

## Sending Email Notifications in Jenkins

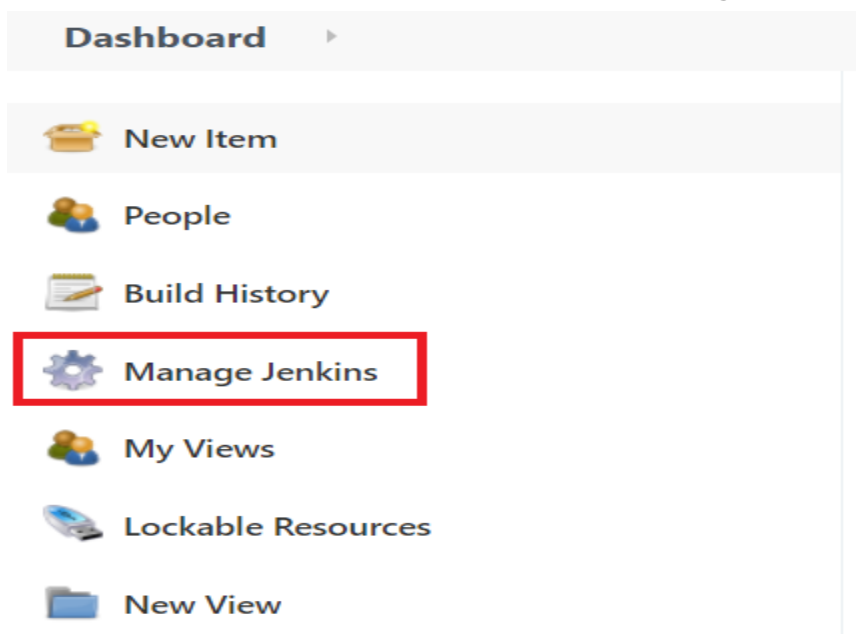
This document covers the instructions on how to send an email to the developers in Jenkins in the event that a build fails, resulting in an unstable state. This document can be divided into two parts:

1. Setting up an email in Jenkins
2. Creating a new job and testing the email setup

### Setting up an email in Jenkins

First, login to your AWS account and start your Ubuntu instance, and then start Jenkins on port 8080. To set up an email in Jenkins, you should perform the following steps .

1. In the Jenkins Dashboard, click on the **Manage Jenkins** option.



2. Then click on **Manage Plugins**.

## System Configuration



### Configure System

Configure global settings and paths.



### Global Tool Configuration

Configure tools, their locations and automatic installers.



### Manage Plugins

Add, remove, disable or enable plugins that can extend the functionality of Jenkins.

▲ There are updates available



### Manage Nodes and Clouds

Add, remove, control and monitor the various nodes that Jenkins runs jobs on.

- Go to the **Installed** tab section and check if the **Mailer plugin** and **Email Extension Plugin** are installed or not. In this case, both of the plugins are installed.

Search: email ex

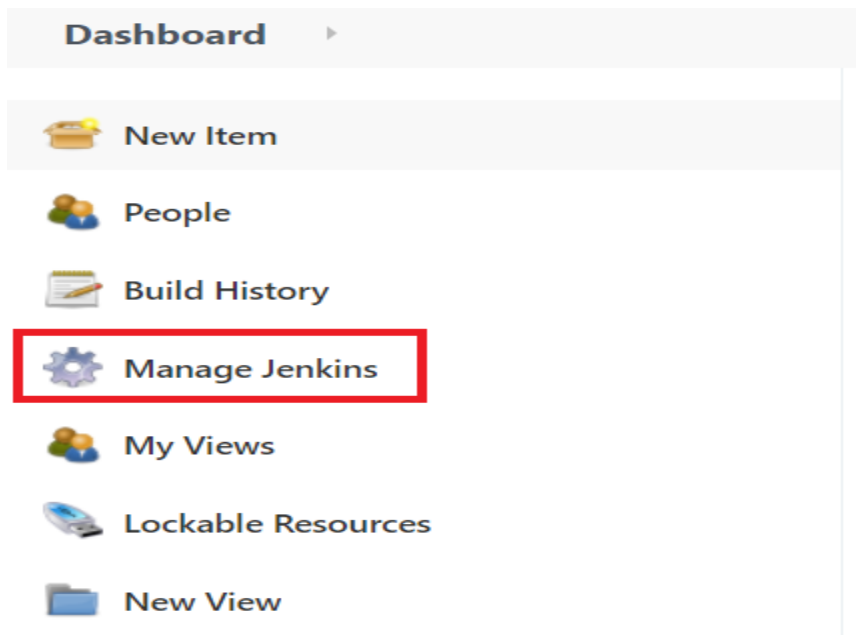
Updates Available **Installed** Advanced

