

## TASKS ON TERRAFORM

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❖ **BATCH:** 11

❖ **NO.OF TASKS:** 1

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### **Task 1. Create 3 .tf files with a single resource inside**

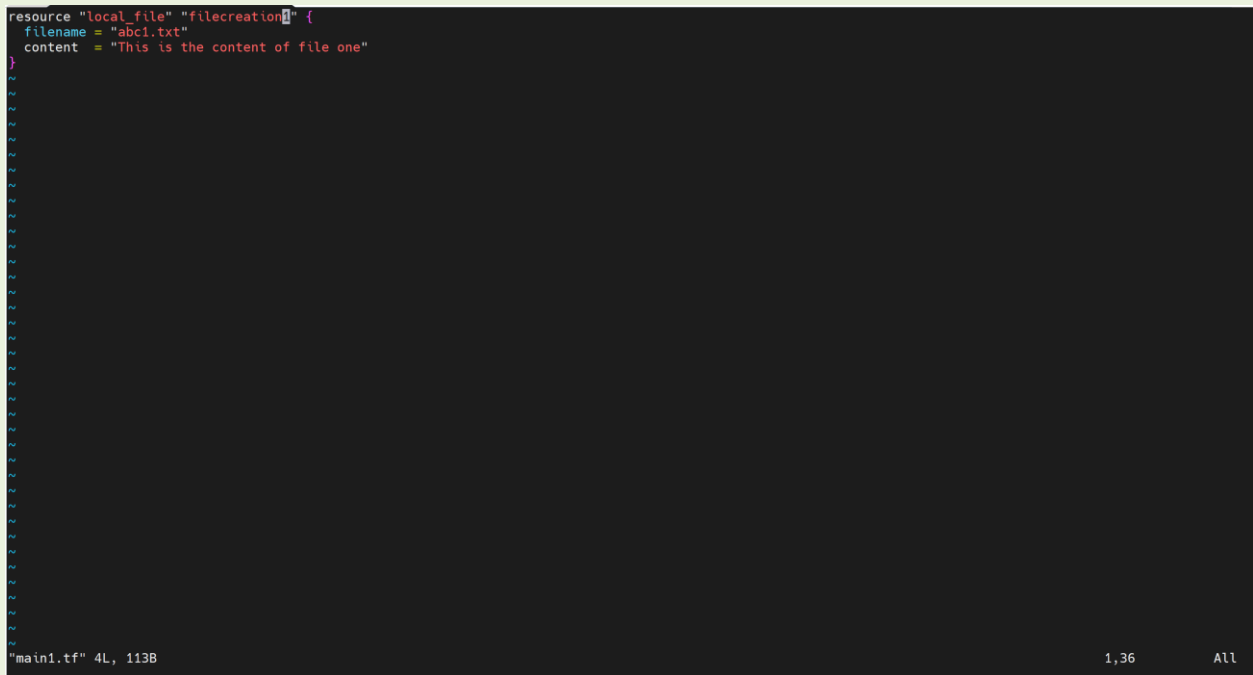
We need to create **three .tf files, each with a single resource that is a local file**, here is a clear structure and example content for each file, using the [local\_file resource from the local provider]

#### Creating files

We create a file named main1.tf using **vi main1.tf**

Enter the contents in **main1.tf** and save it using **esc:wq**

```
resource "local_file" "filecreation1" {  
  filename = "abc1.txt"  
  content  = "This is the content of file one"  
}
```



```
resource "local_file" "filecreation1" {  
  filename = "abc1.txt"  
  content  = "This is the content of file one"  
}
```

