Common AWS Services: Overview, Use Cases, Features, and Pricing Models

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Amazon EC2

Amazon Elastic Compute Cloud (EC2) provides scalable computing capacity in the AWS cloud.

Use Cases

Running virtual servers, High-performance computing, Batch processing

Features

Variety of instance types, Auto-scaling, Secure and resizable compute capacity

Pricing Model

Pay for compute capacity by the second with no long-term commitments.

Amazon S3

Amazon Simple Storage Service (S3) is an object storage service that offers scalability, data availability, security, and performance.

Use Cases

Backup and restore, Big data analytics, Static website hosting

Features

Durability, Scalability, Security and compliance

Pricing Model

Pay only for what you use. Pricing based on the amount of data stored, requests, and data transfer.

Amazon RDS

Amazon Relational Database Service (RDS) makes it easy to set up, operate, and scale a relational database in the cloud.

Use Cases
Web and mobile applications, E-commerce applications, Business applications

Features
Automated backups, Multi-AZ deployment, Read replicas

Pricing Model
Pay for database instances by the hour, storage, and I/O requests.

Amazon DynamoDB
Amazon DynamoDB is a key-value and document database that delivers single-digit millisecond performance at any scale.

Use Cases
Gaming, IoT, Mobile backends

Features
Fully managed, High availability, Global tables

Pricing Model
Pay for the throughput and storage you provision. On-demand and reserved capacity options available.

Amazon Lambda
AWS Lambda lets you run code without provisioning or managing servers. You pay only for the compute time you consume.

Use Cases
Data processing, Real-time file processing, IoT backends

Features
Automatic scaling, High availability, Integrated with other AWS services

Pricing Model
Pay for the number of requests and the duration of code execution.

Amazon VPC
Amazon Virtual Private Cloud (VPC) lets you provision a logically isolated section of the AWS cloud where you can launch AWS resources in a virtual network.

Use Cases

Hosting web applications, Backup and disaster recovery, Extending your data center

Features

Customizable network configurations, Security groups and network ACLs, VPC Peering

Pricing Model

No additional charge for creating a VPC. You pay for the resources you provision within the VPC.

Amazon CloudFront

Amazon CloudFront is a fast content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to customers globally with low latency and high transfer speeds.

Use Cases

Website delivery, Video streaming, Software distribution

Features

Global network of edge locations, Security at the edge, Integration with AWS Shield and WAF

Pricing Model

Pay for data transfer and HTTP/HTTPS requests. No upfront fees or long-term contracts.

Amazon SQS

Amazon Simple Queue Service (SQS) is a fully managed message queuing service that enables you to decouple and scale microservices, distributed systems, and serverless applications.

Use Cases

Message queuing, Decoupling microservices, Asynchronous task processing

Features

Message retention, Dead-letter queues, FIFO queues

Pricing Model

Pay for the number of requests and the amount of data transferred.

Amazon SNS

Amazon Simple Notification Service (SNS) is a fully managed messaging service for both application-to-application (A2A) and application-to-person (A2P) communication.

Use Cases

Push notifications, Email and SMS notifications, Event-driven computing

Features

Message filtering, Content-based message delivery, SMS and mobile push notifications

Pricing Model

Pay for the number of messages published and delivered.