

CI/CD Assignment

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Creating instance in AWS

The screenshot displays the AWS Management Console interface. The left-hand navigation pane lists various AWS services, with 'EC2 Dashboard' selected. The main content area shows a table of EC2 instances. One instance, 'jenkinsfirstproject', is listed with the following details:

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs	Key Name	Monitoring
jenkinsfirstproject	i-0bc88b550cdf0d350	t2.micro	us-east-2a	running	2/2 checks ...	None	ec2-3-140-196-135.us-east-2.compute.amazonaws.com	3.140.196.135	-	demo-pair	disabled

Below the table, the 'Description' tab for the selected instance is visible, showing the following configuration details:

Property	Value
Instance ID	i-0bc88b550cdf0d350
Instance state	running
Instance type	t2.micro
Finding	Opt-in to AWS Compute Optimizer for recommendations. Learn more
Private DNS	ip-172-31-11-76.us-east-2.compute.internal
Private IPs	172.31.11.76
Secondary private IPs	-
Public DNS (IPv4)	ec2-3-140-196-135.us-east-2.compute.amazonaws.com
IPv4 Public IP	3.140.196.135
IPv6 IPs	-
Elastic IPs	-
Availability zone	us-east-2a
Security groups	launch-wizard-1. View inbound rules . View outbound rules
Scheduled events	No scheduled events

The bottom of the console shows the footer with copyright information and links to Privacy Policy, Terms of Use, and Cookie preferences.

Setting inbound rules in AWS

Activities Google Chrome Aug 24 14:08

Docker Hub EC2 Management Console adesh8299/node-hello: S x +

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#ModifyInboundSecurityGroupRules:securityGroupId=sg-01bbee9ddd051a239

Apps Gmail YouTube Maps classroom calendar keka

aws Services Search for services, features, marketplace products, and docs [Alt+S]

adesh_8299 Ohio Support

EC2 > Security Groups > sg-01bbee9ddd051a239 - launch-wizard-1 > Edit inbound rules

Edit inbound rules [Info](#)

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules [Info](#)

Security group rule ID	Type Info	Protocol Info	Port range Info	Source Info	Description - optional Info
sg-054e6f42467a9add7	Custom TCP	TCP	8080	Custom	Q 0.0.0.0/0 X
sg-0a0c44fd52482476d	Custom TCP	TCP	3000	Custom	Q 0.0.0.0/0 X
sg-04a198b030d5c2c0a	SSH	TCP	22	Custom	Q 0.0.0.0/0 X
sg-096ab69c30f99574c	Custom TCP	TCP	3001	Custom	Q 0.0.0.0/0 X
sg-09d0877960b996921	Custom TCP	TCP	8080	Custom	Q 0.0.0.0/0 X

[Add rule](#)

[Cancel](#) [Preview changes](#) [Save rules](#)

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Editing Security Inbound Rules

Activities Google Chrome Aug 24 14:14

Docker Hub Instances | EC2 Management adesh8299/node-hello:50 x +

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#Instances:sort=instanceld

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New EC2 Experience Learn more

Launch Instance Connect Actions

Filter by tags and attributes or search by keyword

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs	Key Name	Monitoring
jenkinsfirstpr...	i-0bc88b550cdf0d350	t2.micro	us-east-2a	running	2/2 checks ...	None	ec2-3-140-196-135.us-...	3.140.196.135	-	demo-pair	disabled

Instance: i-0bc88b550cdf0d350 (jenkinsfirstproject) Public DNS: ec2-3-140-196-135.us-east-2.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID	i-0bc88b550cdf0d350	Public DNS (IPv4)	ec2-3-140-196-135.us-east-2.compute.amazonaws.com
Instance state	running	IPv4 Public IP	3.140.196.135
Instance type	t2.micro	IPv6 IPs	-
Ending	Opt-in to AWS Compute Optimizer for recommendations. Learn more	Elastic IPs	-
Private DNS	ip-172-31-11-76.us-east-2.compute.internal	Availability zone	us-east-2a
Private IPs	172.31.11.76	Security groups	launch-wizard-1, view inbound rules, view outbound rules
Secondary private IPs	-	Scheduled events	No scheduled events
VPC ID	vpc-5c046407	AMI ID	ubuntu/images/hvm-ssd/ubuntu-bionic-18.04-amd64-server-20210415 (ami-0b9064170e32bde34)
Platform	Ubuntu	Subnet ID	subnet-3b981050
Platform details	Linux/UNIX	Network interfaces	eth0
Usage operation	RunInstances	IAM role	-
Source/dest. check	True	Key pair name	demo-pair
T2/T3 Unlimited	Disabled	Owner	937968910987
EBS-optimized	False	Launch time	August 20, 2021 at 2:26:23 PM UTC+5:30 (95 hours)
Root device type	ebs	Termination protection	False
Root device	/dev/sda1	Lifecycle	normal
Block devices	/dev/sda1	Monitoring	basic
Elastic Graphics ID	-	Alarm status	None
Elastic Inference accelerator ID	-	Kernel ID	-
Capacity Reservation	-	RAM disk ID	-
Capacity Reservation Settings	Open	Nitro Enclaves	Disabled
Outpost Am	-	Placement group	-

