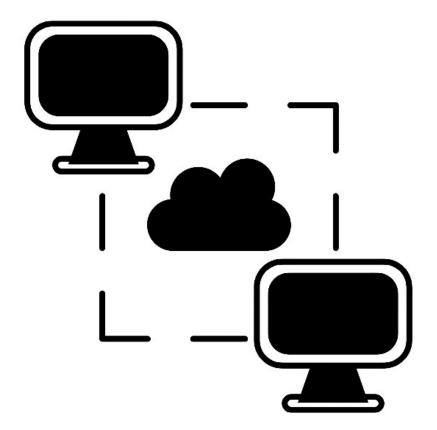
Serverless



Serverless Computing

Serverless refers to a cloud computing model where cloud providers automatically manage the infrastructure, allowing developers to focus solely on writing code. In serverless computing, you pay for actual usage rather than preallocated resources, making it more costefficient and scalable. Popular serverless platforms include AWS Lambda, Azure Functions, and Google Cloud Functions.

Event-Driven

Serverless functions are triggered by events, such as HTTP requests, database changes, or file uploads, enabling a reactive and event-driven architecture.

Automatic Scaling

Cloud providers handle the scaling of resources based on demand. Functions scale dynamically to accommodate varying workloads without manual intervention.

Stateless

Serverless functions are typically stateless, meaning each function execution is independent. State is often managed externally, such as in a database or another service.

Automatic Fault Tolerance

Cloud providers handle the distribution of functions across multiple availability zones, enhancing fault tolerance and ensuring high availability.

No Server Management

Developers don't need to manage servers, as the cloud provider takes care of infrastructure provisioning, maintenance, and scaling, reducing operational overhead.

Pay-as-You-Go Pricing

With serverless, you only pay for the actual compute resources consumed during the execution of functions, making it cost-effective for sporadic or unpredictable workloads.

Microservices Architecture

Serverless promotes a microservices approach, allowing developers to build applications as a collection of small, independent, and loosely coupled functions.

Fast Deployment

Serverless platforms offer quick deployment times, enabling rapid development and deployment cycles, which is beneficial for agile development practices.