

ProjectA

Open-Source Tools Project

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Part 1 Activities

- Use Azurerm resource provider

```
# Azure Provider source and version being used
terraform {
    required_providers {
        azurerm = {
            source  = "hashicorp/azurerm"
            version = "=2.83.0"
        }
    }
}

# Configure the Microsoft Azure Provider
provider "azurerm" {
    features {}
}
```

- Generate Service Principle for Terraform in Azure

All services > Default Directory >

Register an application ...

* Name
The user-facing display name for this application (this can be changed later).
 ✓

Supported account types
Who can use this application or access this API?
 Accounts in this organizational directory only (Default Directory only - Single tenant)
 Accounts in any organizational directory (Any Azure AD directory - Multitenant)
 Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)
 Personal Microsoft accounts only
[Help me choose...](#)

Redirect URI (optional)
We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be changed later, but a value is required for most authentication scenarios.

[By proceeding, you agree to the Microsoft Platform Policies](#)

[Register](#)

All services > Default Directory >



Search (Cmd+ /) < Delete Endpoints Preview features

Overview

Quickstart

Integration assistant

Manage

Branding

Authentication

Certificates & secrets

... Terms of service

^ Essentials

Display name	: projectAreg	Client credentials	: Add a certificate or secret
Application (client) ID	: 6ce3c813-57dc-4b64-9e26-6f6cb100327e	Redirect URLs	: Add a Redirect URI
Object ID	: f2d2145a-10bd-4042-ba5f-0e9cba28c52c	Application ID URI	: Add an Application ID URI
Directory (tenant) ID	: ab70bfe3-44cc-4887-813f-f27addb46899	Managed application in I...	: projectAreg
Supported account types : My organization only			

Add a client secret

X

Description

sec1

Expires

Recommended: 6 months

Add

Cancel

+ New client secret

Description	Expires	Value	Secret ID	
sec1	5/6/2022	RQO7Q~rf7~6RbGfkHAM6YsoR3AjnSOY...	467a5bce-f8e1-491d-b9a2-d3b1ade183b4	Edit Delete

All services > Subscriptions > myPAYGSubscription1 >

Add role assignment

...

Got feedback?

Role Members Review + assign

A role definition is a collection of permissions. You can use the built-in roles or you can create your own custom roles. [Learn more](#) [Use classic experience](#)

Search by role name or description

Type : All

Category : All

Name ↑↓	Description ↑↓	Type ↑↓	Category ↑↓	Details
Owner	Grants full access to manage all resources, including the ability to assign roles in Azure RBAC.	BuiltInRole	General	View
Contributor	Grants full access to manage all resources, but does not allow you to assign roles in Azure RBAC, manage assi...	BuiltInRole	General	View
Reader	View all resources, but does not allow you to make any changes.	BuiltInRole	General	View
AcrDelete	acr delete	BuiltInRole	Containers	View
AcrImageSigner	acr image signer	BuiltInRole	Containers	View
AcrPull	acr pull	BuiltInRole	Containers	View
AcrPush	acr push	BuiltInRole	Containers	View
AcrQuarantineReader	acr quarantine data reader	BuiltInRole	Containers	View

Review + assign

Previous

Next

Add role assignment

Got feedback?

Role Members Review + assign

Selected role Owner

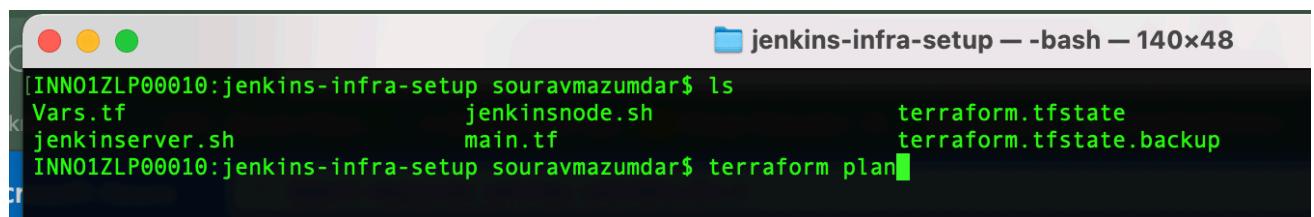
Assign access to User, group, or service principal Managed identity

Members + Select members

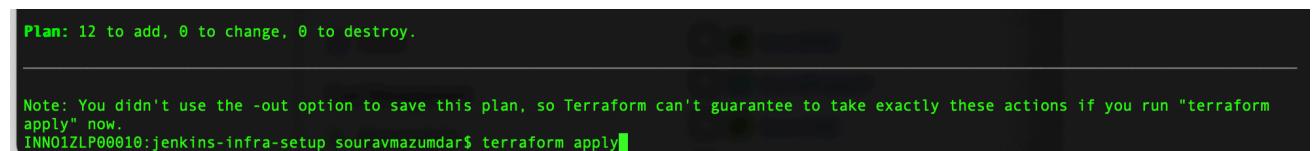
Name	Object ID	Type
projectAreg	8cbaeb49-518c-4065-9c4b-a22fa189ef21	App

```
# Configure Service Principle
subscription_id = "c5f029c7-a268-4433-95d4-12eb70cd4cd0"
tenant_id       = "ab70bfe3-44cc-4887-813f-f27addb46899"
client_id       = "6ce3c813-57dc-4b64-9e26-6f6cb100327e"
client_secret   = "RQ07Q~rf7~6RbGfkHAM6YsoR3AjnS0Y7lq-Wt"
}
```