"main1.tf" 4L, 113B

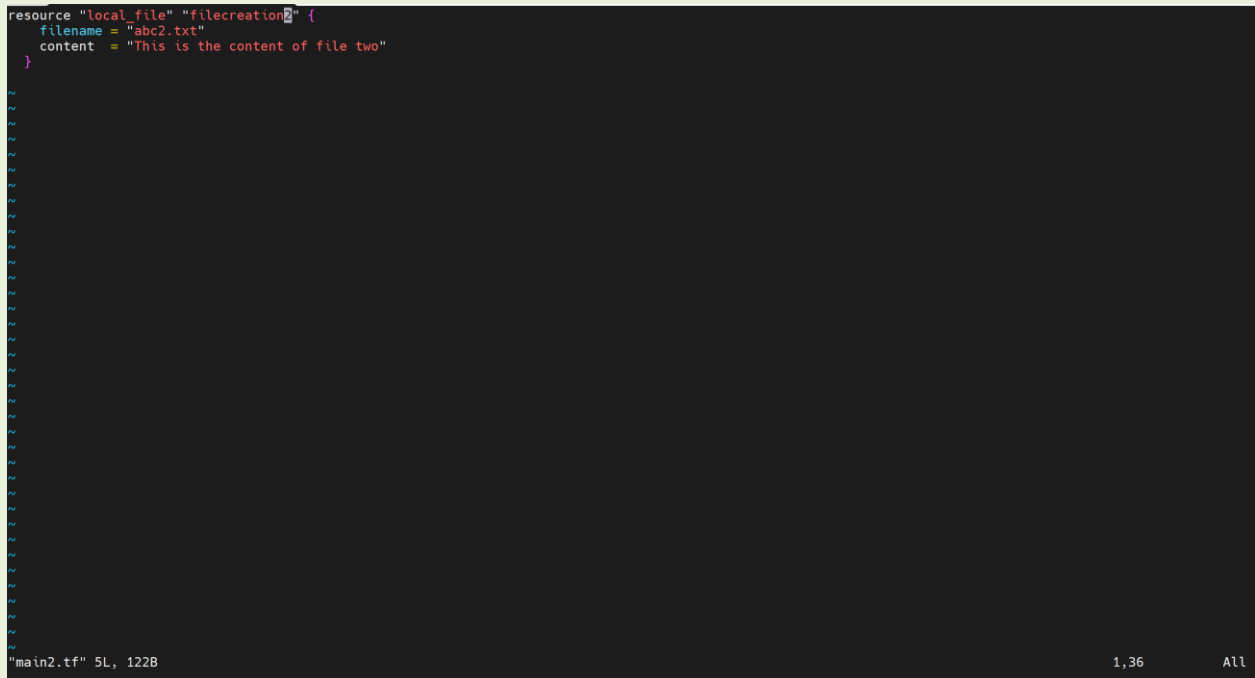
1,36

All

We create a file named `main1.tf` using **vi** `main2.tf`

Enter the contents in **main2.tf** and save it using **esc:wq**

```
resource "local_file" "filecreation2" {  
  filename = "abc2.txt"  
  content  = "This is the content of file two"  
}
```

