

Xerris Bootcamp Series

# Infrastructure as Code



ACCOLITE DIGITAL  
Transforming The Future, Now

# What is Infrastructure as code

## Infrastructure As Code (IaC)

- Managing and provisioning computer data centers through machine-readable definition files rather than physical hardware configuration or interactive configuration tools.
- Allows you to treat and provision your networks, servers, database and other infrastructure like software.
- Quickly and reliably create the cloud environment for your business applications.
- Minimizes Risk of having different configurations between environments (dev, stage, prod)
- Mitigates the risk of disaster recovery. If necessary, an entirely new cloud environment could be provisioned very quickly.





# Terraform

## HashiCorp Terraform

- A tool for building, changing and versioning infrastructure.
- Cloud agnostic, supporting all major cloud providers, AWS, GCP (Google), Azure (Microsoft)
- Used to replicate your cloud environment across multiple environments (DEV, STAGE, PROD).
- Modules provide the ability to reuse components across multiple projects.
- Xerris has many Terraform-certified developers.



# Terraform

## HashiCorp Terraform

- Supports Windows, Linux/Unit and Mac OS
- Build infrastructure – create cloud infrastructure
- Change infrastructure – modify existing cloud infrastructure.
- Destroy infrastructure – remove existing cloud infrastructure when no longer needed
- Perform all these from the command-line
- Perform all these from your CI/CD pipeline



# Terraform

## HashiCorp Terraform

- Terraform uses the declarative approach to IaC.
- You declare what you would like your end state to be.
- Terraform determines the current state and creates a plan to achieve your end state.
- Your Terraform code ALWAYS represents the current state of your environment.
- Terraform allows you to store the state of your environment with your cloud provider.
- Terraform offers a cloud platform to manage your remote state.



# Terraform

## Installing Terraform (Windows)

- <http://www.terraform.io>
- Locate/download the .zip file for your platform.
- Unzip the terraform binary from the .zip file
- Add the terraform binary to the path.
- (optionally) change permissions to allow the terraform binary to execute.



# Terraform

## Installing Terraform (Mac OS)

```
$ brew tap hashicorp/tap
```

```
$ brew install hashicorp/tap/terraform
```

```
$ terraform -v
```

```
$ Terraform v1.3.6
```



# Terraform

## Installing Terraform (Windows)

Version 1.3.6

<https://developer.hashicorp.com/terraform/downloads>

- Download the .zip file
- Unzip the file and add the terraform.exe file to the system path
- Go to your advanced settings -> Environment Variables
- Locate the PATH system variable
- Add ;c:/terraform to the end of that path

