**PACKER**

* **Packer is a tool to create a infrastructure for application**
* **The main use of the packer is to automate for creating a Vm images**
* **By using the packer tool we have to create a architecture in different cloud platforms**
  + **AWS (cloud formation)**
  + **AZURE(ARM template)**
  + **Google**
  + **Vm ware**
* **Advantage of Packer/Terraform is they work on almost all the virtualization platforms**
* **Every Virtualization Platform needs an Image to Create Virtual Machine**
* **Packer can help in the creation of VM Images in any Virtualization Platform**
* **Packer Workflow**
  + **Create a JSON file with your image information and the softwares required**
* **Advantages of packer**
* **Packer is to launch completely provisioned and configured machines with in a seconds rather-than minutes**
* **This is not only for the production development as well with-out wating a time we can launch the machines**
* **This is knothing but (Super fast infrastructure deployment)**
* **Packer in CI-CD** 
  + **GIT - Jenkins-build(mvn)-UAT testing –infrastructure(Packer)- AWS(create a images using packer json)**
* **Packer Json**
* **Packer Json has sections**
* **Builder: Where to create Image**
* **Provisioner: Commands to be executed to install software.**
* **Post-Processor: any post build activities**
* **variables**
* **Packer support a provisioning to execute a command or scripts using provisioning**
* **Packer proviosiners types**
  + **Shell**
  + **Ansible local**
  + **Ansible remote**
  + **Chef client**
  + **Chef solo**
* **Variables in packer**
  + **Flexbility for changing a values we need to use variables**
  + **Variables defined in packer template called as user variables**
  + **Syntax for packer template with builders,variables and provisoiners**
* **{**
* **"variables": {**
* **},**
* **"builders": [{}],**
* **"provisioners": [{}]**
* **}**
* **Packer commands**
  + **Packer –help**
  + **Packer validate –var ‘variable name=value’ json file (for validate template)**
  + **Packer validate –var-file= variablefile jsonfile**
  + **Packer build jsonfile**
  + **Packer build –debug jsonfile**
  + **Packer build –var ‘variable name=value’ json file (for buildtemplate)**
  + **Packer build –var-file= variablefile jsonfile**