

# Gerrit

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Gerrit is a code review tool that allows developers to push code to an authoritative repository where it can be looked over before being pushed into the production.

Installation steps below :

Step 1- Server Update :

```
# sudo apt-get update
```

Step 2- git install :gerrit requires git to be installed on the server.

```
# sudo apt-get install git
```

After install to verify the command :

```
# git --version
```

Step 3-Install java :gerrit requires Java to be installed on the server.

```
# sudo apt-get install default-jdk
```

After install to verify the command :

```
# java -version
```

*Once Git and Java have been installed on our server, we can start to set up gerrit.*

*The program itself is hosted on the [Google Code site](#), but the latest version is [gerrit 2.13.9](#)*

Step 4-Install gerrit :gerrit war file need to download on the server.

```
# wget https://gerrit.googlecode.com/files/gerrit 2.13.9
```

*Additionally, while by default, gerrit is set up within the user's home directory, you can set up the specific directory where the files should be placed by adding (-d) to the line.*

*(if get error at this stage we need to browse the link and download the gerrit 2.13.9 file)*

<https://gerrit-releases.storage.googleapis.com/index.html>

Create a user to host the Gerrit service

We will run the service as a non-privileged user on your system. First create the user and then become the user:

```
$ sudo adduser gerrit
```

```
$ sudo su gerrit
```

If you don't have root privileges you could skip this step and run Gerrit as your own user as well.

```
# java -jar gerrit-2.13.9.war init --batch -d ~/gerrit_example
```

*Once Gerrit has been set up, you can start to access it with your desired user.*

*Gerrit can be accessed through URL, run below command to visible in the settings and easy to find the gerrit url in command itself .*

```
# git config -f ~/gerrit_example/etc/gerrit.config gerrit.canonicalWebUrl
```

example result:

<http://localhost:8060/>

You can change the gerrit settings in the gerrit.config file.

```
# vi ~/gerrit_example/etc/gerrit.config
```

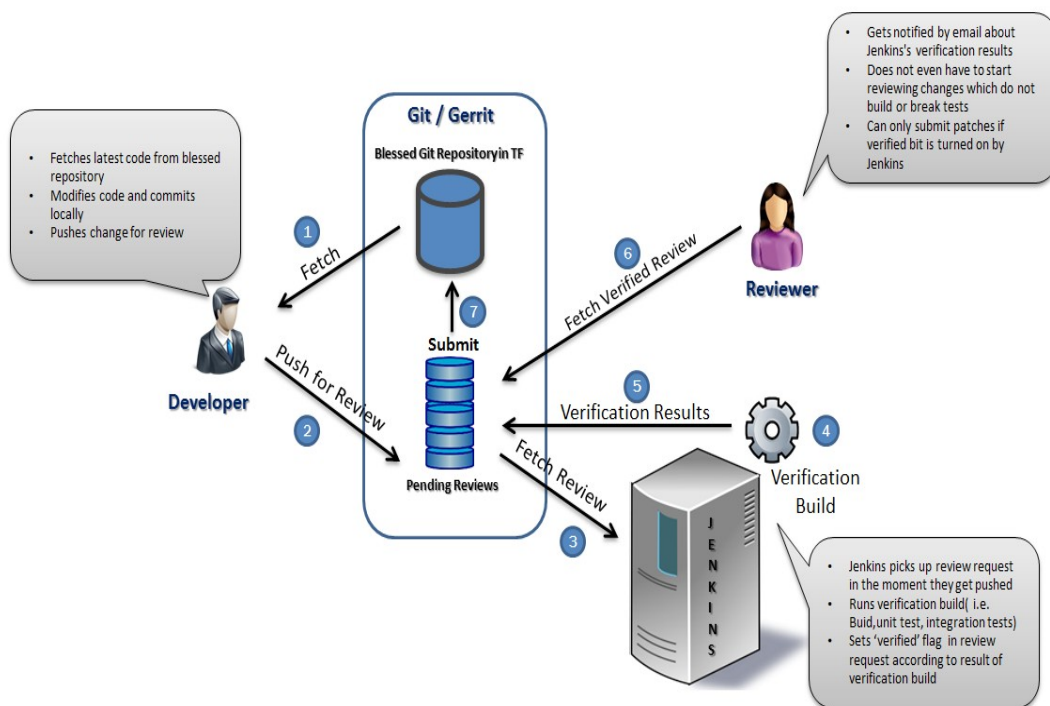
Be sure to restart gerrit after making changes:(su gerrit (make sure gerrit user account ))

```
# ~/gerrit_example/bin/gerrit.sh restart
```

If you see localhost in your URL, you should be able to access gerrit through the server's IP address.