Feedback English (US)

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Running AWS and Jenkins through terminal

```
Activities Terminal ▾ Aug 24 14:05 • ubuntu@ip-172-31-11-76: ~

knoldus@knoldus-Vostro-3590:~/Downloads$ ssh -i "demo-pair.pem" ubuntu@ec2-3-140-190-135.us-east-2.compute.amazonaws.com
Welcome to Ubuntu 18.04.5 LTS (GNU/Linux 5.4.0-1055-aws x86_64)

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

System information as of Tue Aug 24 08:31:19 UTC 2021

System load:  0.0          Processes:      181
Usage of /:   51.2% of 7.69GB    Users logged in: 0
Memory usage: 29%          IP address for eth0: 172.31.11.76
Swap usage:   0%             IP address for docker0: 172.17.0.1

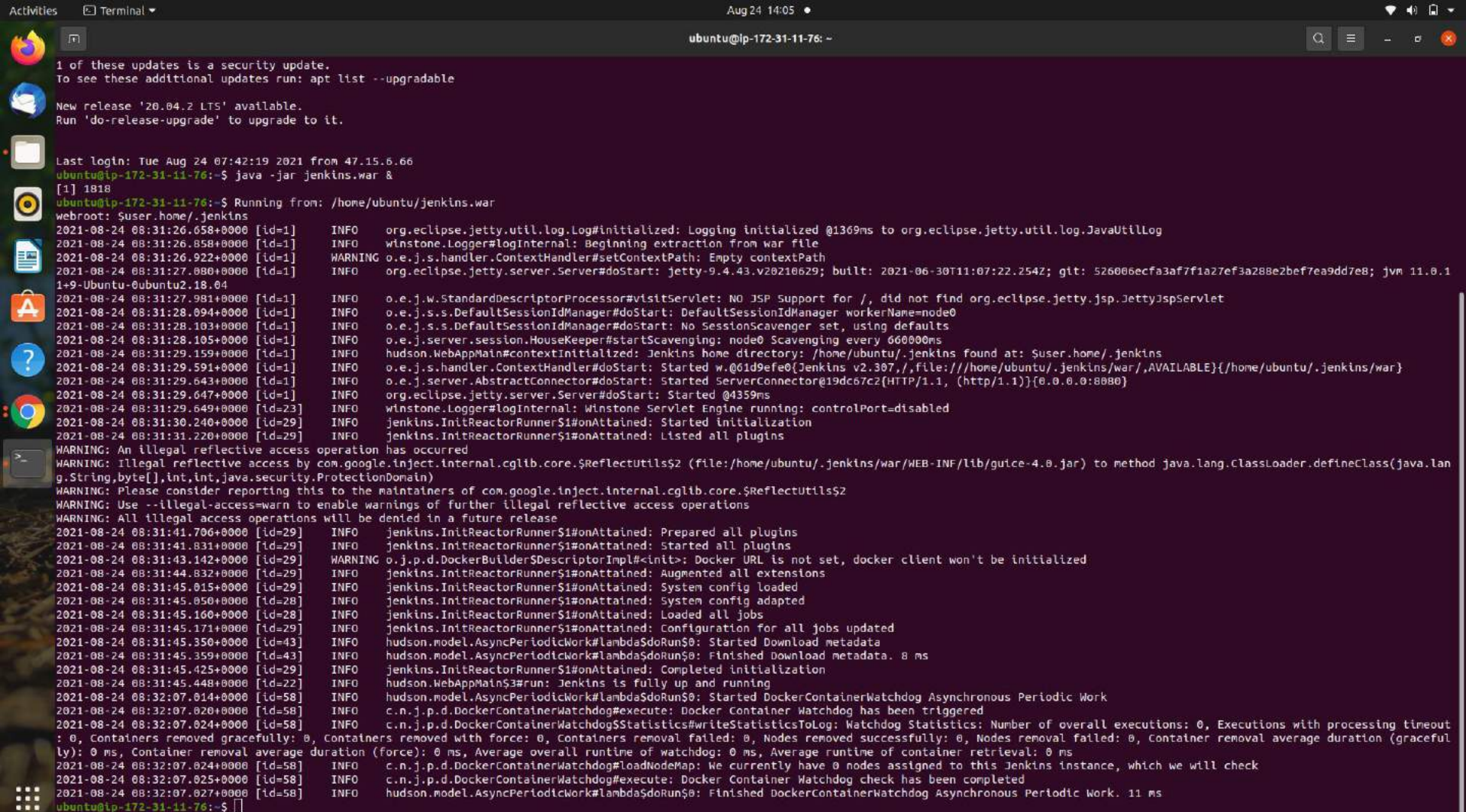
 * Super-optimized for small spaces - read how we shrank the memory
   footprint of MicroK8s to make it the smallest full K8s around.
   https://ubuntu.com/blog/microk8s-memory-optimisation

 * Canonical Livepatch is available for installation.
   - Reduce system reboots and improve kernel security. Activate at:
     https://ubuntu.com/livepatch

33 packages can be updated.
1 of these updates is a security update.
To see these additional updates run: apt list --upgradable

New release '20.04.2 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Tue Aug 24 07:42:19 2021 from 47.15.6.66
ubuntu@ip-172-31-11-76:~$ java -jar jenkins.war &
[1] 1818
ubuntu@ip-172-31-11-76:~$ Running from: /home/ubuntu/jenkins.war
webroot: $user.home/.jenkins
2021-08-24 08:31:26.058+0000 [id=1] INFO org.eclipse.jetty.util.log.Log#initialized: Logging initialized @1309ms to org.eclipse.jetty.util.log.JavaUtilLog
2021-08-24 08:31:26.858+0000 [id=1] INFO winstone.Logger#logInternal: Beginning extraction from war file
2021-08-24 08:31:26.922+0000 [id=1] WARNING o.e.j.s.handler.ContextHandler#setContextPath: Empty contextPath
2021-08-24 08:31:27.080+0000 [id=1] INFO org.eclipse.jetty.server.Server#doStart: jetty-9.4.43.v20210629; built: 2021-06-30T11:07:22.254Z; git: 526006ecfa3of7f1a27ef3a288e2bef7ea9dd7e8; jvm 11.0.1
1+9-Ubuntu-0ubuntu2.18.04
2021-08-24 08:31:27.981+0000 [id=1] INFO o.e.j.w.StandardDescriptorProcessor#visitServlet: NO JSP Support for /, did not find org.eclipse.jetty.jsp.JettyJspServlet
2021-08-24 08:31:28.094+0000 [id=1] INFO o.e.j.s.s.DefaultSessionIdManager#doStart: DefaultSessionIdManager workerName=node0
2021-08-24 08:31:28.103+0000 [id=1] INFO o.e.j.s.s.DefaultSessionIdManager#doStart: No SessionScavenger set, using defaults
