The Terraform & IaC Bootcamp

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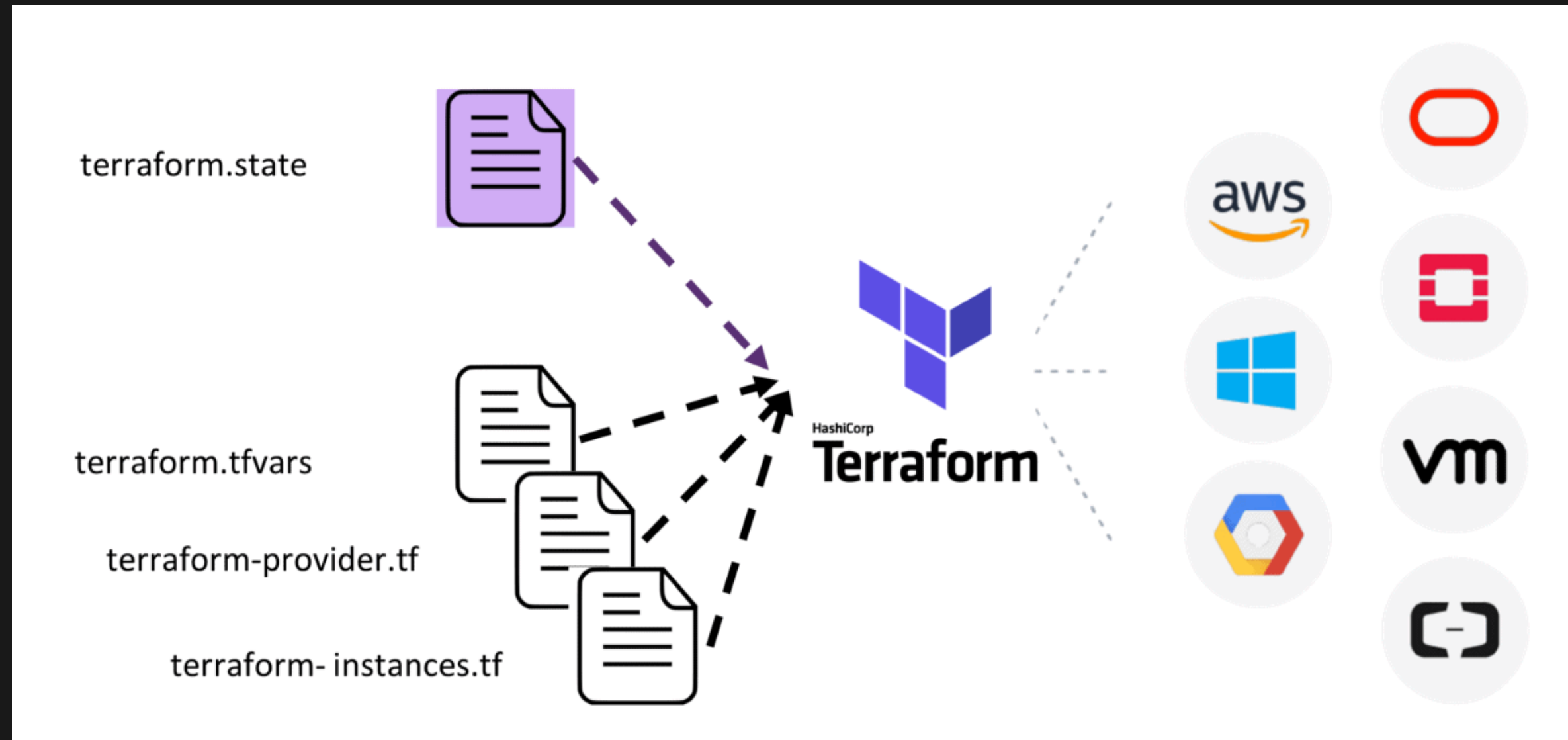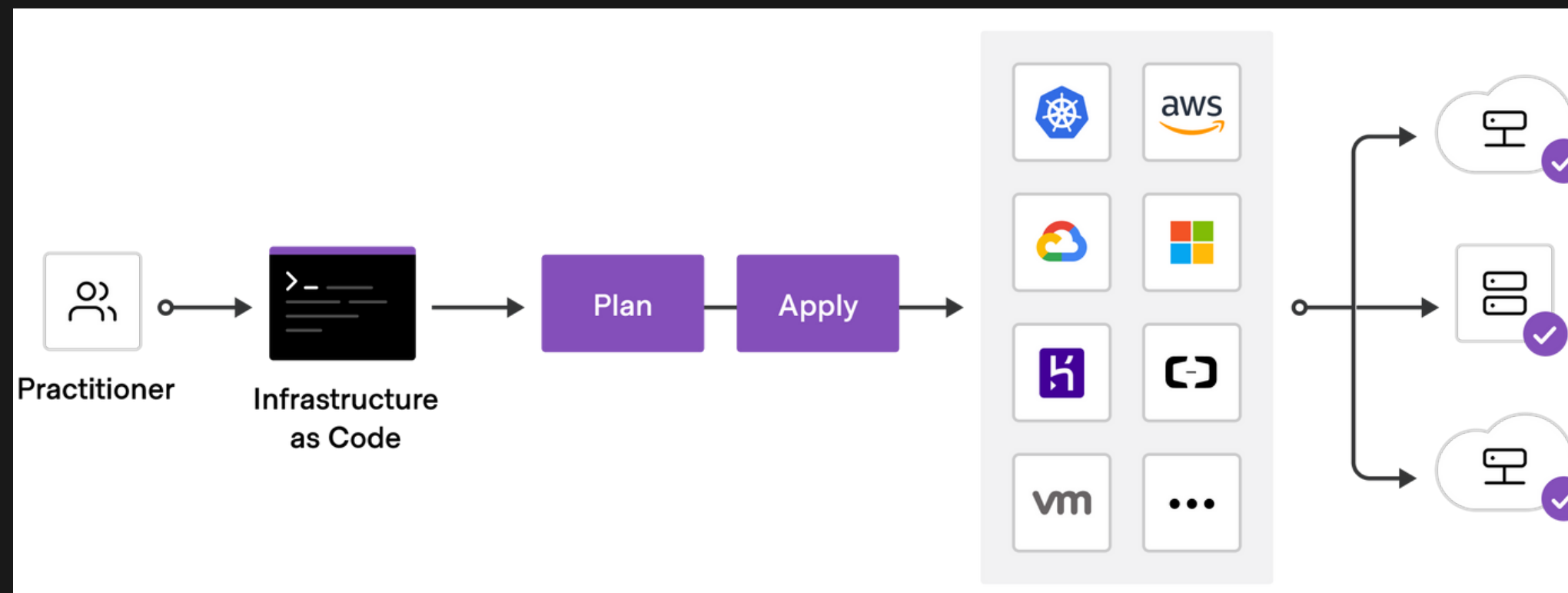Terraform

