

Hands-on Infrastructure Automation with Terraform on AWS

Alexander Savchuk

Creating reusable components with modules

Section 5

Creating the first module

Modules

- Root module - the current working directory holding Terraform files
- Child modules - all modules sourced by the root (parent) module

Declaring modules

```
module "child" {  
    source = "./child"  
}
```

terraform get

terraform get - download modules referenced in the root module

terraform get -update - check the downloaded modules for updates and download the new versions, if present

terraform providers

terraform providers - print information about the providers used in the current configuration

terraform providers [config-path] - pass an explicit path to the configuration instead of using the current working directory by default

Keep explicit provider
configurations only in the root
module

Use module-relative path for
embedded files
(`${path.module}`)

Encapsulation

A language mechanism for restricting direct access to some of the object's components

To hide or not to hide?

- A design decision based on the goals of the module
- Expose configuration to make the module more flexible
- Hide configuration to make the module easier to use or enforce some best practices
- Use sane defaults where possible to improve usability

To hide or not to hide?

- A design decision based on the goals of the module
- **Expose configuration to make the module more flexible**
- Hide configuration to make the module easier to use or enforce some best practices
- Use sane defaults where possible to improve usability

To hide or not to hide?

- A design decision based on the goals of the module
- Expose configuration to make the module more flexible
- **Hide configuration to make the module easier to use or enforce some best practices**
- Use sane defaults where possible to improve usability

To hide or not to hide?

- A design decision based on the goals of the module
- Expose configuration to make the module more flexible
- Hide configuration to make the module easier to use or enforce some best practices
- **Use sane defaults where possible to improve usability**

Extending modules with conditionals and outputs

Next video