Enabled	Name	Version	Previously installed version	Uninstall
<input type="checkbox"/>	<a href="#">Email Extension Plugin</a> This plugin is a replacement for Jenkins's email publisher. It allows to configure every aspect of email notifications: when an email is sent, who should receive it and what the email says	2.82		Uninstall
<input checked="" type="checkbox"/>	<a href="#">Jackson 2 API Plugin</a> This plugin exposes the Jackson 2 JSON APIs to other Jenkins plugins.	2.12.1		Uninstall
<input checked="" type="checkbox"/>	<a href="#">JUnit Plugin</a> Allows JUnit-format test results to be published.	1.49		Uninstall
<input checked="" type="checkbox"/>	<a href="#">Mailer Plugin</a>			Uninstall

- If it is not installed, then go to the **Available** tab and install both the plugins.
- Now go to the **Jenkins Dashboard**.



6. Click on **Manage Jenkins**.



7. Then click on **Configure System** as shown in the image below.

## Manage Jenkins

### System Configuration



#### Configure System

Configure global settings and paths.



#### Global Tool Configuration

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#### Manage Plugins

Add, remove, disable or enable plugins that can extend the functionality of Jenkins.



#### Manage Nodes and Clouds

Add, remove, control and monitor the various nodes that Jenkins runs jobs on.

8. Scroll down and come to the **Jenkins Location**.
9. Here, enter the **System Admin e-mail Address** as shown in the image below.

#### Jenkins Location

Jenkins URL

http://52.90.191.169:8080/

System Admin e-mail address

Jenkins-Master <drbalat.raju@gmail.com>

10. Then scroll down to the **Extended Email Notification** section.
11. In the **SMTP Server** column enter **smtp.gmail.com**, and in the **SMTP Port** enter the port number **465**, as shown in the image below.

#### Extended E-mail Notification

SMTP server

smtp.gmail.com

SMTP Port

465

Advanced...

12. Next, scroll down to the **E-mail Notification** section.
13. Here, in the **SMTP Server** enter **smtp.gmail.com**.

E-mail Notification

SMTP server

smtp.gmail.com

Default user e-mail suffix

Advanced...

14. Then click on the **Advanced** option below.
15. Select the **Use SMTP Authentication** option.
16. Enter the username and password as shown in the image below.

☒ Use SMTP Authentication

User Name

drbalat.raju@gmail.com

Password

.....

17. Then select the **Use SSL** option.
18. In the **SMTP Port** column, enter **465** as port number.
19. In the **Charset** column, select **UTF-8**.

☒ Use SSL

☐ Use TLS

SMTP Port

465

Reply-To Address

Charset

UTF-8

20. Then select the **Test configuration by sending test email** option.
21. Enter the email ID of the **Test email recipient**.
22. Verify by clicking on the **Test Configuration** option.



