How to Execute Terraform in a Local Environment

1 - **Verify Terraform installation with the command**
terraform --version

```
$ terraform --version
Terraform v1.9.6
on windows_386
+ provider registry.terraform.io/hashicorp/azuread v2.19.1
+ provider registry.terraform.io/hashicorp/azurerm v3.51.0
+ provider registry.terraform.io/hashicorp/null v3.2.3
+ provider registry.terraform.io/hashicorp/random v3.6.3
+ provider registry.terraform.io/hashicorp/template v2.2.0
+ provider registry.terraform.io/hashicorp/vault v3.8.2

Your version of Terraform is out of date! The latest version
is 1.9.7. You can update by downloading from https://www.terraform.io/downloads.html
```

2 - **Clone the repository** dev-ivestran-pcs
Inside, we will have the following structure

    dev-investran-pcs /

                    |-----readme.md

                    |-----/tf
                            /DEV

3 - Inside the /DEV directory :

```
_backend.tf  _data_sources.tf  _locals.tf  _outputs.tf  _providers.tf  _remote_states.tf  _variables.tf  main.tf
```

- **We need to go to the main.tf file and comment out the line:**

```
module "pcs" {
  #source   = "vlmaztform01.fisdev.local/FIS-Cloud-Services/pcs-platform-dev/azurerm"
```

- **Below, specify the path to our folder ../terraform-azurem-pcs-platform-dev**
- **Example:**

```
source = "c:/Workdir/terraform-azurerm-pcs-platform-dev"
```

4 - **Now, even though we are running locally, we first need to log in and obtain a token.**

- **We must execute the following command from the terminal:**

```
terraform login vlmaztform01.fisdev.local
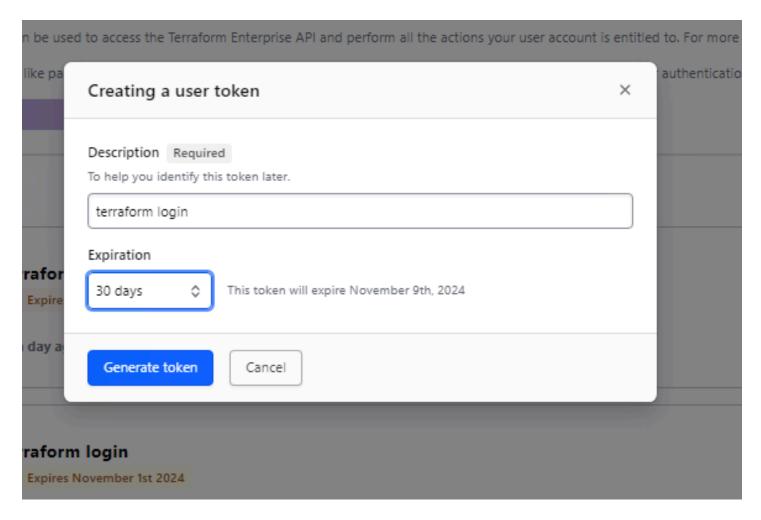```

- **We confirm with "yes" and press "ENTER"**

```
$ terraform login vlmaztform01.fisdev.local
Terraform will request an API token for vlmaztform01.fisdev.local using your browser.

If login is successful, Terraform will store the token in plain text in
the following file for use by subsequent commands:
    C:\Users\lc5742973\AppData\Roaming\terraform.d\credentials.tfrc.json

Do you want to proceed?
  Only 'yes' will be accepted to confirm.

  Enter a value: yes
```

- **This should take us to an Edge view, and we need to generate a new token.**

n be used to access the Terraform Enterprise API and perform all the actions your user account is entitled to. For more

like pa   authenticatio

Creating a user token   ✕

Description Required
To help you identify this token later.

```
terraform login
```

Expiration

```
30 days  ⇕
```
This token will expire November 9th, 2024

Generate token   Cancel

raform login

Expires November 1st 2024

- **Once generated, we paste it into the terminal and press "ENTER".**

```
Generate a token using your browser, and copy-paste it into this prompt.

Terraform will store the token in plain text in the following file
for use by subsequent commands:
    C:\Users\lc5742973\AppData\Roaming\terraform.d\credentials.tfrc.json

Token for vlmaztform01.fisdev.local:
  Enter a value: QCnqSycP21lxHQ.atlasv1.RD3aaRAT5gr8LhSqxPWsCbGrwnOYiqyu5zEl6EG3kdOI75re3D1buPSG9xkkCU5QXsk
```

5 - Run the command terraform init from the path dev-investran.pcs/tf/DEV and wait for it to complete.

```
$ terraform init
Initializing the backend...
Initializing modules...
Initializing provider plugins...
- terraform.io/builtin/terraform is built in to Terraform
- Reusing previous version of hashicorp/vault from the dependency lock file
- Reusing previous version of hashicorp/azurerm from the dependency lock file
- Reusing previous version of hashicorp/random from the dependency lock file
- Reusing previous version of hashicorp/null from the dependency lock file
- Reusing previous version of hashicorp/template from the dependency lock file
- Reusing previous version of hashicorp/azuread from the dependency lock file
- Using previously-installed hashicorp/template v2.2.0
- Using previously-installed hashicorp/azuread v2.19.1
- Using previously-installed hashicorp/vault v3.8.2
- Using previously-installed hashicorp/azurerm v3.51.0
- Using previously-installed hashicorp/random v3.6.3
- Using previously-installed hashicorp/null v3.2.3

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.

lc5742973@CPC-AlanD-NCH11 MINGW64 /c/Local-dev-investran-pcs/dev-investran-pcs/tf/DEV (master)
$
```

6 - Ready! Now we can run terraform plan.