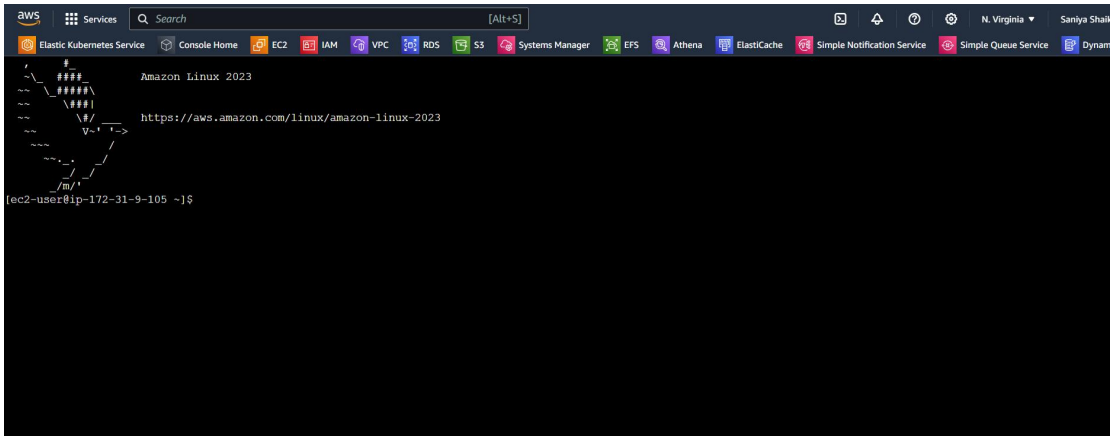
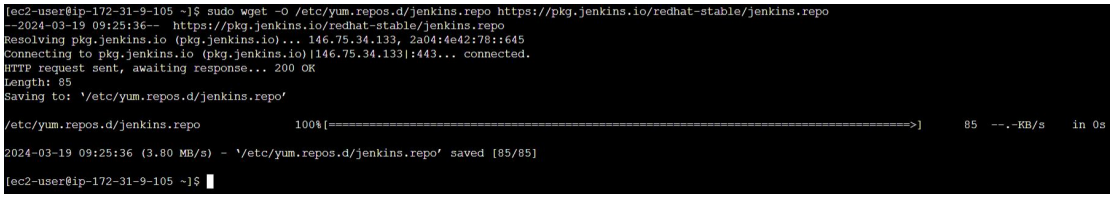
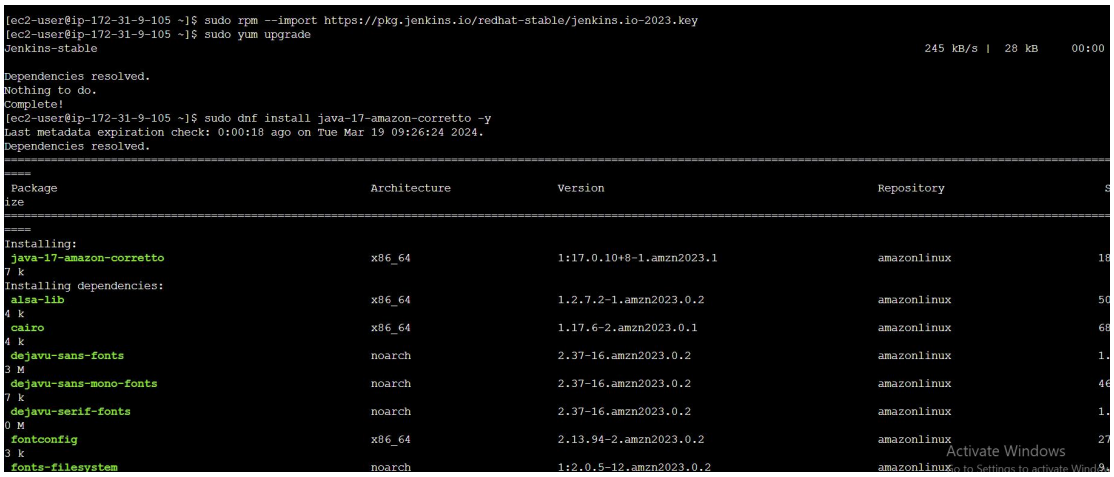
Jenkins_Assigment_01

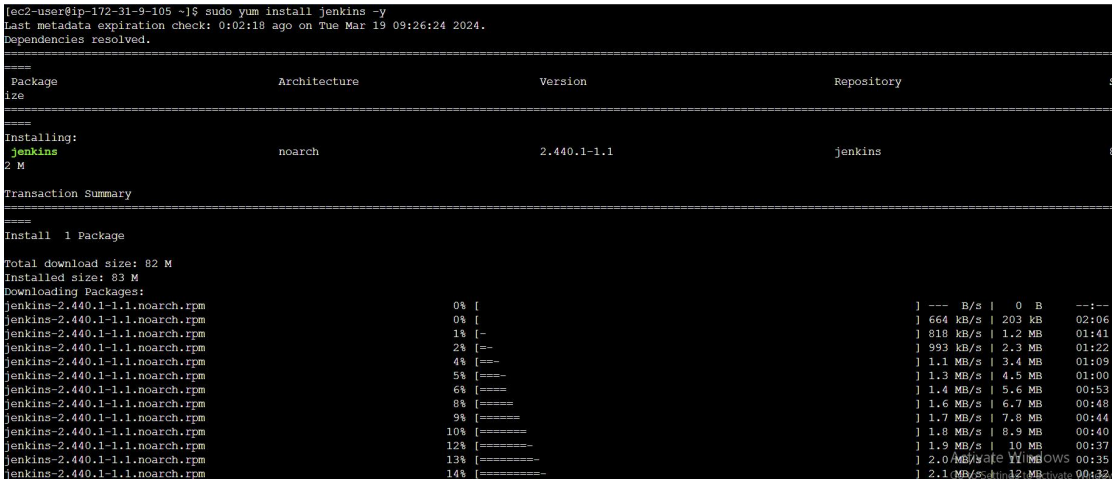
1. Install Jenkins on one of the server on your setup (Local VM / Ec2 / WSL).
   Once Jenkins is installed , try install plugins with and without restart option.
   Please verify plugins installed successfully.

