

DEVOPS

Task 5

```
indhuja@indhuja-VMware-Virtual-Platform: ~  
indhuja@indhuja-VMware-Virtual-Platform:~$ wget -O- https://apt.releases.hashicorp.com/gpg | sudo gpg --dearmor -o /usr/share/keyrings/hashicorp-keyring.gpg  
--2025-03-21 10:09:38-- https://apt.releases.hashicorp.com/gpg  
[sudo] password for indhuja: Resolving apt.releases.hashicorp.com (apt.releases.hashicorp.com)... 18.161.229.23, 18.161.229.117, 18.161.229.91, ...  
Connecting to apt.releases.hashicorp.com (apt.releases.hashicorp.com)|18.161.229.23|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 3980 (3.9K) [binary/octet-stream]  
Saving to: 'STDOUT'  
  
- 100%[=====] 3.89K --.-KB/s in 0s  
2025-03-21 10:09:39 (31.5 MB/s) - written to stdout [3980/3980]  
  
sudo: a password is required  
indhuja@indhuja-VMware-Virtual-Platform:~$ wget https://releases.hashicorp.com/terraform/1.7.0/terraform_1.7.0_linux_amd64.zip  
--2025-03-21 10:09:49-- https://releases.hashicorp.com/terraform/1.7.0/terraform_1.7.0_linux_amd64.zip  
Resolving releases.hashicorp.com (releases.hashicorp.com)... 108.159.15.64, 108.159.15.87, 108.159.15.48, ...  
Connecting to releases.hashicorp.com (releases.hashicorp.com)|108.159.15.64|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 25939419 (25M) [application/zip]  
Saving to: 'terraform_1.7.0_linux_amd64.zip'  
  
terraform_1.7.0_lin 100%[=====] 24.74M 462KB/s in 44s  
2025-03-21 10:10:34 (573 KB/s) - 'terraform_1.7.0_linux_amd64.zip' saved [25939419/25939419]  
  
indhuja@indhuja-VMware-Virtual-Platform:~$ unzip terraform_1.7.0_linux_amd64.zip  
Archive: terraform_1.7.0_linux_amd64.zip  
inflating: terraform  
indhuja@indhuja-VMware-Virtual-Platform:~$ sudo mv terraform /usr/local/bin/  
[sudo] password for indhuja:  
indhuja@indhuja-VMware-Virtual-Platform:~$ terraform -version  
Terraform v1.7.0  
on linux_amd64  
  
Your version of Terraform is out of date! The latest version  
is 1.11.2. You can update by downloading from https://www.terraform.io/downloads.html  
indhuja@indhuja-VMware-Virtual-Platform:~$
```

```
Mar 21 13:48  
indhuja@indhuja-VMware-Virtual-Platform: ~/terraform  
Do you want to perform these actions?  
Terraform will perform the actions described above.  
Only 'yes' will be accepted to approve.  
  
Enter a value: y  
  
Apply cancelled.  
indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ terraform apply  
  
Terraform used the selected providers to generate the following execution plan.  
Resource actions are indicated with the following symbols:  
+ create  
  
Terraform will perform the following actions:  
  
# local_file.pet will be created  
+ resource "local_file" "pet" {  
+ content = "We love pets"  
+ content_base64sha256 = (known after apply)  
+ content_base64sha512 = (known after apply)  
+ content_md5 = (known after apply)  
+ content_sha1 = (known after apply)  
+ content_sha256 = (known after apply)  
+ content_sha512 = (known after apply)  
+ directory_permission = "0777"  
+ file_permission = "0777"  
+ filename = "/home/indhuja/terraform/pets.txt"  
+ id = (known after apply)  
}  
  
Plan: 1 to add, 0 to change, 0 to destroy.  
  
Do you want to perform these actions?  
Terraform will perform the actions described above.  
Only 'yes' will be accepted to approve.  
  
Enter a value: yes  
  
local_file.pet: Creating...  
local_file.pet: Creation complete after 0s [id=978236bb65828b96bae1df080a4f9d6e6c5ca5a8]  
  
Apply complete! Resources: 1 added, 0 changed, 0 destroyed.  
indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ cat pets.txt  
indhuja@indhuja-VMware-Virtual-Platform:~/terraform$
```

```
Mar 21 13:47
indhuja@indhuja-VMware-Virtual-Platform: ~/terraform

- Using previously-installed hashicorp/local v2.5.2

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ terraform validate
Success! The configuration is valid.

indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ terraform plan

Terraform used the selected providers to generate the following execution plan.
Resource actions are indicated with the following symbols:
+ create

Terraform will perform the following actions:

# local_file.pet will be created
+ resource "local_file" "pet" {
  + content          = "We love pets"
  + content_base64sha256 = (known after apply)
  + content_base64sha512 = (known after apply)
  + content_md5       = (known after apply)
  + content_sha1      = (known after apply)
  + content_sha256    = (known after apply)
  + content_sha512    = (known after apply)
  + directory_permission = "0777"
  + file_permission   = "0777"
  + filename          = "/home/indhuja/terraform/pets.txt"