<http://localhost:8080/>

### Git / Gerrit Work Flow with Jenkins Continuous Integration



<https://stackoverflow.com/questions/20051604/git-workflow-for-highly-audited-and-changed-controlled-environments>

**Developer:**

- 1) Fetches latest code from blessed repository
- Modifies the code and commits locally
- 2) Pushes change for reviews

after step 2 it will pending at the repository for reviews

**Jenkins :Create a user to host the Gerrit service**

We will run the service as a non-privileged user on your system. First create the user and then become the user:

```
$ sudo adduser gerrit
```

```
$ sudo su gerrit
```

If you don't have root privileges you could skip this step and run Gerrit as your own user as well.

- 3) Jenkins picks up review request in the moment they get pushed.
- 4) Runs verification build (i.e Build,Unit Test,Integartion Test)
- 5) Sets 'verified 'flag in review request according to result of verification build

### Gerrit :

Now files are at Reviewer's stage

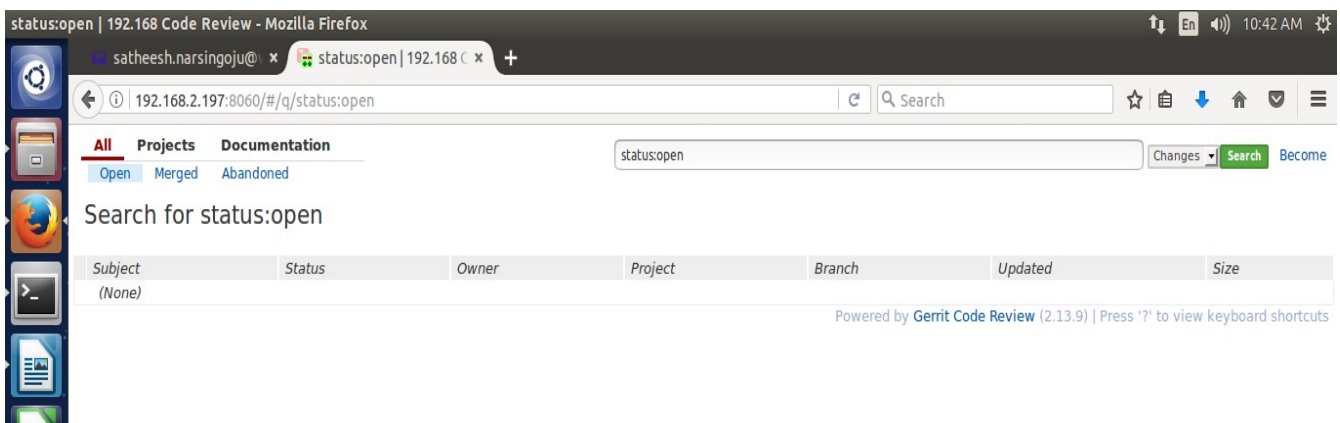
- 6) Fetch and Verfied Review
- 7) Submitting to git Repository

we need to do every day gerrit server manually up.other wise it won't up for reslove the issue need to restart the gerrit server.(Bcoz it not Deamon process it is a User)

```
$ su gerrituser@host:~$ ssh -p 29418 user@localhost gerrit create-project demo-project
```

```
gerrit@host:~$ ~/gerrit_testsite/bin/gerrit.sh restart
Stopping Gerrit Code Review: OK
Starting Gerrit Code Review: OK
```

<http://localhost:8080/> (Example: 192.168.2.197:8060) (window look like below:)



check for the ssh key conneted to gerrit or not.

```
$ssh satheesh@192.168.2.197 -p 29418
```

```
**** Welcome to Gerrit Code Review ****
```

Hi satheesh, you have successfully connected over SSH.

Unfortunately, interactive shells are disabled.  
To clone a hosted Git repository, use:

```
git clone ssh://satheesh@VTA072L:29418/REPOSITORY_NAME.git
```

Connection to 192.168.2.197 closed.