Charset

UTF-8

☒ Test configuration by sending test e-mail

Test e-mail recipient

drbthangaraju@gmail.com

Test configuration

23. If your setup is correct, then you should get the message as **Email was successfully sent.**



☒ Test configuration by sending test e-mail

Test e-mail recipient

drbthangaraju@gmail.com

Email was successfully sent

Test configuration

24. Click on **Apply** and then **Save**.



Save

Apply

## Creating a new job and testing the email setup


So, let's see what are the various steps involved in testing an email setup.

1. First, create a new **Freestyle project** and click **OK**, as shown in the image below.


**Enter an item name**

EmailNotificatoin


» Required field



**Freestyle project**  
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.



**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.

**OK**

2. Scroll down and come to the **Build** section.
3. Click on **Add build step** and select the **Execute shell** option, as shown in the image below.

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

**Build Environment**

☐ Delete workspace before build starts

☐ Use secret text(s) or file(s)

☐ Abort the build if it's stuck

☐ Add timestamps to the Console Output

☐ Inspect build log for published Gradle build scans

☐ With Ant

**Build**

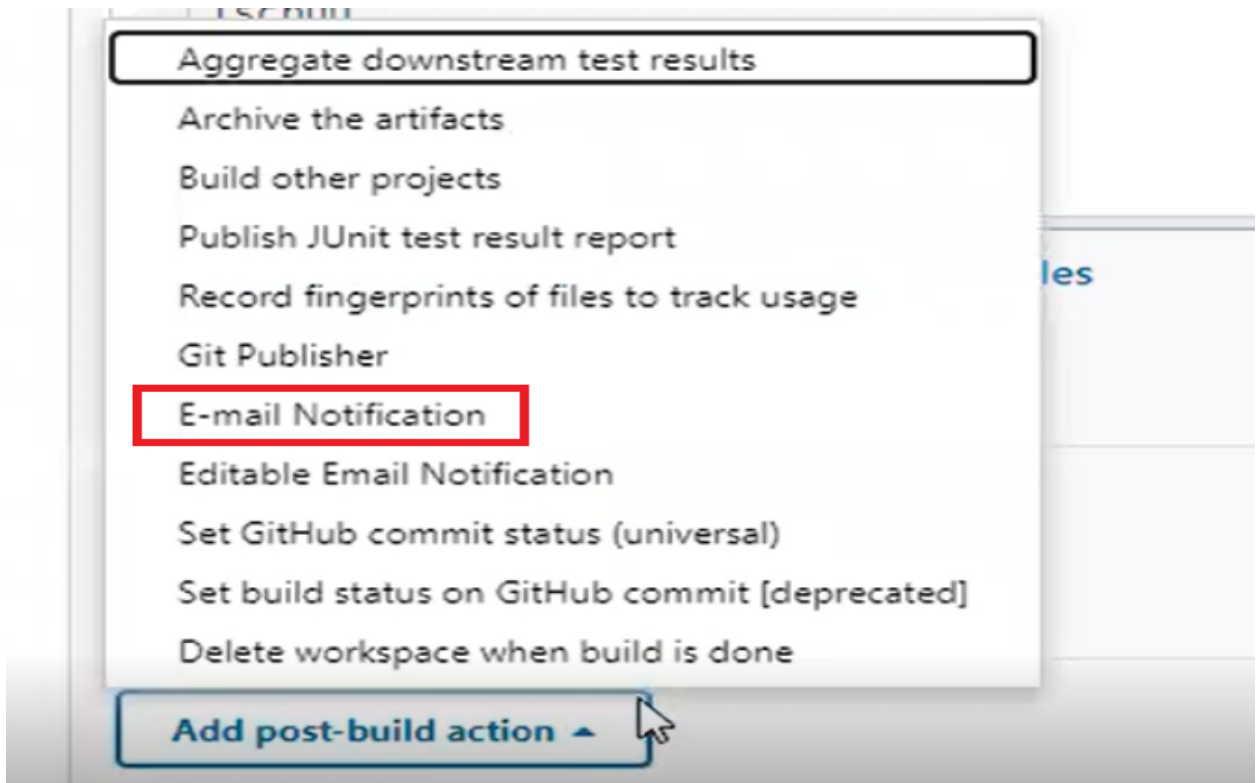
**Add build step** ▴

- Execute Windows batch command
- Execute shell**
- Invoke Ant
- Invoke Gradle script
- Invoke top-level Maven targets
- Run with timeout
- Set build status to "pending" on GitHub commit

4. Then write the shell script that you want to execute.
5. Next, scroll down and come to the **Post-build Actions** column.