2021-08-24 08:31:28.105+0000 [id=1] INFO o.e.j.server.session.HouseKeeper#startScavenging: node0 Scavenging every 60000ms
2021-08-24 08:31:29.159+0000 [id=1] INFO hudson.WebAppMain#contextInitialized: Jenkins home directory: /home/ubuntu/.jenkins found at: $user.home/.jenkins
2021-08-24 08:31:29.591+0000 [id=1] INFO o.e.j.s.handler.ContextHandler#doStart: Started w.@61d9efe0{Jenkins v2.307.1,file:///home/ubuntu/.jenkins/war/AVAILABLE}{/home/ubuntu/.jenkins/war}
2021-08-24 08:31:29.643+0000 [id=1] INFO o.e.j.server.AbstractConnector#doStart: Started ServerConnector@19dc67c2{HTTP/1.1, (http/1.1)}{0.0.0.0:8080}
2021-08-24 08:31:29.647+0000 [id=1] INFO org.eclipse.jetty.server.Server#doStart: Started @4359ms
2021-08-24 08:31:29.649+0000 [id=23] INFO winstone.Logger#logInternal: Winstone Servlet Engine running: controlPort=disabled
2021-08-24 08:31:30.240+0000 [id=29] INFO jenkins.InitReactorRunner$1#onAttained: Started initialization
2021-08-24 08:31:31.220+0000 [id=29] INFO jenkins.InitReactorRunner$1#onAttained: Listed all plugins
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$2 (file:/home/ubuntu/.jenkins/war/WEB-INF/lib/guice-4.0.jar) to method java.lang.ClassLoader.defineClass(java.lan
g.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$2
```

Pipeline general configuration

The screenshot shows the Jenkins web interface in a Google Chrome browser. The address bar indicates the URL is `3.140.196.135:8080/job/dockerassignment/configure`. The Jenkins logo and name are visible in the top left of the page header. A search bar and user information (adesh kumar shukla) are in the top right. The main content area is titled 'dockerassignment' and shows the 'General' tab selected. The 'Description' field contains the text 'this is my docker assignment'. Below this, there are several checkboxes: 'Commit agent's Docker container', 'Define a Docker template', 'Discard old builds', 'GitHub project' (checked), 'Project url' (with value `https://github.com/adesh8299/node-hello/`), 'This build requires lockable resources', 'This project is parameterised', 'Throttle builds', 'Disable this project', and 'Execute concurrent builds if necessary'. There are two 'Advanced...' buttons on the right side of the configuration area. The 'Source Code Management' section shows 'Git' selected under 'None' and 'Git'. At the bottom, there are 'Save' and 'Apply' buttons. The browser's taskbar on the left shows various application icons, and the system tray on the right shows the date and time as 'Aug 24 14:03'.