If get error at this stage we need to follow the steps:

<https://unix.stackexchange.com/questions/340844/how-to-enable-diffie-hellman-group1-sha1-key-exchange-on-debian-8-0/340853>

add the following lines to my /etc/ssh/ssh\_config

```
KexAlgorithms diffie-hellman-group1-sha1,curve25519-  
sha256@libssh.org,ecdh-sha2-nistp256,ecdh-sha2-nistp384,ecdh-sha2-  
nistp521,diffie-hellman-group-exchange-sha256,diffie-hellman-group14-sha1  
Ciphers 3des-cbc,blowfish-cbc,aes128-cbc,aes128-ctr,aes256-ctr
```

1. regenerate keys Create a user to host the Gerrit service
2. We will run the service as a non-privileged user on your system. First create the user and then become the user:

3. \$ sudo adduser gerrit

4. \$ sudo su gerrit

5. If you don't have root privileges you could skip this step and run Gerrit as your own user as well. with

```
$ssh-keygen -A
```

6. restart ssh with

```
$service ssh restart
```

and in gerrit sever again add the ssh key and try with

```
$ssh username@192.168.2.197 -p 29418
```

Example:

```
$ssh satheesh@192.168.2.197 -p 29418
```

cloning the code from the Gerrit .

```
$git clone ssh://username@192.168.2.197:29418/<project name>
```

Example:

```
$git clone ssh://satheesh@192.168.2.197:29418/demo-project.git
```

Steps For Gerrit UI installation:

- 1) Check First Hostname:Port in URL

192.168.2.197:8060

(Make sure in the Gerrit config file )

**Type of user authentication employed by Gerrit. The supported values are:**  
**OpenID**

The default setting. Gerrit uses any valid OpenID provider chosen by the end-user

**DEVELOPMENT\_BECOME\_ANY\_ACCOUNT**

Only for use in a development environment.

>> By default, OpenID.

[auth]

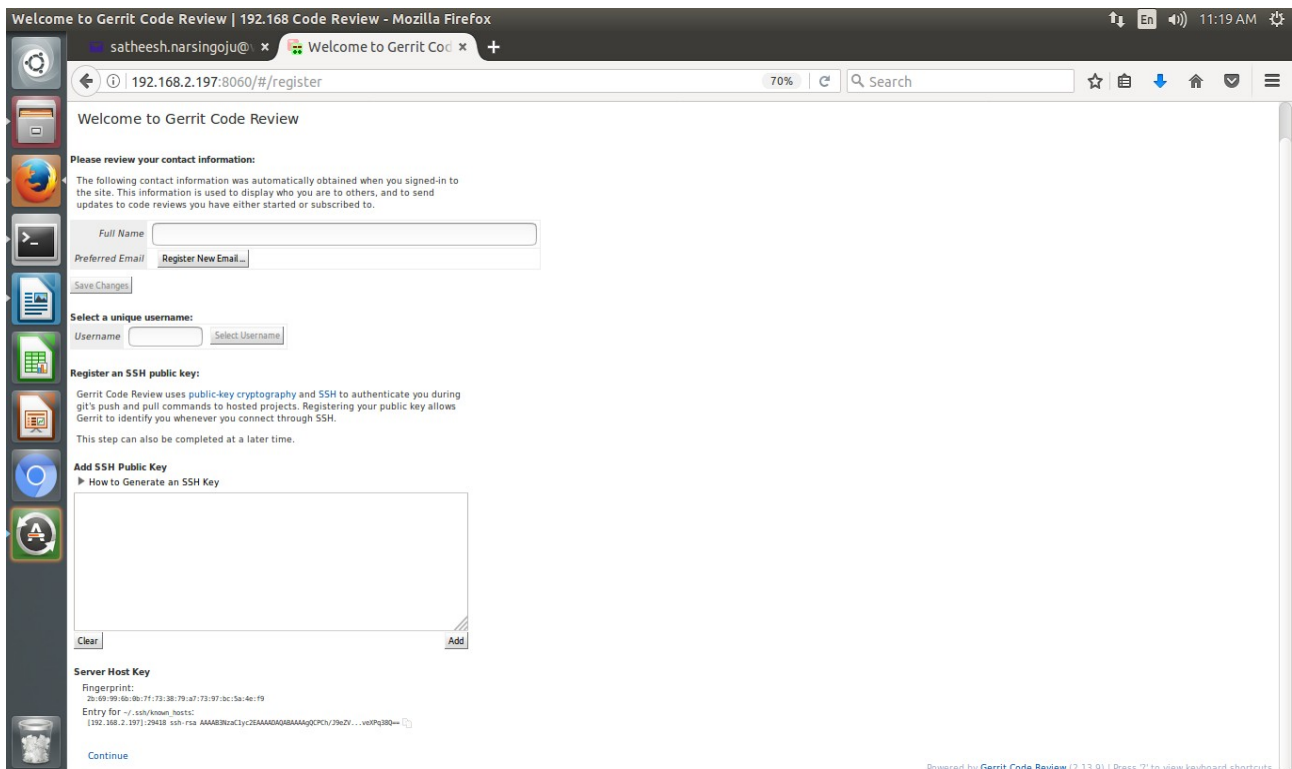
type = DEVELOPMENT\_BECOME\_ANY\_ACCOUNT

