

Terraform install

```
C:\Users\hp\Documents\bootcamp\devops\homework\homework6>terraform --version
Terraform v1.3.5
on windows_amd64
+ provider registry.terraform.io/kreuzwerker/docker v2.23.1
```

main.tf

```
main.tf > resource "docker_image" "ubuntu"
1 terraform {
2   required_providers {
3     docker = {
4       source = "kreuzwerker/docker"
5       version = "2.23.1"
6     }
7   }
8 }
9
10 provider "docker" {
11   host = "npipe:////.//pipe//docker_engine"
12 }
13
14 # Pulls the image
15 resource "docker_image" "ubuntu" {
16   name = "ubuntu:latest"
17 }
18
19 # Create a container
20 resource "docker_container" "foo" {
21   image = docker_image.ubuntu.image_id
22   name = "terraform-test"
23   must_run = true
24   command = ["sleep", "600"]
25 }
```

Terraform init

```
C:\Users\hp\Documents\bootcamp\devops\homework\homework6>terraform init
```

Initializing the backend...

Initializing provider plugins...

- Finding kreuzwerker/docker versions matching "2.23.1"...
- Installing kreuzwerker/docker v2.23.1...
- Installed kreuzwerker/docker v2.23.1 (self-signed, key ID **BD080C4571C6104C**)

Partner and community providers are signed by their developers.

If you'd like to know more about provider signing, you can read about it here:
<https://www.terraform.io/docs/cli/plugins/signing.html>

Terraform has created a lock file **.terraform.lock.hcl** to record the provider selections it made above. Include this file in your version control repository so that Terraform can guarantee to make the same selections by default when you run "terraform init" in the future.

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see any changes that are required for your infrastructure. All Terraform commands should now work.

If you ever set or change modules or backend configuration for Terraform, rerun this command to reinitialize your working directory. If you forget, other commands will detect it and remind you to do so if necessary.

Terraform plan

```
C:\Users\hp\Documents\bootcamp\devops\homework\homework6>terraform plan
```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

+ create

Thunder Client (Ctrl+Shift+R)

Terraform will perform the following actions:

docker_container.terraform-test will be created

```
+ resource "docker_container" "terraform-test" {
  + attach                = false
  + bridge                = (known after apply)
  + command               = (known after apply)
  + container_logs        = (known after apply)
  + container_read_refresh_timeout_milliseconds = 15000
  + entrypoint            = (known after apply)
  + env                   = (known after apply)
  + exit_code             = (known after apply)
  + gateway               = (known after apply)
  + hostname              = (known after apply)
  + id                    = (known after apply)
  + image                 = (known after apply)
  + init                  = (known after apply)
  + ip_address            = (known after apply)
  + ip_prefix_length      = (known after apply)
  + ipc_mode              = (known after apply)
  + log_driver            = (known after apply)
  + logs                  = false
  + must_run              = true
  + name                  = "terraform-test"
  + network_data          = (known after apply)
  + read_only             = false
  + remove_volumes       = true
  + restart               = "no"
  + rm                    = false
  + runtime               = (known after apply)
  + security_opts         = (known after apply)
```

```
# docker_image.ubuntu will be created
+ resource "docker_image" "ubuntu" {
  + id          = (known after apply)
  + image_id    = (known after apply)
  + latest      = (known after apply)
  + name        = "ubuntu:latest"
  + output      = (known after apply)
  + repo_digest = (known after apply)
}
```

Plan: 2 to add, 0 to change, 0 to destroy.

Note: You didn't use the `-out` option to save this plan, so Terraform can't guarantee to take exactly these actions if you run `"terraform apply"` now.

Terraform apply

```
+ resource "docker_image" "ubuntu" {
  + id          = (known after apply)
  + image_id    = (known after apply)
  + latest      = (known after apply)
  + name        = "ubuntu:latest"
  + output      = (known after apply)
  + repo_digest = (known after apply)
}
```

Plan: 2 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?
Terraform will perform the actions described above.
Only 'yes' will be accepted to approve.

Enter a value: yes

docker_image.ubuntu: Creating...
docker_image.ubuntu: Still creating... [10s elapsed]
docker_image.ubuntu: Creation complete after 14s [id=sha256:a8780b506fa4eeb1d0779a3c92c8d5d3e6a656c758135f62826768da458b5235ubuntu:latest]
docker_container.foo: Creating...
docker_container.foo: Creation complete after 5s [id=6e64f068507bd3bef81b1138f27d1b35e7a643e2bce88921f9e20d79e743c5e9]

Apply complete! Resources: 2 added, 0 changed, 0 destroyed.

Container running

<input type="checkbox"/>	NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
<input type="checkbox"/>	 sharp_vaughan 8d99bb685389 	dockerfile-test:latest	Exited (137)	49160:8080 		  
<input type="checkbox"/>	 jenkins 3e785d090e52 	jenkins/jenkins:latest	Exited (143)	50000:50000  8080:8080 		  
<input type="checkbox"/>	 practical_mclean 76e99493d17b 	jenkins/jenkins:latest	Exited (143)	50000:50000  8080:8080 		  
<input type="checkbox"/>	 terraform-test 6e64f068507b 	ubuntu:latest	Running		4 seconds ago 	 