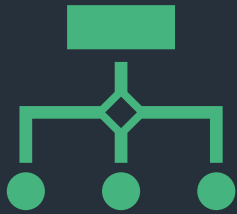# Infrastructure as code with Terraform

Present by Wing Chan

Agenda

What is Infrastructure as Code (IaC)?

What is Terraform?

Demo

What's Infrastructure as Code (IaC)?

- Definition: IaC is the process of managing and provisioning your IT infrastructure thru declarative definition files, rather than physical hardware configuration or interactive configuration tools.

- Benefits:

Speed	Consistency	Traceability	Lower cost
• Enabling you quickly set up your complete infrastructure by running a script per each environment. It make SDLC more efficient.	• Avoid manually configuration per environment. All infrastructure settings come from the same set of configuration files.	• Since you can version IaC configuration files like any source code file, you have full traceability of their changes.	• Infrastructure deployments are repeatable, scalable and can be fully automated.

What is Terraform?

- An open-source tool created by HashiCorp and released in 2014. Using a *declarative* configuration language aka *HashiCorp Configuration Language* (HCL) to manage infrastructure as code.

- It supports an extensive list of cloud infrastructure *providers* such as AWS, Azure, GCP, etc.
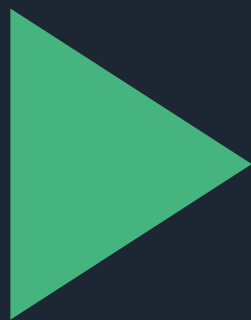
- Workflow:

Terraform Config Files (.tf) → Init → Plan → Apply → (Destroy) → Cloud Infrastructure

Terraform CLI

Terraform Demos