- c. Apply the terraform script to create all VMs and provision the VMs to install required tools and softwares.



```
[INN01ZLP00010:jenkins-infra-setup souravmazumdar$ ls
Vars.tf                      jenkinsnode.sh          terraform.tfstate
jenkinserver.sh                main.tf                 terraform.tfstate.backup
INN01ZLP00010:jenkins-infra-setup souravmazumdar$ terraform plan]
```



```
Plan: 12 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.
INN01ZLP00010:jenkins-infra-setup souravmazumdar$ terraform apply
```

```
jenkins-infra-setup — vmadmin@vmServer: ~/scripts — terraform-provider-azurerm_v2.83.0_x5 - terraform apply — 140x48

Enter a value: yes

azurerm_resource_group.rg1: Creating...
azurerm_resource_group.rg1: Creation complete after 3s [id=/subscriptions/c5f029c7-a268-4433-95d4-12eb70cd4cd0/resourceGroups/jenkins-rg]
azurerm_public_ip.vmpublicip[0]: Creating...
azurerm_public_ip.vmpublicip[0]: Creating...
azurerm_virtual_network.vmNetwork: Creating...
azurerm_network_security_group.vmsg: Creating...
azurerm_virtual_network.vmNetwork: Still creating... [10s elapsed]
azurerm_public_ip.vmpublicip[0]: Still creating... [10s elapsed]
azurerm_public_ip.vmpublicip[1]: Still creating... [10s elapsed]
azurerm_network_security_group.vmsg: Still creating... [10s elapsed]
azurerm_public_ip.vmpublicip[0]: Creation complete after 11s [id=/subscriptions/c5f029c7-a268-4433-95d4-12eb70cd4cd0/resourceGroups/jenkins-rg/providers/Microsoft.Network/publicIPAddresses/linvms0PublicIP]
azurerm_public_ip.vmpublicip[1]: Creation complete after 11s [id=/subscriptions/c5f029c7-a268-4433-95d4-12eb70cd4cd0/resourceGroups/jenkins-rg/providers/Microsoft.Network/publicIPAddresses/linvms1PublicIP]
azurerm_virtual_network.vmNetwork: Creation complete after 14s [id=/subscriptions/c5f029c7-a268-4433-95d4-12eb70cd4cd0/resourceGroups/jenkins-rg/providers/Microsoft.Network/virtualNetworks/linvmsVnet]
azurerm_subnet.vmSubnet: Creating...
azurerm_network_security_group.vmsg: Creation complete after 14s [id=/subscriptions/c5f029c7-a268-4433-95d4-12eb70cd4cd0/resourceGroups/jenkins-rg/providers/Microsoft.Network/networkSecurityGroups/linvmsNetworkSecurityGroup]
azurerm_subnet.vmSubnet: Creation complete after 7s [id=/subscriptions/c5f029c7-a268-4433-95d4-12eb70cd4cd0/resourceGroups/jenkins-rg/providers/Microsoft.Network/virtualNetworks/linvmsVnet/subnets/linvmsSubnet]
azurerm_network_interface.vnic[0]: Creating...
azurerm_network_interface.vnic[0]: Creating...
azurerm_network_interface.vnic[0]: Creation complete after 10s [id=/subscriptions/c5f029c7-a268-4433-95d4-12eb70cd4cd0/resourceGroups/jenkins-rg/providers/Microsoft.Network/networkInterfaces/linvms0NIC]
azurerm_network_interface.vnic[1]: Still creating... [10s elapsed]
azurerm_network_interface.vnic[1]: Creation complete after 15s [id=/subscriptions/c5f029c7-a268-4433-95d4-12eb70cd4cd0/resourceGroups/jenkins-rg/providers/Microsoft.Network/networkInterfaces/linvms1NIC]
azurerm_network_interface_security_group_association.netConnection[1]: Creating...
azurerm_network_interface_security_group_association.netConnection[0]: Creating...
azurerm_linux_virtual_machine.linvm[0]: Creating...
azurerm_linux_virtual_machine.linvm[1]: Creating...
azurerm_network_interface_security_group_association.netConnection[1]: Creation complete after 5s [id=/subscriptions/c5f029c7-a268-4433-95d4-12eb70cd4cd0/resourceGroups/jenkins-rg/providers/Microsoft.Network/networkInterfaces/linvms1NIC]/subscriptions/c5f029c7-a268-4433-95d4-12eb70cd4cd0/resourceGroups/jenkins-rg/providers/Microsoft.Network/networkSecurityGroups/linvmsNetworkSecurityGroup]
azurerm_network_interface_security_group_association.netConnection[0]: Creation complete after 9s [id=/subscriptions/c5f029c7-a268-4433-95d4-12eb70cd4cd0/resourceGroups/jenkins-rg/providers/Microsoft.Network/networkInterfaces/linvms0NIC]/subscriptions/c5f029c7-a268-4433-95d4-12eb70cd4cd0/resourceGroups/jenkins-rg/providers/Microsoft.Network/networkSecurityGroups/linvmsNetworkSecurityGroup]
azurerm_linux_virtual_machine.linvm[1]: Still creating... [10s elapsed]
azurerm_linux_virtual_machine.linvm[0]: Still creating... [10s elapsed]
azurerm_linux_virtual_machine.linvm[0]: Still creating... [20s elapsed]
azurerm_linux_virtual_machine.linvm[1]: Still creating... [20s elapsed]
azurerm_linux_virtual_machine.linvm[1]: Still creating... [30s elapsed]
azurerm_linux_virtual_machine.linvm[0]: Still creating... [30s elapsed]
```

```
jenkins-infra-setup — vmadmin@vmServer: ~/scripts — terraform-provider-azurerm_v2.83.0_x5 - terraform apply — 140x48

azurerm_linux_virtual_machine.linvm[1] (remote-exec): 50% [32 docker-runc 44.6 kB/1666 kB 3%]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 52% [Waiting for headers]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Get:33 http://azure.archive.ubuntu.com/ubuntu bionic/universe amd64 docker-containerd amd64 0.2.3+git+docker1.13.1-ds1-1 [3303 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 52% [33 docker-containerd 16.6 kB/3303 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 56% [Working]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Get:34 http://azure.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 docker-doc all 20.10.7-0ubuntu5-18.04.3 [1888 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 56% [34 docker-doc 24.0 kB/1888 kB 1%]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 58% [Working]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Get:35 http://azure.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 docker.io amd64 20.10.7-0ubuntu5-18.04.3 [36.9 MB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 58% [35 docker.io 65.5 kB/36.9 MB 0%]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 83% [35 docker.io 27.8 MB/36.9 MB 75%]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 92% [Working]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Get:36 http://azure.archive.ubuntu.com/ubuntu bionic/main amd64 python-asn1crypto all 0.24.0-1 [72.7 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 92% [36 python-asn1crypto 34.4 kB/72.7 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 93% [Working]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Get:37 http://azure.archive.ubuntu.com/ubuntu bionic/main amd64 python-cffi-backend amd64 1.11.5-1 [63.4 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 93% [37 python-cffi-backend 26.8 kB/63 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 93% [Working]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Get:38 http://azure.archive.ubuntu.com/ubuntu bionic-updates/main amd64 python-cryptography amd64 2.1.4-1ubuntu1.4 [276 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 93% [38 python-cryptography 28.5 kB/276 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 94% [Working]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Get:39 http://azure.archive.ubuntu.com/ubuntu bionic/main amd64 python-openssl all 17.5.0-1ubuntu1 [41.3 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 94% [39 python-openssl 41.0 kB/41.3 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 94% [Working]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Get:40 http://azure.archive.ubuntu.com/ubuntu bionic/main amd64 ubuntu-fan all 0.12.10 [34.7 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 94% [40 ubuntu-fan 34.7 kB/34.7 kB 100%]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 95% [Working]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Get:41 http://azure.archive.ubuntu.com/ubuntu bionic/universe amd64 docker-registry amd64 2.6.2-ds1-1 [3105 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 95% [41 docker-registry 65.5 kB/3105 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 98% [Waiting for headers]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Get:42 http://azure.archive.ubuntu.com/ubuntu bionic/universe amd64 docker2aci amd64 0.14.0+dfsg-2 [1406 kB]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 98% [42 docker2aci 43.6 kB/1406 kB 3%]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 100% [Working]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Fetched 87.7 MB in 2s (53.7 MB/s)
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Extracting templates from packages: 71%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Extracting templates from packages: 100%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Preconfiguring packages ...
```

```
jenkins-infra-setup — vmadmin@vmServer: ~/scripts — terraform-provider-azurerm_v2.83.0_x5 - terraform apply — 140x48
Progress: [ 27%] [####.....] (remote-exec):
Progress: [ 29%] [#####.....] (remote-exec):
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Selecting previously unselected package python-httplib2.
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Preparing to unpack .../4-python-httplib2_0.9.2+dfsg-1ubuntu0.3_all.deb ...
Progress: [ 32%] [#####.....] (remote-exec):
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Unpacking python-httplib2 (0.9.2+dfsg-1ubuntu0.3) ...
Progress: [ 34%] [#####.....] (remote-exec):
Progress: [ 37%] [#####.....] (remote-exec):
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Selecting previously unselected package python-setuptools.
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Preparing to unpack .../5-python-setuptools_39.0.1-2_all.deb ...
Progress: [ 39%] [#####.....] (remote-exec): Unpacking python-setuptools (39.0.1-2) ...
Progress: [ 41%] [#####.....] (remote-exec):
Progress: [ 44%] [#####.....] (remote-exec):
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Selecting previously unselected package sshpass.
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Preparing to unpack .../6-sshpass_1.06-1_amd64.deb ...
Progress: [ 46%] [#####.....] (remote-exec):
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Unpacking sshpass (1.06-1) ...
Progress: [ 51%] [#####.....] (remote-exec):
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Selecting previously unselected package ansible.
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Preparing to unpack .../7-ansible_2.9.27-1ppa-bionic_all.deb ...
Progress: [ 54%] [#####.....] (remote-exec):
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Unpacking ansible (2.9.27-1ppa-bionic) ...
azurerm_linux_virtual_machine.linvm[1]: Still creating... [7m20s elapsed]
Progress: [ 56%] [#####.....] (remote-exec):
Progress: [ 59%] [#####.....] (remote-exec):
azurerm_linux_virtual_machine.linvm[1]: Still creating... [7m30s elapsed]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Setting up python-setuptools (39.0.1-2) ...
Progress: [ 61%] [#####.....] (remote-exec):
Progress: [ 63%] [#####.....] (remote-exec):
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Setting up python-pyasn1 (0.4.2-3) ...
Progress: [ 66%] [#####.....] (remote-exec):
Progress: [ 68%] [#####.....] (remote-exec): Setting up python-markupsafe (1.0-1build1) ...
Progress: [ 71%] [#####.....] (remote-exec):
Progress: [ 73%] [#####.....] (remote-exec): Setting up python-httplib2 (0.9.2+dfsg-1ubuntu0.3) ...
Progress: [ 76%] [#####.....] (remote-exec):
Progress: [ 78%] [#####.....] (remote-exec):
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Setting up python-paramiko (2.0.0-1ubuntu1.2) ...
Progress: [ 80%] [#####.....] (remote-exec):
Progress: [ 83%] [#####.....] (remote-exec):
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Setting up sshpass (1.06-1) ...
Progress: [ 85%] [#####.....] (remote-exec):
Progress: [ 88%] [#####.....] (remote-exec):
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Setting up python-jinja2 (2.10-1ubuntu0.18.04.1) ...
Progress: [ 90%] [#####.....] (remote-exec):
Progress: [ 93%] [#####.....] (remote-exec):
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Setting up ansible (2.9.27-1ppa-bionic) ...
Progress: [ 95%] [#####.....] (remote-exec):
```

```
jenkins-infra-setup — vmadmin@vmServer: ~/scripts — bash — 140x48
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 0% [1 azure-cli 0 B/65.2 MB 0%]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 34% [1 azure-cli 27.5 MB/65.2 MB 42%]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 65% [1 azure-cli 52.9 MB/65.2 MB 81%]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 80% [1 azure-cli 65.2 MB/65.2 MB 100%]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): 100% [Working]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Fetched 65.2 MB in 2s (42.5 MB/s)
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Selecting previously unselected package azure-cli.
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ...
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 5%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 10%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 15%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 20%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 25%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 30%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 35%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 40%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 45%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 50%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 55%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 60%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 65%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 70%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 75%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 80%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 85%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 90%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 95%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 100%
azurerm_linux_virtual_machine.linvm[1] (remote-exec): (Reading database ... 86457 files and directories currently installed.)
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Preparing to unpack .../azure-cli_2.30.0-1-bionic_all.deb ...
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Unpacking azure-cli (2.30.0-1-bionic) ...
azurerm_linux_virtual_machine.linvm[1]: Still creating... [8m0s elapsed]
azurerm_linux_virtual_machine.linvm[1]: Still creating... [8m10s elapsed]
azurerm_linux_virtual_machine.linvm[1]: Still creating... [8m20s elapsed]
azurerm_linux_virtual_machine.linvm[1]: Still creating... [8m30s elapsed]
azurerm_linux_virtual_machine.linvm[1]: Still creating... [8m40s elapsed]
azurerm_linux_virtual_machine.linvm[1]: Still creating... [8m50s elapsed]
azurerm_linux_virtual_machine.linvm[1]: Still creating... [9m0s elapsed]
azurerm_linux_virtual_machine.linvm[1]: Still creating... [9m10s elapsed]
azurerm_linux_virtual_machine.linvm[1]: Still creating... [9m20s elapsed]
azurerm_linux_virtual_machine.linvm[1]: Still creating... [9m30s elapsed]
azurerm_linux_virtual_machine.linvm[1]: Still creating... [9m40s elapsed]
azurerm_linux_virtual_machine.linvm[1] (remote-exec): Setting up azure-cli (2.30.0-1-bionic) ...
azurerm_linux_virtual_machine.linvm[1]: Creation complete after 9m50s [id=/subscriptions/c5f829c7-a268-4433-95d4-12eb78cd4cd8/resourceGroups/jenkins-rg/providers/Microsoft.Compute/virtualMachines/vmNode1]

Apply complete! Resources: 12 added, 0 changed, 0 destroyed.
INNOIZLP00010:jenkins-infra-setup souravmazumdar$
```

