

Deploying Your First Terraform Configuration



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Module Overview



What is Terraform?

- Core components
- Workflow
- Installation

Globomantics scenario

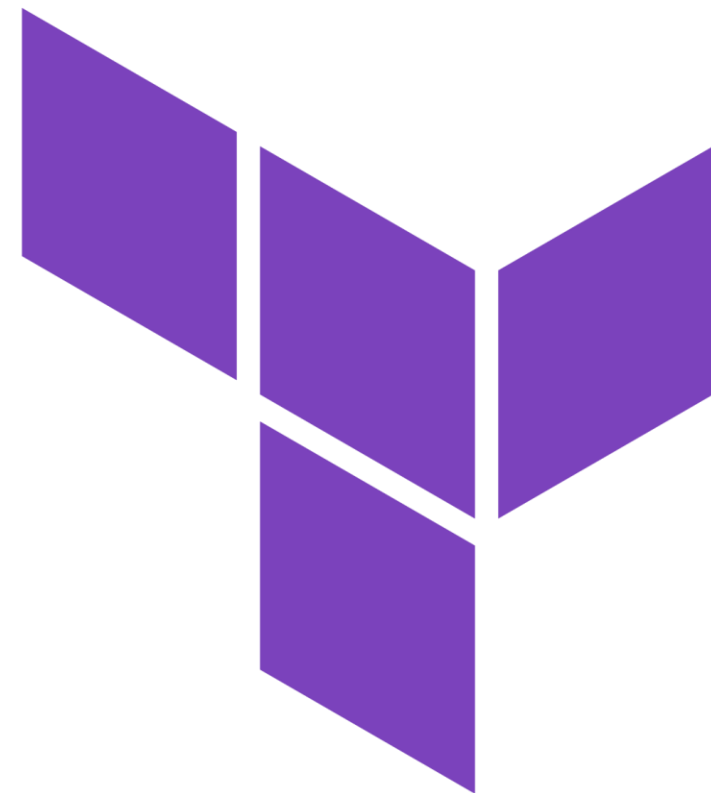
Terraform: "Hello world"





What Is Terraform?





HashiCorp
Terraform

hashicorp.com/brand

Infrastructure automation tool

Open source

Vendor-agnostic

Single binary compiled from Go

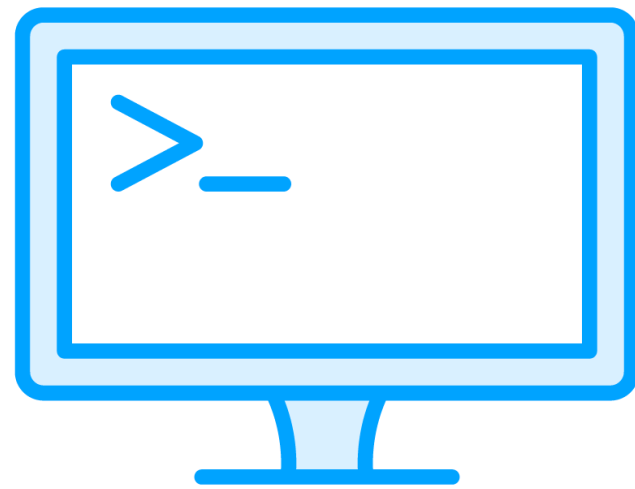
Declarative syntax

HashiCorp Configuration Language or JSON

Push-based deployment



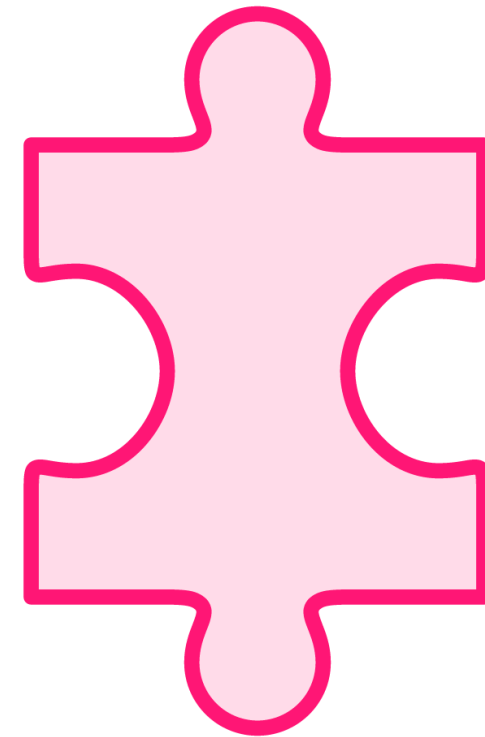
Core Components



Executable



**Configuration
files**



Provider plugins



State data



Installation

Download the executable for your platform

Add to your PATH environment variable

Share and enjoy!





