**Automated Infrastructure Provisioning On AWS With Terraform**

**“Terraform”** provides a common configuration of set of files to launch infrastructure either it is On-Premises or Cloud Providers. After launching infrastructure, terraform safely and quickly changes Infrastructure. Terraform acts just like an “Infrastructure as Code.” Infrastructure is built as code of `.tf` extension file, and terraform generates whole stack after applying “terraform apply” command, and destroys the whole stack by applying “terraform destroy”.

### How Terraform works

* One just need to create a common configuration file/s; after that apply ‘terraform apply’ command.
* Terraform detects all terraform configuration files from the working directory, and starts building infrastructure. It may take some time to build the whole infrastructure.
* When one wants to destroy the infrastructure, which is commonly known as ‘terraform destroy’, terraform synchronously destroys all terraform extension’s files from the working

### Features of Terraform

* Terraform works with most of cloud providers such as AWS, Google Cloud, Microsoft Azure, OpenStack, IBM Bluemix etc.
* Exist for any environment.For ex. Windows, RHEL, Centos, Ubuntu, Mac etc.
* Allows to create Terraform configuration files in multiple choices, For ex. Json or .tf (terraform) file can be used to configure Infrastructure.
* Automation change which allows change in the infrastructure once it’s build. There are no complexity involved while changing the Infra management.
* Terraform provides Execution Plan of the whole infrastructure prior to infrastructure building by using ‘terraform plan’ command.

### Getting Started with Terraform

* First download and extract package of Terraform from <https://terraform.io/downloads.html>and then set the environment variable of terraform directory wherever it is stored. One can see the multiple ‘bat’ or ‘sh’ files for different cloud providers such as “terraform-provider-aws.bat”, ”terraform-provider-azure.bat” etc.
* After that verify the installation by executing ‘terraform’ command. One can get the available commands and help from command prompt.