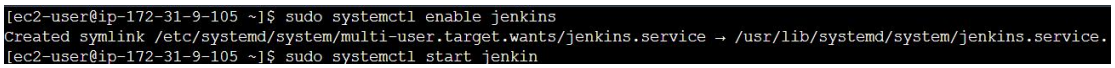
SOLUTION:-

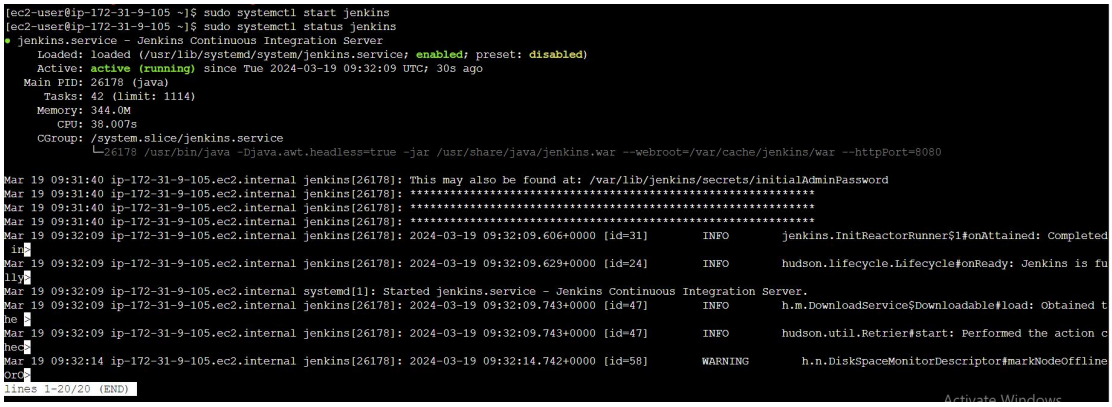






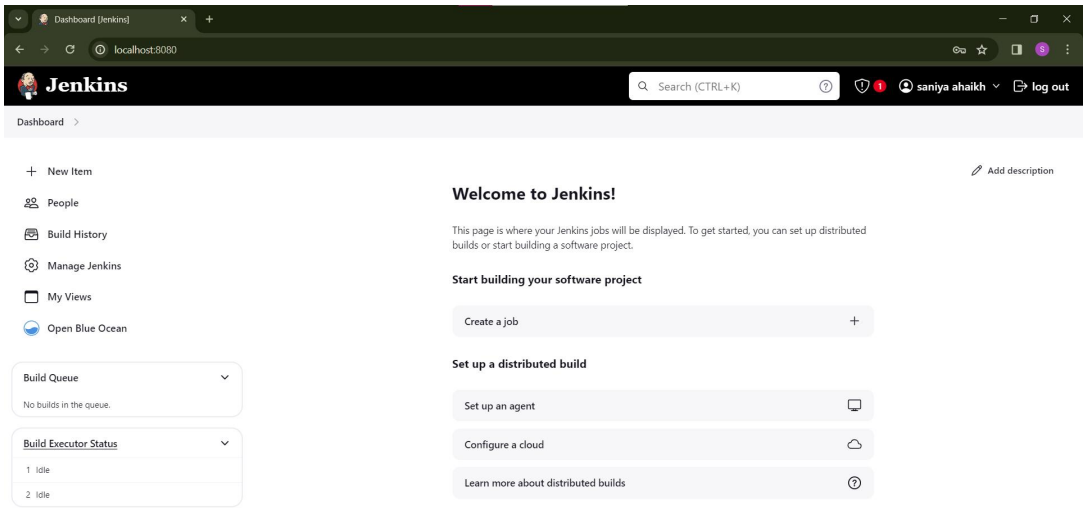


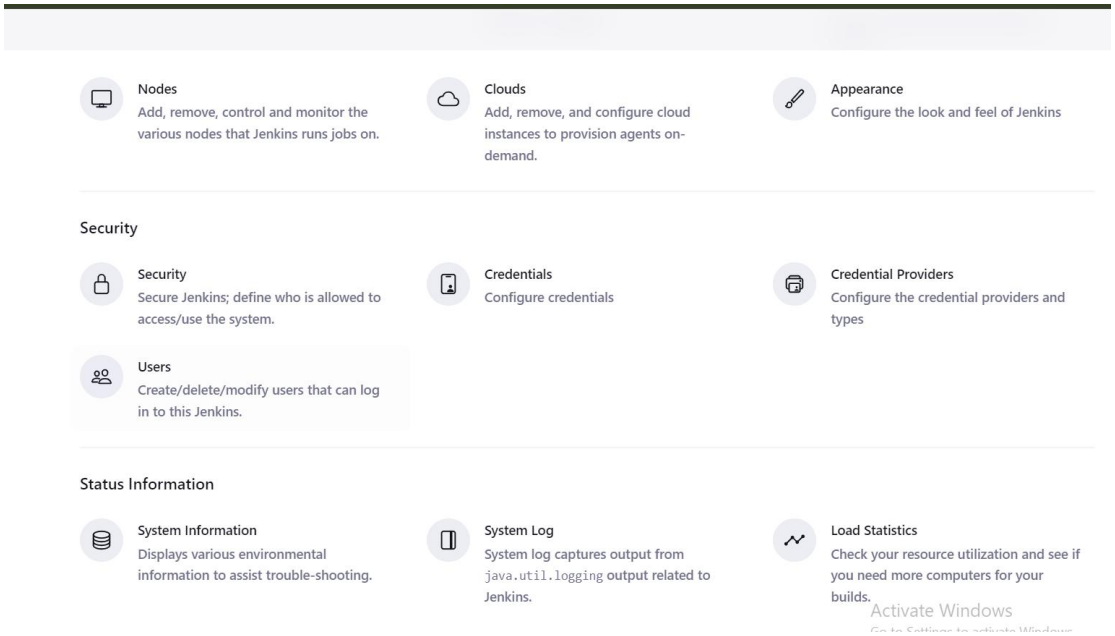


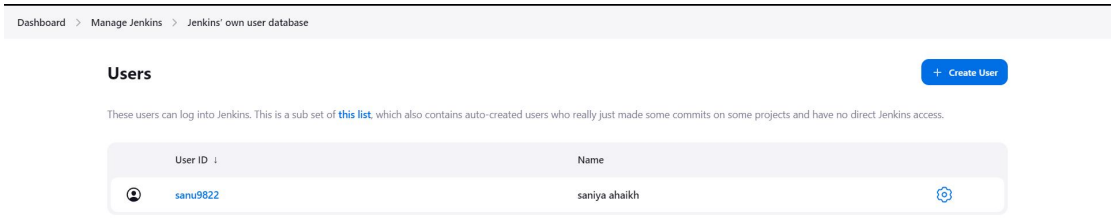


2. Create any 4 local Jenkins users on your Jenkins server. Also create 2 Jenkins roles named developers & delivery.
Once roles are created, assign developers role to 3 users and delivery role to project Manager user.
Please take screenshots and prepare well formatted document of your understanding.