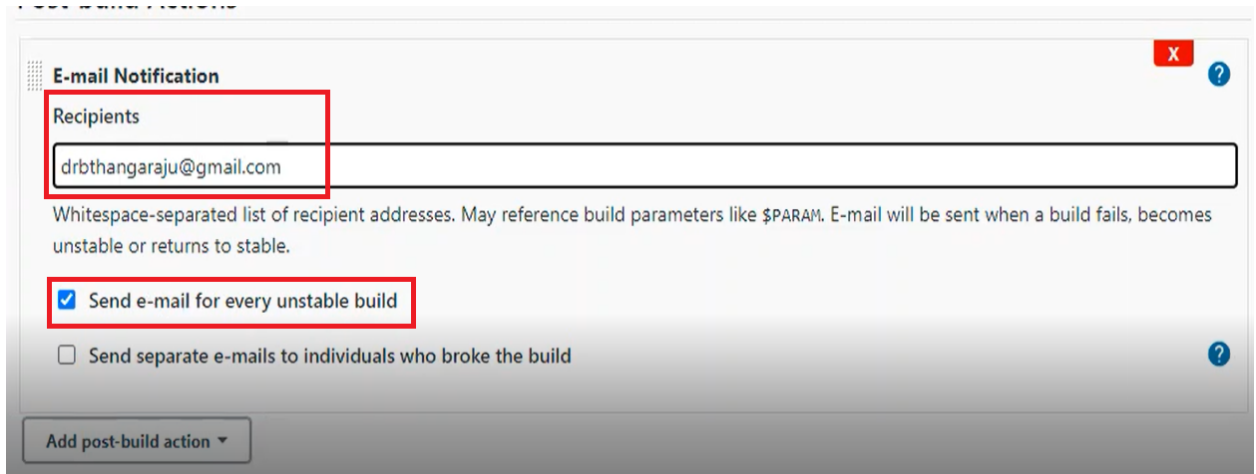


6. Click on **Add post-build action**.
7. Here, choose the **Email Notification** option.



8. Then enter the recipients email addresses in the **Recipients** column, as shown in the image below.
9. Select the **Send email for every unstable build** option.