d. Start the jenkins

```
[INNOIZLP00010:jenkins-infra-setup souravmazumdar$ ssh vmadmin@52.186.17.81
Welcome to Ubuntu 18.04.6 LTS (GNU/Linux 5.4.0-1062-azure x86_64)

 * Documentation: https://help.ubuntu.com
 * Management: https://landscape.canonical.com
 * Support: https://ubuntu.com/advantage

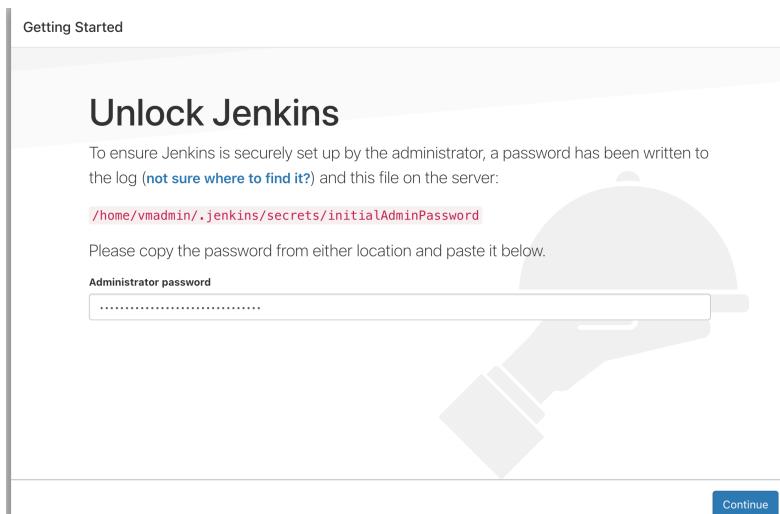
 System information as of Tue Nov  9 07:14:46 UTC 2021

 System load: 0.0          Processes:           117
 Usage of /: 5.7% of 28.90GB   Users logged in:    0
 Memory usage: 2%          IP address for eth0: 10.0.1.5
 Swap usage: 0%

 19 updates can be applied immediately.
 To see these additional updates run: apt list --upgradable

Last login: Tue Nov  9 07:11:32 2021 from 112.196.163.53
[vmadmin@vmServer:~$ ls
scripts
[vmadmin@vmServer:~$ cd scripts
[vmadmin@vmServer:~/scripts$ ls
jenkins jenkinsserver.sh
[vmadmin@vmServer:~/scripts$ cd jenkins
[vmadmin@vmServer:~/scripts/jenkins$ ls
jenkins.war
[vmadmin@vmServer:~/scripts/jenkins$ java -jar jenkins.war &]
```

```
[INNOIZLP00010:jenkins-infra-setup vmadmin@vmServer: ~/scripts/jenkins — ssh vmadmin@52.186.17.81 — 148x45
2021-11-09 07:22:51.689+0000 [id=1]     INFO  o.e.j.server.AbstractConnector#doStart: Started ServerConnector@19c65cdc(HTTP/1.1, (http/1.1)){0.0.0.0:8080}
2021-11-09 07:22:51.689+0000 [id=1]     INFO  org.eclipse.jetty.server.Server#doStart: Started @10725ms
2021-11-09 07:22:51.691+0000 [id=23]    INFO  winstone.Logger#logInternal: Winstone Servlet Engine running: controlPort=disabled
2021-11-09 07:22:52.180+0000 [id=30]    INFO  jenkins.InitReactorRunner$1#onAttained: Started initialization
2021-11-09 07:22:52.217+0000 [id=31]    INFO  jenkins.InitReactorRunner$1#onAttained: Listed all plugins
WARNING: An attempt to reflective access operation has occurred
WARNING: An attempt to reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$2 (file:/home/vmadmin/.jenkins/war/WEB-INF/lib/guice-4.0.jar)
WARNING: method java.lang.ClassLoader.defineClass([Ljava.lang.String;Ljava.lang.reflect.Method;)V
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$2
WARNING: Use -illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
2021-11-09 07:22:53.998+0000 [id=29]    INFO  jenkins.InitReactorRunner$1#onAttained: Prepared all plugins
2021-11-09 07:22:53.998+0000 [id=28]    INFO  jenkins.InitReactorRunner$1#onAttained: Started all plugins
2021-11-09 07:22:54.011+0000 [id=28]    INFO  jenkins.InitReactorRunner$1#onAttained: Augmented all extensions
2021-11-09 07:22:55.439+0000 [id=28]    INFO  jenkins.InitReactorRunner$1#onAttained: System config loaded
2021-11-09 07:22:55.440+0000 [id=28]    INFO  jenkins.InitReactorRunner$1#onAttained: System config adapted
2021-11-09 07:22:55.441+0000 [id=29]    INFO  jenkins.InitReactorRunner$1#onAttained: Loaded all jobs
2021-11-09 07:22:55.441+0000 [id=29]    INFO  jenkins.InitReactorRunner$1#onAttained: Configuration for all jobs updated
2021-11-09 07:22:55.493+0000 [id=44]    INFO  hudson.model.AsyncPeriodicWork$lambda$doRun$0: Started Download metadata
2021-11-09 07:22:55.522+0000 [id=44]    INFO  hudson.util.Retrifier$start: Attempt #1 to do the action check updates server
2021-11-09 07:22:58.355+0000 [id=31]    INFO  jenkins.install.SetupWizard$init:
*****
***** Jenkins initial setup is required. An admin user has been created and a password generated.
***** Please use the following password to proceed to installation:
***** 6c7165f3bbc44148920b2c67d10465bf
***** This may also be found at: /home/vmadmin/.jenkins/secrets/initialAdminPassword
***** ****
***** 2021-11-09 07:23:15.301+0000 [id=29]    INFO  jenkins.InitReactorRunner$1#onAttained: Completed initialization
2021-11-09 07:23:15.348+0000 [id=22]    INFO  hudson.WebAppMain$3#run: Jenkins is fully up and running
2021-11-09 07:23:15.456+0000 [id=44]    INFO  h.m.downloadservice.Downloadable#load: Obtained the updated data file for hudson.tasks.Maven.MavenInService
2021-11-09 07:23:15.458+0000 [id=44]    INFO  hudson.util.Retrifier$start: Performed the action check updates server successfully at the attempt #1
2021-11-09 07:23:15.462+0000 [id=44]    INFO  hudson.model.AsyncPeriodicWork$lambda$doRun$0: Finished Download metadata. 19,963 ms
```



Getting Started

Customize Jenkins

Plugins extend Jenkins with additional features to support many different needs.

Install suggested plugins

Install plugins the Jenkins community finds most useful.

Select plugins to install

Select and install plugins most suitable for your needs.

Jenkins 2.303.1

Getting Started

Jenkins is ready!

Your Jenkins setup is complete.