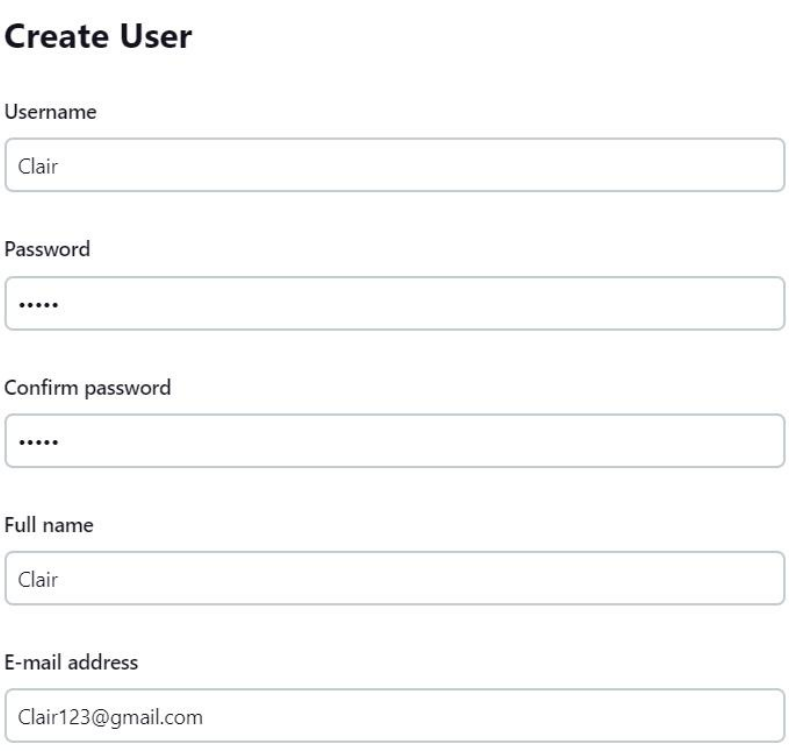
SOLUTION:-



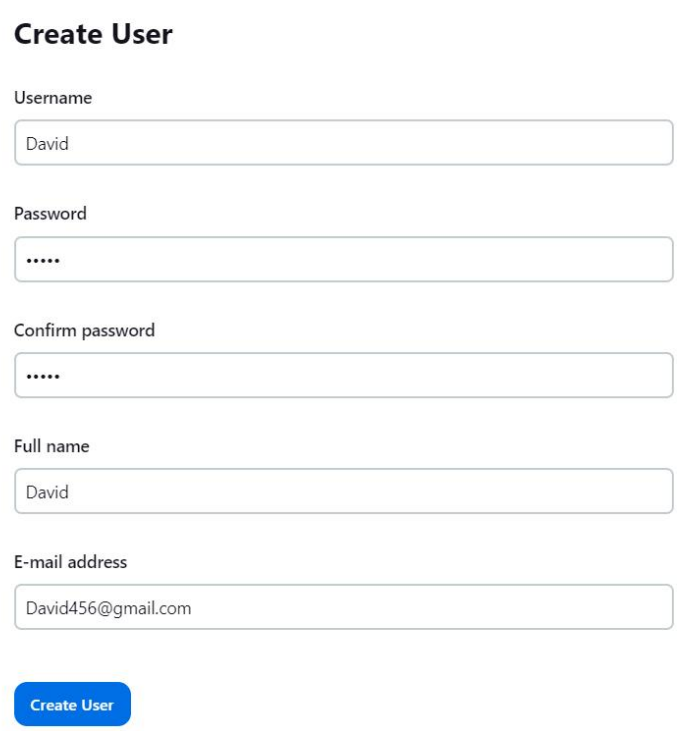

Nodes
Add, remove, control and monitor the various nodes that Jenkins runs jobs on.
Clouds
Add, remove, and configure cloud instances to provision agents on-demand.
Appearance
Configure the look and feel of Jenkins
Security
Security
Secure Jenkins; define who is allowed to access/use the system.
Credentials
Configure credentials
Credential Providers
Configure the credential providers and types
Users
Create/delete/modify users that can log in to this Jenkins.
Status Information
System Information
Displays various environmental information to assist trouble-shooting.
System Log
System log captures output from java.util.logging output related to Jenkins.
Load Statistics
Check your resource utilization and see if you need more computers for your builds.
Activate Windows


Dashboard
Manage Jenkins
Jenkins' own user database
Users
Create User
These users can log into Jenkins. This is a sub set of this list, which also contains auto-created users who really just made some commits on some projects and have no direct Jenkins access.
User ID
Name
sanu9822
saniya ahaikh

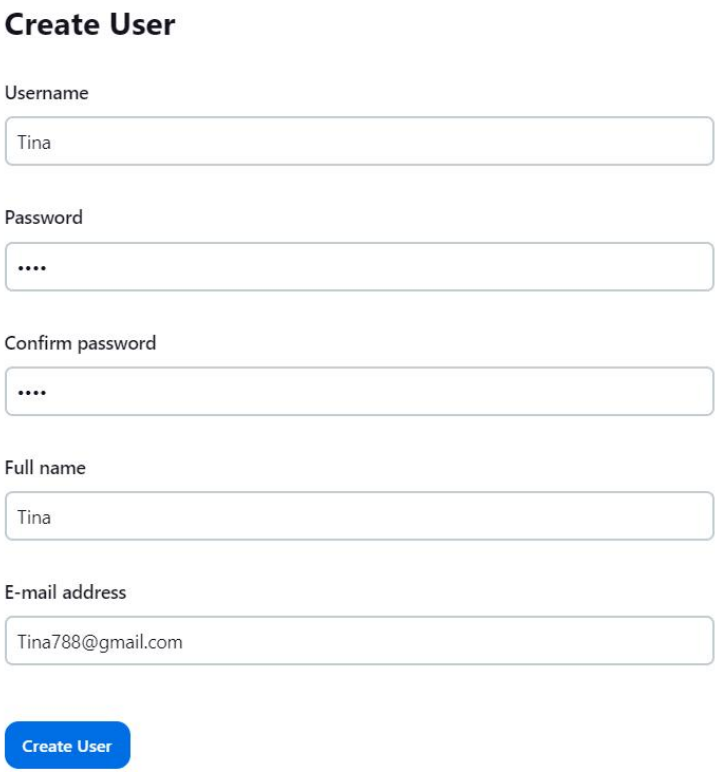
First User


Create User
Username
Clair
Password
Confirm password
Full name
Clair
E-mail address
Clair123@gmail.com

