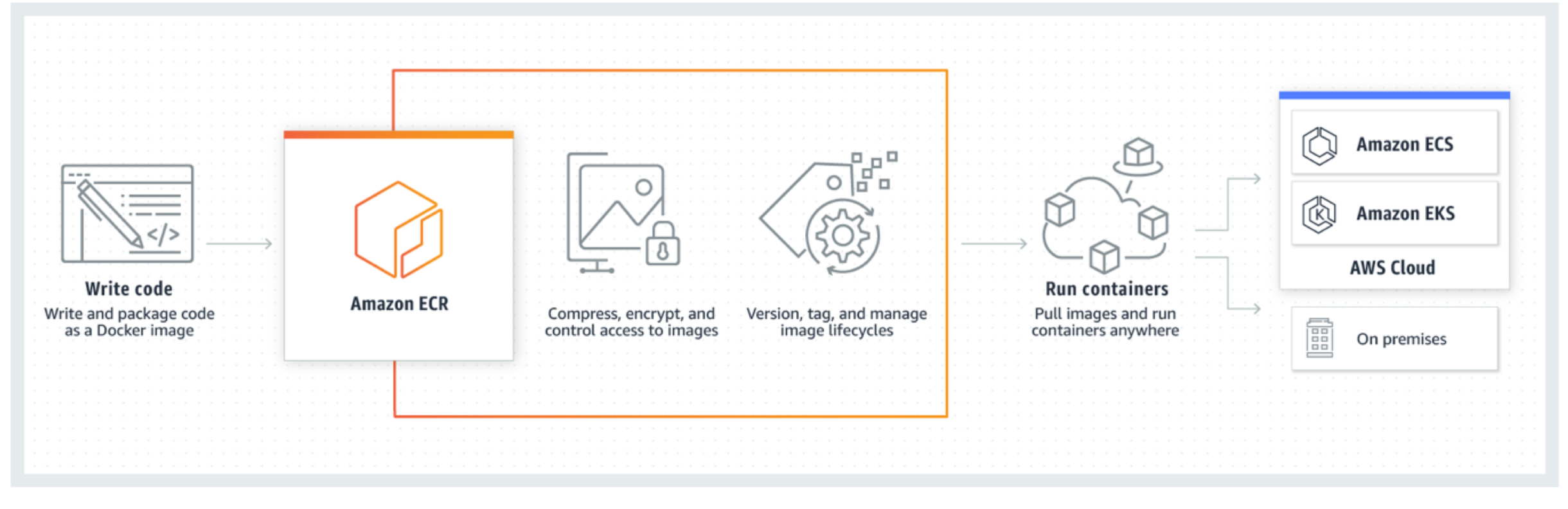
- Amazon Elastic Container Service (ECS) is a highly scalable, high-performance container orchestration service that supports Docker containers and allows you to easily run and scale containerized applications on AWS
- ECS is the AWS service that helps running and scaling applications in Docker containers
- What is a Container ?



Amazon ECS

Amazon ECR and ECS

How it works

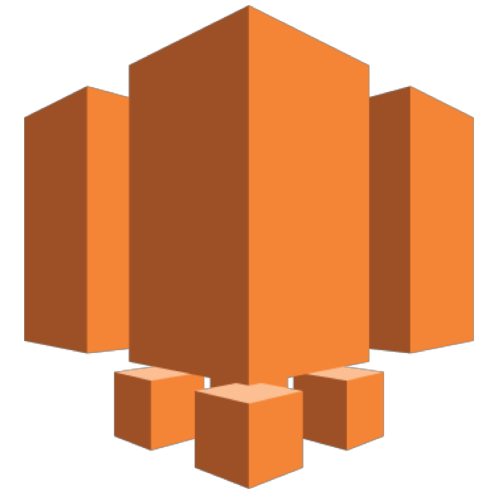


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Amazon Lightsail

Amazon Lightsail

- Amazon Lightsail is the easiest way to get started with AWS for developers who just need virtual private servers
- Lightsail includes everything you need to launch your project quickly:
a virtual machine, SSD-based storage, data transfer, DNS management, and a static IP – for a low, predictable price



Amazon Lightsail

Amazon Lightsail

Pick your instance image [?](#)

Select a platform



Linux/Unix
21 blueprints



**Microsoft
Windows**
3 blueprints

Select a blueprint

Apps + OS

OS Only



WordPress
5.0.3-2



**WordPress
Multisite**
5.0.3-1



LAMP (PHP 5)
5.6.39



LAMP (PHP 7)
7.1.25



Node.js
11.6.0



Joomla
3.9.2



Magento
2.3.0



MEAN
4.0.3-2



Drupal
8.6.7



GitLab CE
11.6.4



Redmine
4.0.0



Nginx
1.14.2

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Amazon Batch

Amazon Batch

- Batch jobs are jobs that can run without user interaction. Batch processing is for frequently used programs that can be run with minimal human interaction
- AWS Batch enables you to run hundreds of thousands of batch computing jobs on AWS
- AWS Batch dynamically provisions the optimal quantity and type of compute resources (CPU, memory) based on the volume and specific resource requirements of the jobs submitted



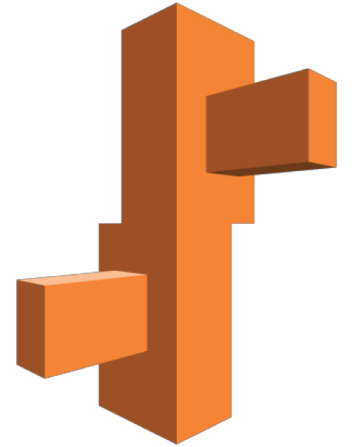
Amazon Batch

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Amazon Elastic Beanstalk


Amazon Elastic Beanstalk


- AWS Elastic Beanstalk helps you deploy, monitor and scale an application quickly and easily
- You can simply upload your code written in Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker and run it on servers like IIS, Apache and others
- Elastic Beanstalk automatically handles the deployment, from capacity provisioning, load balancing and auto scaling to app health monitoring



Amazon Elastic
Beanstalk

Amazon Elastic Beanstalk

 Elastic Beanstalk



Create a web app

Create a new application and environment with a sample application or your own code. By creating an environment, you allow AWS Elastic Beanstalk to manage AWS resources and permissions on your behalf. [Learn more](#)

Application information

Application name
Up to 100 Unicode characters, not including forward slash (/).


▸ Application tags

Base configuration

Platform
Choose **Configure more options** for more platform configuration options.

Application code ☐ Sample application
Get started right away with sample code.

☒ Upload your code
Upload a source bundle from your computer or copy one from Amazon S3.

 **Upload** ZIP or WAR

▸ Application code tags

[Cancel](#) [Configure more options](#) [Create application](#)

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Amazon Lambda

Amazon Lambda

- AWS Lambda lets you run code without provisioning or managing servers
- You pay only for the compute time you consume—there is no charge when your code is not running
- Just upload your code, and Lambda takes care of everything required to run and scale your code



Amazon Lambda

Amazon Lambda

How it works

Run

✓ "Hello world!"

```
1 exports.handler = (event, context, callback) => {  
2     // Succeed with the string "Hello world!"  
3     callback(null, 'Hello world!');  
4 };
```

Just write the code

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Auto Scaling

Auto Scaling

- AWS Auto Scaling can increase the number of Amazon EC2 instances during traffic demand spikes to maintain performance and decrease capacity during traffic silence time for cost reduction
- AWS Auto Scaling can also help to ensure you are running the desired number of EC2 instances
- Scale up or down automatically based on your config



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Thank you