Course Introduction

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Terraform Fundamentals

- What is IaC, why is it important
- Understanding how Terraform works under the hood
- Important components of Terraform you need to know
- Terraform core workflow commands - Using Terraform to interact with Infrastructure
- Creating resources with Terraform on AWS environment

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Course Introduction

- We will be writing lots of code!
- No coding experience?
  - Don't worry - this is not a programming course
  - Terraform uses HCL, an easy to read configuration language
  - No prior coding experience required, but helpful
- Core tenant of IaC is automation, automation, automation
- Everything is written in code
  - Allows for automation infrastructure provisioning
  - Easy documentation and auditing
  - Easy to work in team setting

```
resource "aws_instance" "main" {
  provider = alias.west
  ami = data.aws_ami.aws_linux_2.id

  instance_type               = "t3.small"
  associate_public_ip_address = true

  vpc_security_group_ids = [aws_security_group.allow_ssh.id]

  ebs_block_device {
    device_name = "/dev/sdf"
    volume_type = "gp2"
    volume_size = "2"
  }


  tags = merge(local.tags, {
    Name : "levelup_with_terraform"
  })
}
```

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Course Goals

- Our goal is to turn you into a Terraform Professional
- Quickly ramp up with Terraform
- Speak confidently about IaC and Terraform
- Contribute to Terraform infrastructure at your work
- Advance your career by learning an in-demand skill

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Our Tech Stack

Terraform - IaC

Terraform as our IaC tool, automating the management and provisioning of infrastructure

Github - Source Control

Stores our Terraform code for various hands-on assignments and projects

AWS - Cloud Environment

The main Cloud provider, where we create and manage AWS resources with Terraform

Course Introduction

Course Prerequisites

- Writing lots of code, but no coding experience required!
- Leveraging AWS to provision infrastructure - experience is helpful, but not required
  - Course does not cover AWS basics
  - Good to know high level overview of AWS
  - **Must have an AWS account**
  - We will make sure to not go over free tier limit - always cleanup
- Github is our primary source control management system
  - Good to have basic Git experience, nothing crazy!
- An IDE is highly recommended
  - Preference is Visual Studio Code, but any IDE will work - completely up to your preference

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