The screenshot shows the Gerrit Code Review web interface in a Mozilla Firefox browser. The address bar displays the URL `192.168.2.197:8060/#/q/status:open`. The page has a sidebar on the left with icons for navigation. The main content area shows a search bar with the text `status:open` and buttons for `Changes`, `Search`, and `Become`. Below the search bar, there is a table with columns: `Subject`, `Status`, `Owner`, `Project`, `Branch`, `Updated`, and `Size`. The table currently shows no results, with `(None)` under the `Subject` column. A footer note states: `Powered by Gerrit Code Review (2.13.9) | Press '?' to view keyboard shortcuts`. An annotation with an arrow points to the `Become` button, with the text `Select the Become option`.

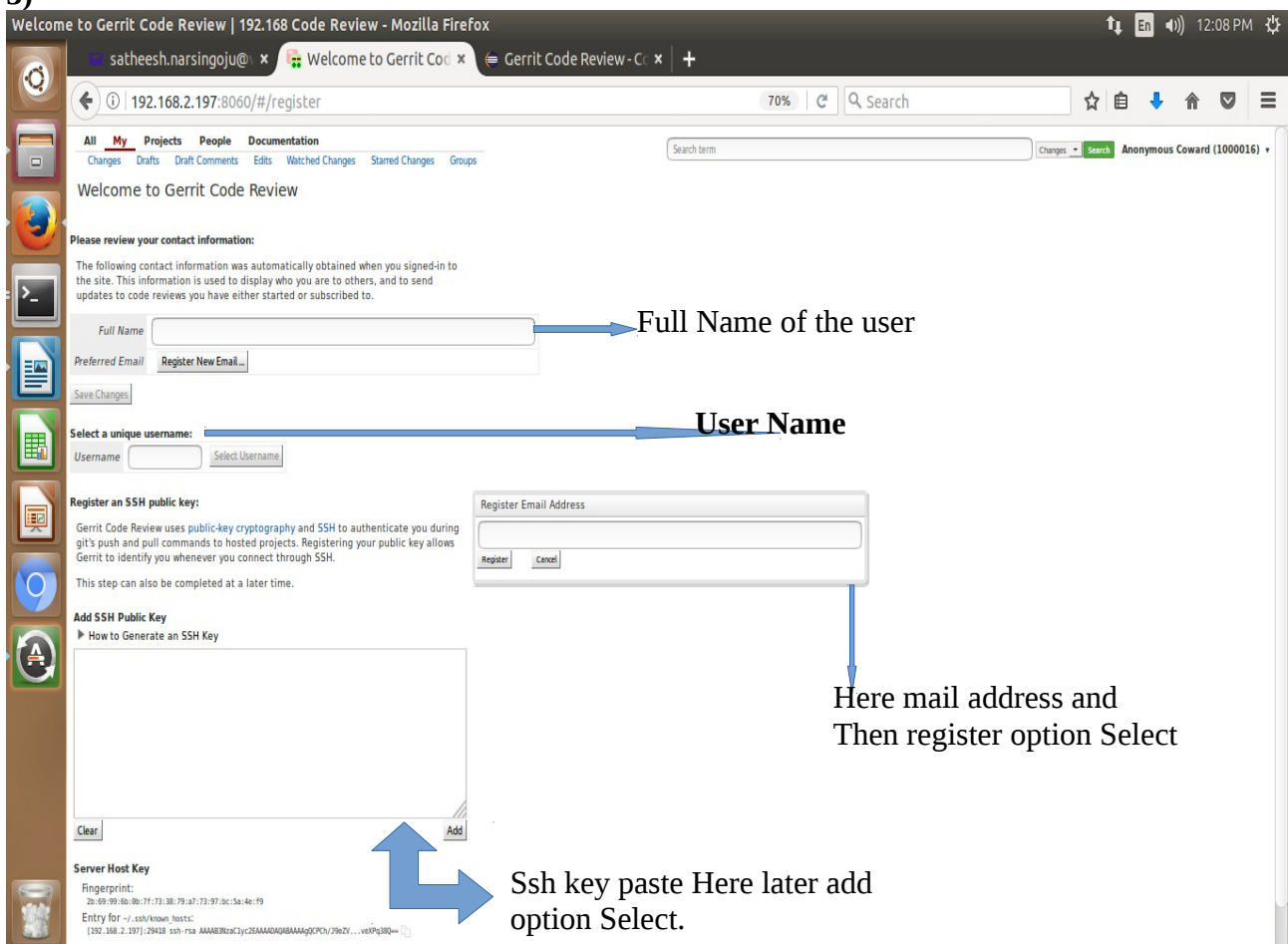
Subject	Status	Owner	Project	Branch	Updated	Size
(None)						