Tasks:

- Install Terraform
- Try out the CLI commands

Prerequisites:

- Code editor
- Exercise files

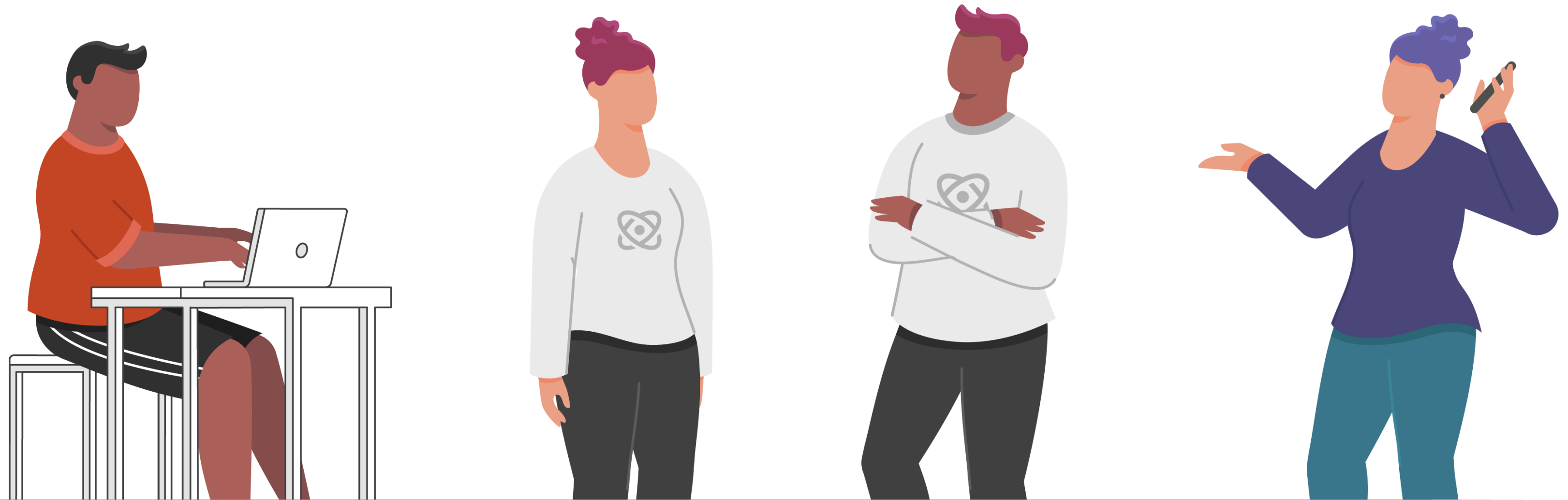




Globomantics Scenario



Welcome to Globomantics



 **GLOBOMANTICS**

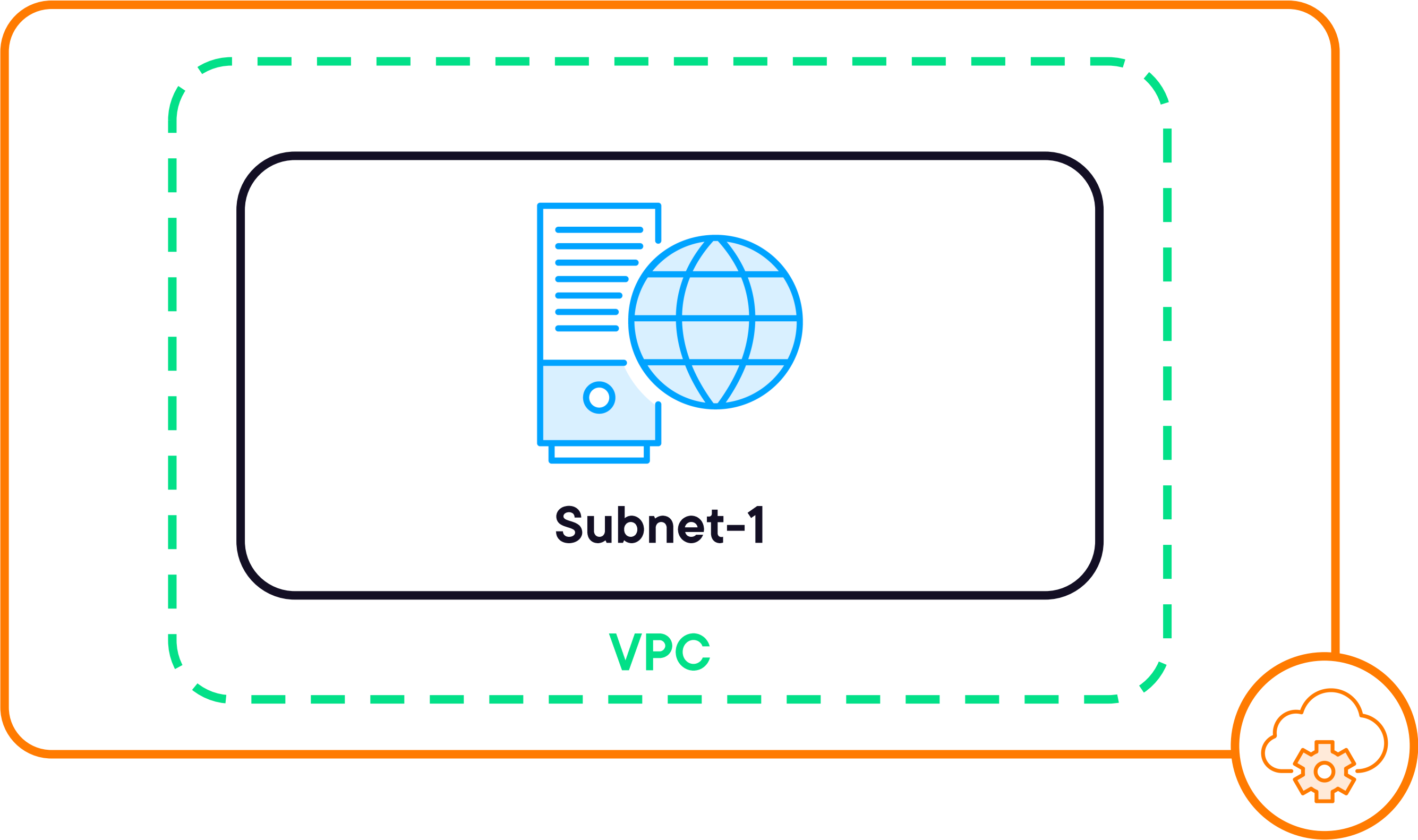




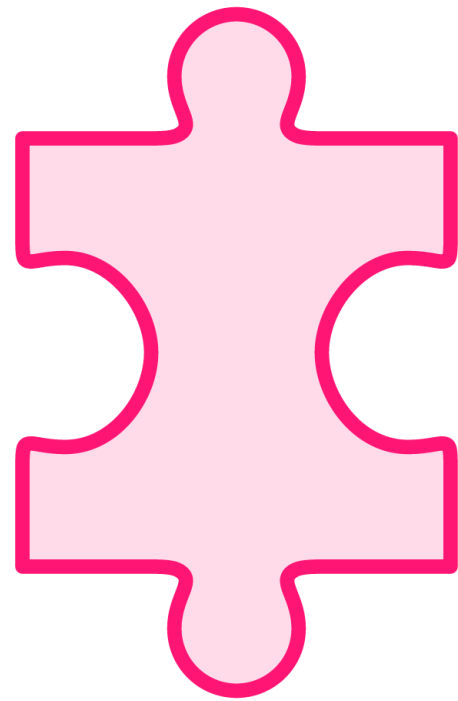
GLOBOMANTICS



Deployment Architecture



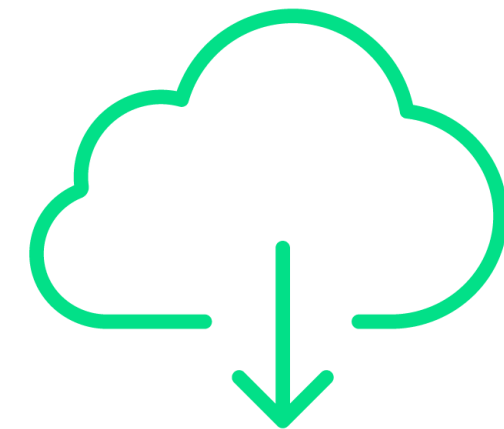
Terraform Object Types



Providers



Resources



Data sources

Block Syntax

main.tf

```
block_type "label" "name_label" {  
  key = "value"  
  nested_block {  
    key = "value"  
  }  
}
```



Block Syntax

main.tf

```
resource "aws_instance" "web_server" {  
  name = "web-server"  
  ebs_volume {  
    size = 40  
  }  
}
```



```
resource "aws_instance" "web_server" {  
  name = "web-server"  
  ebs_volume {  
    size = 40  
  }  
}
```