Activities Google Chrome Aug 24 14:03

dockerassignment Config x +

Not secure | 3.140.196.135:8080/job/dockerassignment/configure

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Jenkins

search

adesh kumar shukla log out

Dashboard dockerassignment

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

Description

this is my docker assignment

[Plain text] Preview

☐ Commit agent's Docker container

☐ Define a Docker template

☐ Discard old builds

☒ GitHub project

Project url

`https://github.com/adesh8299/node-hello/`

☐ This build requires lockable resources

☐ This project is parameterised

☐ Throttle builds

☐ Disable this project

☐ Execute concurrent builds if necessary

Advanced...

Advanced...

Source Code Management

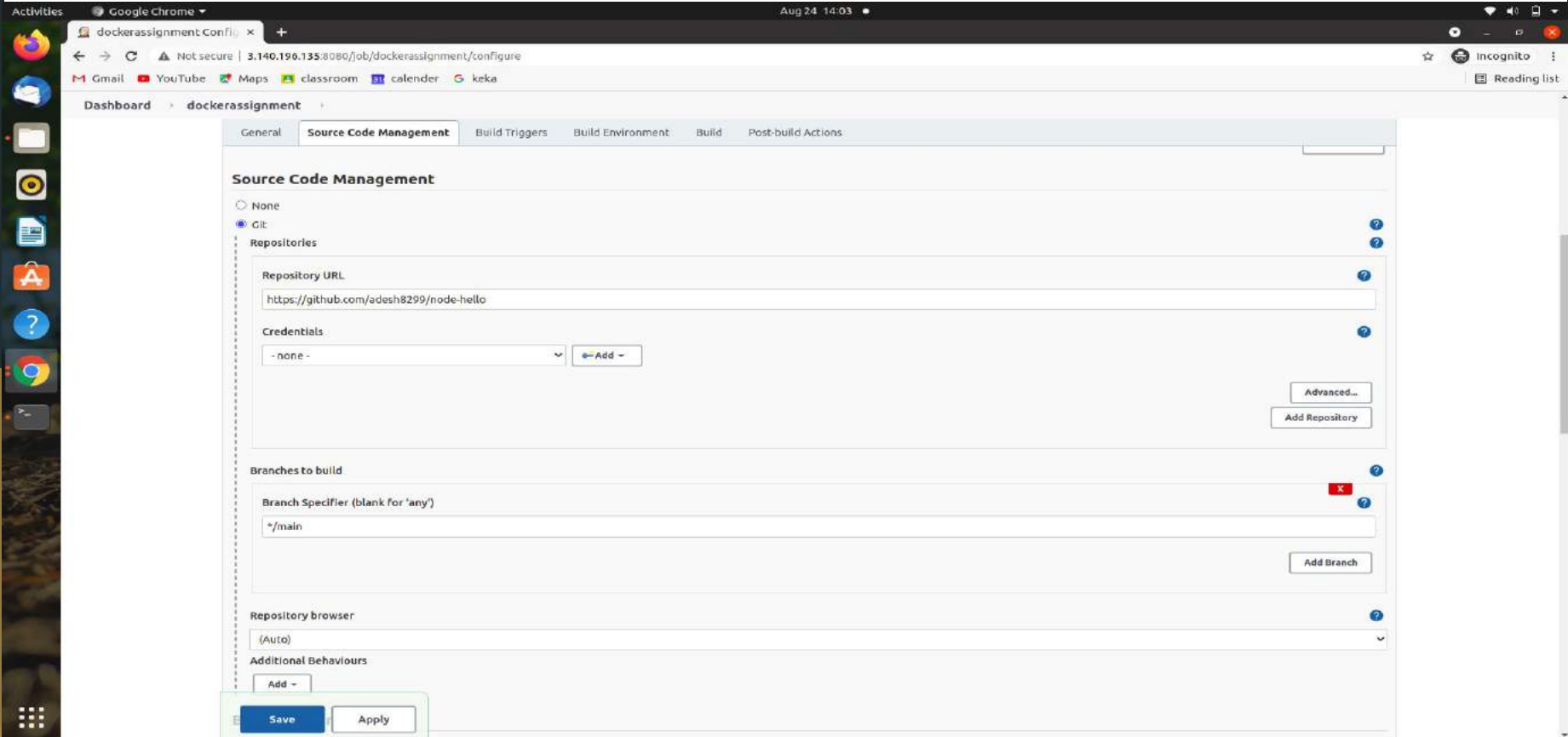
None

☒ Git

Repositories

Save Apply

Jenkins Source Code Management Settings

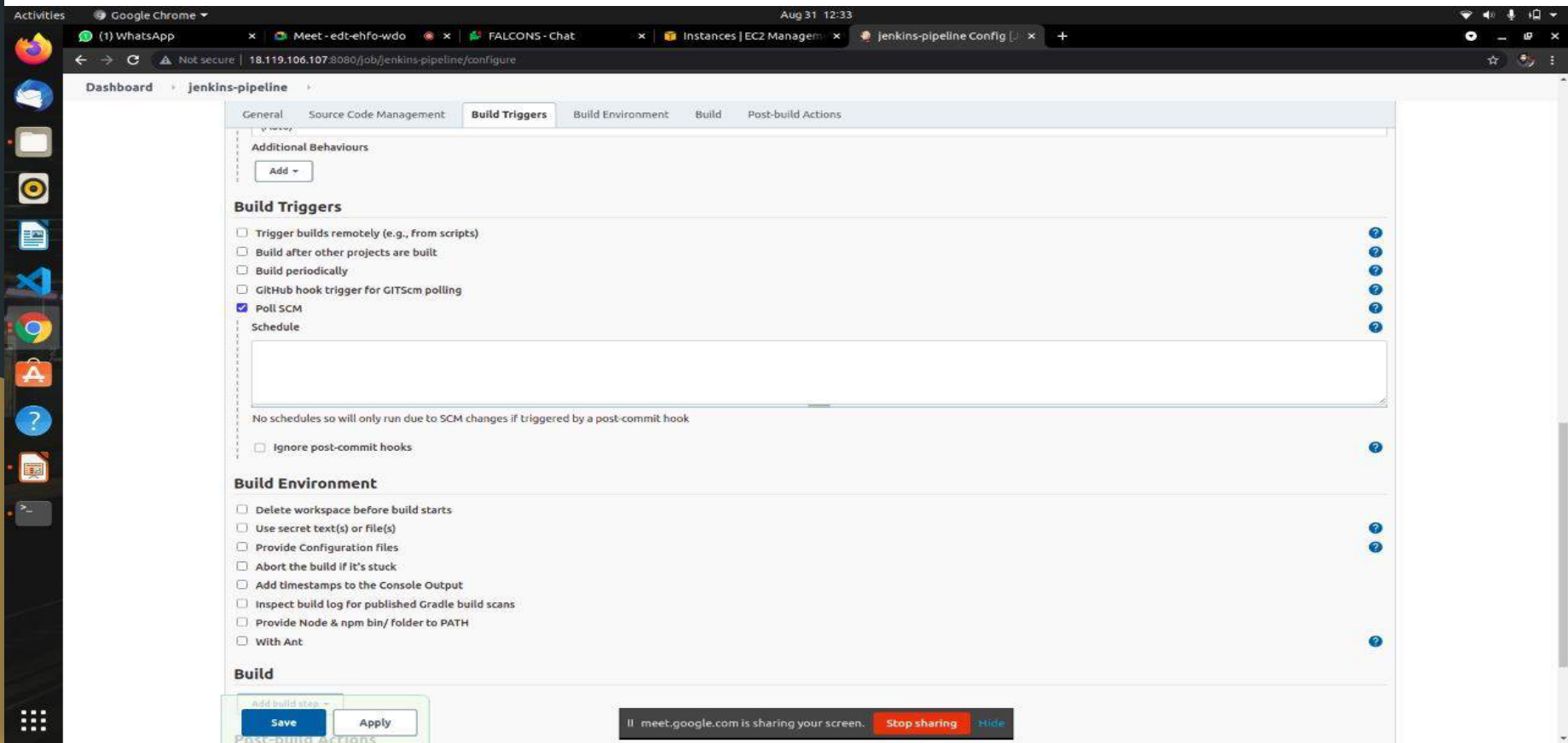


The screenshot shows the Jenkins web interface in a Google Chrome browser window. The address bar displays the URL `3.140.196.135:8080/job/dockerassignment/configure`. The page title is "dockerassignment Configure". The navigation bar includes "Dashboard" and "dockerassignment". The "Source Code Management" tab is selected, showing the following configuration:

- Source Code Management:** ☐ None, ☒ Git
- Repositories:**
 - Repository URL: `https://github.com/adesh8299/node-hello`
 - Credentials: `- none -` (with an "Add" button)
 - Buttons: "Advanced...", "Add Repository"
- Branches to build:**
 - Branch Specifier (blank for 'any'): `*/main`
 - Buttons: "Add Branch"
- Repository browser:** `(Auto)`
- Additional Behaviours:** (with an "Add" button)
- Buttons:** "Save", "Apply"

The interface includes various help icons (question marks) and a red "X" icon next to the "Branches to build" section.

