## TERRAFORM KEY POINTS

* Terraform is used to create a infrastructure in cloud.
* Terraform is developed in “**GO”** language
* Terraform templates are written in Custom DSL. This DSL mostly looks like JSON
* Terraform templates end with .tf extension.
* **Terraform in CD pipe line**

1. **Git Jenkins build a code (Mvn) unit test infrastructure(terraform) provisioning(Ansible) Deployment**

* Terraform has a list of providers each provider have a resource and data source
* Provider is used to create a infrastructure in particulat virtualenvironment
* Resource is part of the infrastructure create on the provider. Every Provider provides resources.
* Variable is to enter a multiple values
* Terraform supports a various provisioning like shell,chef and power shell
* Terraform supports a multiple **tf** files
* Inputs in Terraform are called as arguments and outputs are called as attributes
* When one resource is depending on another resources that is called resource dependency
* when ever we apply a terraform apply tf.state file is created
* Terraform Refresh command is used to update the local state(tf.state)
* Terraform ouput resource is used to watch the output
* Terraform Module is reusable terraform configuration
* **data sources which can query the information from providers**
* Terraform community shares the modules
* Terraform provisioning is knothing but execution of scripts after creation of Vm’s
* Provisioning in Terraform is majorly used to do Configuration Management
* terraform supports many provisioners, some of them are
  + remote-exec
  + local-exec
  + chef
* Terraform supports backends(for restrict multiple developers), to store state remotely and terraform also supports locking feature to avoid simultaneous access to terraform state.
* **taint:** is used to mark resources for recreation during next apply
* **untaint:** if you have tainted any resource by mistake/for any other reason and if you want it to be removed from taint then use untaint.
* **graph**: Generate a graph from your template. Ensure you install dot from graphviz.
* **Terraform commands**
* **Terraform init .**
* **Terraform validate.**
* **Terraform apply.**
* **Terraform destroy.**
* **Terraform apply –auto-approve .**
* **Terraform plan-out=’paws.plan’ .**

* **Terraform template syntax** 
  + Provider { } (with in the block)
  + Resource {} (with in the block)
  + Provisioners {} ( insider a resource block)