Jenkins with Terraform Documentation

1. Make sure to have the IAM user for Jenkins in AWS with the AWS Access & Secret Key

* AWS Access Key - xxxxxxxxx
* AWS Secret Key – xxxxxxxxxx

1. Turn on the Jenkins container in either Docker Desktop or CLI

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1. Go to web browser and go to localhost:8080



1. Log into Jenkins with Jenkins credentials
2. In Jenkins go to Manage Jenkins>>Credentials
3. Click on system then Global credentials (unrestricted)
4. Click on add credentials
5. For the Kind set to AWS Credentials
6. For ID add whatever label you want
7. Add the Access Key ID and Secret Key

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1. Click Create
2. Go back to Dashboard
3. Github Repo

* Create a new repo with existing working TF project
* Create empty repo
* On pc create a folder to git clone empty repo to
* Manually add working tf project
* Manually add the Jenkinsfile
* Update the Jenkinsfile

- update the credentialsId rows to match the ID in Jenkins used for credential creation and the github url to your repo url

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* Do the git add . >> git commit -m “messageˮ >> git push

1. Click on New Item
2. Name the Pipeline and select Pipeline and click ok
3. Scroll down to Pipeline section

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1. For Definition select Pipeline script from SCM
2. For SCM select Git
3. Add the Repo URL from github
4. Under Branch change it to main instead of master

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1. Click Save
2. Now need to install terraform and AWS CLI inside the container

* Open new gitbash
* Enter the following cmd
* docker ps ### to get running containers
* See the 1st 3 characters of the container id
* Add this cmd
  + docker exec -it --user root <container name or 1st 3 characters of container
  + id> bash
  + Hit enter this cmd
  + apt update && apt install -y awscli
  + Once install complete do this cmds
  + mkdir -p /home/jenkins/bin

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* + curl -fsSL[https://releases.hashicorp.com/terraform/1.5.7/terraform\_1.5.7\_linux\_amd64.zip -o /home/jenkins/terraform.zip](https://releases.hashicorp.com/terraform/1.5.7/terraform_1.5.7_linux_amd64.zip%20-o%20/home/jenkins/terraform.zip)

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* + unzip /home/jenkins/terraform.zip -d /home/jenkins/bin

rm /home/jenkins/terraform.zip

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* + export PATH"/home/jenkins/bin:$PATH"
  + Now check if terraform is installed
  + terraform —version

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1. Ok go to the pipeline and run it

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**Tear Down**

**How to tear Down Jenkins Terraform:**

1. To view the active terraform configuration use the exec or ssh of you container

and change directories into the path below:

* cd var/jenkins\_home/workspace/<PIPELINENAME>

1. Input AWS Credentials into the CLI of your container Login to destroy:

* export AWS\_ACCESS\_KEY\_ID="xxxxxxx"
* export AWS\_SECRET\_ACCESS\_KEY="xxxxxxxx"
* export AWS\_REGION="xxxxxxx"

1. Run Terraform Destroy
2. terraform destroy

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YOUR DONE!