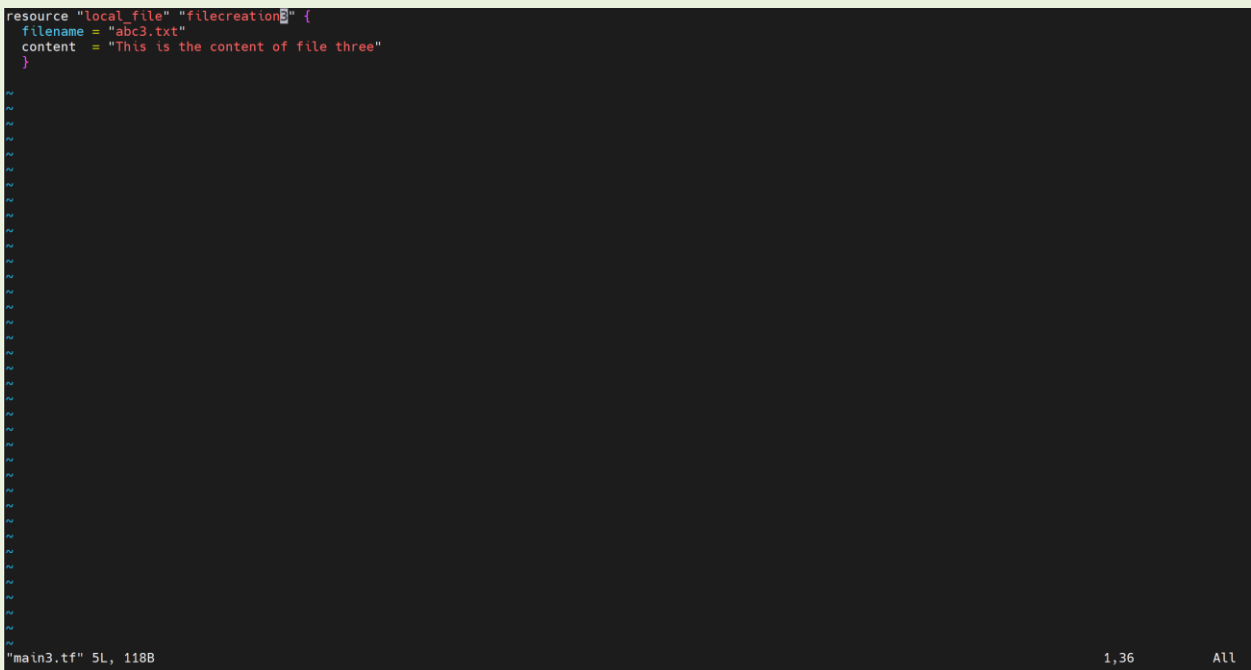


```
resource "local_file" "filecreation2" {  
  filename = "abc2.txt"  
  content  = "This is the content of file two"  
}
```

We create a file named `main1.tf` using **vi** `main3.tf`

Enter the contents in **main3.tf** and save it using **esc:wq**

```
resource "local_file" "filecreation3" {  
  filename = "abc3.txt"  
  content  = "This is the content of file three"  
}
```



```
resource "local_file" "filecreation3" {  
  filename = "abc3.txt"  
  content  = "This is the content of file three"  
}
```

Run the command Initialize Terraform

## terraform init

```
mujju@VMterra:~/b11/180725$ vi main1.tf
mujju@VMterra:~/b11/180725$ vi main2.tf
mujju@VMterra:~/b11/180725$ vi main3.tf
mujju@VMterra:~/b11/180725$ terraform init
Initializing the backend...
Initializing provider plugins...
- Finding latest version of hashicorp/local...
- Installing hashicorp/local v2.5.3...
- Installed hashicorp/local v2.5.3 (signed by HashiCorp)
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.
mujju@VMterra:~/b11/180725$
```

Check the contents of directory using **tree -a**

```
mujju@VMterra:~/b11/180725$ ls
main1.tf  main2.tf  main3.tf
mujju@VMterra:~/b11/180725$ tree -a
.
├── .terraform
│   ├── providers
│   │   └── registry.terraform.io
│   │       ├── hashicorp
│   │       │   ├── local
│   │       │   │   ├── 2.5.3
│   │       │   │   │   ├── linux_amd64
│   │       │   │   │   └── LICENSE.txt
│   │       │   └── terraform-provider-local_v2.5.3_x5
│   └── .terraform.lock.hcl
├── main1.tf
├── main2.tf
├── main3.tf
└── 7 directories, 6 files
mujju@VMterra:~/b11/180725$
```

Run the command **terraform validate**

```
mujju@VMterra:~/b11/180725$ terraform validate
Success! The configuration is valid.
```

We need to run following commands next

## terraform plan

- Think of it as a **preview** or **dry run**.
- It shows:
  - What Terraform wants to create, change, or delete.
- **No changes are made** to our real environment when running plan.
- Helps spot mistakes before applying.

## terraform apply

- This is the **action** step.
- Terraform uses our .tf files to actually:
  - Create, modify, or delete real resources (VMs, networks, etc.).
- We will usually get a confirmation prompt before changes happen.