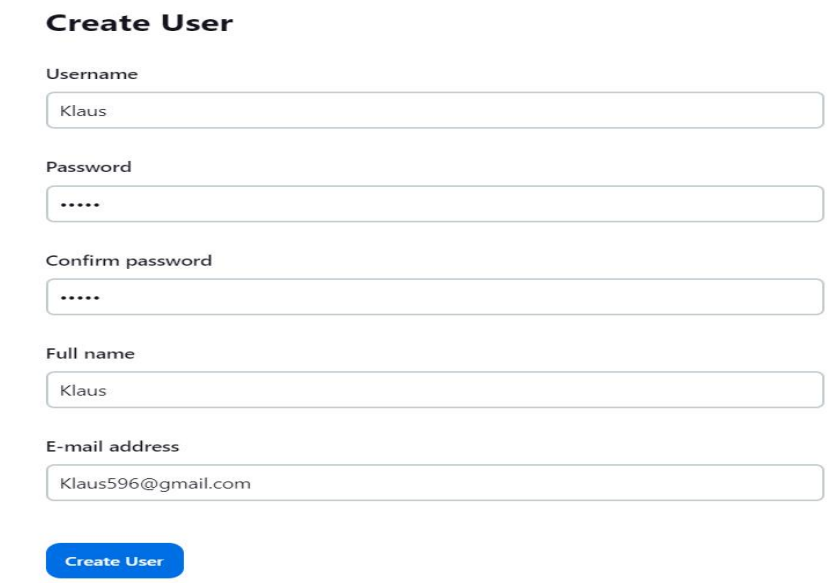
Second User

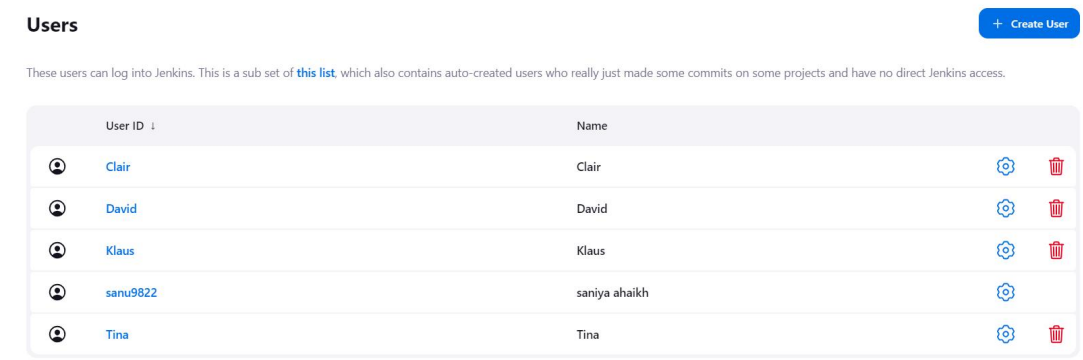


Third User

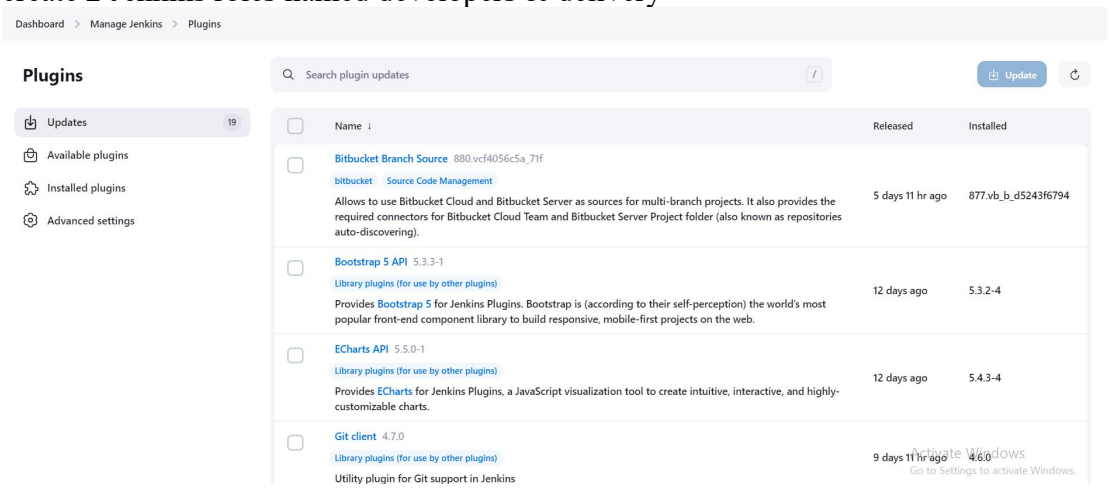


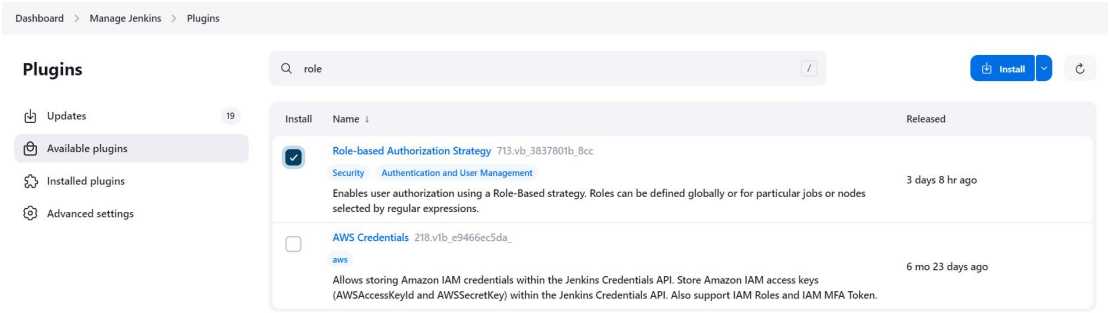
Fourth User

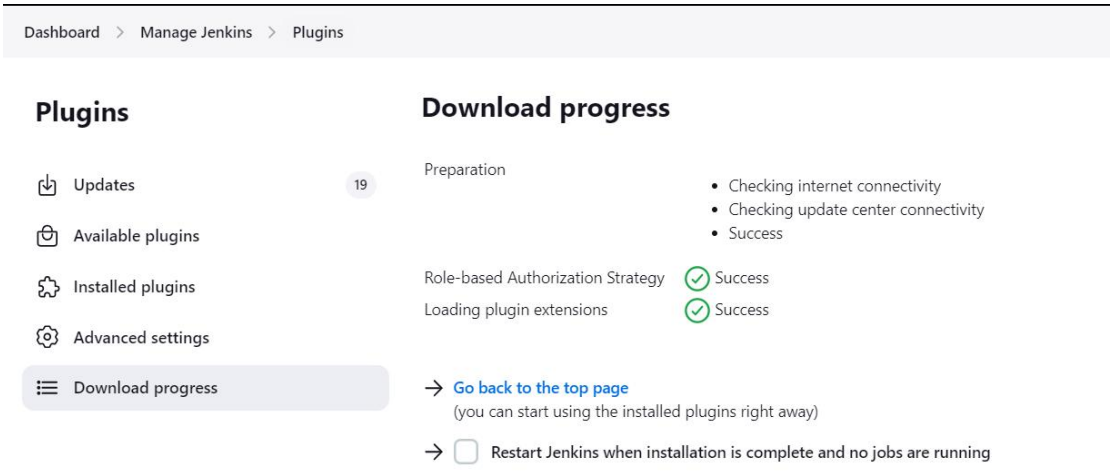


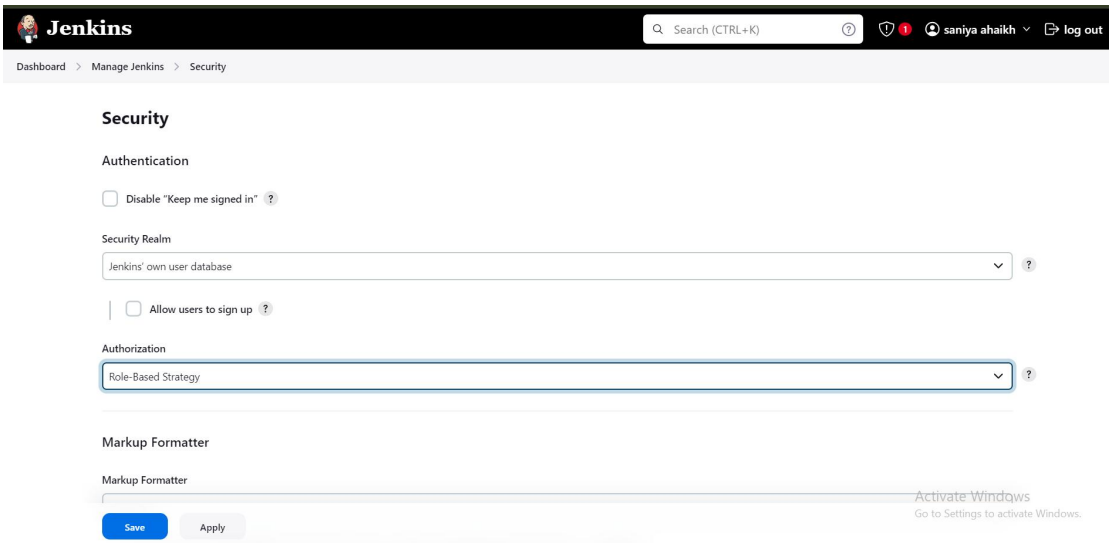


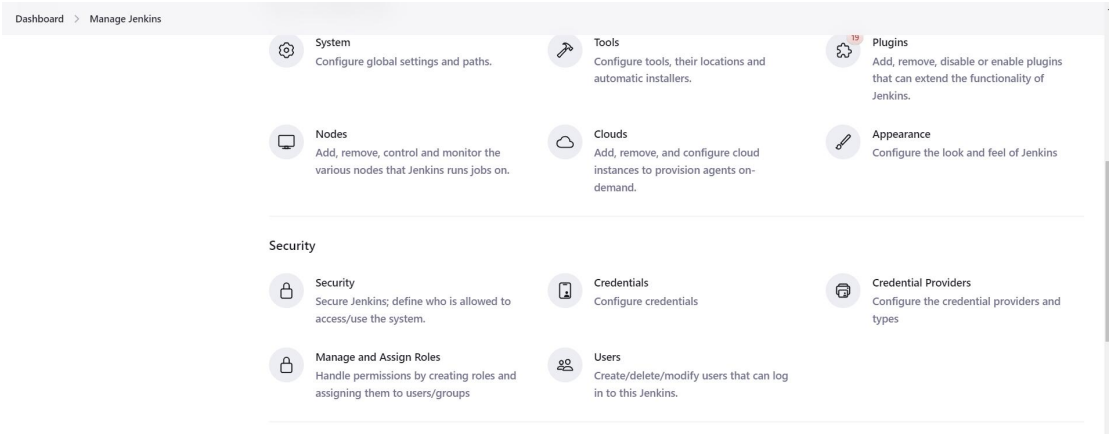
create 2 Jenkins roles named developers & delivery

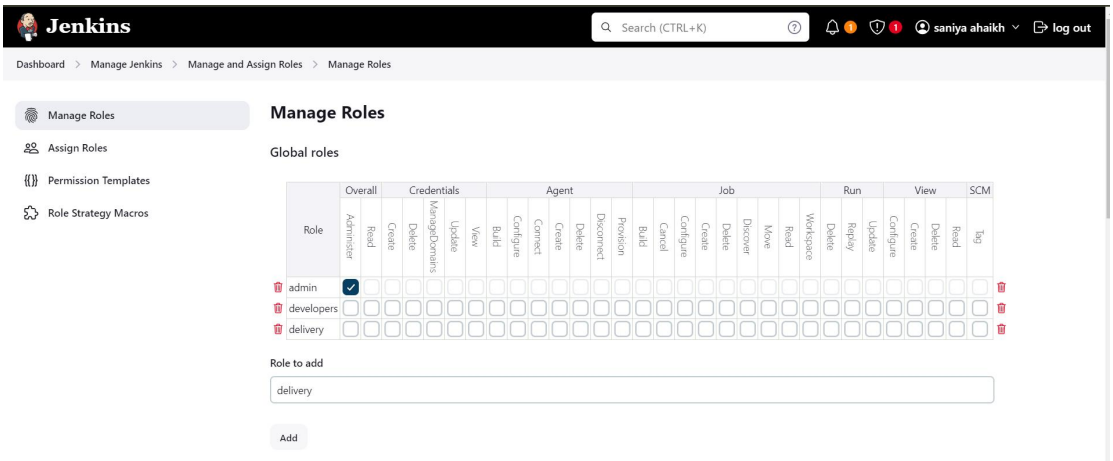


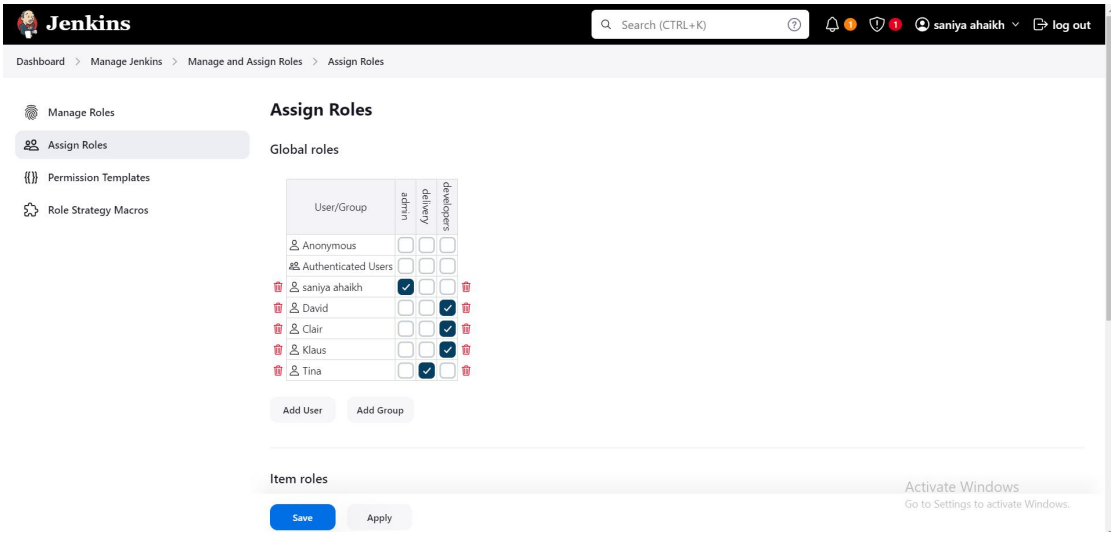

Dashboard > Manage Jenkins > Plugins
Plugins
role
Install
Updates 19
Available plugins
Installed plugins
Advanced settings
Install
Name
Released
Role-based Authorization Strategy 713.vb_3837801b_8cc
Security
Authentication and User Management
Enables user authorization using a Role-Based strategy. Roles can be defined globally or for particular jobs or nodes selected by regular expressions.
3 days 8 hr ago
AWS Credentials 218.v1b_e9466ec5da_
aws
Allows storing Amazon IAM credentials within the Jenkins Credentials API. Store Amazon IAM access keys (AWSAccessKeyId and AWSSecretKey) within the Jenkins Credentials API. Also support IAM Roles and IAM MFA Token.
6 mo 23 days ago


Dashboard > Manage Jenkins > Plugins
Plugins
Updates 19
Available plugins
Installed plugins
Advanced settings
Download progress
Download progress
Preparation
Checking internet connectivity
Checking update center connectivity
Success
Role-based Authorization Strategy Success
Loading plugin extensions Success
Go back to the top page
(you can start using the installed plugins right away)
Restart Jenkins when installation is complete and no jobs are running


Jenkins
Search (CTRL+K)
saniya ahaikh
log out
Dashboard > Manage Jenkins > Security
Security
Authentication
Disable "Keep me signed in"
Security Realm
Jenkins' own user database
Allow users to sign up
Authorization
Role-Based Strategy
Markup Formatter
Markup Formatter
Save
Apply
Activate Windows
Go to Settings to activate Windows.