Jenkins Build Triggers Config



The screenshot shows the Jenkins web interface in Google Chrome. The browser's address bar displays the URL `18.119.106.107:8080/job/jenkins-pipeline/configure`. The Jenkins dashboard is visible, with the 'jenkins-pipeline' job selected. The 'Build Triggers' tab is active, showing various configuration options.

Build Triggers

- ☐ Trigger builds remotely (e.g., from scripts)
- ☐ Build after other projects are built
- ☐ Build periodically
- ☐ GitHub hook trigger for GITScm polling
- ☒ Poll SCM

Schedule

No schedules so will only run due to SCM changes if triggered by a post-commit hook

☐ Ignore post-commit hooks

Build Environment

- ☐ Delete workspace before build starts
- ☐ Use secret text(s) or file(s)
- ☐ Provide Configuration files
- ☐ Abort the build if it's stuck
- ☐ Add timestamps to the Console Output
- ☐ Inspect build log for published Gradle build scans
- ☐ Provide Node & npm bin/ folder to PATH
- ☐ With Ant

Build

At the bottom of the configuration page, there are buttons for 'Save' and 'Apply'. A notification bar at the very bottom indicates that the screen is being shared via Google Meet.

Jenkins Build Configuration

Activities Google Chrome Aug 24 14:03

dockerassignment Config x +

Not secure | 3.140.196.135:8080/job/dockerassignment/configure

Gmail YouTube Maps classroom calendar keka

Incognito

Dashboard > dockerassignment >

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

Build

Docker Build and Publish

Repository Name [?](#)

adesh8299/dockerassignment

Tag

Docker Host URI [?](#)

Server credentials

- none - [Add](#)

Docker registry URL [?](#)

Registry credentials

adesh8299/***** (this is my first docker assignmnet) [Add](#)

[Advanced...](#)

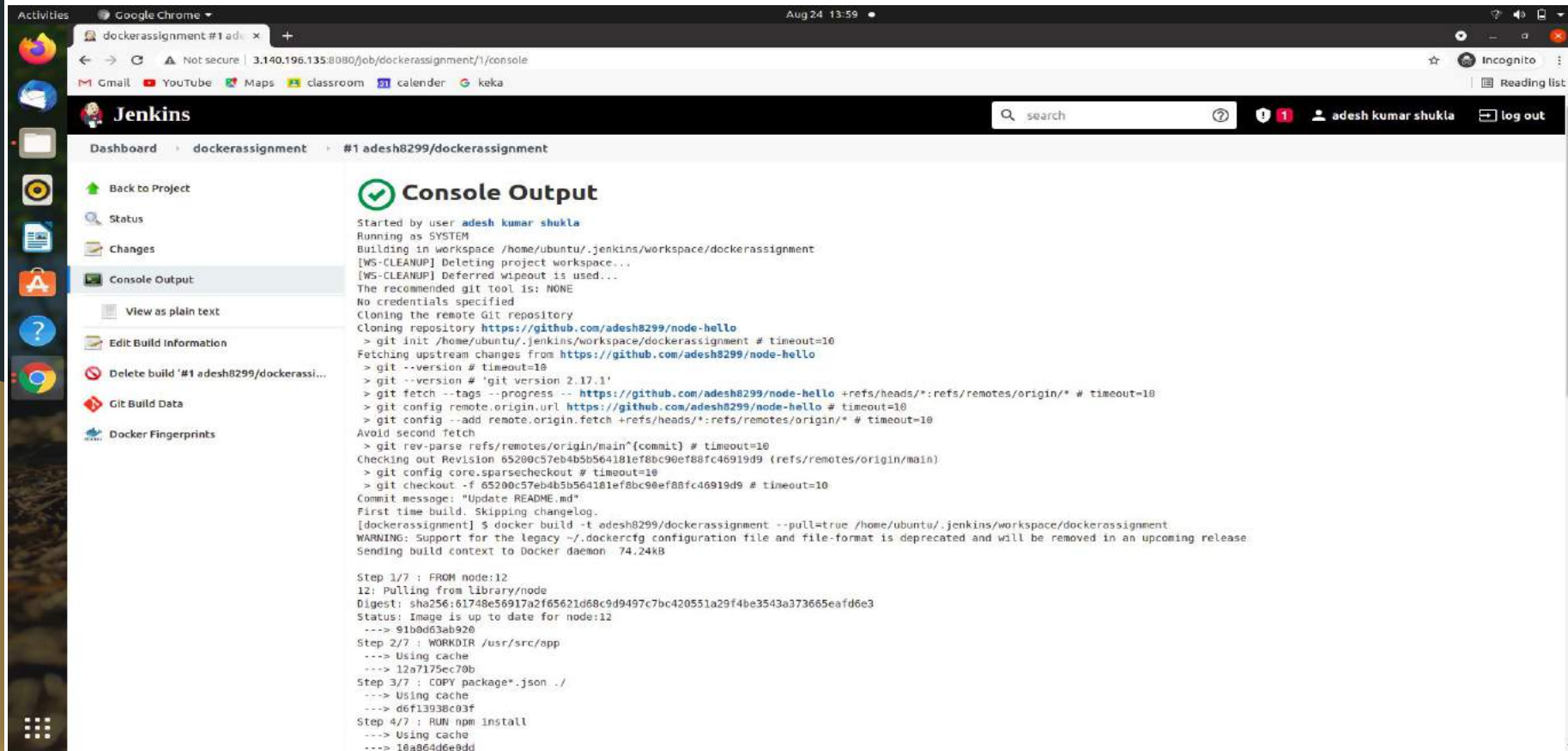
[Add build step](#)

