

Jenkins

User and Roles Management

3. How to create Users, Manage & Assign Roles

Topics:

1. How to create Users
2. How to Configure Users
3. How to create new roles
4. How to assign users to roles
5. How to control user access on projects

Creating User

Login Jenkins ---> Manage Jenkins ---> Manage Users ----> create new user

-  Back to Dashboard
-  Manage Jenkins
-  Create User



Click on create user for
creating new user

Users

These users can log into Jenkins. This is a sub set of [this list](#), which also contains auto-created users who really just made some commits on some projects and have no direct Jenkins access.

User ID	Name
 admin	admin 



List of users so far existed in system

This is User Manage page



Back to Dashboard



Manage Jenkins



Create User

Create User

Username:

rajesh

Password:

.....

Confirm password:

.....

Full name:

Rajesh Jagarlamusi

E-mail address:

Create User

After click on create user, this form will open. fill user details and click on create user

- 🏠 Back to Dashboard
- ⚙ Manage Jenkins
- 👤 Create User

Users

These users can log into Jenkins. This is a sub set of [this list](#), which also contains auto-created users who really just made some commits on some projects and have no direct Jenkins access.




User ID	Name	
 admin	admin	⚙
 rajesh	Rajesh Jagarlamusi	⚙ 🚫

User is created and create one more user in same process

- 🏠 Back to Dashboard
- ⚙ Manage Jenkins
- 👤 Create User

Users

These users can log into Jenkins. This is a sub set of [this list](#), which also contains auto-created users who really just made some commits on some projects and have no direct Jenkins access.

User ID	Name	
 admin	admin	⚙
 rajesh	Rajesh Jagarlamusi	⚙ 🚫
 rajeshtester	Rajesh Tester	⚙ 🚫

**after creating two users,
logout from admin user and
login with the user, which
you created**

← → ↻ ⓘ Not secure | 3.83.106.28:8080/jenkins/

Jenkins

search

Rajesh Jagarlamusi | log out

ENABLE AUTO REFRESH

add description

Jenkins

- New Item
- People
- Build History
- Manage Jenkins
- My Views
- Credentials
- Lockable Resources
- New View

Welcome to Jenkins!

Please [create new jobs](#) to get started.

Build Queue

No builds in the queue.

Build Executor Status

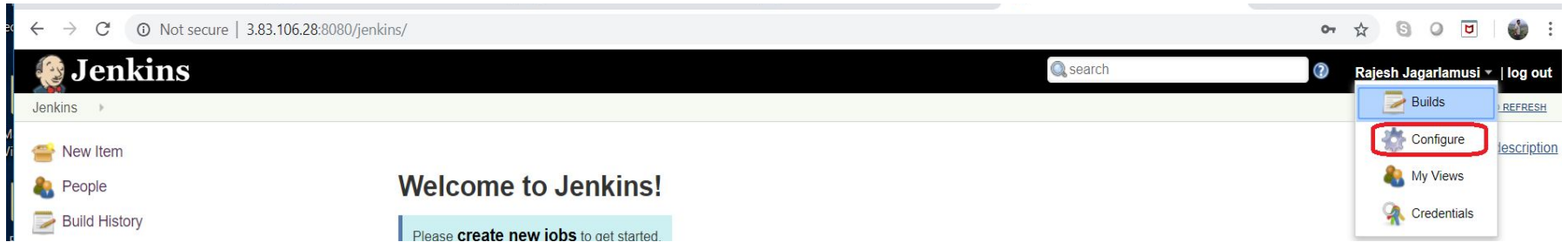
- 1 Idle
- 2 Idle

Now, login with Rajesh, which i created user

Till now creating user and login with created user is complete

How to Configure User

Login jenkins with user, which you want configure --> goto user name, which is on top right corner → click on down arrow → click on configure



- 🏠 People
- 👤 Status
- 📊 Builds
- ⚙️ Configure
- 👁️ My Views
- 🔑 Credentials

Full Name **this is user name, you can change it if needed**

Description

here you can enter user description

API Token

Current token(s)

There is no registered token for this user

Add new Token

this is token of user, we will talk more on this token in comming sessions.

Credentials

Credentials are only available to the user they belong to

E-mail

E-mail address **Mail-id of user**
Your e-mail address, like joe.ching@sun.com

Extended Email Job Watching

No configuration available

My Views

Default View
The view selected by default when navigating to the users' private views.

Notification URL

Password

Password:
Confirm Password:

Password & confirm-password for chaning password of user

SSH Public Keys

SSH Public Keys



**After click on
configure,
this page will
open**

Here, if you observe, user rajesh jagarlamusi is having all rights like admin. It's not encouraged in Real Time

In order to segregate we have roles concept to limit the access for particular services / actions

← → ↻ Not secure | 3.83.106.28:8080/jenkins/asynchPeople/ ☆ ⚙ 🔍

Jenkins

Jenkins ▸ [ENABLE AUTO](#)



- New Item
- People**
- Build History
- Manage Jenkins
- My Views
- Credentials
- Lockable Resources
- New View

Build Queue —
No builds in the queue.

Build Executor Status —
1 Idle
2 Idle

People

Includes all known "users", including login identities which the current security realm can enumerate, as well as people mentioned in commit messages in recorded changelogs.

User ID	Name	Last Commit Activity ↑
 admin	admin	N/A
 MANAGE_DOMAINS	MANAGE_DOMAINS	N/A
 rajesh	Rajesh Jagarlamusi	N/A
 rajeshtester	Rajesh Tester	N/A

Icon: [S](#) [M](#) [L](#)

Rajesh Jagarlamusi, is not an admin. but still he can access people / user list like admin.