**E-mail Notification**

Recipients

drbthangaraju@gmail.com

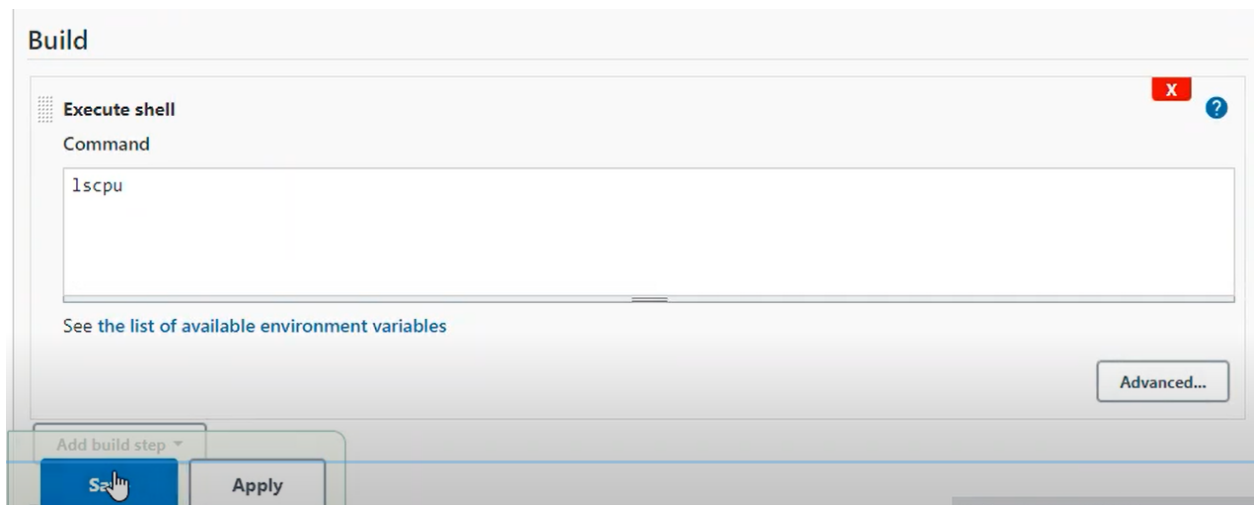
Whitespace-separated list of recipient addresses. May reference build parameters like \$PARAM. E-mail will be sent when a build fails, becomes unstable or returns to stable.

☒ Send e-mail for every unstable build

☐ Send separate e-mails to individuals who broke the build

Add post-build action ▾

10. Click on **Apply** and then **Save** the command.



**Build**

Execute shell

Command

lscpu

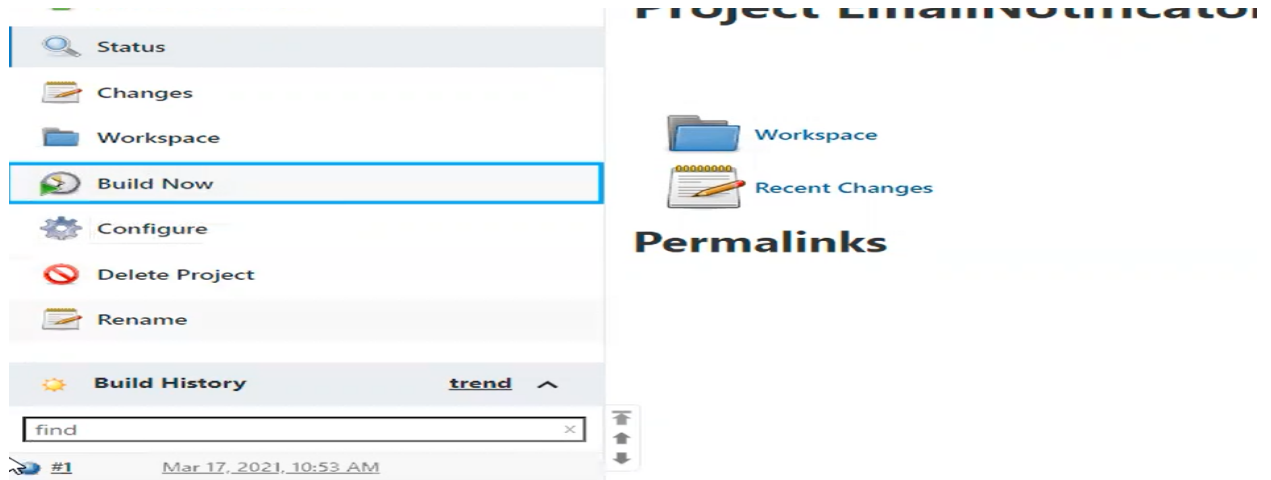
See the list of available environment variables

Advanced...

