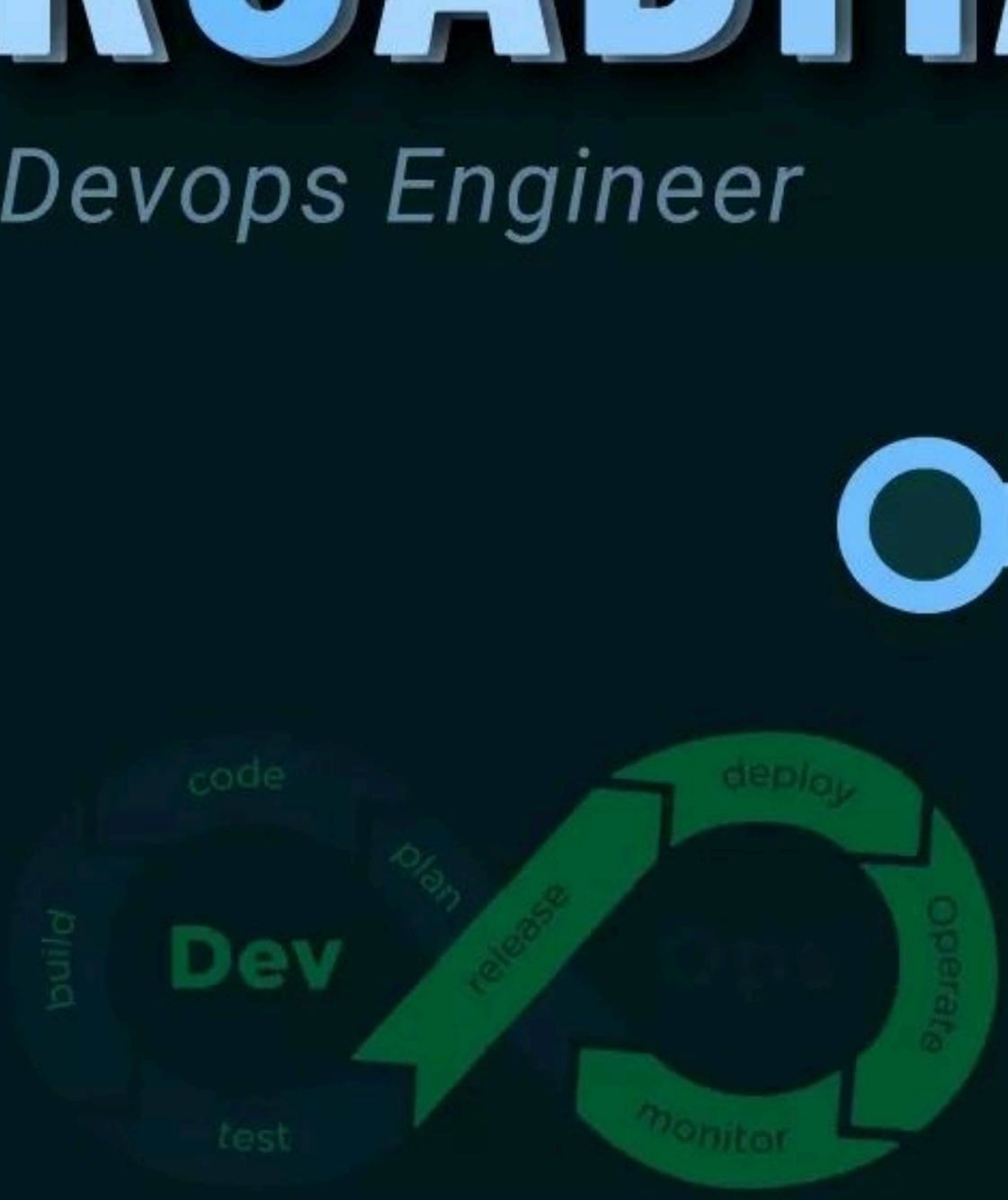
The DEVOPS ROADMAP

Devops Engineer

ROADMAP 2023



Learn a programming Language for automation

(Pick any one language)

It doesn't matter what language you pick, but it is important to learn at least one. You will be able to use that language to write automation scripts.

My Choices

- Python
- Ruby
- Java
- JavaScript/NodeJS

Other options

- Go
- Rust
- C
- C++

Understanding OS Concepts

Basics

- Networking
- POSIX
- Sockets
- Processes

Other Operations

- I/O Management
- Virtualization
- Memory/Storage
- File Systems
- Startup Management (initd)
- Service Mgmt. (systemd)
- Threads and Concurrency

Operating System

An Operating System is a program that manages a computer's resources, especially the allocation of those resources among other programs.

- Windows
- Linux
- Unix

- CentOS
- Ubuntu
- Fedora
- Debian

- FreeBSD
- NetBSD
- OpenBSD

Networking, Security and Protocols

- HTTP
- HTTPS
- FTP
- SSL / TLS
- SSHPort
- Forwarding

What is and how to setup a _____?

- Reverse Proxy
- Load Balancer
- Firewall
- Forward Proxy
- Caching Server
- Web Server

Ngnix

- Apache
- Caddy
- Tomcat
- IIS

Learn Some CI/CD Tools

Learn Infrastructure as a code

Container Orchestration

- Kubernetes
- Mesos
- Docker Swarm
- Nomad

Learn some CI/CD Tools

- Gitlab CI
- Jenkins
- Travis CI
- GitHub Actions
- TeamCity
- Bamboo
- Circle CI
- Drone
- Azure DevOps Services

Monitoring & Infrastructure

Learn how to monitor software & infrastructure

Infrasctructure Monitoring

- Prometheus
- Nagios
- Grafana
- Datadog
- Zabbix
- Monit

Logs Management

- Elastic Stack
- Graylog
- Splunk
- Papertrail
- Loki

Cloud Providers

- AWS
- Google Cloud
- Azure
- Digital Ocean
- Heroku
- Linode
- Vultr
- Alibaba Cloud

Monitoring

DevOps monitoring entails overseeing the entire development process from planning, development, integration and testing, deployment, and operations. It involves a complete and real-time view of the status of applications, services, and infrastructure in the production environment.

Cloud Design Patterns

Cloud Design Patterns

- Availability
- Data Management
- Design and Implementation
- Management and Monitoring

Cloud Design Patterns

These design patterns are useful for building reliable, scalable, secure applications in the cloud.

Each pattern describes the problem that the pattern addresses, considerations for applying the pattern, and an example based on Microsoft Azure. Most patterns include code samples or snippets that show how to implement the pattern on Azure. However, most patterns are relevant to any distributed system, whether hosted on Azure or other cloud platforms.

- Keep Learning
- Keep Improving

You are ready to go