Post-build Actions

[Add post-build action](#)

[Save](#) [Apply](#)

Build Console Output in Jenkins



The screenshot shows a web browser window displaying the Jenkins console output for a build named 'dockerassignment #1 adesh8299/dockerassignment'. The page has a dark theme. On the left is a sidebar with navigation links: 'Dashboard', 'Back to Project', 'Status', 'Changes', 'Console Output' (selected), 'View as plain text', 'Edit Build Information', 'Delete build', 'Git Build Data', and 'Docker Fingerprints'. The main content area is titled 'Console Output' with a green checkmark icon. It displays the following text:

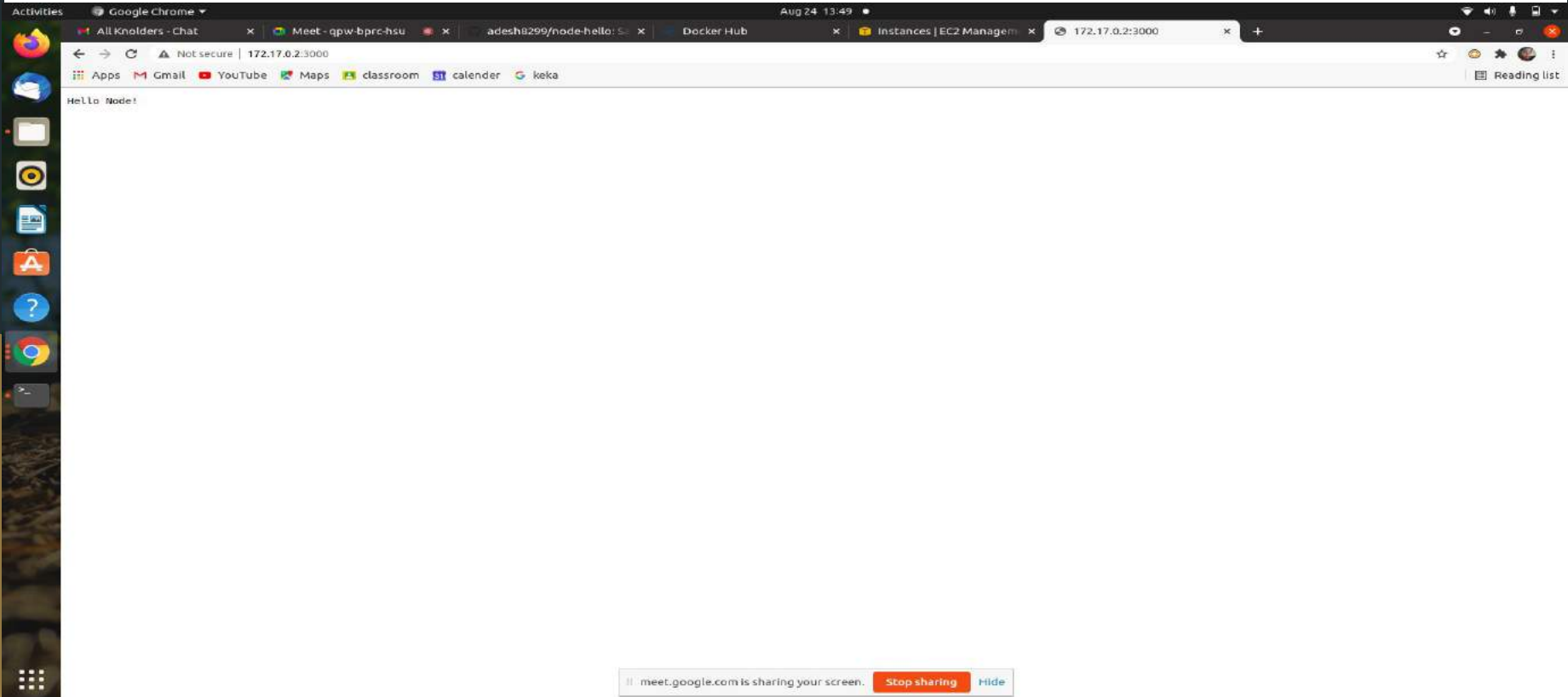
```
Started by user adesh kumar shukla
Running as SYSTEM
Building in workspace /home/ubuntu/.jenkins/workspace/dockerassignment
[WS-CLEANUP] Deleting project workspace...
[WS-CLEANUP] Deferred wipeout is used...
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/adesh8299/node-hello
> git init /home/ubuntu/.jenkins/workspace/dockerassignment # timeout=10
Fetching upstream changes from https://github.com/adesh8299/node-hello
> git --version # timeout=10
> git --version # 'git version 2.17.1'
> git fetch --tags --progress -- https://github.com/adesh8299/node-hello +refs/heads/*:refs/remotes/origin/* # timeout=10
> git config remote.origin.url https://github.com/adesh8299/node-hello # timeout=10
> git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 65200c57eb4b5b564181ef8bc90ef88fc4691d9 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 65200c57eb4b5b564181ef8bc90ef88fc4691d9 # timeout=10
Commit message: "Update README.md"
First time build. Skipping changelog.
[dockerassignment] $ docker build -t adesh8299/dockerassignment --pull=true /home/ubuntu/.jenkins/workspace/dockerassignment
WARNING: Support for the legacy ~/.dockercfg configuration file and file-format is deprecated and will be removed in an upcoming release
Sending build context to Docker daemon  74.24kB

Step 1/7 : FROM node:12
12: Pulling from library/node
Digest: sha256:61748e56917a2f65621d68c9d9497c7bc420551a29f4be3543a373665eaf6e3
Status: Image is up to date for node:12
----> 91b8d63ab920
Step 2/7 : WORKDIR /usr/src/app
----> Using cache
----> 12a7175ec70b
Step 3/7 : COPY package*.json ./
----> Using cache
----> d6f13938c03f
Step 4/7 : RUN npm install
----> Using cache
----> 16a864d6e8dd
```

