Welcome to the lab/learning we are going to launch an EC2 using Terraform Hashicorps's.

Reference: <https://www.terraform.io/docs/providers/aws/index.html>

Introduction: - Basic Run infrastructure as a code.

**Terraform** is a tool for building, changing, and versioning infrastructure safely and efficiently. **Terraform** can manage existing and popular service providers as well as custom in-house solutions. Configuration files describe to **Terraform** the components needed to run a single application or your entire datacenter.

[Stable release](https://www.google.com/search?rlz=1C5CHFA_enIN814IN814&sxsrf=ALeKk03USVBIKd1_1F9QUTalcnUik4cSVw:1590604660941&q=terraform+stable+release&sa=X&ved=2ahUKEwjIhKyO2NTpAhVM8XMBHSxIDjwQ6BMoADAqegQIDRAC): 0.12.25 / [May 13, 2020](https://www.google.com/search?rlz=1C5CHFA_enIN814IN814&sxsrf=ALeKk03USVBIKd1_1F9QUTalcnUik4cSVw:1590604660941&q=May+13,+2020&stick=H4sIAAAAAAAAAONgVhLQL9E3sjS2yLKsKqvMijeuWMTK45tYqWBorKNgZGBkAACFMvgQIwAAAA&sa=X&ved=2ahUKEwjIhKyO2NTpAhVM8XMBHSxIDjwQmxMoATAqegQIDRAD); 0 days ago

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### Steps to provision

1. Download the terraform binary file <https://www.terraform.io/downloads.html>

If MAC users have homebrew installed on their machine: Just do: brew install terraform Go to step 5

1. Extract the zip file
2. You will see the terraform binary executable file
3. make sure that the terraform binary is available on the PATH.

For Mac/Linux. On the shell/terminal, go to the folder where terraform binary is extracted

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echo $"export PATH=\$PATH:$(pwd)" >> ~/.bash\_profile

source ~/.bash\_profile

For Windows users : follow this to add Terraform to PATH <https://stackoverflow.com/questions/1618280/where-can-i-set-path-to-make-exe-on-windows>

If Windows users have chocolatey installed on their machine: Just do: choco install -y terraform Go to step 5 [Click here](https://chocolatey.org/docs/installation) for instructions to install chocolatey.

1. make a new directory(can be named anything) and go inside the directory

mkdir terraform-july && cd terraform-july

6. Paste this following code to a file called ec2.tf( can be anything.tf) just a basic to start.

provider "aws" {

access\_key = "ACCESS\_KEY\_HERE"

secret\_key = "SECRET\_KEY\_HERE"

region = "us-east-1"

}

resource "aws\_instance" "example" {

ami = "ami-2757f631"

instance\_type = "t2.micro"

}

Now we have 2 options to set credentials one above in ec2.tf file we can set secret key and access key and other best option set first AWS CLI installation with programmatic access required services full access like we need here EC2 full access to launch or terminate resources in AWS via IAM profile or Key access.

1. initialize the working directory for terraform

terraform init

"The terraform init command is used to initialize a working directory containing Terraform configuration files. This is the first safest command that should be run after writing a new Terraform configuration or cloning an existing one from version control. It is safe to run this command multiple times."

1. Provision the ec2 with this command

terraform apply

9. Time to login the AWS management console and check to the EC2 dashboard and Check if the instance launched successfully and able to ssh or remote.

1. From your terminal/command prompt/ shell , destroy the resources

terraform destroy

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Hurray you have launched a successful Ec2 instance via Terraform next more to try with VPC, S3 and more resources Enjoy!! Learning.