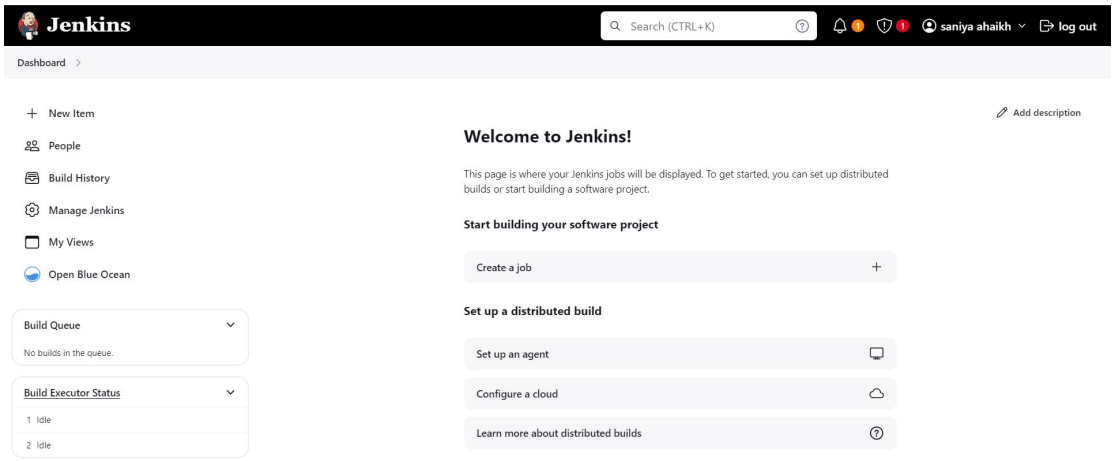


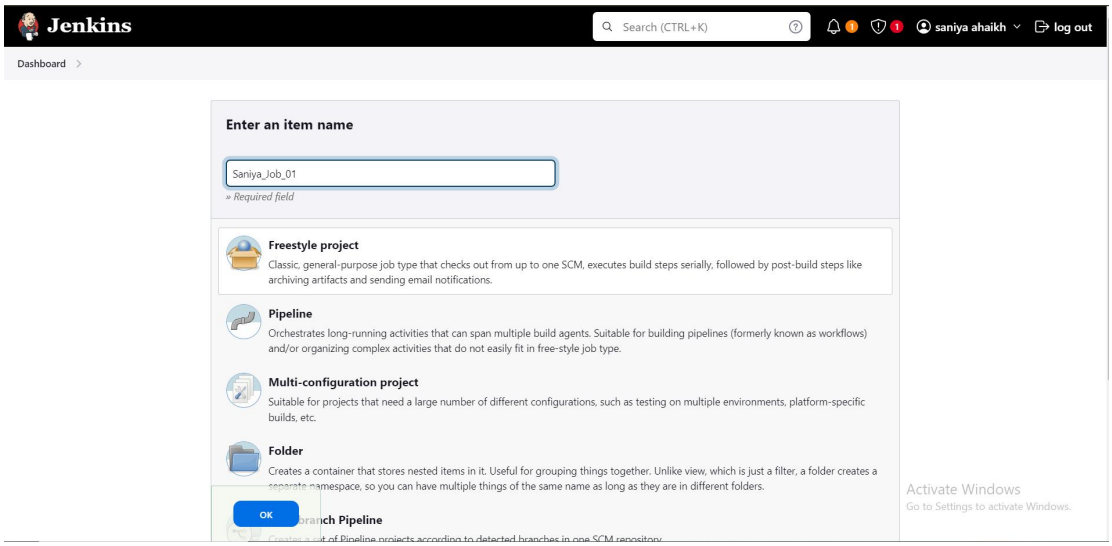
3. Create a Jenkins job named YOURNAME_Job_01 on a Jenkins Server.
   This job should run below given shell script in the job.
   Please check the console output of job and make sure it is successful.

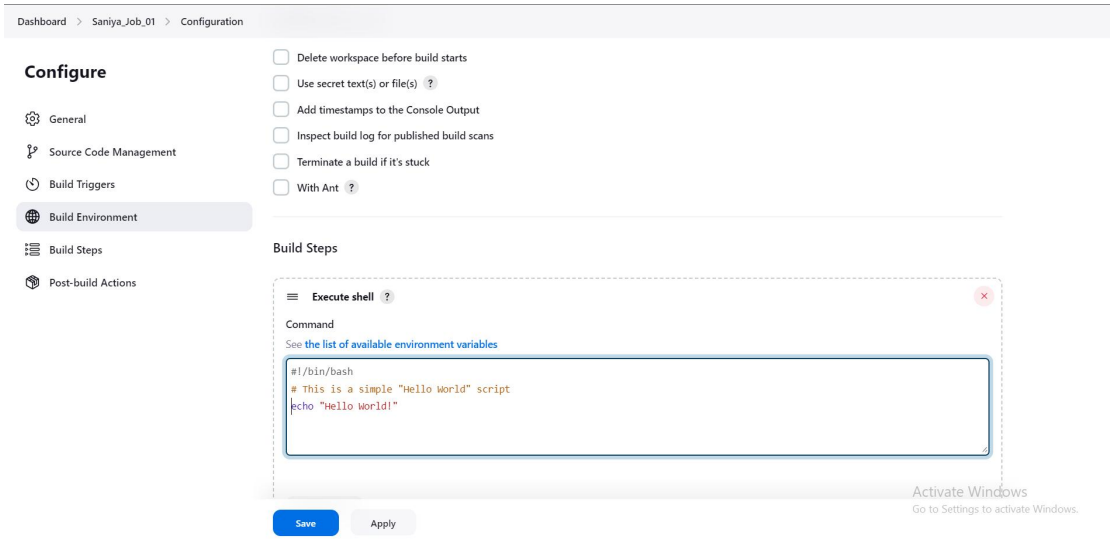
```
#!/bin/bash
# This is a simple "Hello World" script
echo "Hello World!"
```

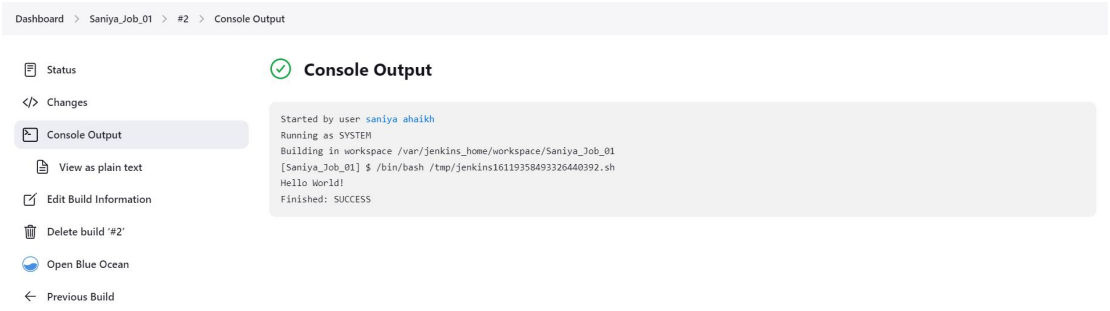
Prepare well formatted document with screenshots.