Terraform Object Reference

<resource_type>.<name_label>.<attribute>

aws_instance.web_server.name

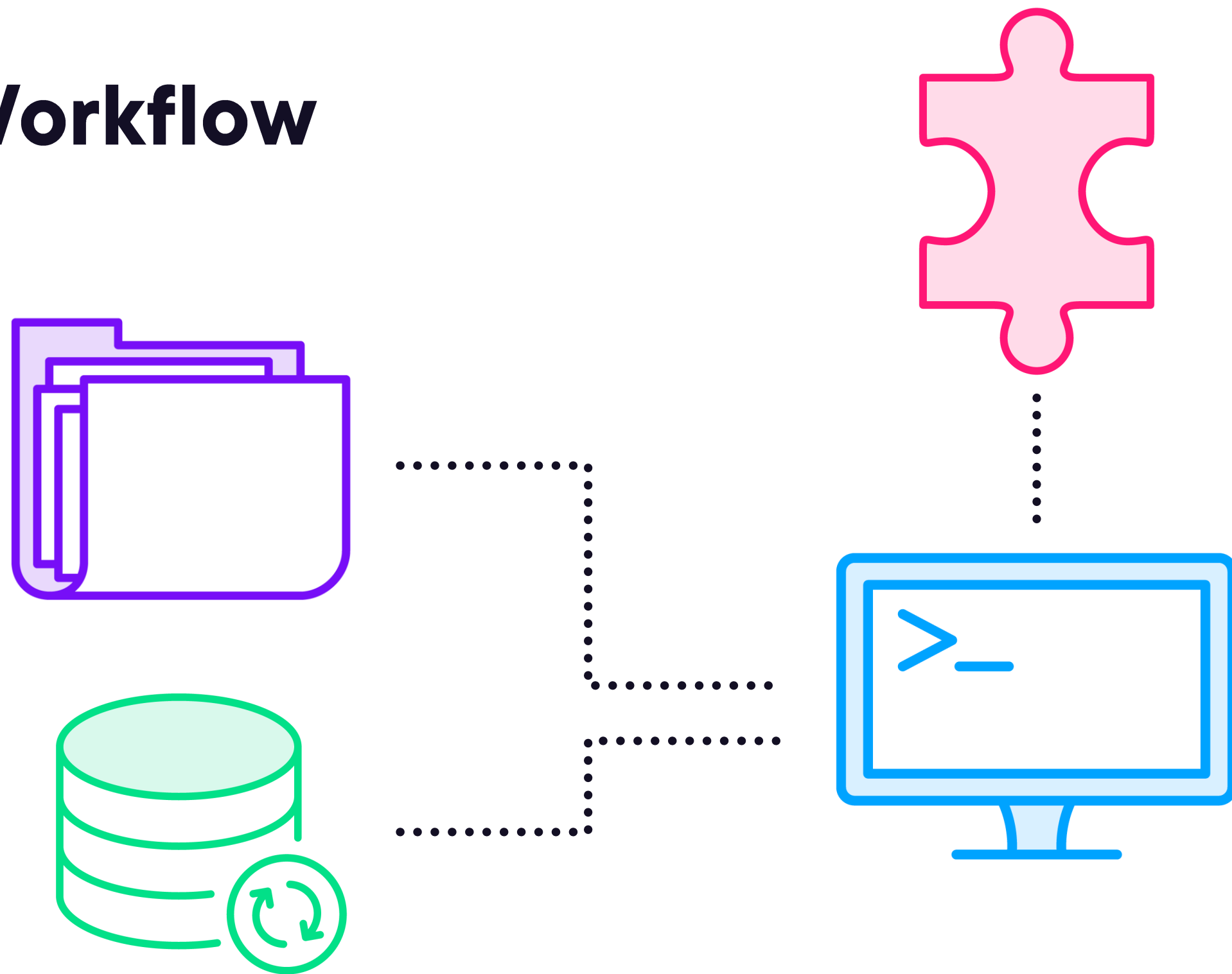




Terraform Workflow

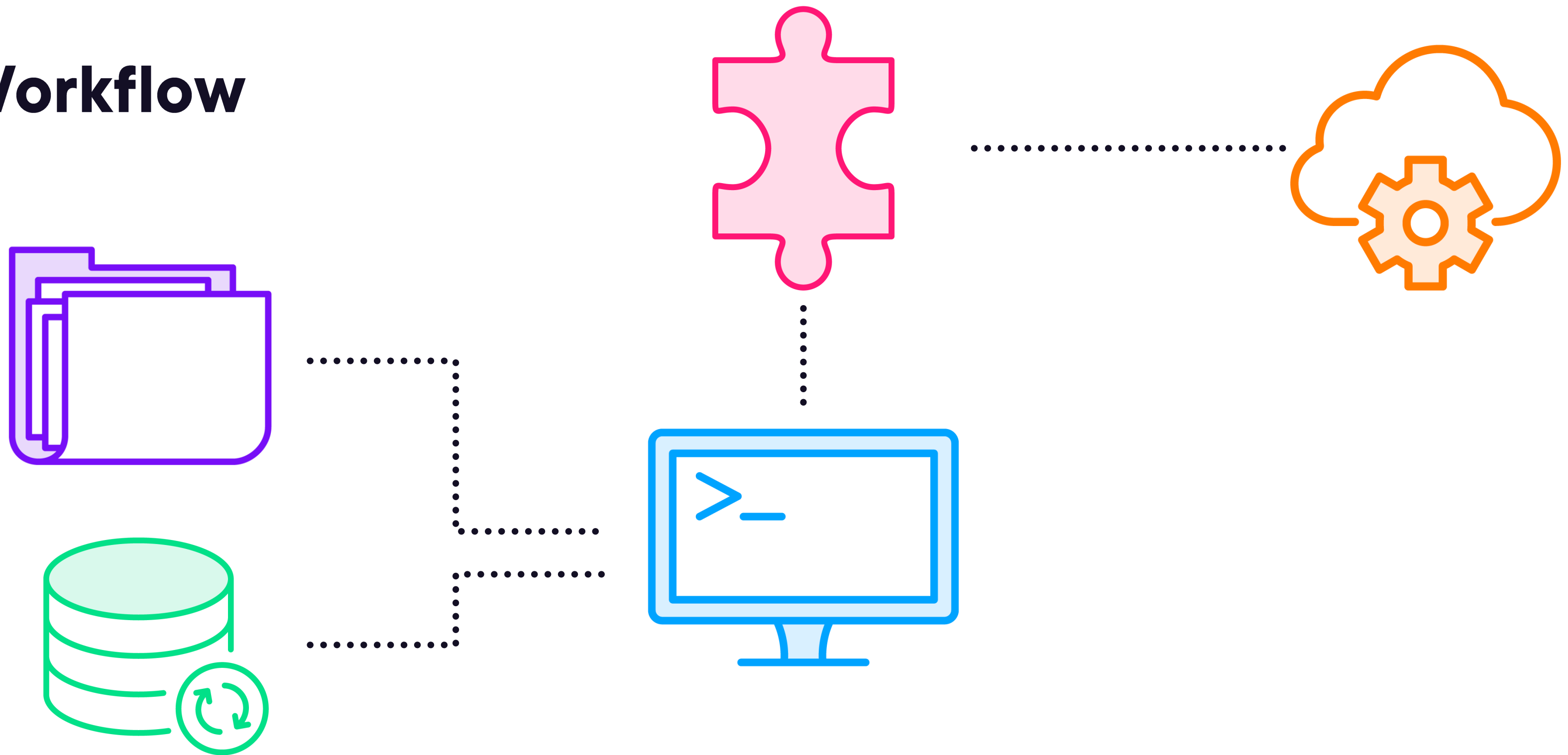


Workflow



