# Most Important DevOps Terms You Should Know

## **Agile**

A methodology that promotes continuous iteration of development and testing throughout the software development lifecycle.

## **Artifact**

A byproduct produced during software development, such as documentation, executable files, or libraries.

## **Automation**

The use of technology to perform tasks without human intervention, essential in DevOps for CI/CD.

# **Blue-Green Deployment**

A technique for deploying applications by switching between two identical environments.

## **Build**

The process of converting source code into executable code.

# CI/CD

Continuous Integration and Continuous Deployment/Delivery, practices to automatically build, test, and deploy code.

# **Cloud Computing**

Delivery of computing services over the internet, providing scalability and flexibility.

# **Configuration Management**

The process of handling changes systematically so that a system maintains its integrity over time.

#### Container

A lightweight, stand-alone, and executable package that includes everything needed to run a piece of software.

## **Docker**

A popular platform for developing, shipping, and running applications inside containers.

# Infrastructure as Code (IaC)

The management of infrastructure through code rather than through manual processes.

## Jenkins

An open-source automation server used for continuous integration and continuous delivery.

#### **Kubernetes**

An open-source platform for automating deployment, scaling, and operations of application containers.

## **Load Balancer**

A device that distributes network or application traffic across a number of servers.

# **Microservices**

An architectural style that structures an application as a collection of small, autonomous services modeled around a business domain.

# **Monitoring**

The process of collecting, analyzing, and using information to track the performance and availability of applications and infrastructure.

#### Orchestration

The automated arrangement, coordination, and management of complex software systems and services.

# **Pipeline**

A set of automated processes that allow DevOps professionals to compile, build, and deploy code to production environments.

# **Provisioning**

The process of setting up IT infrastructure.

# Repository

A central place where data is stored and managed.

#### Rollback

The process of reverting to a previous version of the application after a failed deployment.

# Scaling

The process of increasing or decreasing the capacity of the IT resources to meet changing demands.

## Serverless

A cloud-computing execution model where the cloud provider dynamically manages the allocation of machine resources.

## **Service Mesh**

A dedicated infrastructure layer for handling service-to-service communication.

# **SLA (Service Level Agreement)**

A contract between a service provider and a customer that specifies performance standards.

## **Source Control**

The practice of tracking and managing changes to code.

## **Terraform**

An open-source IaC software tool created by HashiCorp.

## **Version Control**

A system that records changes to a file or set of files over time so that you can recall specific versions later.

# Virtual Machine (VM)

A software computer that, like a physical computer, runs an operating system and applications.

## **YAML**

A human-readable data serialization standard that can be used in conjunction with all programming languages.