

Glossary: Application Development using Microservices and Serverless

Welcome! This alphabetized glossary contains many of the terms in this course. This comprehensive glossary also includes additional industry-recognized terms not used in course videos. These terms are essential for you to recognize when working in the industry, participating in user groups, and in other professional certificate programs.

Estimated reading time: 10 minutes

Term	Definition
API Gateway	API management tool that sits between a client and a collection of backend services
ASGI	Asynchronous Server Gateway Interface - web server interface to call microservice asynchronously
BaaS	Backend-as-a-Service
BFF	Backend for Frontend
Build	An executable unit
Buildpack	Contains executables to perform tasks such as inspecting source code, creating a build plan, or executing the build plan to produce a container image
CaaS	Containers as a Service
CNCF	Cloud Native Computing Foundation
Code Engine	Abstracts the operational burden of building, deploying, and managing workloads so that developers can focus on code development
Configuration	Everything that can differ between deployments, might differ among environments
Container	A standalone, all-inclusive, and executable unit of software packaged with libraries, dependencies, and runtimes
Container image	An immutable file containing all the application assets like source code, libraries, and dependencies necessary for an application to run
CRUD	Creating, reading, updating, and deleting records
cURL	A command line tool and library for transferring data with URLs
DELETE	Request to delete a record
Docker	A software platform for building and running applications as containers
Dockerfile	A text file that includes all the commands to build a docker container image
Environment variables	Are easy to change across deployments without changing the code
FaaS	Function-as-a-Service
Flask	A micro web framework that does not require particular tools or libraries
GET	Request to retrieve a record
GraphQL	A query language that enables you to retrieve exactly what you need from the API
Horizontal scaling	Scaling by adding more instances of resources, also described as "scaling out"
IBM Cloud CLI	IBM Cloud command line interface
IBM Cloud Console	A well-designed web portal for end users to conveniently manage their IBM cloud services, including the Code Engine
IDE	Integrated Development Environment
Job	Runs executable code one time and exits
Microservices	A single application is composed of many loosely coupled and independently deployable smaller services
Monolithic application	Has all or most of its functionality within a single process
OpenAPI	specification Defines a standard, language-agnostic interface to RESTful APIs
PaaS	Platform as a Service
pip	Python package manager
POST	Request to create a record
Postman	An API platform for building and using APIs
PUT	Request to update a record
Release stage	Combines the build with the deployment's current configuration so that the code is ready to run
Repository	A group of related container images
REST	Representational State Transfer
Run stage	Implements the application
SaaS	Software as a Service
Serverless computing	Abstracts both infrastructure and software environments. An architectural style where code runs using a cloud platform
Service discovery pattern	Helps applications and services discover each other
SOA	Service Oriented Architecture
SPA	Single page application
Stateless	Means each request contains all the information required to process it
Strangler pattern	Helps manage the refactoring of a monolithic application in stages
Swagger	Allows you to describe the structure of your APIs so that machines can read them
TCP	Transmission Control Protocol

Term	Definition
TLS	Transport layer security
VM	Virtual machine
WebSocket	A communication protocol based on Transmission Control Protocol
WSGI	Web Server Gateway Interface - Python standard for communication between web servers and web applications or microservices



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