2)

The screenshot shows the Gerrit Code Review web interface in a Mozilla Firefox browser. The address bar displays the URL `192.168.2.197:8060/login/%23%2F`. The page has a sidebar on the left with icons for navigation. The main content area is divided into two sections: `Sign In` and `Register`. The `Sign In` section has three input fields: `Username:`, `Email Address:`, and `Account ID:`, each with a `Become Account` button. Below these fields is a `Choose:` section with a list of usernames: `Divya Preethika`, `Jenkins`, `Ishaque`, `Rakesh`, `Mallikarjun`, `Harathath Pasupuleti`, `Shashank`, `MURALI KRISHNA DAMA`, `Jignesh N. Patel`, `Gopinath`, `Pradeep Kumar Voolla`, `Sweetha`, `Satheesh`, `Rajarshi`, `1000014`, and `1000015`. The `Register` section has a `New Account` button.

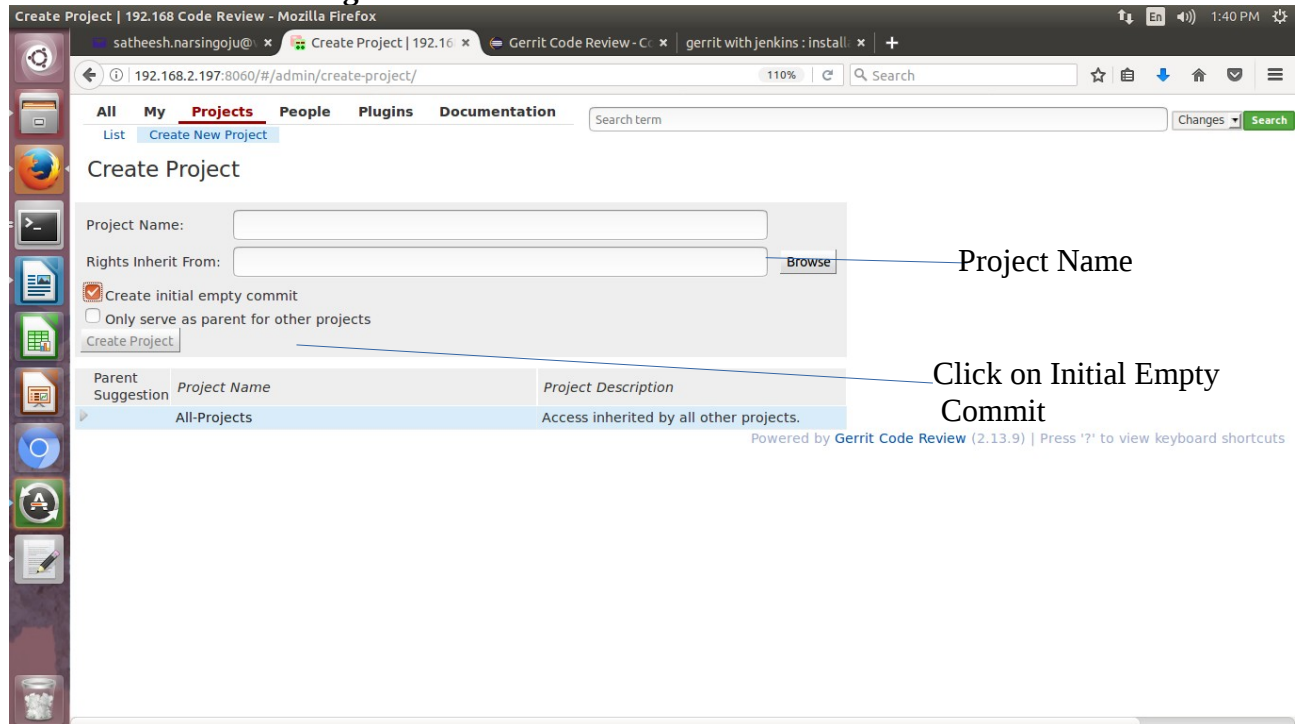


