## Deploy your First Terraform Configuration

### Scenario

For our real-world scenario, let's say that you're an AWS Systems Engineer at Techinya, which is an online training company. Your friend, Anil the developer, has requested that you provision a development environment for the new application he is working on. Now, the application is a basic two-tier application right now. It's got a web front end and a database back end, and a public DNS record. Your company has recently started using the public cloud for deploying new applications, and so you've decided to spin this environment up in AWS.

## Terraform Components

Terraform files

Terraform plugins

Terraform state

#### Variables

Provider

```
variable "aws_access_key" {}
variable "aws_secret_key" {}
variable "aws_region" { default = "us-east-1"}
provider "aws" {
access_key = "var.access_key"
secret_key = "var.secret_key"
region = "var.aws_region"
```

Data

Resource

output

```
data "aws_ami" "alx" {
most_recent = true
\overline{\text{owners}} = ["amazon"]
filters {}
resource "aws_instance" "ex" {
ami = "data.aws_ami.alx.id"
instance_type = "t2.micro"
output "aws_public_ip" {
value = "aws_instance.ex.public_dns"
```

### Demo



Examine the Terraform file



Deploy the configuration



Review the results



Play along!

- AWS account
- Demo files

# Summary

- Key components of a Terraform file
- Deploying infrastructure
  - Repeatable
  - Consistent