

Infrastructure as Code

Ahmad Luqman



What is Infrastructure as Code?

Infrastructure as Code (IaC) is the management of infrastructure (networks, virtual machines, load balancers, and connection topology) in a descriptive model, using the same versioning as DevOps team uses for source code. Like the principle that the same source code generates the same binary, an IaC model generates the same environment every time it is applied. IaC is a key DevOps practice and is used in conjunction with continuous delivery.

Source: <https://docs.microsoft.com/en-us/azure/devops/learn/what-is-infrastructure-as-code>

Benefits

- Speed and simplicity
- Configuration consistency
- Minimization of risk
- Increased efficiency in software development
- Cost savings

Source: <https://www.thorntech.com/2018/01/infrastructureascodebenefits/>

Best practices

- Codify everything
- Document as little as possible
- Maintain version control
- Continuously test, integrate, and deploy
- Make your infrastructure code modular
- Make your infrastructure immutable (when possible)



CloudFormation



HashiCorp

Terraform



HashiCorp

Vagrant



CHEF™



puppet

Demo - Vagrant

<https://github.com/ahmad-luqman/UbuntuVagrantWebDev>