**Create the variables file (variables.tf) and add four variables with these default values:**

**1. container\_name: mysql.**

**2. mysql\_root\_password: P4sSw0rd0!.**

**3. mysql\_network\_name: mysql\_internal\_network.**

**4. mysql\_volume\_name: mysql\_data.**

**Create the images file (images.tf)**

**1. Add the docker\_image resource and call it mysql\_image.**

**2. Set the name to mysql:5.7.**

**Create the networks file (networks.tf):-**

**1. Add the docker\_network resource and call it private\_bridge\_network.**

**2. Set the name to use the mysql\_network\_name variable.**

**3. Set the driver to bridge.**

**4. Set internal to true.**

**Create the volumes file (volume.tf):-**

**1. In volumes.tf add the docker\_volume resource and call it mysql\_data\_volume.**

**2. Set the name to use the mysql\_volume\_name variable.**

**Create the main file (main.tf):-**

**1. In main.tf add the docker\_container resource and call it mysql\_container.**

**2. Set the name to use the container\_name variable.**

**3. Set the image to use the name of the image coming from docker\_image.**

**4. Create an environment variable for MYSQL\_ROOT\_PASSWORD and set it to the mysql\_root\_password variable.**

**5. Configure the container volume to use the volume created by docker\_volume, and make sure the container\_path is set to /var/lib/mysql.**

**7. The container needs to use the network created by docker\_network.**

**Deploy the infrastructure**

**1. Initialize Terraform.**

**2. Validate the files.**

**3. Generate a Terraform plan.**

**4. Deploy the infrastructure using the plan file.**

**🡪**

**Main.tf**

resource "docker\_container" "mysql\_container" {

  name  = "${var.container\_name}"

  image = "${docker\_image.mysql\_image.name}"

  env   = [

    "MYSQL\_ROOT\_PASSWORD=${var.mysql\_root\_password}"

  ]

  volumes {

    volume\_name    = "${docker\_volume.mysql\_data\_volume.name}"

    container\_path = "/var/lib/mysql"

  }

  networks\_advanced {

    name    = "${docker\_network.private\_bridge\_network.name}"

    aliases = ["${var.mysql\_network\_alias}"]

  }

}

**Variable.tf**

variable "container\_name" {

  default     = "mysql"

}

variable "mysql\_root\_password" {

  default     = "P4sSw0rd0!"

}

variable "mysql\_network\_name" {

  default     = "mysql\_internal\_network"

}

variable "mysql\_volume\_name" {

  default     = "mysql\_data"

}

variable "mysql\_network\_alias" {

  description = "The network alias for MySQL."

  default     = "db"

}

**Image.tf**

terraform {

  required\_providers {

    docker = {

      source = "kreuzwerker/docker"

    }

  }

}

provider "docker" {

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

}

resource "docker\_image" "mysql\_image" {

  name = "mysql:5.7"

}

**Networks.tf**

resource "docker\_network" "private\_bridge\_network" {

  name     = "var.mysql\_network\_name"

  driver   = "bridge"

  internal = true

}

**Volume.tf**

resource "docker\_volume" "mysql\_data\_volume" {

  name = "var.mysql\_volume\_name"

}



