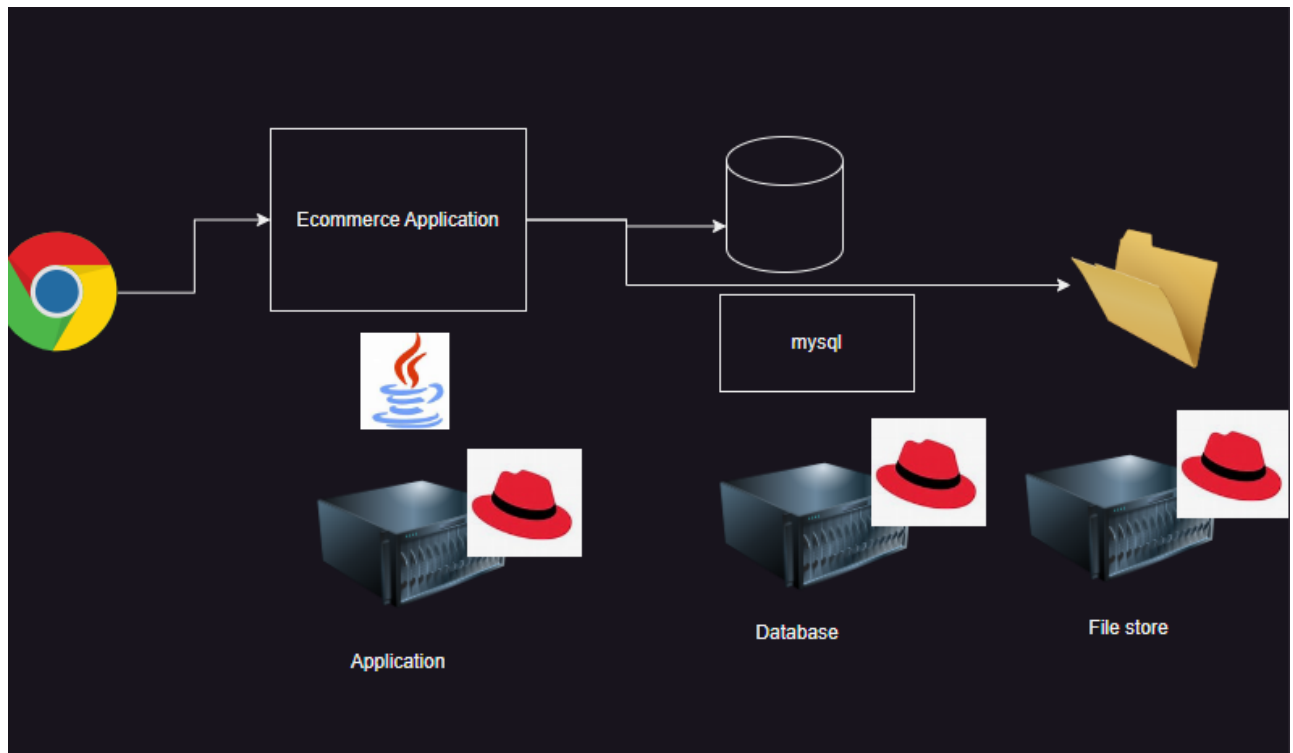


CI/CD Pipeline

- In CI/CD Pipelines we create or expect different environments for testing before release such as
 - System Test Environment
 - Performance Test Environment
 - Stress Testing Environment
 - User Acceptance Testing Environment (Pre-Prod/Staging)
- Lets understand the complication for 3 different architectures

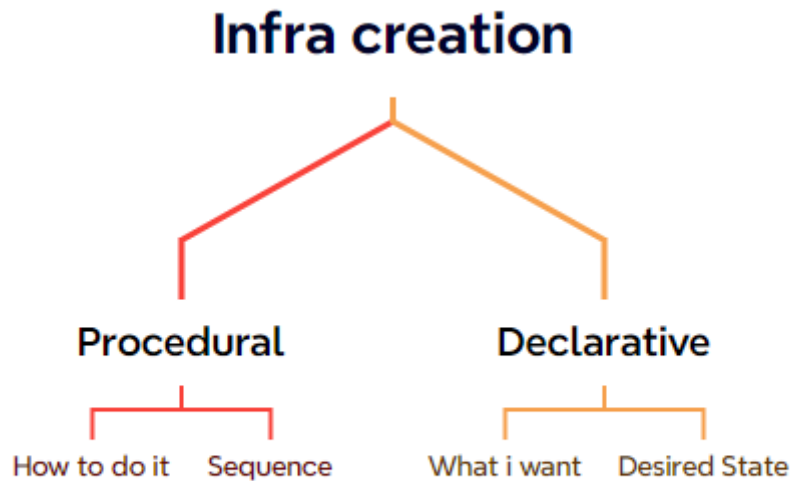
Monolith E commerce Application

- Architecture



- Servers used are Generally virtual machines. Your organization have many choices
 - VmWare
 - AWS
 - Azure
 - GCP
- To create infrastructure (as mentioned below), we need a tool to generate infra.
 - networking
 - virtual machines
 - storage
 - database
- To create this we have 3 choices
 - manual creation
 - scripting (CLIs/Procedural)

- Declarative Creation using Templates



- As we have seen in the demonstrations, templating approach is
 - easy to configure
 - repeatable
 - reusable
 - idempotent
- Options for Declarative Creation using Templates
 - AWS: Cloud formation
 - Azure: ARM Templates/Bicep
 - Terraform (which runs on almost every virtual platform)

Terraform

- [Refer Here](#) for Terraform docs.
- This is Infra as a code tool for declaratively creating infrastructure in almost all virtual platforms (vmware, kvm) and cloud providers (AWS, Azure, GCP,)
- Core components of Terraform
 - Arguments: Inputs
 - Attributes: Outputs
 - Providers: Where to create infrastructure
 - Resource: What infra needs to be created.