SOLUTION:-


Jenkins
Search (CTRL+K)
saniya ahaikh
log out
Dashboard
New Item
People
Build History
Manage Jenkins
My Views
Open Blue Ocean
Build Queue
No builds in the queue.
Build Executor Status
1 Idle
2 Idle
Add description
Welcome to Jenkins!
This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.
Start building your software project
Create a job
Set up a distributed build
Set up an agent
Configure a cloud
Learn more about distributed builds


Jenkins
Search (CTRL+K)
saniya ahaikh
log out
Dashboard
Enter an item name
Saniya_Job_01
» Required field
Freestyle project
Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.
Pipeline
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.
Multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.
Folder
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a
OK
Activate Windows
Go to Settings to activate Windows.


Dashboard
Saniya_Job_01
Configuration
Configure
General
Source Code Management
Build Triggers
Build Environment
Build Steps
Post-build Actions
Delete workspace before build starts
Use secret text(s) or file(s)
Add timestamps to the Console Output
Inspect build log for published build scans
Terminate a build if it's stuck
With Ant
Build Steps
Execute shell
Command
See the list of available environment variables
#!/bin/bash
This is a simple "Hello World" script
echo "Hello World!"
Save
Apply
Activate Windows
Go to Settings to activate Windows.



4. Create a Jenkins job named YOURNAME_Job_02 that runs a shell script on a local server Jenkins.

The script should take in two parameters, e.g. num1, num2 from Jenkins.
This shell is taking 2 command line arguments as numbers.
Try to execute script locally to understand it more.

```
# sh your_script_name.sh 11 12
```

```
#] vim your_script_name.sh

#!/bin/bash

#Define a variable named "name"
        name="John Doe"

#Print the value of the variable
        echo "My name is $name"

#except the value from the user for two numbers and
 store the values in variables
        num1 = $1
        num2 = $2

#Use an if statement to check if the first number is
 greater than the second number

        if [ $num1 -gt $num2 ]; then
            echo "$num1 is greater than $num2"
        else
           echo "$num2 is greater than $num1"
        fi

#Use a for loop to print the numbers from 1 to the value
 of the first number

        for i in $(seq 1 $num1); do
                echo $i
        done
```

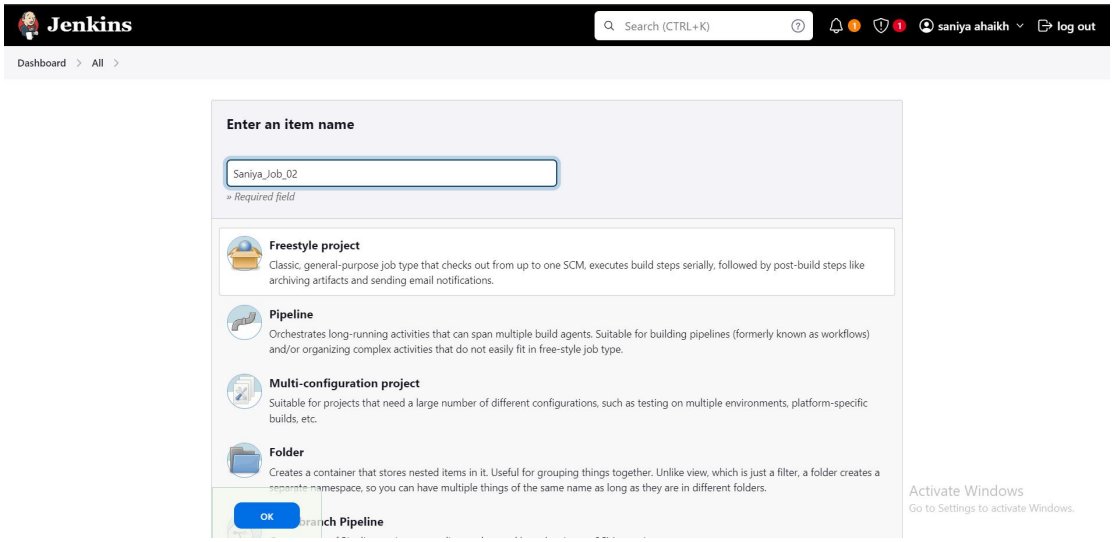
#Print a message indicating that the script is finished
echo "Script finished."

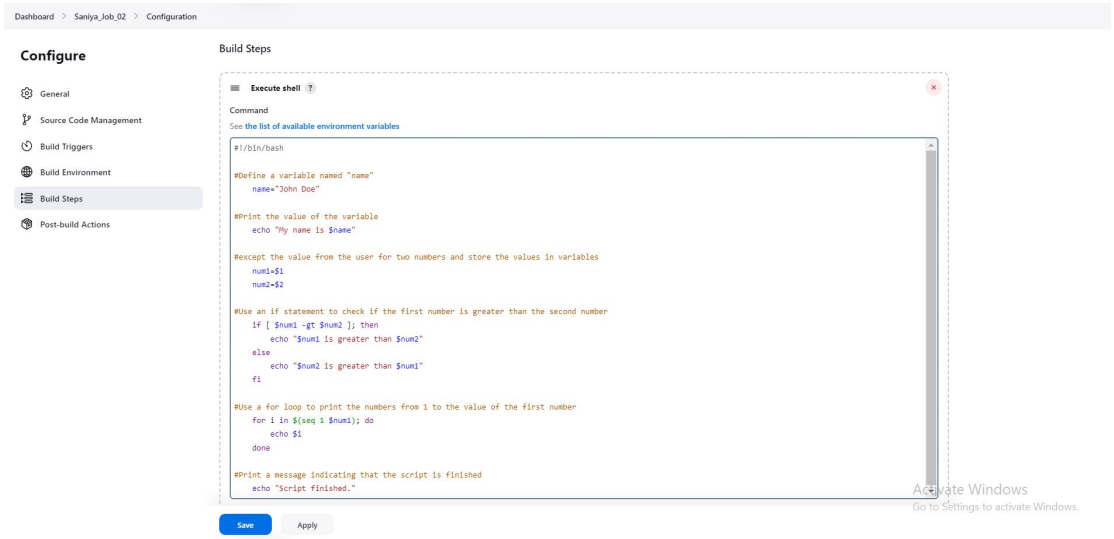
Once script is tested locally , create 2 parameters in Jenkins and pass those parameters to the shell script.
Run the Jenkins job and check the console out for detailed job logs.