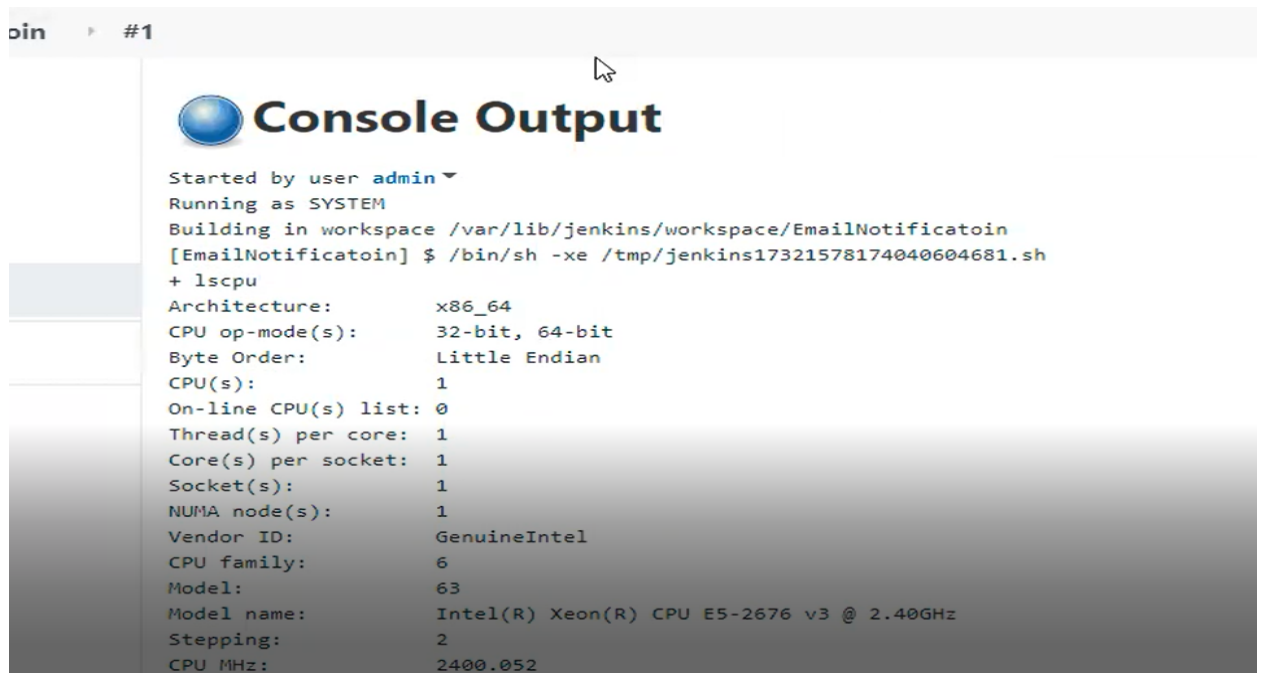
Add build step ▾

Save Apply

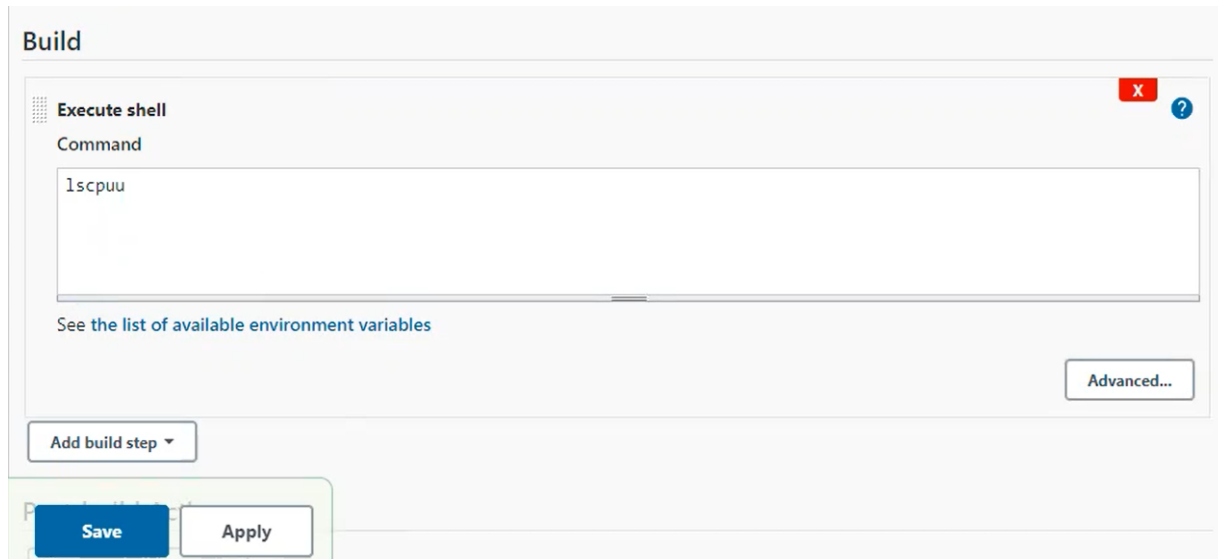
11. Then go to the dashboard and click on **Build Now**. Here, you can see that your project is being built successfully.