[Start using Jenkins](#)

Getting Started

Create First Admin User

Username:

Password:

Confirm password:

Full name:

E-mail address:

Jenkins 2.303.1

[Skip and continue as admin](#) [Save and Continue](#)

e. Configure the node, plugins and tools.

S	Name ↓	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	master	Linux (amd64)	In sync	26.93 GB	0 B	26.93 GB	0ms
	node1	Linux (amd64)	In sync	25.48 GB	0 B	25.48 GB	41ms

Dashboard > Plugin Manager

Updates Available Installed Advanced

Install	Name	Version	Released
<input checked="" type="checkbox"/>	GitHub Integration [emailtext] [Build Triggers] GitHub Integration Plugin for Jenkins	0.3.0	6 mo 20 days ago
<input checked="" type="checkbox"/>	GitHub Authentication [github] [Security] [Authentication and User Management] Authentication plugin using GitHub OAuth to provide authentication and authorization capabilities for GitHub and GitHub Enterprise.	0.34	1 mo 13 days ago
<input checked="" type="checkbox"/>	Maven Integration [Build Tools] This plug-in provides, for better and for worse, a deep integration of Jenkins and Maven: Automatic triggers between projects depending on SNAPSHOTs, automated configuration of various Jenkins publishers (JUnit, ...).	3.15.1	5 days 14 hr ago
<input checked="" type="checkbox"/>	Docker [Cloud Providers] [Cluster Management and Distributed Build] [docker] This plugin integrates Jenkins with Docker	1.2.3	2 mo 22 days ago
<input checked="" type="checkbox"/>	CloudBees Docker Build and Publish [Build Tools] [docker]	1.3.3	8 mo 19 days ago

Update information obtained: 1 hr 52 min ago

Dashboard > Global Tool Configuration

JDK

JDK installations

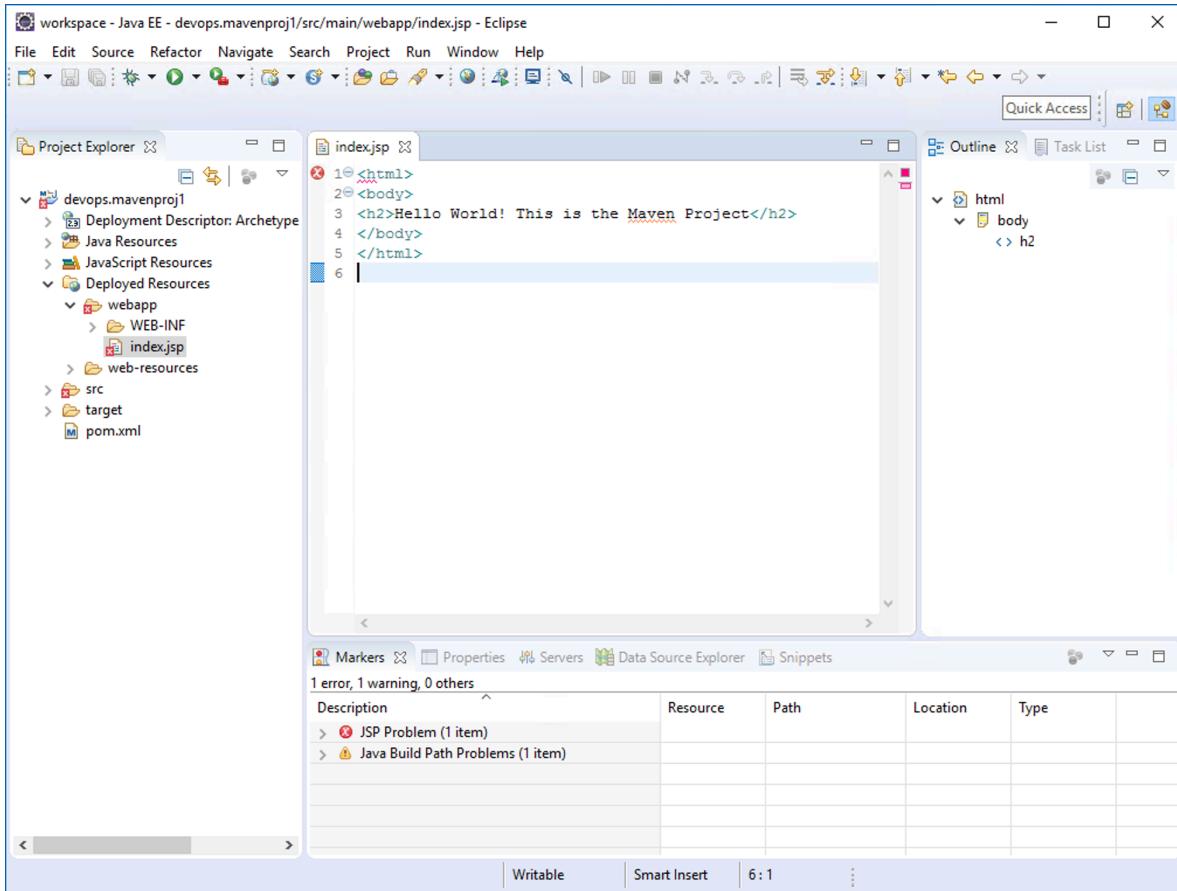
Name	Java Home	Action
java11	/usr/lib/jvm/java-11-openjdk-amd64	<input checked="" type="checkbox"/> Install automatically <input type="button" value="Delete JDK"/>

List of JDK installations on this system

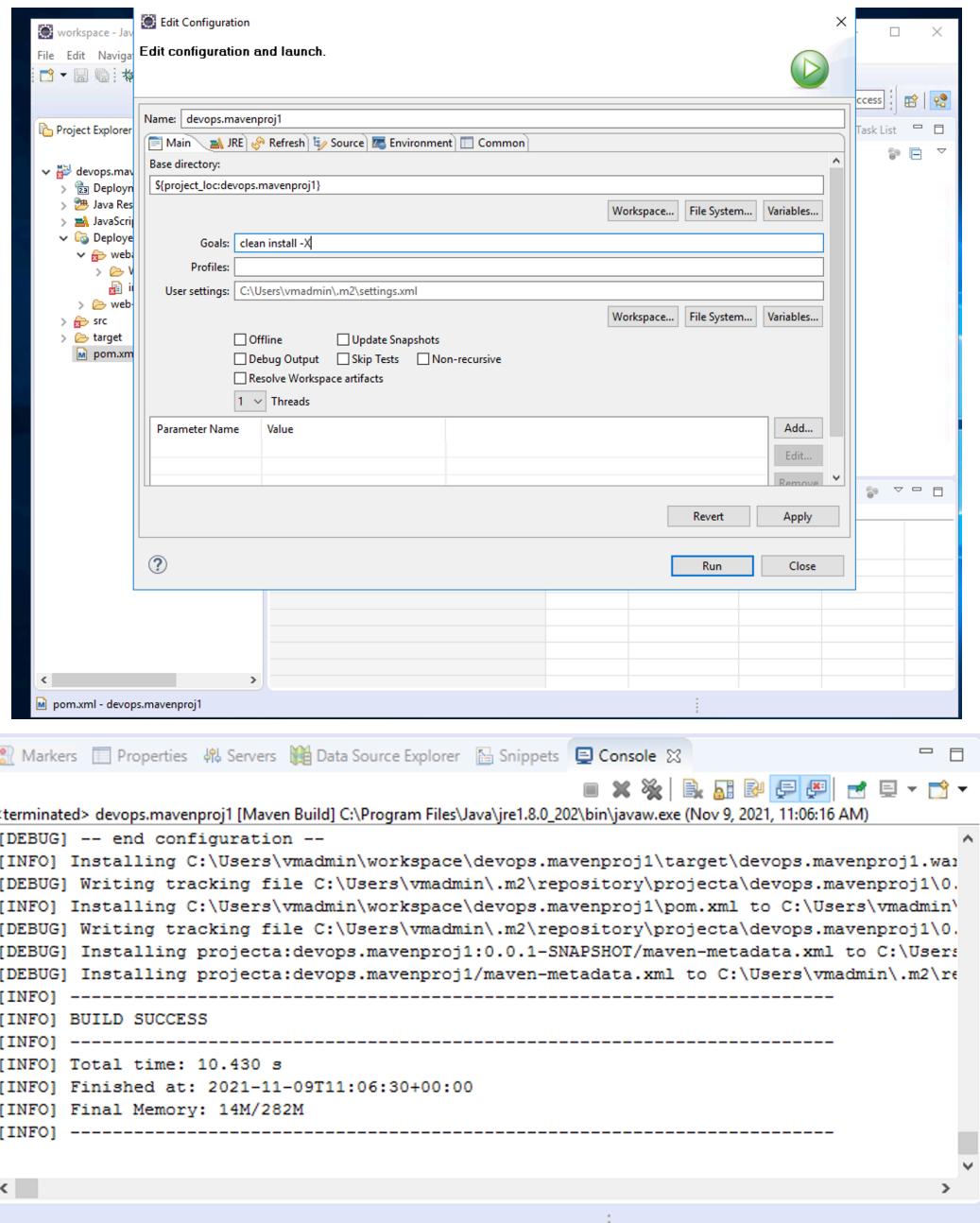
The screenshot shows the Jenkins Global Tool Configuration interface. In the 'Maven' section, there is a 'Name' field containing 'maven3.6' and a 'MAVEN_HOME' field containing '/usr/share/maven'. A warning message states: '</usr/share/maven> is not a directory on the Jenkins master (but perhaps it exists on some agents)'. There is also an 'Install automatically' checkbox and a 'Delete Maven' button. The 'Ansible' section is partially visible below it.

