

Jenkins-Github Integration

Jenkins:

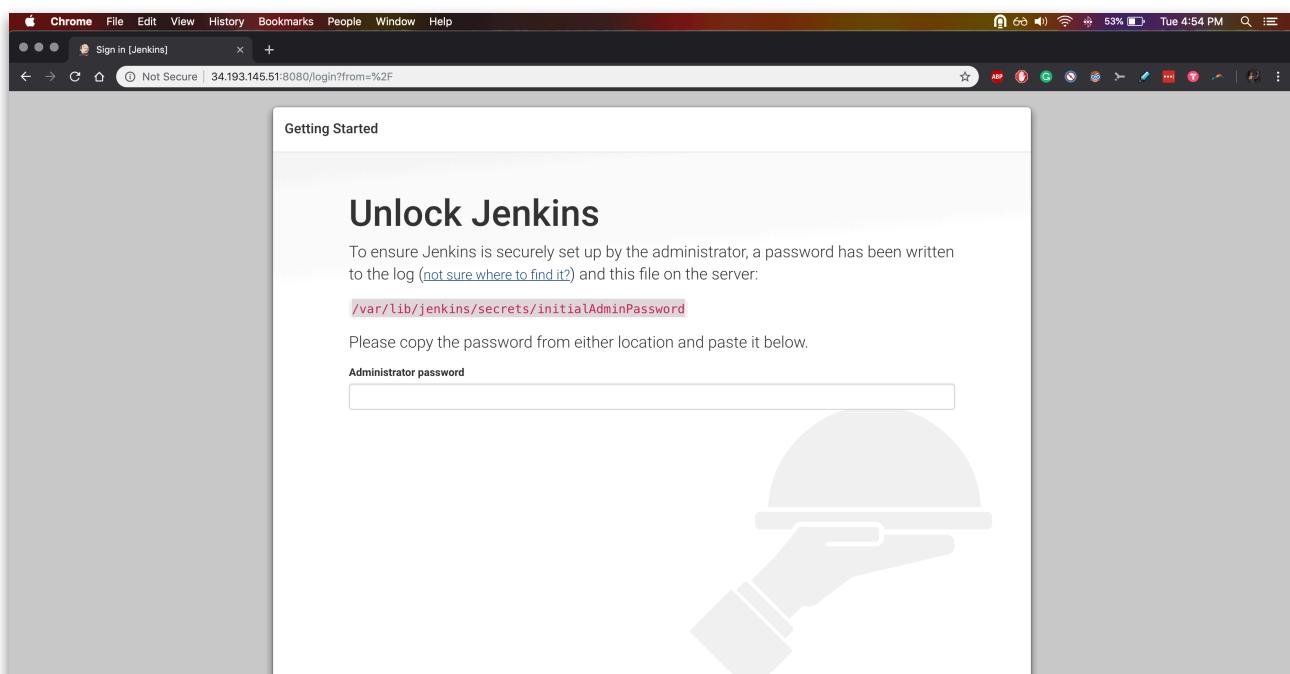
Jenkins is an open source automation server. It is one of the most popular tool to implement Continuous Integration and Continuous Delivery.

Installation:

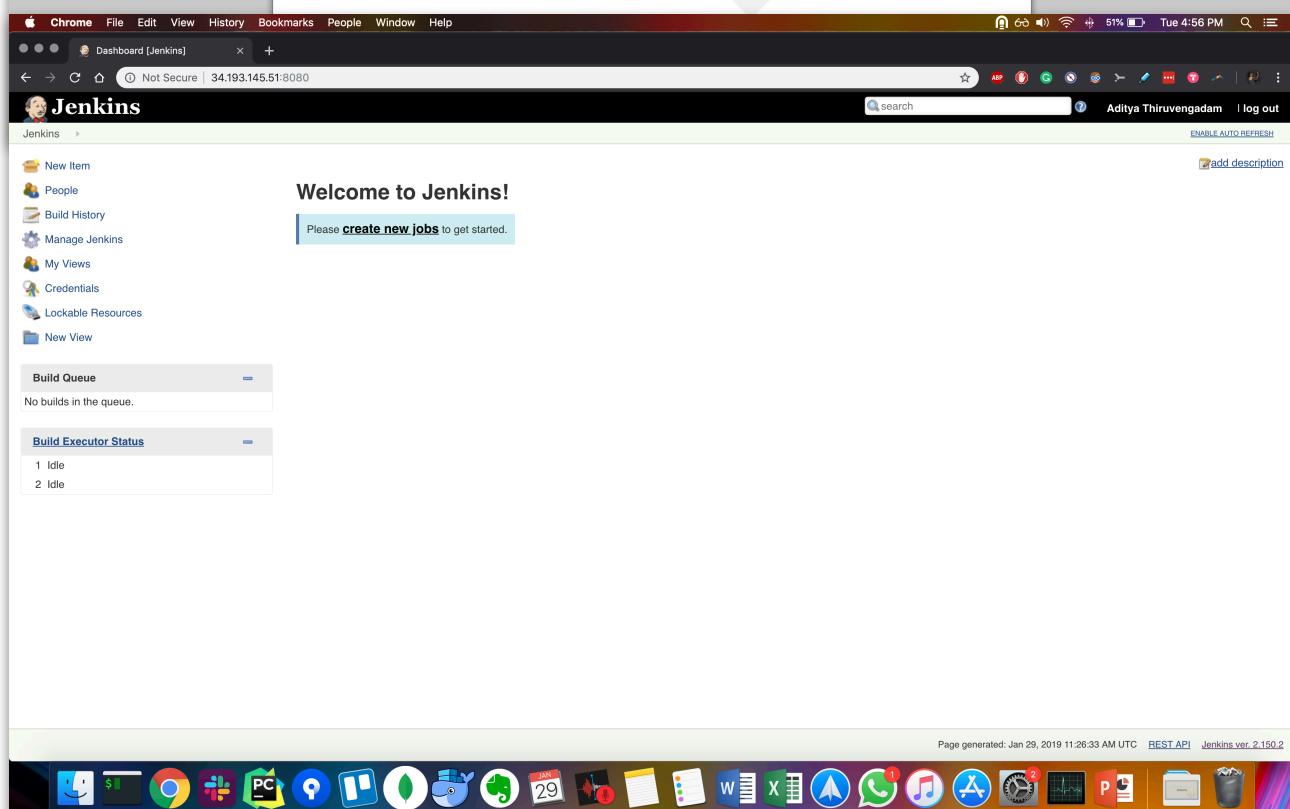
Jenkins can be installed either using docker (from the dockerhub registry) or directly from the command line. The procedure for the same is given at: <https://jenkins.io/doc/book/installing/>

