**Terraform to provision a ec2 instance**

* Terraform is a tool for Developing ,changing and versioning infrastructure safely and efficiently.
* Terraform can manage existing and popular service provider as wel as custom inhouse solutions.
* People consider terraform as to manage there infrastucture as a code.

**To install the terraform:**

* Launch the ec2 instance in cloud.
* Login to ec2 server using mobaxterm
* change the user as sudo.

command:

*sudo -i*

Download terraform using wget command

*wget https://releases.hashicorp.com/terraform/0.12.26/terraform\_0.12.26\_linux\_amd64.zip*

As the file will be downloaded in zip format. we need to unzip the file.

unzip command :

*unzip terraform\_0.12.26\_linux\_amd64.zip*

To install/setup copy the folder in specified location as /usr/local/bin and export the path and check the version of terraform.

command:

*cp terraform /usr/local/bin*

*export PATH=$PATH:/usr/local/bin/*

*terraform version*

If we dont wish to export the path and install/setup the terraform, we need to copy to /usr/bin and check the version.

command:

*cp terraform usr/bin*

*terraform version*

**Install GIT:**

command:

*yum install git -y*

we have some code already in git, so clone the repo

*git clone https://github.com/tandrarajesh/awsautomationrepo.git*

*cd awsautomationrepo*

To create a ec2 instance we need permissions/credentials. For this we need to create a IAM user in AWS.

1. Go to IAM in AWS.

2. click on users.

3. click on add user.

4. provide the username.

5. select AWS access type as "programmatic access"

6. click on next permissions, select attach "existing policies directly" and select "AmazonEC2FullAccess".

7. click on create user.

8. get the access-key and secret key from that file.

To configure the AWS

command:

*aws configure*

access-key-id

secret-access-key-id

default region us-east-1

default output format json

The above details will be saved in .aws/credentials file.

use the key-pair whatever you have or create a ne key-pair.

change the key name in variables.tf file.

softwareinstallation

Step1:

First we need to keep AWS access key and secret access key with in credentials file

vi /root/.aws/credentials

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[default]

aws\_access\_key\_id =

aws\_secret\_access\_key =

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Step2:

Clone code from source code management

git clone https://github.com/VamsiTechTuts/awsautomationrepo.git

cd terraform-ec2-instance

Step3:

Now run terraform init command. This command will download and install the proper version of the AWS provider for your project and add it in the directory .terraform

terraform init

Step4:

Now run terraform plan to make sure configuration is ready to be applied

terraform plan

Step5:

Let’s run terraform apply. This command shows you what are the changes which are going to be applied to your infrastructure and it will prompt for your confirmation. Enter ‘yes’ when it prompts you for the confirmation.

terraform apply

CleanUP:

If you want to remove ec2 instance just give below command

terraform destroy