Part 2 Phase 1 Activities

- Create a maven project in eclipse and write custom message.

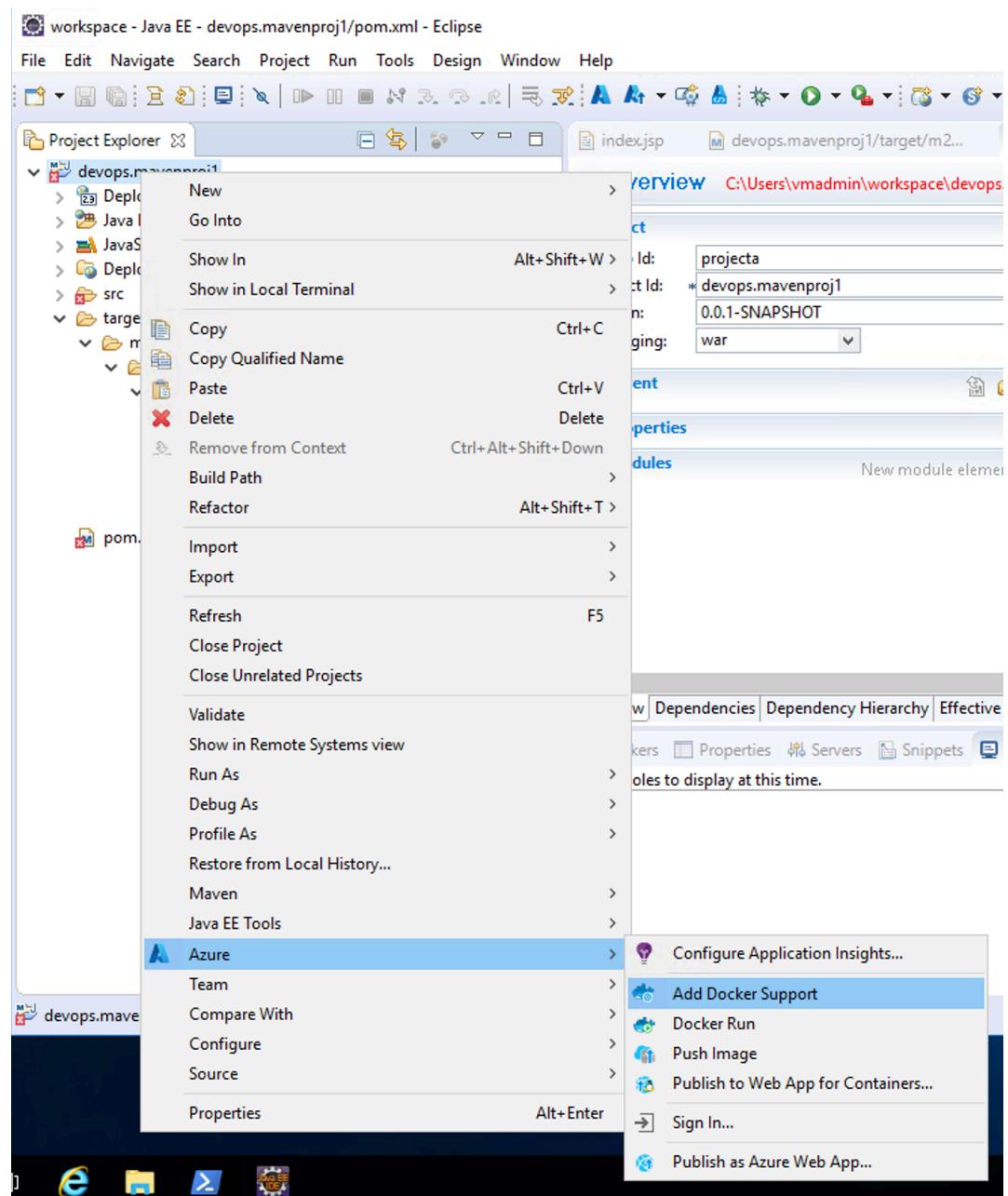


- Run and build the maven project.



Part 2 Phase 2 Activities

- Crete a docker file under project and build .war file under target



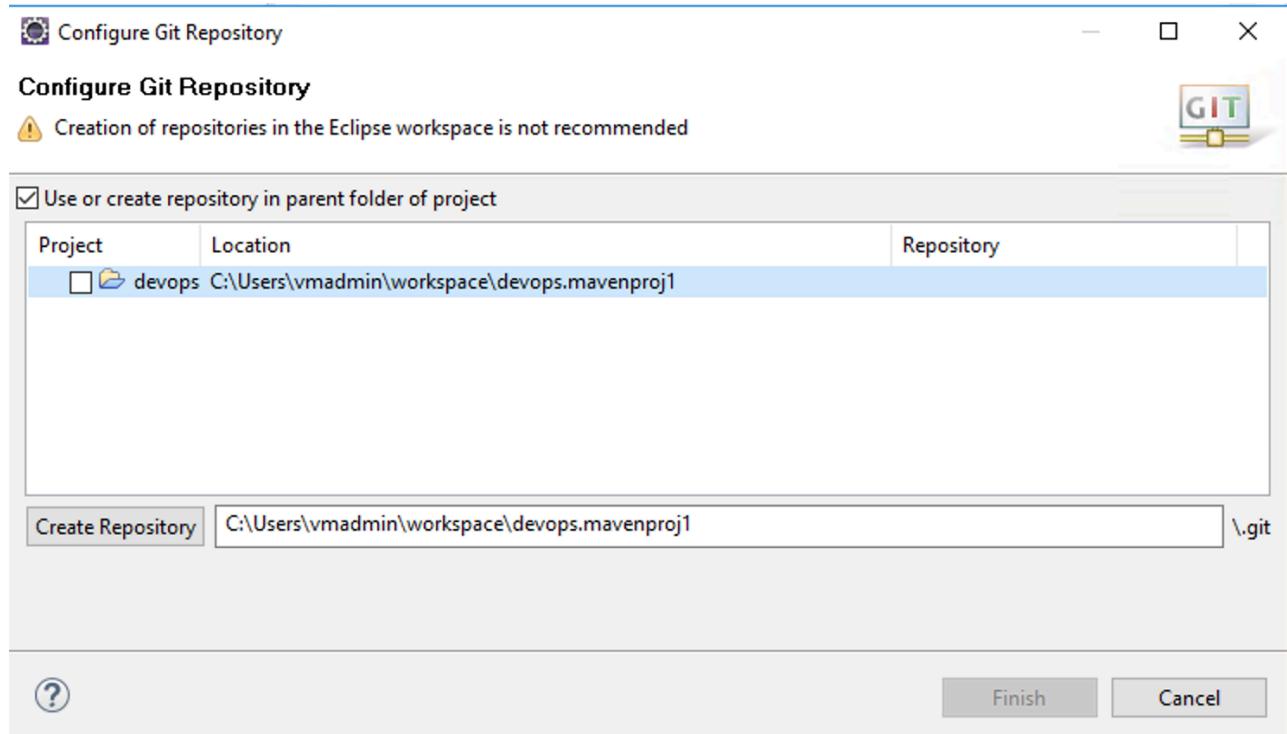
The screenshot shows the Eclipse IDE code editor with the following details:

- Tab Bar:** index.jsp, devops.mavenproj1/pom.xml, devops.mavenproj1/Dockerfile, Dockerfile
- Code Editor:** A Dockerfile containing the following content:

```
1 FROM tomcat
2 RUN rm -fr /usr/local/tomcat/webapps/ROOT
3 COPY target/devops.mavenproj1.war /usr/local/tomcat/webapps/ROOT.
```

Part 2 Phase 3 Activities

- Convert the project into repo and push it to GitHub.