3)



\* Later Continue Option select .

**Repet The Steps above Mention to add the all the users. First user is Admin of the Gerrit . Rest added Users are Registered-User.**



**Cloning the Source From gerrit :**

**\$git clone ssh://username@gerrit\_ip:29418/Project\_Name.git**

**Example:**

**\$git clone ssh://satheesh@192.168.2.197:29418/project\_Name.git**

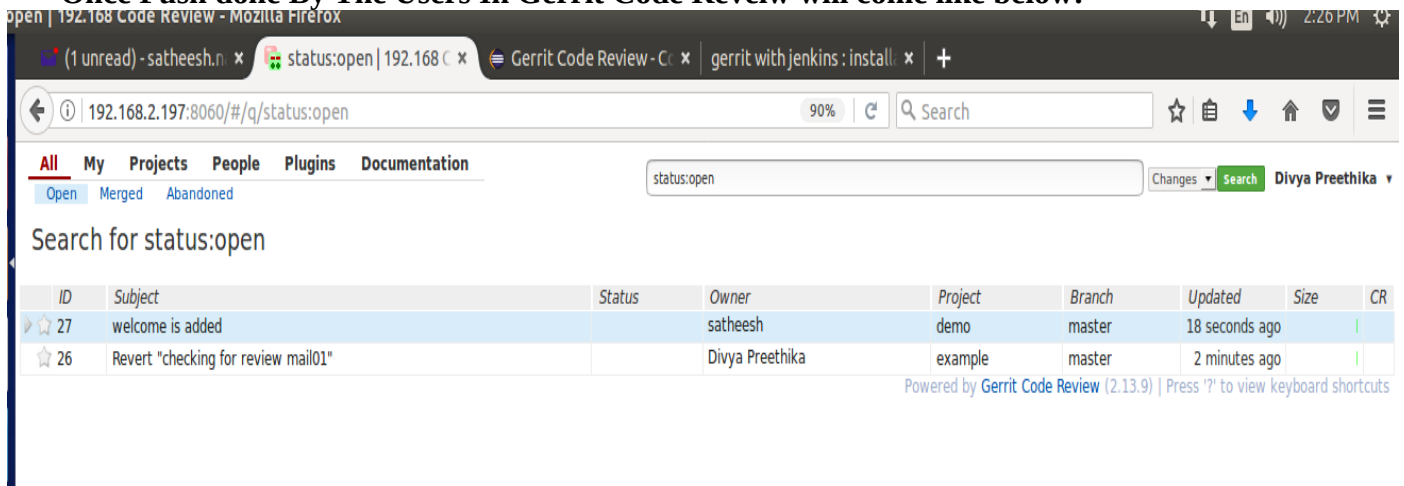
**pushing we need the follow the steps:**

**git add \***

**git commit -m "commit message"**

**git push origin Head:refs/for/master (or )<barnc name>**

**Once Push done By The Users In Gerrit Code Reveiw will come like below:**





Change lea107276: welcome is added | 192.168 Code Review - Mozilla Firefox

satheesh.narsingoju@... x Change lea107276: wel x Gerrit Code Review - C x gerrit with jenkins : install. x +

