



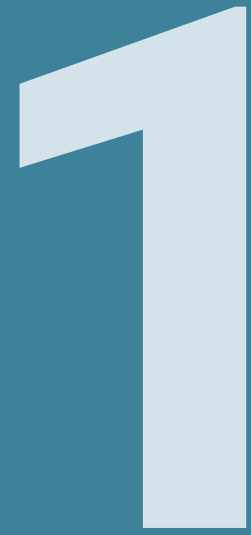
# aws



## 8 AWS Services



Full Explanation



## EC2 (Elastic Compute Cloud):

- **What is:** EC2 provides resizable compute capacity in the cloud.
- **Use:** We use EC2 to launch virtual servers, allowing us to scale computing resources as needed.
- **Example:** Running a web application on EC2 instances to handle varying levels of traffic.

# 2



## VPC (Virtual Private Cloud):

- **What is:** VPC lets you provision a logically isolated section of the AWS Cloud.
- **Use:** VPC enables us to launch AWS resources in a virtual network with control over IP addressing, routing, and security.
- **Example:** Hosting a multi-tier application securely by segregating components into different subnets within a VPC.

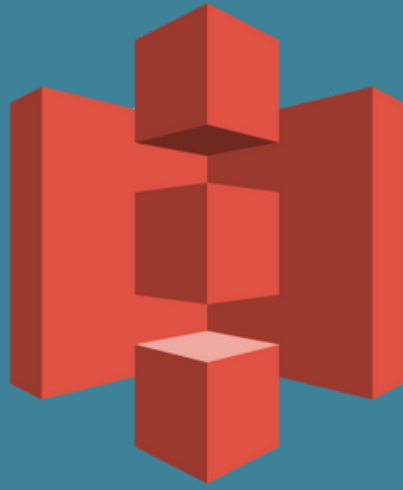


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## EBS (Elastic Block Store):

- What is: EBS provides persistent block-level storage volumes for EC2 instances.
- Use: We use EBS to store data persistently, such as operating system files, application data, and databases.
- Example: Storing database files for a web application on EBS volumes for reliable data storage.

# 4



## S3 (Simple Storage Service):

- **What is:** S3 offers scalable object storage for storing and retrieving data.
- **Use:** S3 is commonly used for data backup, hosting static websites, and storing large multimedia files.
- **Example:** Storing website assets like images, CSS, and JavaScript files on S3 for fast and reliable delivery.



# 5

## IAM (Identity and Access Management):

- What is: IAM manages access to AWS services and resources securely.
- Use: IAM allows us to create and manage users, groups, and roles to control who can access AWS resources.
- Example: Granting specific permissions to developers to manage EC2 instances, but restricting access to sensitive data.

## Lambda:



# 6

- **What is:** Lambda lets you run code without provisioning or managing servers.
- **Use:** Lambda is ideal for executing code in response to events, such as changes in data, without managing infrastructure.
- **Example:** Automatically resizing images uploaded to an S3 bucket using a Lambda function triggered by S3 events.

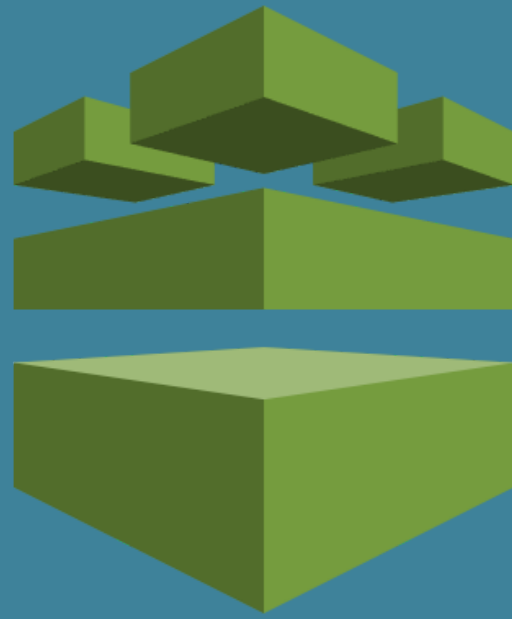
# AWS CodeBuild:



7

- **What is:** AWS CodeBuild compiles source code, runs tests, and produces deployable software packages.
- **Use:** CodeBuild automates the build process, enabling continuous integration and delivery (CI/CD) pipelines.
- **Example:** Building and testing a web application every time changes are pushed to a GitHub repository using CodeBuild.





## AWS Config:

- **What is:** AWS Config provides a detailed inventory of AWS resources and tracks changes over time.
- **Use:** AWS Config helps maintain compliance, troubleshoot configuration issues, and assess resource relationships.
- **Example:** Monitoring changes to security group configurations and automatically remediating non-compliant settings.