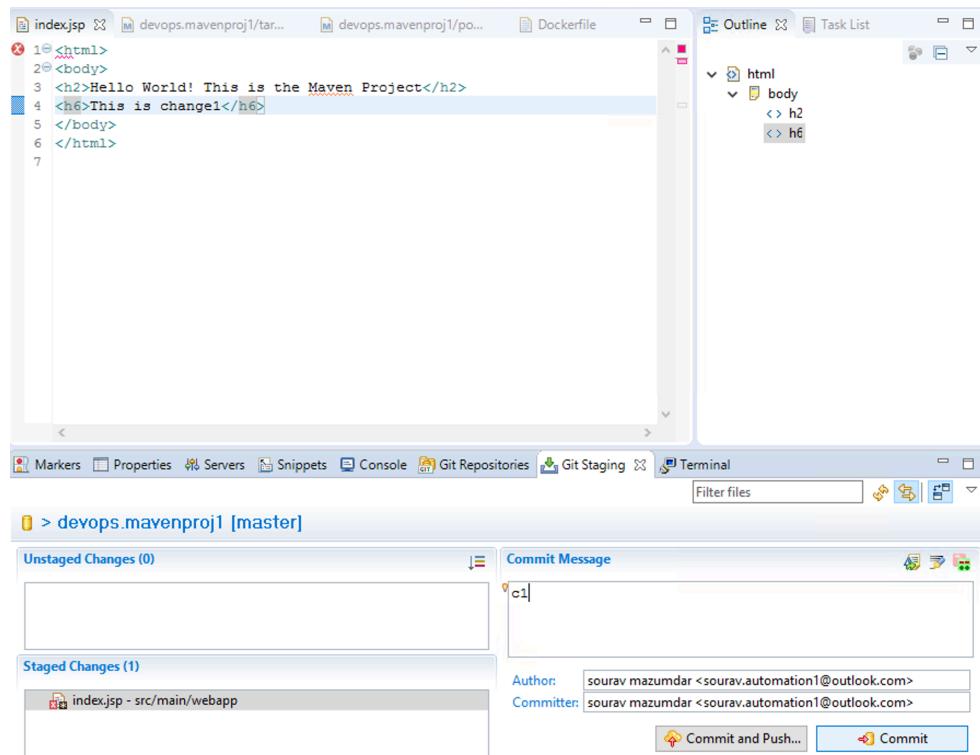
The screenshot shows a GitHub repository page for 'smazumd13/mavenapp1'. The repository is public. The main navigation bar includes Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The 'Code' tab is selected. At the top, it shows 'master' branch, '1 branch', and '0 tags'. Below that is a commit history table:

sourav mazumdar initial commit		35dcb98 1 minute ago	1 commit
	.settings	initial commit	1 minute ago
	src/main/webapp	initial commit	1 minute ago
	.classpath	initial commit	1 minute ago
	.gitignore	initial commit	1 minute ago
	.project	initial commit	1 minute ago
	Dockerfile	initial commit	1 minute ago
	pom.xml	initial commit	1 minute ago

At the bottom, there's a note: 'Help people interested in this repository understand your project by adding a README.' with a 'Add a README' button.

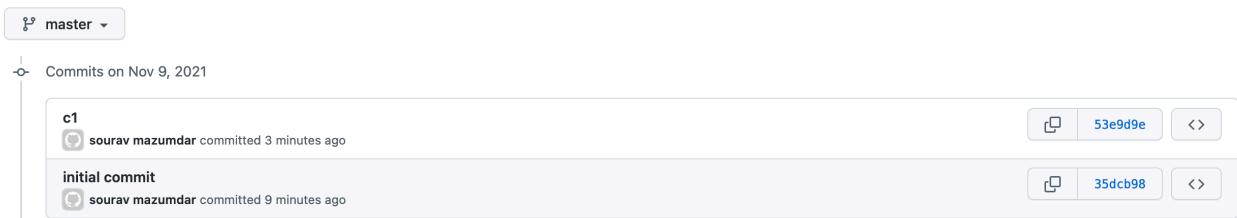
Part 2 Phase 4 Activities

- Commit the change in project and see the reflection in remote repo.



```
C:\Users\vmadmin\workspace\devops.mavenproj1>git push origin master
Enumerating objects: 11, done.
Counting objects: 100% (11/11), done.
Delta compression using up to 2 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 497 bytes | 248.00 KiB/s, done.
Total 6 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/smazumd13/mavenapp1.git
  35dc98..53e9d9e  master -> master

C:\Users\vmadmin\workspace\devops.mavenproj1>
```



Part 2 Phase 5 Activities

- Configure service principle for ansible authentication to azure

```
souravmazumdar — vmadmin@vmNode1: ~ — ssh vmadmin@52.186.17.37 — 8...
[vmadmin@vmNode1:~$ mkdir $HOME/.azure
[vmadmin@vmNode1:~$ vi $HOME/.azure/credentials
```

```
[default]
subscription_id="c5f029c7-a268-4433-95d4-12eb70cd4cd0"
client_id="6ce3c813-57dc-4b64-9e26-6f6cb100327e"
secret="REDACTED"
tenant="ab70bfe3-44cc-4887-813f-f27addb46899"
```

- Create a playbook1 to create a vm in azure

```
playbook1.yaml
!
  - name: Create Azure VM
    hosts: localhost
    connection: local
    tasks:
      - name: Create resource group
        azure_rm_resourcegroup:
          name: dockerEngineRG
          location: eastus
      - name: Create virtual network
        azure_rm_virtualnetwork:
          resource_group: dockerEngineRG
          name: myVnet
          address_prefixes: "10.0.0.0/16"
      - name: Add subnet
        azure_rm_subnet:
          resource_group: dockerEngineRG
          name: mySubnet
          address_prefix: "10.0.1.0/24"
          virtual_network: myVnet
      - name: Create public IP address
        azure_rm_publicipaddress:
          resource_group: dockerEngineRG
          allocation_method: Static
          name: myPublicIP
          register: output_ip_address
      - name: Public IP of VM
        debug:
          msg: "The public IP is {{ output_ip_address.state.ip_address }}."
      - name: Create Network Security Group that allows SSH
        azure_rm_securitygroup:
          resource_group: dockerEngineRG
          name: myNetworkSecurityGroup
          rules:
            - name: AllowAll
              protocol: Tcp
              destination_port_range: '*'
              access: Allow
              priority: 100
              direction: Inbound
```

c. Create Playbook2 for docker engine configuration

```
! playbook2.yaml
1 - name: Configure the Docker Engine
2   hosts: all
3   become: true
4   tasks:
5     - name: Install Docker
6       apt:
7         name: docker*
8         state: latest
9         update_cache: yes
```

d. Create shell script to get the ip of docker engine

```
$ getIP.sh
1 #!/bin/bash
2 az vm show -d -g dockerEngineRG -n dockerEngine --query publicIps -o tsv > /etc/ansible/hosts
3 |
```

Part 2 Phase 6 Activities

a. Push playbook1,playbook2 and shell scrip to Remote Git repo

The screenshot shows a GitHub repository page for 'smazumd13/devOpsProjectA'. The repository is public and has 4 branches and 0 tags. The 'Code' tab is selected. A message indicates that the 'pipeline2' branch is 5 commits ahead of 'master'. The commit history shows:

- sourav mazumdar added script to get docker engine ip (3d332aa, 17 hours ago, 7 commits)
- getIP.sh (added script to get docker engine ip, 17 hours ago)
- playbook1.yaml (code correction, 18 hours ago)
- playbook2.yaml (code correction, 18 hours ago)

At the bottom, there is a note to 'Add a README'.

pipeline2			
Commits on Nov 10, 2021			
added script to get docker engine ip sourav mazumdar committed 17 hours ago			
code correction sourav mazumdar committed 18 hours ago			
enable ssh password sourav mazumdar committed 20 hours ago			
install docker sourav mazumdar committed yesterday			

