

AWS Cloud Serverless

Topics : [AWS](#)

Written on [December 08, 2023](#)

Serverless computing is a cloud computing model that allows developers to build and run applications without managing the underlying infrastructure. In the context of AWS, there are several services that enable serverless computing. Here are key AWS serverless services and concepts:

1. AWS Lambda:

- **Description:** AWS Lambda is a serverless compute service that lets you run code without provisioning or managing servers. You can upload your code, and Lambda automatically scales and manages the compute resources needed to run it.
- **Use Cases:** Lambda is commonly used for event-driven applications, real-time file processing, and backend services for mobile or web applications.

2. AWS API Gateway:

- **Description:** API Gateway enables you to create and publish RESTful APIs. It can be used to expose Lambda functions or other backend services to the internet.
- **Use Cases:** API Gateway is often used to build scalable and secure APIs for applications, microservices, or mobile apps.

3. AWS Step Functions:

- **Description:** Step Functions is a serverless orchestration service that allows you to coordinate and sequence AWS services, including Lambda functions, in a visual workflow.
- **Use Cases:** Step Functions is useful for building workflows and coordinating microservices in a serverless architecture.

4. AWS EventBridge:

- **Description:** EventBridge is a serverless event bus service that makes it easy to connect different applications using events. It can be used to ingest, filter, and deliver events in real-time.
- **Use Cases:** EventBridge is often used for building event-driven architectures, integrating different services, and processing events from various sources.

5. AWS S3 (Simple Storage Service):

- **Description:** While not exclusively serverless, S3 is a highly scalable object storage

service commonly used in serverless architectures to store and retrieve data. It can trigger events that invoke Lambda functions.

- **Use Cases:** S3 is used for storing and serving static assets, backups, and other data in a scalable manner.

6. AWS DynamoDB:

- **Description:** DynamoDB is a fully managed NoSQL database service that can be used in serverless architectures. It scales automatically and can trigger Lambda functions upon data changes.
- **Use Cases:** DynamoDB is often used for scalable and low-latency data storage in serverless applications.

7. AWS App Runner:

- **Description:** App Runner is a fully managed service that makes it easy to build, deploy, and scale containerized applications quickly. It abstracts away infrastructure management and allows you to focus on your code.
- **Use Cases:** App Runner is suitable for web applications, APIs, and microservices.

8. Serverless Application Model (SAM):

- **Description:** SAM is an open-source framework for building serverless applications. It extends AWS CloudFormation to provide a simplified way of defining serverless applications.
- **Use Cases:** SAM is used to define and deploy serverless applications using infrastructure as code.