Dashboard » dockerassignment » #1 adesh8299/dockerassignment

```
Successfully tagged adesh8299/dockerassignment:latest
[dockerassignment] $ docker inspect 885fa936c75b
WARNING: Support for the legacy ~/.dockercfg configuration file and file-format is deprecated and will be removed in an upcoming release
[dockerassignment] $ docker push adesh8299/dockerassignment
WARNING: Support for the legacy ~/.dockercfg configuration file and file-format is deprecated and will be removed in an upcoming release
Using default tag: latest
The push refers to repository [docker.io/adesh8299/dockerassignment]
87b6a76e23f2: Preparing
d602988f7ba8: Preparing
58ad26152f66: Preparing
d6289136belf: Preparing
015f31f2f9e4: Preparing
26fd723d2288: Preparing
b9ed41bad3b9: Preparing
5cb0af444f72: Preparing
dea274feffa: Preparing
953b9481bddb: Preparing
afce7e9043bf: Preparing
deeb988a5ea8: Preparing
1bf665ea9709: Preparing
26fd723d2288: Waiting
b9ed41bad3b9: Waiting
5cb0af444f72: Waiting
dea274feffa: Waiting
953b9481bddb: Waiting
afce7e9043bf: Waiting
deeb988a5ea8: Waiting
1bf665ea9709: Waiting
015f31f2f9e4: Mounted from library/node
26fd723d2288: Mounted from library/node
b9ed41bad3b9: Mounted from library/node
d602988f7ba8: Pushed
87b6a76e23f2: Pushed
5cb0af444f72: Mounted from library/node
58ad26152f66: Pushed
953b9481bddb: Mounted from library/node
dea274feffa: Mounted from library/node
d6289136belf: Pushed
afce7e9043bf: Mounted from library/node
deeb988a5ea8: Mounted from library/node
1bf665ea9709: Mounted from library/node
latest: digest: sha256:89750309845dcff4620ecd116cc5fca0eeaa551aee9b9af6956148eb7d47a6c size: 3045
Finished: SUCCESS
```


Performing Validations by hitting end point with<VM_IP>:3000



Performing Validations by hitting end point with<VM_IP>:3001

