**Terraform State**

**State**

Terraform must store state about your managed infrastructure and configuration. This state is used by Terraform to map real-world resources to your configuration, keep track of metadata, and improve performance for large infrastructures.

This state is stored by default in a local file named terraform.tfstate, but it can also be stored remotely, which works better in a team environment.

Terraform uses this local state to create plans and make changes to your infrastructure. Prior to any operation, Terraform does a refresh to update the state with the real infrastructure.

The primary purpose of Terraform state is to store bindings between objects in a remote system and resource instances declared in your configuration. When Terraform creates a remote object in response to a change of configuration, it will record the identity of that remote object against a particular resource instance, and then potentially update or delete that object in response to future configuration changes.

**State** is a necessary requirement for Terraform to function. It is often asked if it is possible for Terraform to work without state, or for Terraform to not use state and just inspect cloud resources on every run.

**Terraform State File**

Terraform stores the state of the infrastructure that is being created from the TF files.

This state allows terraform to map real-world resources to your existing configuration.

#example.tf

provider "aws" {

region = "us-east-1"

}

resource "aws\_instance" "tf-ec2" {

ami = "ami-04d29b6f966df1537"

instance\_type = "t2.micro"

# terraform.tfstate

{

"version": 4,

"terraform\_version": "0.13.5",

"serial": 3,

"lineage": "5849ad5b-3b23-d131-087c-baf7653bef0d",

"outputs": {},

"resources": [

{

"mode": "managed",

"type": "aws\_instance",

"name": "tf-ec2",

"provider": "provider[\"registry.terraform.io/hashicorp/aws\"]",

"instances": [

{

"schema\_version": 1,

"attributes": {

"ami": "ami-04d29b6f966df1537",

"arn": "arn:aws:ec2:us-east-1:846133131154:instance/i

                -0b7874a5ca83a5ca8",

"associate\_public\_ip\_address": true,

"availability\_zone": "us-east-1e",

# ... Output truncated ...

Formun Üstü

**Current State and Desired State**

When running a terraform plan, Terraform must know the current state of resources in order to effectively determine the changes that it needs to make to reach your desired configuration.

**Current State** = Current Infrastructure Resource & Configuration

**Desired State** = Infrastructure Configuration defined within the Terraform TF Files.

Terraform will plan to match the desired state to the current state. If there is a difference between both, the desired state will take the preference.