Part 2 Phase 7 Activities

- a. From Build server run the playbook1,playbook2 and shell script to test for the required result

```
vmadmin@vmNode1: ~/test/devOpsProjectA
vmadmin@vmNode1:~$ ls
remoting  remoting.jar  scripts  test
vmadmin@vmNode1:~$ cd test
vmadmin@vmNode1:~/test$ ls
devOpsProjectA
vmadmin@vmNode1:~/test$ cd devOpsProjectA
vmadmin@vmNode1:~/test/devOpsProjectA$ ls
getIP.sh  playbook1.yaml  playbook2.yaml
vmadmin@vmNode1:~/test/devOpsProjectA$ ansible-playbook playbook1.yaml
```

```
TASK [Gathering Facts] *****
ok: [localhost]

TASK [Create resource group] *****
changed: [localhost]

TASK [Create virtual network] *****
changed: [localhost]

TASK [Add subnet] *****
changed: [localhost]

TASK [Create public IP address] *****
changed: [localhost]

TASK [Public IP of VM] *****
ok: [localhost] => {
    "msg": "The public IP is 40.121.39.18."
}

TASK [Create Network Security Group that allows SSH] *****
changed: [localhost]

TASK [Create virtual network interface card] *****
[DEPRECATION WARNING]: Setting ip_configuration flatten is deprecated and will be removed. Using ip_configurations list to define the ip configuration. This feature will be removed in version 2.9. Deprecation warnings can be disabled by setting deprecation_warnings=False in ansible.cfg.
changed: [localhost]

TASK [Create VM] *****
[WARNING]: Module did not set no_log for ssh_password_enabled
changed: [localhost]

PLAY RECAP *****
localhost          : ok=9      changed=7      unreachable=0      failed=0      skipped=0      rescued=0      ignored=0

vmadmin@vmNode1:~/test/devOpsProjectA$
```

```

vmadmin@vmNode1:~/test/devOpsProjectA
vmadmin@vmNode1:~/test/devOpsProjectA$ ls
getIP.sh playbook1.yaml playbook2.yaml
vmadmin@vmNode1:~/test/devOpsProjectA$ ./getIP.sh
-bash: ./getIP.sh: Permission denied
vmadmin@vmNode1:~/test/devOpsProjectA$ chmod +x getIP.sh
vmadmin@vmNode1:~/test/devOpsProjectA$ ./getIP.sh
vmadmin@vmNode1:~/test/devOpsProjectA$ more /etc/ansible/hosts
40.121.39.18
vmadmin@vmNode1:~/test/devOpsProjectA$ [REDACTED]

vmadmin@vmNode1:~/test/devOpsProjectA$ ansible-playbook playbook2.yaml
PLAY [Configure the Docker Engine] ****
TASK [Gathering Facts] ****
[DEPRECATION WARNING]: Distribution Ubuntu 18.04 on host 40.121.39.18 should use /usr/bin/python3, but is using /usr/bin/python for backward compatibility with prior Ansible releases. A future Ansible release will default to using the discovered platform python for this host. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information. This feature will be removed in version 2.12. Deprecation warnings can be disabled by setting deprecation_warnings=False in ansible.cfg.
ok: [40.121.39.18]

TASK [Install Docker] ****
[WARNING]: Updating cache and auto-installing missing dependency: python-apt
changed: [40.121.39.18]

PLAY RECAP ****
40.121.39.18 : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
vmadmin@vmNode1:~/test/devOpsProjectA$ [REDACTED]

vmadmin@vmNode1:~/test/devOpsProjectA$ ssh vmadmin@40.121.39.18
Welcome to Ubuntu 18.04.6 LTS (GNU/Linux 5.4.0-1063-azure x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

 System information as of Thu Nov 11 11:34:50 UTC 2021

 System load:  0.0          Processes:           111
 Usage of /:   6.9% of 28.90GB  Users logged in:      0
 Memory usage: 9%
 Swap usage:  0%          IP address for eth0:   10.0.1.4
                           IP address for docker0: 172.17.0.1

 1 update can be applied immediately.
 To see these additional updates run: apt list --upgradable

 New release '20.04.3 LTS' available.
 Run 'do-release-upgrade' to upgrade to it.

 Last login: Thu Nov 11 11:24:52 2021 from 52.186.17.37
 vmadmin@dockerEngine:~$ docker --version
 Docker version 20.10.7, build 20.10.7-0ubuntu5~18.04.3
 vmadmin@dockerEngine:~$ [REDACTED]

```

Part 2 Phase 8 Activities

- Create a build pipeline and configure scm

Dashboard > buildLane >

General Source Code Management Build Triggers Build Environment Build Post-build Actions

Description

[Plain text] [Preview](#)

Commit agent's Docker container ?
 Define a Docker template ?
 Discard old builds ?
 GitHub project ?
 This build requires lockable resources ?
 This project is parameterized ?
 Throttle builds ?
 Disable this project ?
 Execute concurrent builds if necessary ?
 Restrict where this project can be run ?
 Label Expression
 node1

Save **Apply** Permissions or other restrictions provided by plugins may further reduce that list.

General **Source Code Management** Build Triggers Build Environment Build Post-build Actions

Repositories

Repository URL
https://github.com/smazumd13/devOpsProjectA.git

Credentials
smazumd13/******** (This is my Git repo access) [Add](#)

Name

Refspec

[Add Repository](#)

Branches to build

Branch Specifier (blank for 'any')
*/pipeline1

[Add Branch](#)

Save **Apply**

b. Configure maven build and git web hook

Options	Webhooks / Add webhook
Manage access	We'll send a POST request to the URL below with details of any subscribed events. You can also specify which data format you'd like to receive (JSON, x-www-form-urlencoded, etc). More information can be found in our developer documentation .
Security & analysis	
Branches	
Webhooks	Payload URL * <input type="text" value="https://52.186.17.81:8080/github-webhook/"/>

Dashboard > buildLane >

General Source Code Management Build Triggers **Build Environment** Build Post-build Actions

Add timestamps to the Console Output
 Inspect build log for published Gradle build scans
 Terraform
 With Ant

Build

Invoke top-level Maven targets

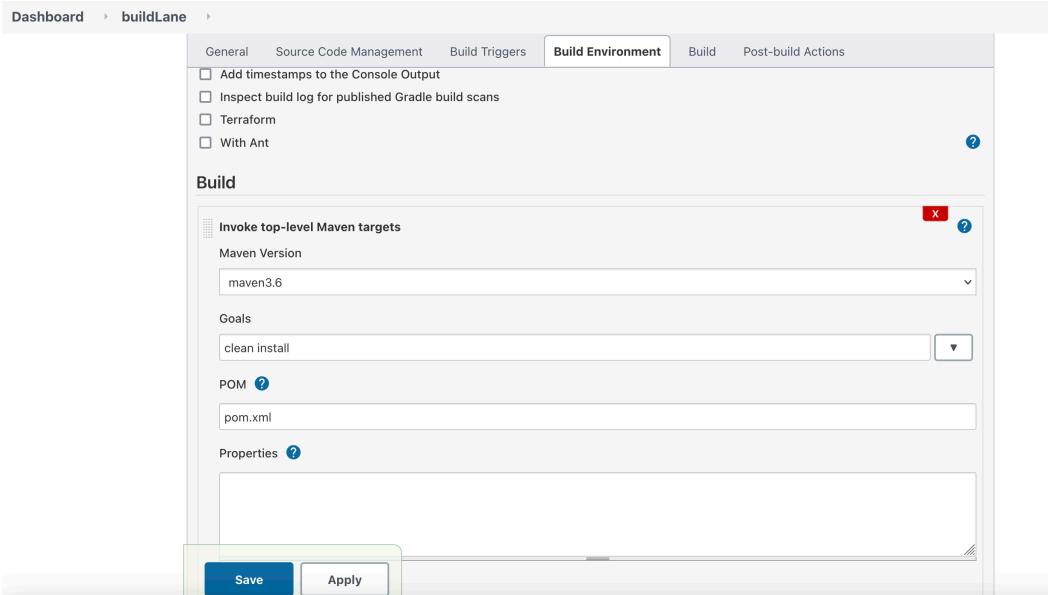
Maven Version: maven3.6

Goals: clean install

POM: pom.xml

Properties:

Save **Apply**



c. Build and Push the docker image

Dashboard > buildLane >

General Source Code Management Build Triggers **Build** Post-build Actions

Docker Build and Publish

Repository Name: smazumd13/projecta

Tag:

Docker Host URI:

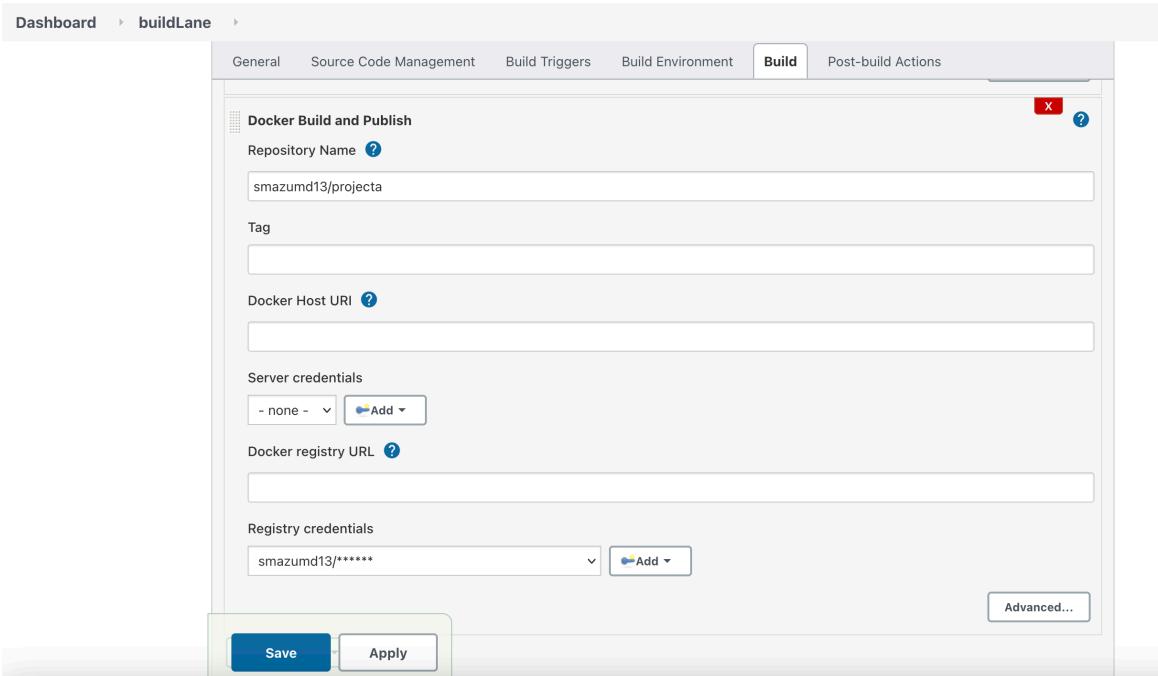
Server credentials: - none - **Add**

Docker registry URL:

Registry credentials: smazumd13/******** **Add**

Advanced...