  + id                = (known after apply)
}

Plan: 1 to add, 0 to change, 0 to destroy.

Note: You didn't use the -out option to save this plan, so Terraform can't
guarantee to take exactly these actions if you run "terraform apply" now.
indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ terraform ls
Terraform has no command named "ls".
```

```
Mar 21 13:46
indhuja@indhuja-VMware-Virtual-Platform: ~/terraform

indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ terraform ls
Terraform has no command named "ls".

To see all of Terraform's top-level commands, run:
terraform -help

indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ cat pets.txt
cat: pets.txt: No such file or directory
indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ nano local.tf
indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ ls
local.tf
indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ terraform init

Initializing the backend...

Initializing provider plugins...
- Reusing previous version of hashicorp/local from the dependency lock file
- Using previously-installed hashicorp/local v2.5.2

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ ls
local.tf
indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ nano local.tf
indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ pwd
/home/indhuja/terraform
indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ nano local.tf
indhuja@indhuja-VMware-Virtual-Platform:~/terraform$ terraform init

Initializing the backend...

Initializing provider plugins...
- Reusing previous version of hashicorp/local from the dependency lock file
- Using previously-installed hashicorp/local v2.5.2

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
```

```
indhuja@indhuja-VMware-Virtual-Platform: ~/spring-framework-petclinic
indhuja@indhuja-VMware-Virtual-Platform: $ https://github.com/kannancloud001/spring-framework-petclinic.git
bash: https://github.com/kannancloud001/spring-framework-petclinic.git: No such file or directory
indhuja@indhuja-VMware-Virtual-Platform: $ git clone https://github.com/kannancloud001/spring-framework-petclinic.git
Cloning into 'spring-framework-petclinic'...
fatal: protocol 'https' is not supported
indhuja@indhuja-VMware-Virtual-Platform: $ git clone https://github.com/kannancloud001/spring-framework-petclinic.git
Command 'git' not found, did you mean:
  command 'dgit' from deb dgit (11.5)
  command 'jgit' from deb jgit-cli (4.11.9-2)
  command 'git' from deb git (1:2.43.0-1ubuntu7.2)
  command 'qgit' from deb qgit (2.10-2)
Try: sudo apt install <deb name>
indhuja@indhuja-VMware-Virtual-Platform: $ git clone https://github.com/kannancloud001/spring-framework-petclinic.git
Cloning into 'spring-framework-petclinic'...
remote: Enumerating objects: 6698, done.
remote: Counting objects: 100% (1049/1049), done.
remote: Compressing objects: 100% (80/80), done.
remote: Total 6698 (delta 998), reused 969 (delta 969), pack-reused 5649 (from 1)
Receiving objects: 100% (6698/6698), 1.52 MiB | 412.00 KiB/s, done.
Resolving deltas: 100% (3326/3326), done.
indhuja@indhuja-VMware-Virtual-Platform: $ ls
capstone      minikube-linux-amd64  spring-framework-petclinic
deployment.yaml  Music                 Templates
Desktop        Pictures              terraform
Documents      Public                terraform_1.7.0_linux_amd64.zip
Downloads      snap                  Videos
indhuja@indhuja-VMware-Virtual-Platform: $ cd spring-framework-petclinic
indhuja@indhuja-VMware-Virtual-Platform:~/spring-framework-petclinic$ ls
dockerfile  Jenkinsfile  LICENSE.txt  mvnw  mvnw.cmd  pom.xml  README.md  src
indhuja@indhuja-VMware-Virtual-Platform:~/spring-framework-petclinic$ nano Jenkinsfile
indhuja@indhuja-VMware-Virtual-Platform:~/spring-framework-petclinic$ nano Jenkinsfile
indhuja@indhuja-VMware-Virtual-Platform:~/spring-framework-petclinic$ docker run -d -p 8090:8080 image name
Unable to find image 'image:latest' locally
docker: Error response from daemon: pull access denied for image, repository does not exist or may require 'docker login': denied: requested access to the resource is denied
Run 'docker run --help' for more information
indhuja@indhuja-VMware-Virtual-Platform:~/spring-framework-petclinic$ mvn -v
Apache Maven 3.8.7
Maven home: /usr/share/maven
Java version: 17.0.14, vendor: Ubuntu, runtime: /usr/lib/jvm/java-17-openjdk-amd64
Default locale: en_US, platform encoding: UTF-8
OS name: 'linux', version: '6.11.0-19-generic', arch: 'amd64', family: 'unix'
indhuja@indhuja-VMware-Virtual-Platform:~/spring-framework-petclinic$ docker run -d -p 8090:8080
```

