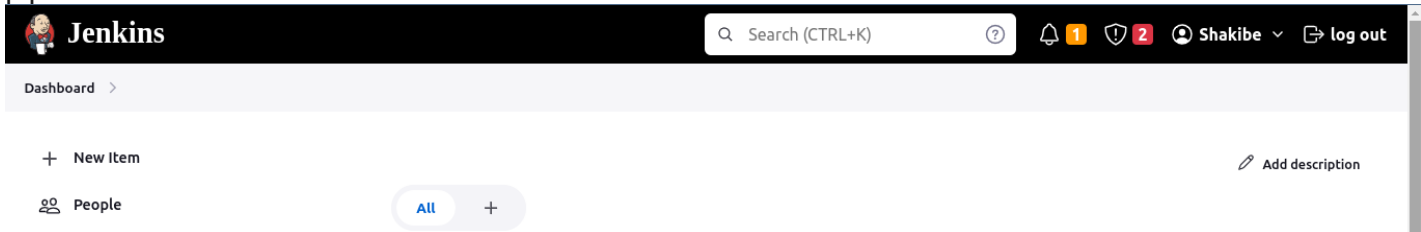# Jenkins Pipeline configuration for a bash script

Last updated by | shakibesaib | Aug 9, 2023 at 12:11 PM GMT+6

To execute a bash script from a repo, configuration of a Jenkins pipeline:

1. We need to create a new item from jenkins dashboard, name it and we have to select a type of our pipeline.

I am using Freestyle project.

2. Then we have to do some global configuration of Jenkins.
   Manage Jenkins>System Configuration>System

3. As i want to receive a email after my script is built and also want the csv file which is a output of my script, I need to install or check **Extendable email notification** plugin.

i used smtp.gmail.com as my email service provider is gmail, and for gmail smtp port is 465.
Then, i need to select advance and add there my email and password for smtp authentication and have to select SSL.

password isnt the exact email password that we use for email login. We have to create a app password from our email manage account cause gmail and other email service provider doesnt allow those app, which doesnt have signin with gmail/or any service provider, to login with actual email password.

4. In Email notification section, we have to do the same as last step.

E-mail Notification

SMTP server

```
smtp.gmail.com
```

Default user e-mail suffix ?

```

```

[Advanced ∨]   ✎ Edited

☐ Test configuration by sending test e-mail

[Advanced ∧]   ✎ Edited

☑ Use SMTP Authentication ?

User Name

```
shakibesaib@gmail.com
```

Password

```
🔒  Concealed                                    [ Change Password ]
```

☑ Use SSL ?

☐ Use TLS

SMTP Port ?

```
465
```

5. Before saving the configuration, we can test our email configuration by sending a demo email. We have to select test email configuration and have to provide a valid email address.

☑ Test configuration by sending test e-mail

Test e-mail recipient

```
shakibesaib@gmai.com
```

Email was successfully sent   [Test configuration]

Test email #1 ▶ Inbox ×   ✕ 🖨 ◲

shakibesaib@gmail.com   11:34 (1 minute ago) ☆ ↩ ⋮
to shakibesaib ▾

This is test email #1 sent from Jenkins

Now we gonna save it and will go back to dashboard & select our item from dashboard.

6. From the left side we gonna select configuration.

Here we can give a description of our project.

7. The we will check Source Code Management Section(SCM). We gonna select Git and add our repository and credential(if needed).

8. Then from Build Triggers section, we gonna select Poll SCM, and schedule with * * * * *
Here, * * * * * this mean every minute,every hour, every day, every month, every year. So, Jenkins will check repository every minute to check if any changed has made. If made, it will automatically pull the

changes and build it.

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 ?

  ```
  * * * * *
  ```

  ⚠ **Do you really mean "every minute" when you say "* * * * *"? Perhaps you meant "H * * * *" to poll once per hour**
  Would last have run at Wednesday, August 9, 2023 at 11:50:42 AM Bangladesh Standard Time; would next run at Wednesday, August 9, 2023 at 11:50:42 AM Bangladesh Standard Time.

- ☐ Ignore post-commit hooks ?

9. In Build Step, from add step, we gonna select the Execute shell and add commands to execute the script as like we do in our linux mint terminal. Here execute shell default directory is $Workspace which is a environment variable of jenkins and its value is `var/lib/jenkins/workspace`

Build Steps

≡ **Execute shell** ?   ✕

Command
See **the list of available environment variables**

```
#!/bin/bash

./work_items.sh
```

Advanced ⌄

Add build step ▾

10. In the post build section, we gonna add a step, Editable Email Notification as planned to receive a email after my script is built and also want the csv file which is a output of my script. Check out the configuration below-

Post-build Actions

≡   **Editable Email Notification**   ?   ✕

Allows the user to disable the publisher, while maintaining the settings

☐   **Disable Extended Email Publisher**   ?