SOLUTION:-

```
root@DESKTOP-VIDGD8F:JENKINS# vim saniya.sh
root@DESKTOP-VIDGD8F:JENKINS#
root@DESKTOP-VIDGD8F:JENKINS# cat saniya.sh
#!/bin/bash

#Define a variable named "name"
        name="John Doe"

#Print the value of the variable
        echo "My name is $name"

#except the value from the user for two numbers and store the values in variables
num1=$1
num2=$2

#Use an if statement to check if the first number is greater than the second number
        if [ $num1 -gt $num2 ]; then
                echo "$num1 is greater than $num2"
        else
                echo "$num2 is greater than $num1"
        fi

#Use a for loop to print the numbers from 1 to the value of the first number
        for i in $(seq 1 $num1); do
                echo $i
        done

#Print a message indicating that the script is finished
        echo "Script finished."
```

```
root@DESKTOP-VIDGD8F:JENKINS# ./saniya.sh 10 5
My name is John Doe
10 is greater than 5
1
2
3
4
5
6
7
8
9
10
Script finished.
root@DESKTOP-VIDGD8F:JENKINS#
```





This project is parameterized

String Parameter

Name

num1

Default Value

10

Description

Plain text Preview

Trim the string

String Parameter

Name

num2

Default Value

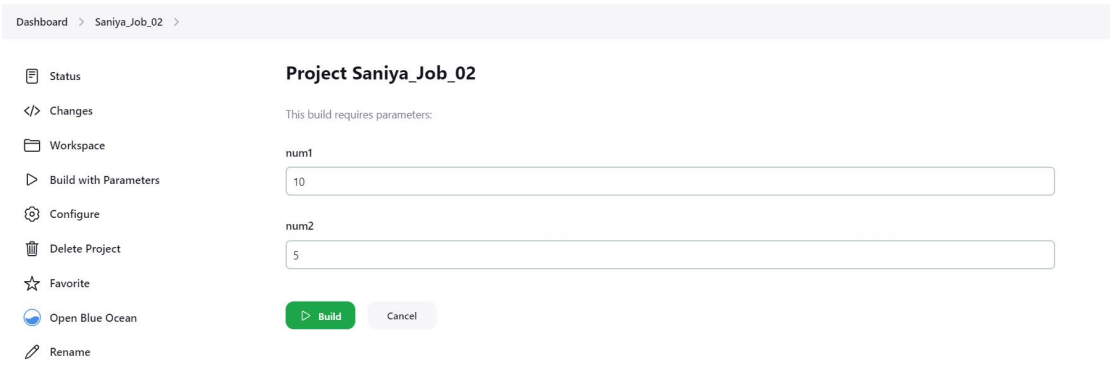
5

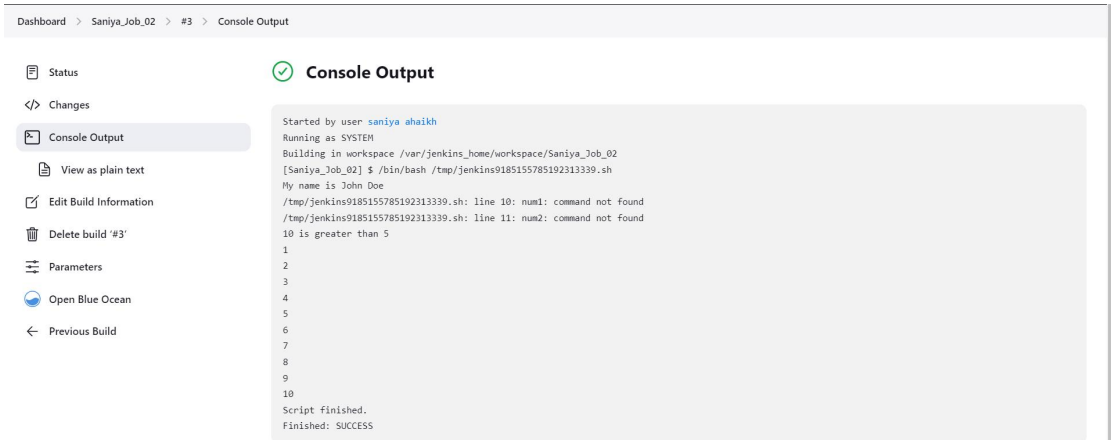
Description

Plain text Preview

Trim the string

Add Parameter





5. Create a Jenkins job named YOURNAME_Job_03 that runs a shell script on a local server using Jenkins parameters.

The script should take in three parameters, liKE NAME, LAST_NAME, SHOW.

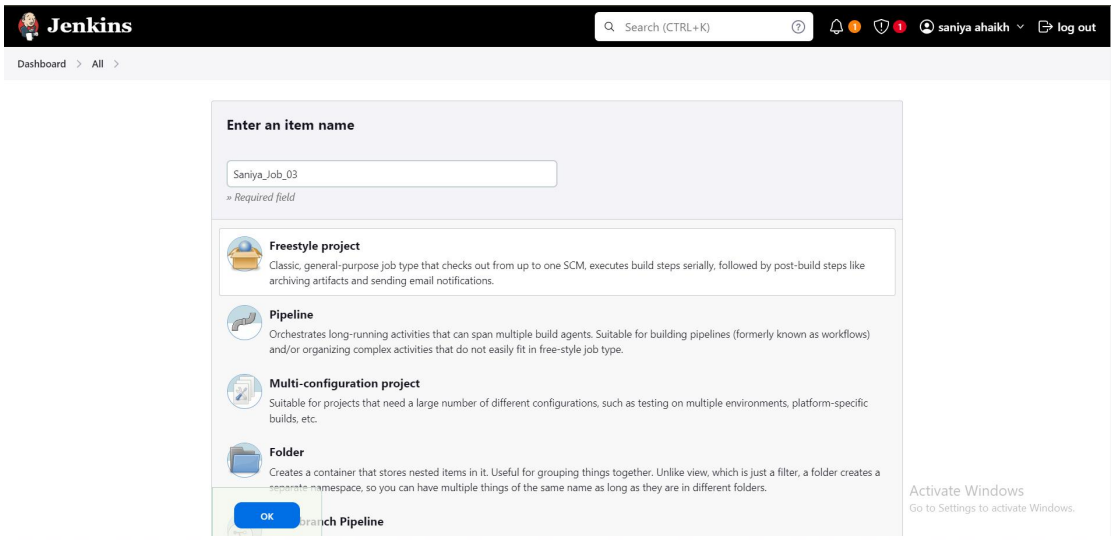
Print the NAME and LAST_NAME if value of SHOW is true.

```
#!/bin/bash
# Define a variable and except the value from the user and store the values in variables
NAME=$1
LAST_NAME=$2
SHOW=$3
# Use an if statement to check if the value SHOW is TRUE.
if [[ $SHOW == "true" ]]
then
        echo " $NAME $LAST_NAME"
else
        echo " Not allowed to show the Names "
fi

# Print a message indicating that the script is finished
echo "Script finished."
```

SOLUTION:-

```
root@DESKTOP-VIDGD8F:JENKINS# vim saniya.sh
root@DESKTOP-VIDGD8F:JENKINS# cat saniya.sh
#!/bin/bash
# Define a variable and except the value from the user and store the values in variables
        NAME=$1
        LAST_NAME=$2
        SHOW=$3
# Use an if statement to check if the value SHOW is TRUE.
        if [[ $SHOW == "true" ]]
        then
                echo "$NAME $LAST_NAME"
        else
                echo "Not allowed to show the Names"
        fi

# Print a message indicating that the script is finished
        echo "Script finished."
```

```
root@DESKTOP-VIDGD8F:JENKINS# chmod +x saniya.sh
root@DESKTOP-VIDGD8F:JENKINS# ./saniya.sh saniya shaikh true
saniya shaikh
Script finished.
root@DESKTOP-VIDGD8F:JENKINS#
```



String Parameter

Name

LAST_NAME

Default Value

Shaikh

Description

Plain text Preview

Trim the string

Choice Parameter

Name

SHOW

Choices

true
false

Description

Plain text Preview

Save Apply