## Run the command terraform plan

```
mujju@VMterra:~/b11/180725$ terraform plan

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

Terraform will perform the following actions:

# local_file.filecreation1 will be created
+ resource "local_file" "filecreation1" {
+   content          = "This is the content of file one"
+   content_base64sha256 = (known after apply)
+   content_base64sha512 = (known after apply)
+   content_md5       = (known after apply)
+   content_sha1       = (known after apply)
+   content_sha256     = (known after apply)
+   content_sha512     = (known after apply)
+   directory_permission = "0777"
+   file_permission    = "0777"
+   filename          = "abc1.txt"
+   id                = (known after apply)
}

# local_file.filecreation2 will be created
+ resource "local_file" "filecreation2" {
+   content          = "This is the content of file two"
+   content_base64sha256 = (known after apply)
+   content_base64sha512 = (known after apply)
+   content_md5       = (known after apply)
+   content_sha1       = (known after apply)
+   content_sha256     = (known after apply)
+   content_sha512     = (known after apply)
+   directory_permission = "0777"
+   file_permission    = "0777"
+   filename          = "abc2.txt"
+   id                = (known after apply)
}

# local_file.filecreation3 will be created
+ resource "local_file" "filecreation3" {
+   content          = "This is the content of file three"
+   content_base64sha256 = (known after apply)
+   content_base64sha512 = (known after apply)
+   content_md5       = (known after apply)
+   content_sha1       = (known after apply)
+   content_sha256     = (known after apply)
+   content_sha512     = (known after apply)
+   directory_permission = "0777"
+   file_permission    = "0777"
+   filename          = "abc3.txt"
+   id                = (known after apply)
}

Plan: 3 to add, 0 to change, 0 to destroy.
```

## Run the command terraform apply

**Terraform** will show a summary of actions and prompt you for confirmation. Type **yes** when prompted.

```
mujju@VMterra:~/b11/180725$ terraform apply

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

Terraform will perform the following actions:

# local_file.filecreation1 will be created
+ resource "local_file" "filecreation1" {
+   content          = "This is the content of file one"
+   content_base64sha256 = (known after apply)
+   content_base64sha512 = (known after apply)
+   content_md5       = (known after apply)
+   content_sha1       = (known after apply)
+   content_sha256     = (known after apply)
+   content_sha512     = (known after apply)
+   directory_permission = "0777"
+   file_permission    = "0777"
+   filename          = "abc1.txt"
+   id                = (known after apply)
}

# local_file.filecreation2 will be created
+ resource "local_file" "filecreation2" {
+   content          = "This is the content of file two"
+   content_base64sha256 = (known after apply)
+   content_base64sha512 = (known after apply)
+   content_md5       = (known after apply)
+   content_sha1       = (known after apply)
+   content_sha256     = (known after apply)
+   content_sha512     = (known after apply)
+   directory_permission = "0777"
+   file_permission    = "0777"
+   filename          = "abc2.txt"
+   id                = (known after apply)
}

# local_file.filecreation3 will be created
+ resource "local_file" "filecreation3" {
+   content          = "This is the content of file three"
+   content_base64sha256 = (known after apply)
+   content_base64sha512 = (known after apply)
+   content_md5       = (known after apply)
+   content_sha1       = (known after apply)
+   content_sha256     = (known after apply)
+   content_sha512     = (known after apply)
+   directory_permission = "0777"
+   file_permission    = "0777"
+   filename          = "abc3.txt"
+   id                = (known after apply)
}

Plan: 3 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

local_file.filecreation3: Creating ...
local_file.filecreation2: Creating ...
local_file.filecreation3: Creation complete after 0s [id=bc60d67f0cde2296acd8b1f7bde734da1566292e]
local_file.filecreation1: Creating ...
local_file.filecreation1: Creation complete after 0s [id=81dec75e315fa2217b8d85f880f5d5173ab89400]
local_file.filecreation2: Creation complete after 1s [id=8f7bdf2fde3a0dcdd202f0e81b59b084736f3]

Apply complete! Resources: 3 added, 0 changed, 0 destroyed.
mujju@VMterra:~/b11/180725$
```