Create Ghost module

Create a directory called ghost.

Your modules will be made up of three files: main.tf, variables.tf and outputs.tf.

main.tf

In main.tf you will deploy out two resources docker\_image and docker\_container. The docker\_image resource name will be ghost\_image.

The name will use th image\_name variable.

The docker\_container resource name will be ghost\_container.

The name will be set using a varialbe called container\_name. The image will be set usingdocker\_image.ghost\_image.latest. Set the external port to use the ext\_port variable.

Main.tf

terraform {

required\_providers {

docker = {

source = "kreuzwerker/docker"

version = ">= 2.13.0"

}

}

}

provider "docker" {

host = "npipe:////.//pipe//docker\_engine"

}

resource "docker\_image" "ghost\_image" {

name= var.image\_name

}

resource "docker\_container" "ghost\_container"{

name= var.container\_name

image = docker\_image.ghost\_image.name

ports {

internal = "2368"

external = var.ext\_port

}

}

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variables.tf

In variables.tf create three varialbes: image\_name, container\_name and ext\_port.

variable "image\_name" {

description = "image name"

default = "ghost:latest"

}

variable "container\_name" {

description = "container name"

default = "ghost\_blog"

}

variable "ext\_port"{

description = "port number"

default = 8087

}

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outputs.tf

In outputs.tf create two outputs: ip and container\_name. The ip output the ghost\_container's ip\_address attribute.

The container\_name output the ghost\_container's name attribute.

Outputs.tf

output "ip\_address" {

value = "${docker\_container.ghost\_container.ip\_address}"

description = "The IP for the container."

}

output "container\_name" {

value = "${docker\_container.ghost\_container.name}"

description = "The name of the container."

}

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Create root module

main.tf

In cloud\_user directory create main.tf, variables.tf and outputs.tf. In main.tf will use the ghost module.

Set image\_name using a variable called image\_name.

Set container\_name using a variable called container\_name.

Set ext\_port using a variable called ext\_port.

In variables.tf create three image\_name, container\_name and ext\_port.

module "ghost\_module" {

source = "C:\\Users\\user\\Desktop\\terraform\\ass4\\ghost\_module"

image\_name = "${var.image\_name}"

container\_name = "${var.container\_name}"

ext\_port = "${var.ext\_port}"

}

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variables.tf

The image\_name will have a default value of ghost:latest with a description of Image for container.

The container\_name will have a default value of blogwith a description ofName of the container.

Theext\_portwill have adefaultvalue of 80 with a description of External port for container.

variable "image\_name" {

description = "image name"

default = "ghost:latest"

}

variable "container\_name" {

description = "container name"

default = "ghost\_blog2"

}

variable "ext\_port"{

description = "port number"

default = 8089

}

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outputs.tf

In outputs.tf create two outputs: ip and container\_name. The ip output the ghost\_container's ip\_address attribute.

The container\_name output the ghost\_container's name attribute.

output "ip\_address" {

value = "${module.ghost\_module.ip\_address}"

description = "The IP for the container."

}

output "container\_name" {

value = "${module.ghost\_module.container\_name}"

description = "The name of the container."

}

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Deploy the infrastructure

Initialize Terraform.

PS C:\Users\user\Desktop\terraform\ass4\cloud\_user> terraform init

Generate a Terraform plan and output a plan file.

PS C:\Users\user\Desktop\terraform\ass4\cloud\_user> terraform plan -out="tfroot2.tfplan"

Deploy the infrastructure using the plan file.

PS C:\Users\user\Desktop\terraform\ass4\cloud\_user> terraform apply "tfroot2.tfplan"

module.ghost\_module.docker\_container.ghost\_container: Destroying... [id=88998dbee5733166b9b325c9858a5a933a5edab1ebfc601d52775a3e0d7a955b]

module.ghost\_module.docker\_container.ghost\_container: Destruction complete after 3s

module.ghost\_module.docker\_container.ghost\_container: Creating...

module.ghost\_module.docker\_container.ghost\_container: Creation complete after 5s [id=35666e01ecb9036747c885b1f7cf7301dd208d9b5e70a9755f125693a2c99122]

Apply complete! Resources: 1 added, 0 changed, 1 destroyed.

Outputs:

container\_name = "ghost\_blog2"

ip\_address = "172.17.0.4"