Mar 21 14:36

cherry services x Manual Terrafo x mail - Google S x Inbox (1,872) - i x spring-framew x task 5 Config x

localhost:8080/job/task 5/configure

Dashboard > task 5 > Configuration

☐ trigger builds remotely (e.g., from scripts) ?

Configure

General

Triggers

Pipeline

Advanced

Pipeline

Define your Pipeline using Groovy directly or pull it from source control.

Definition

Pipeline script

Script ?

```
1 stages{
2   stage('Build Maven'){
3     steps{
4       checkout scmGit(branches: [[name: '**/main']], extensions: [], userRemoteConfigs: [[url: '
5     ]
6   }
7   stage('Build and Test') {
8     steps {
9       script {
10        sh 'mvn clean package'
11      }
12    }
13  }
14  stage('Build docker image'){
15    steps{
16      script{
17      
```

☒ Use Groovy Sandbox ?

Save

Apply

Mar 21 14:37

cherry services x Manual Terrafo x mail - Google S x Inbox (1,872) - i x spring-framew x task 5 #1 [Jenk: x

localhost:8080/job/task 5/1/ 80% ☆

Jenkins

Dashboard > task 5 > #1

Status

Changes

Console Output

Edit Build Information

Delete build '#1'

Timings

Git Build Data

Pipeline Overview

Pipeline Console

Restart from Stage

Replay

Pipeline Steps

Workspaces

✓ #1 (Mar 21, 2025, 2:22:20 PM)

Started by user Indhuja T

This run spent:

- 0.24 sec waiting;
- 5 min 52 sec build duration;
- 5 min 52 sec total from scheduled to completion.

Revision: 050d72a099b9ddaf9993abe0e6489635e13d187b

Repository: <https://github.com/kannancloud001/spring-framework-petclinic.git>

- refs/remotes/origin/main

No changes.

Add description

Keep this build forever

Started 14 min ago

Took 5 min 52 sec

REST API Jenkins 2.492.2

Mar 22 09:23

indhuja@indhuja-VMware-Virtual-Platform: ~

```
indhuja@indhuja-VMware-Virtual-Platform:~$ docker images
REPOSITORY          TAG         IMAGE ID      CREATED        SIZE
indhuja12/java-maven  latest      2e23ac0b1ac4  19 hours ago  563MB
indhuja12/ecommerce  latest      a6a6751039e6  2 days ago    195MB
indhuja12/repo1       4           c6cce7ac48b9  2 days ago    149MB
indhuja12/repo1       6           c6cce7ac48b9  2 days ago    149MB
indhuja12/repo1       7           c6cce7ac48b9  2 days ago    149MB
indhuja12/repo1       8           c6cce7ac48b9  2 days ago    149MB
hello-world          latest      74cc54e27dc4  8 weeks ago   10.1kB
gcr.io/k8s-minikube/kicbase v0.0.46    e72c4cbe9b29  2 months ago  1.31GB

indhuja@indhuja-VMware-Virtual-Platform:~$ docker run -d -p 8090:8080 indhuja12/java-maven
da0f7bc79b9751dfe4de5d4572ecbd7bcb2ae90a4648eee19a59dd013ababf7b
indhuja@indhuja-VMware-Virtual-Platform:~$
```

```
Mar 22 09:34
indhuja@indhuja-VMware-Virtual-Platform: ~
GNU nano 7.2 deployment.yaml *
apiVersion: apps/v1
kind: Deployment
metadata:
  name: java-maven
spec:
  replicas: 3
  selector:
    matchLabels:
      app: nginx
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
        - name: nginx-container
          image: indhuja12/java-maven
```

