TASK ON JENKINS AND TERRAFORM

JENKINS:

PREREQUISITES:

Install Jenkins in local or any virtual machine.

CARE:

1. Give importance to both the readups and tasks.
2. Once you completed the task push the code into the github repository.
3. Review your tasks with respective mentors once completed.

GO OVER:

1. What is jenkins..?
2. What are all the operations we can do in jenkins.
3. What is CI/CD..?
4. Explore what programming languages Jenkins will support to create a pipeline.
5. What a groovy script.
6. Explore the groovy script concepts and syntax (basic concepts).
7. Explore steps, stage, dir, script, post, git, when, expression, if concepts.
8. Explore available parameter types which we can pass to the pipeline.
9. What is periodic build in jenkins.
10. Explore basic bash comments.
11. Explore shell scripts.

RESPONSIBILITY:

1. Create a pipeline which will print some text. See run log of the pipeline. And try to replay the build.

2. Create an environment variable in jenkins and create a pipeline and print that environment value.

3. Create a pipeline and pass the dynamic value as a parameter and print that value.

4. Create a pipeline, that pipeline will run 1 hour once.

5. Create a pipeline which has multiple stages. 1st stage will create a directory, 2nd stage will create a text file, 3rd stage will write some content init, 4th stage will print that file's content.

6. Create two pipelines, and the end of the first pipeline will trigger the second pipeline.

7. Use two pipelines which you created in the 6th task. Now the 1st pipeline will trigger the second pipeline with some values. Second pipeline will get that value as a run parameter and print that value.

8. Create a pipeline which has multiple stages each stage will run based on the condition. **Example**:-
   a. Take **taskpipeline** is a pipeline it has 3 stages like **stage1, stage2, stage3.**
   b. Have some condition if the condition get passed it will execute the particular stage otherwise it will skip the stage.

9. Create a pipeline with a stage which checkout your github repository branch.

10. Have a python script and push that into your repository and create a pipeline which will checkout that branch. And run that particular python file in jenkins.

TERRAFORM

PREREQUISITES:

Install terraform in your local system.

GO OVER:
1. Use of terraform.
2. Learn terraform lifecycle.
3. Using terraform, how to bring up the resources in cloud.(explore in any cloud).
4. Check What are all the options available to authenticate. While bringing up resources using terraform.
5. What is the backend in terraform.?
6. What ist depend on modules in terraform.?
7. What is state file.?
8. How can we take the output of a resource after creating it in terraform?
9. How can we pass static and dynamic values for the variables in terraform.

RESPONSIBILITIES:

1. Create any one resource using terraform in any cloud.
2. Try local and cloud storage backend configuration to store state files.
3. Try to use depends on module in code.
4. Try static and dynamic values passing for the variables that will be used by the resource during creationtime.
5. Print the output of a resource which you have created.
6. Delete the same resource using terraform.