12. Click on the 'build number' in the **Build History** to view the **Console Output**.



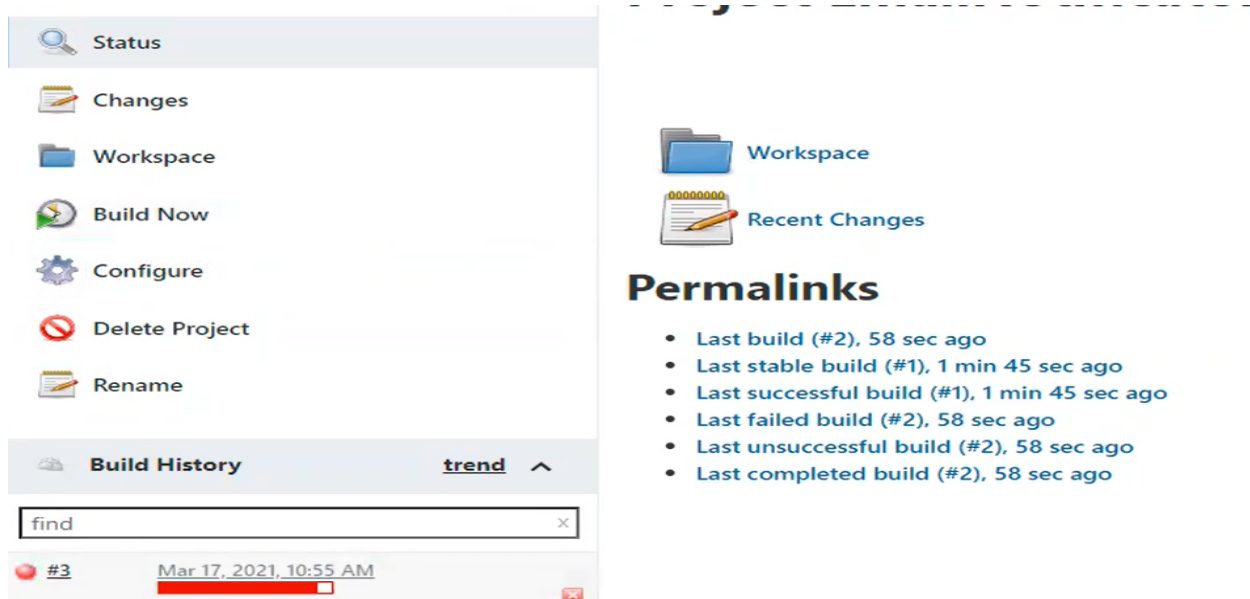
13. You will not receive any email as your project was run and completed successfully.
14. Then go back and click on the **Configure** option in the dashboard.
15. Scroll down to the **Build** section.
16. To test the email, type in some incorrect commands, as shown in the image below.