Project From

[   ]

Project Recipient List   ?

Comma-separated list of email address that should receive notifications for this project.

```
shakibesaib@gmail.com,shayakh@fronturetech.com
```

```
$DEFAULT_REPLYTO
```

Content Type   ?

| Default Content Type   ⌄ |

Default Subject   ?

| $DEFAULT_SUBJECT |

Default Content   ?

```
$DEFAULT_CONTENT
```

Attachments ?

Can use wildcards like 'module/dist/**/*.zip'. See the **@includes of Ant fileset** for the exact format. The base directory is **the workspace**.

work_items.csv

Attach Build Log ?

Do Not Attach Build Log ⌄

Content Token Reference ?

Advanced Settings ⌄

Add post-build action ▾

Save   Apply

In the attachment part i gave the path to my csv file, here also the base directory is workspace. So just give the file name you want attach with the email. Save and Select build from the left side.

11. After build check the build status.

✅ **Console Output**

```
Started by user Shakibe
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/ShakibeHasan
The recommended git tool is: NONE
using credential 86fc3e93-a491-484f-81a4-424dfaab6238
 > git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/ShakibeHasan/.git # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://dev.azure.com/fronturetech/Fronture%20ERP/_git/bash%20hands-
on%20labs%20by%20shakibe%20hasan # timeout=10
Fetching upstream changes from https://dev.azure.com/fronturetech/Fronture%20ERP/_git/bash%20hands-
on%20labs%20by%20shakibe%20hasan
 > git --version # timeout=10
 > git --version # 'git version 2.34.1'
using GIT_ASKPASS to set credentials
 > git fetch --tags --force --progress -- https://dev.azure.com/fronturetech/Fronture%20ERP/_git/bash%20hands-
on%20labs%20by%20shakibe%20hasan +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision dc20752ab30683f36c414d9d9f8eaf06a2b3bf63 (refs/remotes/origin/main)
 > git config core.sparsecheckout # timeout=10
```

```
 > git checkout -f dc20752ab30683f36c414d9d9f8eaf06a2b3bf63 # timeout=10
Commit message: "Final Debug"
 > git rev-list --no-walk dc20752ab30683f36c414d9d9f8eaf06a2b3bf63 # timeout=10
No emails were triggered.
[ShakibeHasan] $ /bin/bash /tmp/jenkins11412314404547086787.sh
ID    Title         State
27       Get Overview of DevOps and Write a document for our internal use        Done     Shakibe Hasan
29       Learn Bash/Powershell and write document for our internal use    Done     Shakibe Hasan
30       Web server Setup (Apache, Nginx)        Review   Shakibe Hasan
31       Database Server Setup (Mysql)   Review   Shakibe Hasan
32       Database User Management         Review   Shakibe Hasan
33       Mysql Database Backup (Without incremental or differential backup because of license cost)      Review
Shakibe Hasan
34       GIT Server Setup (gitea)        Done     Shakibe Hasan
35       Git Server User Management       Done     Shakibe Hasan
36       Git Manage server all things    Done     Shakibe Hasan
37       Jenkins Server Setup    Done     Shakibe Hasan
38       Manage whole Jenkins server      Committed        Shakibe Hasan
39       All applications are deployed through pipeline Job. (Test & Prod Enivronment)   New      Shakibe Hasan
40       OS(Linux) user Management        New      Shakibe Hasan
41       Application Host (Laravel, Node, React, Vue)    Review   Shakibe Hasan
42       REST API        Done     Shakibe Hasan
45       POSTMAN tool    Done     Shakibe Hasan
46       CURL    Done     Shakibe Hasan
47       JSON    Done     Shakibe Hasan
48       GET, POST, PUT, DELETE method    Done     Shakibe Hasan
49       bash script to fetch    Review   Shakibe Hasan
```

50   Configure a Jenkins pipeline from https://dev.azure.com/fronturetech/Fronture%20ERP/_git/bash%20hands-on%20labs%20by%20shakibe%20hasan   Committed   Shakibe Hasan
51   Configure jenkins pipeline for node hello world app.   Approved   Shakibe Hasan

```
work items has been exported to work_items.csv
shakibe hasan
Email was triggered for: Always
Sending email for trigger: Always
Sending email to: shakibesaib@gmail.com shayakh@fronturetech.com
Finished: SUCCESS
```

and check email.