192.168.2.197:8060/#/c/27/ 90% Search

All My Projects People Plugins Documentation

Open Merged Abandoned

Change 27 - Needs Code-Review Label

welcome is added

Reply... Code-Review+2 Patch Sets (1/1) Download

Owner: satheesh

Reviewers: satheesh

Project: demo

Branch: master

Topic: Merge if Necessary

Strategy: Merge if Necessary

Uploaded: 9 minutes ago

Cherry Pick Rebase Abandon Follow-Up

Code-Review

Author: vamsi <vamsi.tcp@gmail.com> Aug 10, 2017 2:23 PM

Committer: vamsi <vamsi.tcp@gmail.com> Aug 10, 2017 2:23 PM

Commit: 32b160e40637cd22939f7c49b15ddb08c04097d0

Parent(s): 166bf177b0c05534083fb865c3b044224d820dd5

Change-Id: lea10727647ae196213763dba3cb43f0482155ee9

Files

Open All Diff against: Base Edit

File Path Comments Size

Commit Message 1

add.c +1, -0

History

Expand All

satheesh Uploaded patch set 1. 2:25 PM

Powered by Gerrit Code Review (2.13.9) | Press '?' to view keyboard shortcuts

Change lea107276: welcome is added | 192.168 Code Review - Mozilla Firefox

satheesh.narsingoju@... x Change lea107276: wel x Gerrit Code Review - C x gerrit with jenkins : install. x +

192.168.2.197:8060/#/c/27/ 90% Search

All My Projects People Plugins Documentation

Open Merged Abandoned

Change 27 - Ready to Submit

welcome is added

Reply... Patch Sets (1/1) Download

Owner: satheesh

Reviewers: Divya Preethika x

Project: demo

Branch: master

Topic: Merge if Necessary

Strategy: Merge if Necessary

Updated: 0 seconds ago

Cherry Pick Rebase Abandon Follow-Up Submit

Code-Review +2 Divya Preethika x

Author: vamsi <vamsi.tcp@gmail.com> Aug 10, 2017 2:23 PM

Committer: vamsi <vamsi.tcp@gmail.com> Aug 10, 2017 2:23 PM

Commit: 32b160e40637cd22939f7c49b15ddb08c04097d0

Parent(s): 166bf177b0c05534083fb865c3b044224d820dd5

Change-Id: lea10727647ae196213763dba3cb43f0482155ee9

Files

Open All Diff against: Base Edit

File Path Comments Size

Commit Message 1

add.c +1, -0

History

Expand All

satheesh Uploaded patch set 1. 2:25 PM

Divya Preethika Patch Set 1: Code-Review+2 2:36 PM

Powered by Gerrit Code Review (2.13.9) | Press '?' to view keyboard shortcuts



Change lea107276: welcome is added | 192.168 Code Review - Mozilla Firefox

satheesh.narsingoju@ x Change lea107276: wel x Gerrit Code Review - C x gerrit with jenkins : install x +

192.168.2.197:8060/#/c/27/ 90% Search

All My Projects People Plugins Documentation

Open Merged Abandoned

Change 27 - Merged

welcome is added

Reply...

Included in Patch Sets (1/1) Download

Owner satheesh

Reviewers Divya Preethika

Project demo

Branch master

Topic

Updated 0 seconds ago

Cherry Pick Revert

Code-Review +2 Divya Preethika

Author vamsi <vamsi.tcp@gmail.com> Aug 10, 2017 2:23 PM

Committer vamsi <vamsi.tcp@gmail.com> Aug 10, 2017 2:23 PM

Commit 32b160e40637cd22939f7c49b15ddb08c04097d0

Parent(s) 166bf177b0c05534083fb865c3b044224d820dd5

Change-Id Iea10727647ae196213763dba3cb43f048215ee9

Files Open All Diff against: Base

File Path	Comments	Size
Commit Message		
add.c	1	
	+1, -0	

History Expand All

satheesh	Uploaded patch set 1.	2:25 PM
Divya Preethika	Patch Set 1: Code-Review +2	2:36 PM
Divya Preethika	Patch Set 1: Build Successful http://192.168.2.197:8080/job/sai/58/ : SUCCESS	2:36 PM
Divya Preethika	Change has been successfully merged by Divya Preethika	2:36 PM

Powered by Gerrit Code Review (2.13.9) | Press '?' to view keyboard shortcuts

## Reference Links:

1. <http://www.tutorialspoint.com/gerrit/>
2. <https://www.infoq.com/articles/Gerrit-jenkins-hudson>
3. <https://gerrit-review.googlesource.com/Documentation/intro-quick.html>
4. <https://gerrit-review.googlesource.com/Documentation/install-quick.html#requirements>
5. <https://review.openstack.org/Documentation/install-quick.html>
6. <http://dachary.org/?p=1716>