17. Then click on **Apply** and then **Save**.

18. Now, go back to the dashboard and click on **Build Now**.

19. You will see in the **Build History** that your build has failed, as shown in the image below.



20. Go to your Gmail account, and there you will find the email notification from **Jenkins Master**.

## Build failed in Jenkins: EmailNotificatoin #3

Inbox x

Jenkins-Master <drbalat.raju@gmail.com>

to me

See <http://52.90.191.169:8080/job/EmailNotificatoin/3/display/redirect>

Changes:

Started by user admin

Running as SYSTEM

Building in workspace <<http://52.90.191.169:8080/job/EmailNotificatoin/ws/>>

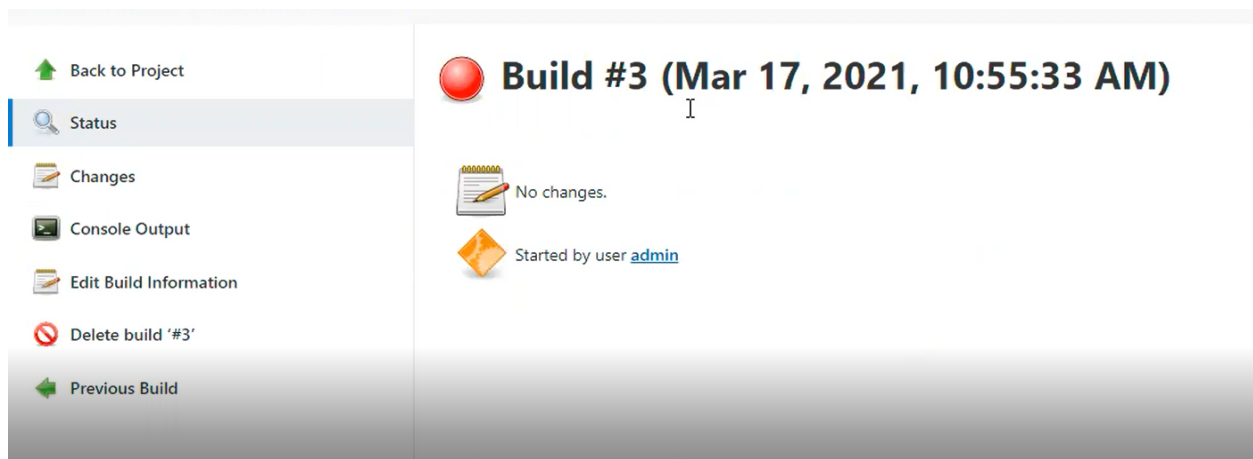
[EmailNotificatoin] \$ /bin/sh -xe /tmp/jenkins10765328410667615703.sh

+ lscpu

/tmp/jenkins10765328410667615703.sh: 2: /tmp/jenkins10765328410667615703.sh: lscpu: not found

Build step 'Execute shell' marked build as failure

21. To check the issue, click on the email **redirect link**, as highlighted in the image above, and you will be redirected to the console.



The image shows the Jenkins web interface for Build #3. On the left is a sidebar with navigation links: 'Back to Project', 'Status' (selected), 'Changes', 'Console Output', 'Edit Build Information', 'Delete build '#3'', and 'Previous Build'. The main area displays 'Build #3 (Mar 17, 2021, 10:55:33 AM)' with a red status icon. Below this, it says 'No changes.' and 'Started by user admin' with a yellow diamond icon.

22. To view the output, go to the dashboard and click on **Console Output**.

## Console Output

```
Started by user admin
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/EmailNotificatoin
[EmailNotificatoin] $ /bin/sh -xe /tmp/jenkins10765328410667615703.sh
+ lscpuu
/tmp/jenkins10765328410667615703.sh: 2: /tmp/jenkins10765328410667615703.sh: lscpuu: not found
Build step 'Execute shell' marked build as failure
Sending e-mails to: drbthangaraju@gmail.com
Finished: FAILURE
```