Save **Apply**



d. Run the build pipeline and see the image is uploaded to hub.docker.com

Dashboard > buildLane > #15 smazumd13/projecta

```

450346f29d28: Preparing
5122793ce9cb: Preparing
cb80689c9aeaf: Preparing
78700b6b35d0: Preparing
62a5b8741e83: Preparing
36e0782f1159: Preparing
ba6e5ff31f23: Preparing
9f9f651e9303: Preparing
0b3c02b5d746: Preparing
62a747b1f1719: Preparing
62a5b8741e83: Waiting
36e0782f1159: Waiting
ba6e5ff31f23: Waiting
9f9f651e9303: Waiting
0b3c02b5d746: Waiting
62a747b1f1719: Waiting
62a747b1f1719: Waiting
8d16e42df23: Pushed
cb80689c9aeaf: Pushed
450346f29d28: Pushed
5122793ce9cb: Pushed
62a5b8741e83: Pushed
36e0782f1159: Pushed
0b3c02b5d746: Pushed
9f9f651e9303: Pushed
78700b6b35d0: Pushed
62a747b1f1719: Pushed
ba6e5ff31f23: Pushed
latest: digest: sha256:5a4f6743e889846bbbeffbad219b9bbc94b782faaabc400182dd2914cd158547 size: 2630
Triggering a new build of deploymentLane
Finished: SUCCESS

```

view all your images and tags in this repository, clean up unused content, recover untagged images. Available with Pro, Team and Business subscriptions.

smazumd13/projecta

This repository does not have a description [Edit](#)

Last pushed: 12 hours ago

Docker commands

To push a new tag to this repository, [Public View](#)

```
docker push smazumd13/projecta:tagname
```

Tags and Scans

VULNERABILITY SCANNING - DISABLED [Enable](#)

This repository contains 1 tag(s).

TAG	OS	PULLED	PUSHED
latest	Ubuntu	12 hours ago	12 hours ago

See all

Automated Builds

Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.

Available with Pro, Team and Business subscriptions.

[Upgrade to Pro](#) [Learn more](#)

e. Create deployment pipeline to play ansible playbooks and scripts to up and running docker engine vm.

Dashboard > deploymentLane >

General Source Code Management Build Triggers Build Environment Build Post-build Actions

Source Code Management

None Git [?](#)

Repositories

Repository URL <https://github.com/smazumd13/devOpsProjectA.git> [?](#)

Credentials [smazumd13***** \(This is my Git repo access\)](#) [Add](#) [Advanced...](#) [Add Repository](#)

Branches to build

Branch Specifier (blank for 'any') [*/pipeline2](#) [X](#) [?](#)

[Save](#) [Anniv](#) [Add Branch](#)

Dashboard > deploymentLane >

General Source Code Management Build Triggers Build Environment Build Post-build Actions

Build Triggers

Trigger builds remotely (e.g., from scripts) ?
 Build after other projects are built ?
Projects to watch
buildLane

Trigger only if build is stable
 Trigger even if the build is unstable
 Trigger even if the build fails

Build periodically ?
 GitHub Branches ?
 GitHub Pull Requests ?
 GitHub hook trigger for GITScm polling ?
 Poll SCM ?

Build Environment

Delete workspace before build starts ?

Save **Apply**

Dashboard > deploymentLane >

General Source Code Management Build Triggers Build Environment **Build** Post-build Actions

Build

Invoke Ansible Playbook
Playbook path ?
/home/vmadmin/workspace/deploymentLane/playbook1.yaml

Inventory
 Do not specify Inventory
 File or host list
 Inline content

Host subset ?

Credentials ?
- none - **Add**

Vault Credentials ?
- none - **Add**

Save **Apply**

Dashboard > deploymentLane >

General Source Code Management Build Triggers Build Environment **Build** Post-build Actions

Execute shell
Command
cd /home/vmadmin/workspace/deploymentLane && chmod +x getIP.sh && ./getIP.sh

See the [list of available environment variables](#) **Advanced...**

Invoke Ansible Playbook
Playbook path ?
/home/vmadmin/workspace/deploymentLane/playbook2.yaml

Inventory
 Do not specify Inventory
 File or host list
 Inline content

Host subset ?

Invoke Ansible Playbook

Playbook path ?

/home/vmadmin/workspace/deploymentLane/playbook2.yaml

Inventory

Do not specify Inventory
 File or host list
 Inline content

Host subset ?

Credentials ?

- none -

Vault Credentials ?

- none -

f. Check scm trigger 1 for build pipeline and trigger 2 for deployment pipeline

git pipeline1 had recent pushes 1 minute ago

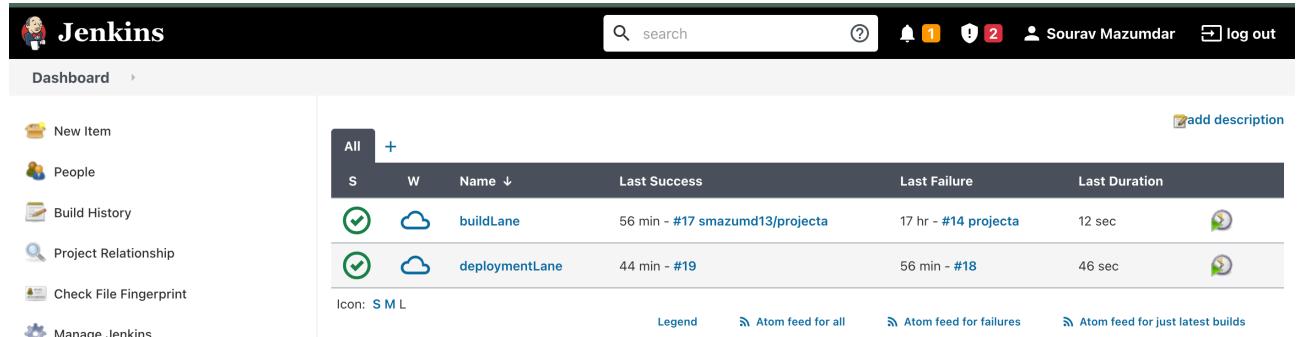
```
62a747bf1719: Layer already exists
54f3e82ef820: Pushed
latest: digest: sha256:f62addcf34c5549ee1ada8a920dda71485e58dce3e25c83af74ed32fee7b7789 size: 2630
Triggering a new build of deploymentLane
Finished: SUCCESS
```

g. Check scm trigger for deployment pipeline

git pipeline2 had recent pushes less than a minute ago

find	
<input checked="" type="checkbox"/> #14	Nov 13, 2021, 9:18 AM
<input type="checkbox"/> #13	Nov 12, 2021, 8:00 PM

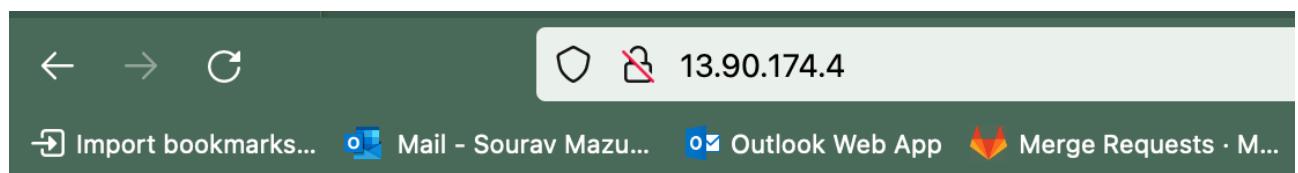
h. Check the application is app and running post pipeline success



The Jenkins dashboard shows two successful builds:

Name	Last Success	Last Failure	Last Duration
buildLane	56 min - #17 smazumdar13/projecta	17 hr - #14 projecta	12 sec
deploymentLane	44 min - #19	56 min - #18	46 sec

Icon: S M L Legend Atom feed for all Atom feed for failures Atom feed for just latest builds



The browser header shows the IP address 13.90.174.4. The main content area displays the Jenkins application's home page with the following text:

Hello World! This is the Maven Project

This is change1