Configuration:

Once installed, one is greeted with the following:



The screenshot shows the Jenkins 'Getting Started' page. The title is 'Unlock Jenkins'. It instructs the user to copy the password from the file `/var/lib/jenkins/secrets/initialAdminPassword`. A placeholder text area is provided for pasting the password. A large graphic of a hand holding a Jenkins logo is visible on the right.



The screenshot shows the Jenkins dashboard. The title bar says 'Dashboard [Jenkins]'. The main area displays the message 'Welcome to Jenkins! Please [create new jobs](#) to get started.' On the left, there is a sidebar with links: 'New Item', 'People', 'Build History', 'Manage Jenkins', 'My Views', 'Credentials', 'Lockable Resources', and 'New View'. Below the sidebar, there are two sections: 'Build Queue' (empty) and 'Build Executor Status' (showing 1 Idle and 2 Idle executors). The bottom of the screen shows a Mac OS X dock with various application icons.

After setting up the basic configuration (from tutorial slides) on Jenkins, setting up the WebHook on Github is as follows:

Webhooks / Manage webhook

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.

Payload URL *

http://34.193.145.51:8080/github-webhook/

Content type

application/json

Secret

Which events would you like to trigger this webhook?

Just the push event.

Send me everything.

Let me select individual events.

Check runs
Check run is created, requested, rerequested, or completed.

Commit comments
Commit or diff commented on.

Branch or tag deletion
Branch or tag deleted.

Deployment statuses
Deployment status updated.

Check suites
Check suite is requested, rerequested, or completed.

Branch or tag creation
Branch or tag created.

Deployments
Repository deployed.

Forks

GitHub WebHook getting triggered:

Project test_project

this is a test jenkins project

Workspace

Recent Changes

Permalinks

- Last build (#7), 1 min 5 sec ago
- Last stable build (#7), 1 min 5 sec ago
- Last successful build (#7), 1 min 5 sec ago
- Last failed build (#6), 2 min 10 sec ago
- Last unsuccessful build (#6), 2 min 10 sec ago
- Last completed build (#7), 1 min 5 sec ago

RSS for all RSS for failures

Build Failure Email:

The screenshot shows a Gmail inbox on a Mac OS X desktop. A new message has arrived with the subject "Build failed in Jenkins: test_project #6". The message is from "address not configured yet <aditya.thiruvengadam@gmail.com>" and was sent "5:27 PM (0 minutes ago)". The message body contains the Jenkins log output:

```
Started by user Aditya Thiruvengadam
Building in workspace <http://34.193.145.51:8080/job/test\_project/6/ws/>
No credentials specified
> git rev-parse --is-inside-work-tree # timeout=10
Fetching changes from the remote Git repository
> git fetch --tags --progress https://github.com/CS816SPE/jenkins-github-adityathiru +refs/heads*:refs/remotes/origin/*
Fetching upstream changes from https://github.com/CS816SPE/jenkins-github-adityathiru
> git -version # timeout=10
> git fetch --tags --progress https://github.com/CS816SPE/jenkins-github-adityathiru +refs/heads*:refs/remotes/origin/*
> git rev-parse refs/remotes/origin/master^{commit} # timeout=10
> git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision cd83b5d517eac8ea99ea718284d19713794236b5 (refs/remotes/origin/master)
> git config core.sparsecheckout # timeout=10
> git checkout -f cd83b5d517eac8ea99ea718284d19713794236b5
Commit message: "Update hello.c"
> git rev-list --no-walk cd83b5d517eac8ea99ea718284d19713794236b5 # timeout=10
[test_project]$ /bin/sh -x /tmp/jenkins8802867502198439740.sh
+ gcc hello.c
hello.c: In function 'main':
hello.c:6:1: error: expected ';' before 'return'
return 0;
^
Build step 'Execute shell' marked build as failure
```

At the bottom of the message, there are "Reply" and "Forward" buttons.

Build Success Email:

The screenshot shows a Gmail inbox on a Mac OS X desktop. A new message has arrived with the subject "Jenkins build is back to normal : test_project #7". The message is from "address not configured yet <aditya.thiruvengadam@gmail.com>" and was sent "5:28 PM (0 minutes ago)". The message body contains the Jenkins log output:

```
Jenkins build is back to normal : test_project #7
```

Below the message body, there is a small exclamation mark icon.