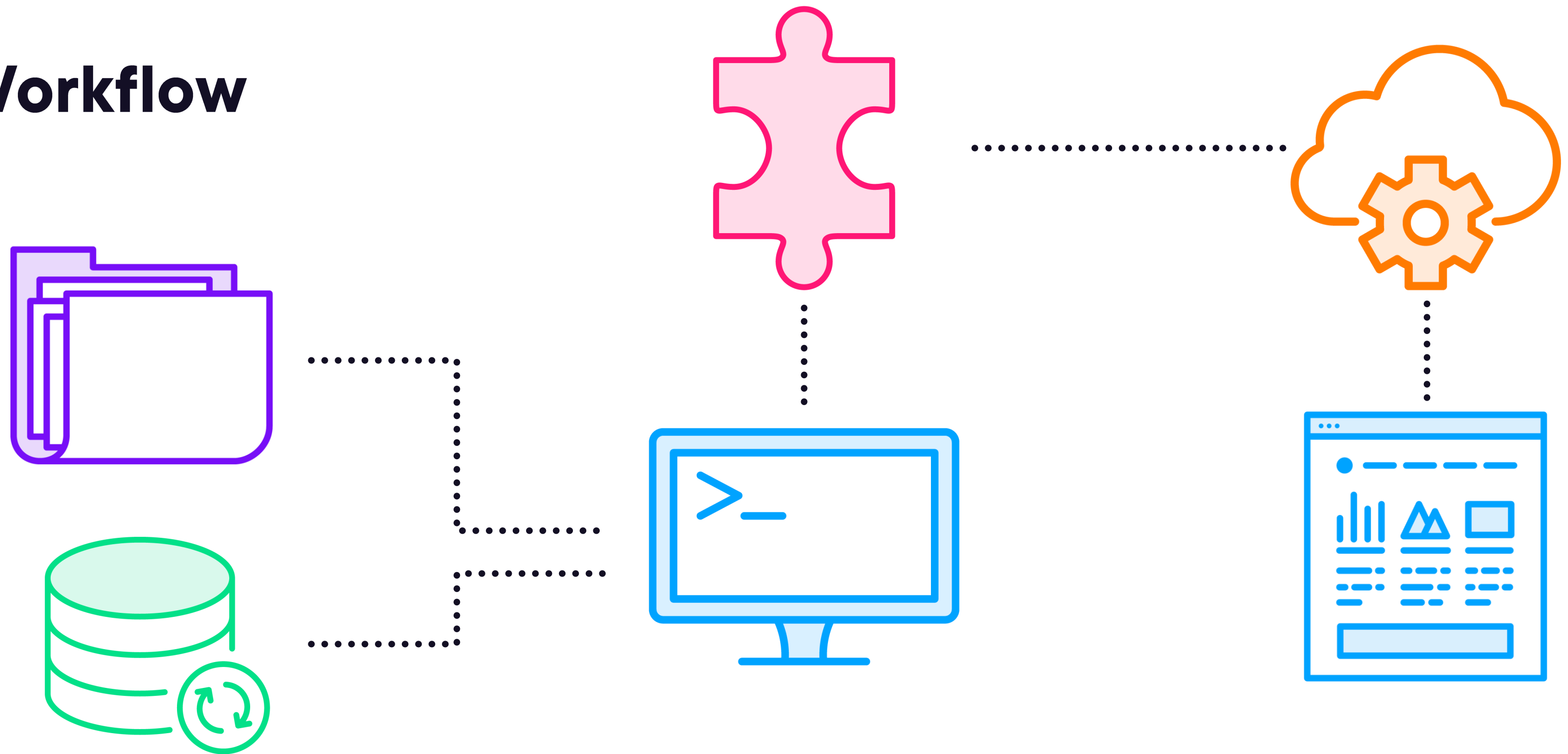
```
$> terraform init
```

Workflow



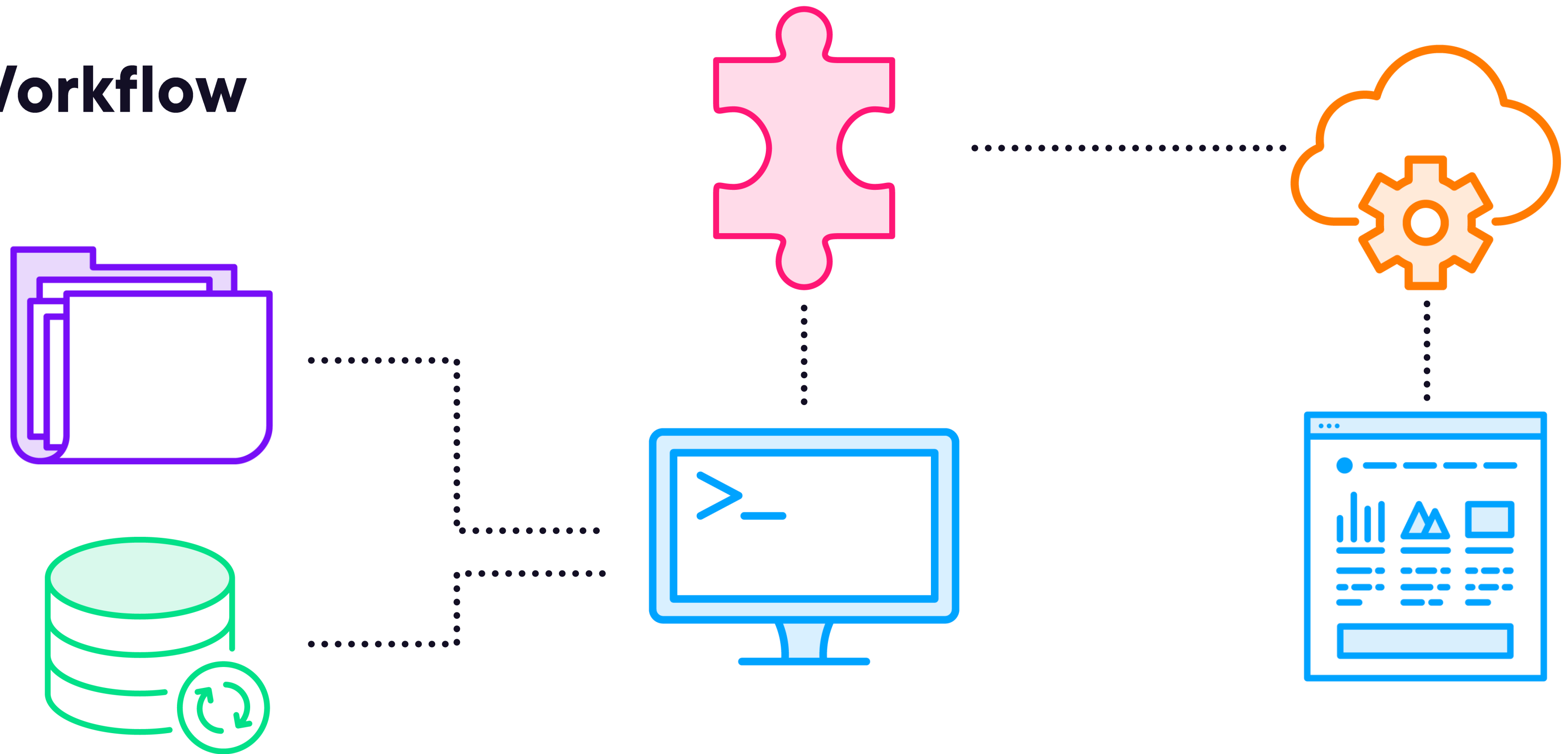
```
$> terraform plan
```

Workflow



```
$> terraform apply
```

Workflow



```
$> terraform destroy
```



Tasks:

- Initialize our configuration
- Plan the deployment
- Apply the plan

Prerequisites:

- AWS account
- AWS access keys



**Some of the resources
deployed in AWS may cost
money. You've been warned.**



Module Summary



Terraform is infrastructure automation

Single binary for almost any OS

Provider plug-in architecture

Configurations in JSON or HCL

Basic workflow: init, plan, and apply



Up Next:

Using Input Variables and Outputs

