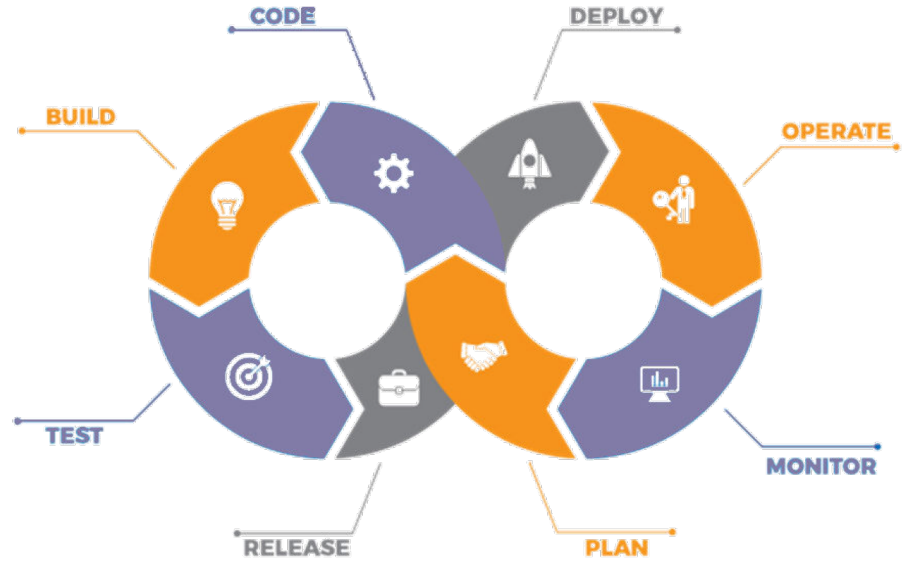




Introduction to Terraform



Agenda

01

What is Infrastructure as a Code?

02

Infrastructure as a Code vs Configuration Management

03

Introduction to Terraform

04

Installing Terraform on AWS EC2

05

Basic Terraform Operations

06

Terraform Code Basics

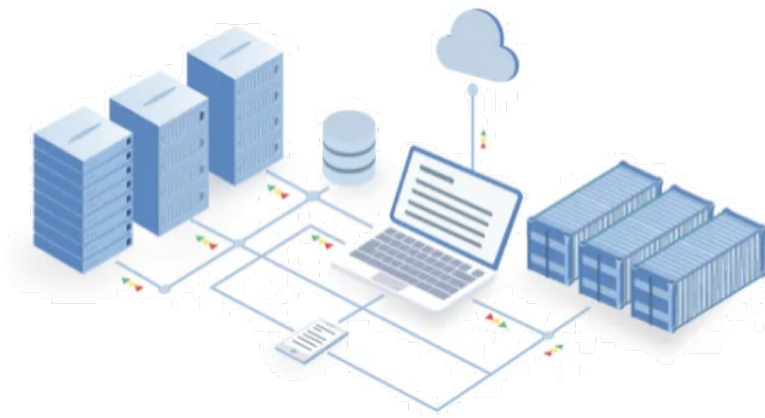
07

Deploying an end to end Architecture using Terraform

What is Infrastructure as a Code?

What is Infrastructure as Code (IaC)?

Infrastructure as Code (IaC) is the management of **infrastructure** (networks, virtual machines, load balancers, and connection topology) in a descriptive model, using the same versioning as **DevOps** team uses for source **code**. **Infrastructure as Code** evolved to solve the problem of environment drift in the release pipeline.



Infrastructure as Code vs Configuration Management

IaC vs Configuration Management

Infrastructure as a Code

1. Can create / destroy hardware architectures
2. Can install software while bootstrapping servers
3. Should not be used as a replacement to CM tools

Configuration Management

1. Works only with softwares
2. Cannot work on hardware level, but can install any software
3. Cannot be used as a replacement to IaC tools

Introduction to Terraform

What is Infrastructure as Code (IaC)?

Terraform is an open-source infrastructure as code software tool created by HashiCorp. It enables users to define and provision a datacenter infrastructure using a high-level configuration language known as Hashicorp Configuration Language, or optionally JSON.



Installing Terraform for AWS

Installing Terraform for AWS

1. Install Terraform on local/EC2 Machine
2. Create a user, and use this user to authenticate terraform to AWS
3. Initialize Terraform Directory



HashiCorp

Terraform

Basic Terraform Operations

Basic Terraform Operations

There are four kinds of operations in Terraform:



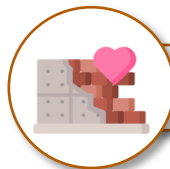
Init



Plan



Apply



Destroy



HashiCorp

Terraform

Terraform Code Basics

Terraform Code Basics

Following is a snippet of terraform file. Terraform files are saved with the extension of tf (*.tf). It has two main components, **block type** and **Key Value Pairs**

Block Type

```
1 provider "aws" {  
2  
3     region = "ap-south-1"  
4     access_key = "AKIA2ESXROHTZZNFXDKI"  
5     secret_key = "frQzLIH0DoRISZ6wqtI0Z7Uoe8IuFIwxVXIjk1B"  
6  
7 }  
8
```

Key Value Pairs



HashiCorp
Terraform

Deploying end to end Infrastructure using Terraform



India: +91-7847955955

US: 1-800-216-8930 (TOLL FREE)



sales@intellipaat.com



24/7 Chat with Our Course Advisor