In Real time → Roles will be like Architect, Manager, Developer, Tester etc

With the roles concept

1. we can limit access for particular developer to access particular project only in which he is working
2. We can limit access for particular project manager to access his projects only from group of projects
3. We can limit access for tester to access only testing applications only

Like this based on their roles & responsibilities in organization we will give access to projects

Create and Manage User Roles

For using --- create and manager User Roles concept, Jenkins should have installed → **Roles Strategy Plugin**

Without roles Strategy Plugin installed, you can see “Manage Roles” after going to manage Jenkins

Go to your firefox browser → type “Jenkins Roles Strategy plugin”

[https://wiki.jenkins.io/display/JENKINS/Role+Strategy+Plugin#RoleStrategyPlugin-Version2.9.0\(Aug27,2018\)](https://wiki.jenkins.io/display/JENKINS/Role+Strategy+Plugin#RoleStrategyPlugin-Version2.9.0(Aug27,2018))

You can see the usage of roles from above URL for clear and better understanding

Go to **plugins dir under .jenkins dir**, you can see all installed plugins list there

```
#cd /root/.jenkins/plugins/
```

now goto web → login jenkins as admin → click on manage jenkins → manage plugins → select available tab → type roles in filter box

The screenshot shows the Jenkins web interface at the URL `3.83.106.28:8080/jenkins/pluginManager/available`. The page title is "Jenkins" and the breadcrumb is "Jenkins > Plugin Manager". The "Available" tab is selected, and the "Filter" box contains the text "roles". A table lists available plugins, with "Role-based Authorization Strategy" highlighted. Below the table, the "Install without restart" button is visible.

Back to Dashboard
Manage Jenkins
Update Center

Updates **Available** Installed Advanced

Filter: roles

Install ↓	Name	Version
<input type="checkbox"/>	Role-based Authorization Strategy Enables user authorization using a Role-Based strategy. Roles can be defined globally or for particular jobs or nodes selected by regular expressions.	2.9.0
<input type="checkbox"/>	CloudBees AWS Credentials Allows storing Amazon IAM credentials within the Jenkins Credentials API. Store Amazon IAM access keys (AWSAccessKeyId and AWSSecretKey) within the Jenkins Credentials API. Also support IAM Roles and IAM MFA Token.	1.24

Install without restart Download now and install after restart Check now

Update information obtained: 22 hr ago

[Back to Dashboard](#)

[Manage Jenkins](#)

[Manage Plugins](#)

Installing Plugins/Upgrades

Preparation

- Checking internet connectivity
- Checking update center connectivity
- Success

Folders

Success

JDK Tool

Success

Script Security

Success

Command Agent Launcher

Success

Struts

Success

Pipeline: Step API

Success

bouncycastle API

Success

SCM API

Success

GitHub

Success

GitHub Branch Source

Success

Pipeline: GitHub Groovy Libraries

Success

Pipeline: Stage View

Success

Git

Success

MapDB API

Success

Subversion

Success

SSH Slaves

Success

Matrix Authorization Strategy

Success

PAM Authentication

Success

LDAP

Success

Email Extension

Success

Mailer

Success

Role-based Authorization Strategy

Success

This is installing plugins report

[Go back to the top page](#)

(you can start using the installed plugins right away)

☒ Restart Jenkins when installation is complete and no jobs are running

check mark on -- Restart jenkins when installation is complete and

Please wait while Jenkins is restarting ...


Your browser will reload automatically when Jenkins is ready.

Restarting Jenkins


```
pam-auth.jpi                                ace-editor.jpi
pam-auth                                     ace-editor
root@ip-172-31-91-116:~/.jenkins/plugins# ls -t
role-strategy                               pipeline-rest-api
role-strategy.jpi                           pipeline-rest-api.jpi
email-ext                                   pipeline-graph-analysis
email-ext.jpi                               pipeline-graph-analysis.jpi
ldap                                         workflow-job
ldap.jpi                                    workflow-job.jpi
pam-auth                                    pipeline-stage-step
pam-auth.jpi                                pipeline-stage-step.jpi
matrix-auth                                 pipeline-input-step
matrix-auth.jpi                             pipeline-input-step.jpi
ssh-slaves                                  workflow-cps
ssh-slaves.jpi                              workflow-cps.jpi
subversion                                  workflow-scm-step
subversion.jpi                              workflow-scm-step.jpi
mapdb-api                                   ace-editor
mapdb-api.jpi                               ace-editor.jpi
pipeline-github-lib                         jackson2-api
```

After Restarting Jenkins, login to jenkins as admin → manage Jenkins → Configure Global settings →

← → ↻ ⓘ Not secure | 3.83.106.28:8080/jenkins/configureSecurity/

 **Jenkins** search

Jenkins ▶ Configure Global Security



Configure Global Security

☒ Enable security

Disable remember me ☐

Access Control

Security Realm

☐ Delegate to servlet container

☒ Jenkins' own user database

☐ Allow users to sign up

☐ LDAP

☐ Unix user/group database

Authorization

☐ Anyone can do anything

☐ Legacy mode

☒ Logged-in users can do anything

☐ Allow anonymous read access

☐ Matrix-based security

☐ Project-based Matrix Authorization Strategy

☐ Role-Based Strategy

"Role-Based Strategy" will appear only when role based strategy plugin is installed

click on Apply --> Save

Save **Apply**



Manage Nodes

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



Manage and Assign Roles

Handle permissions by creating roles and assigning them to users/groups

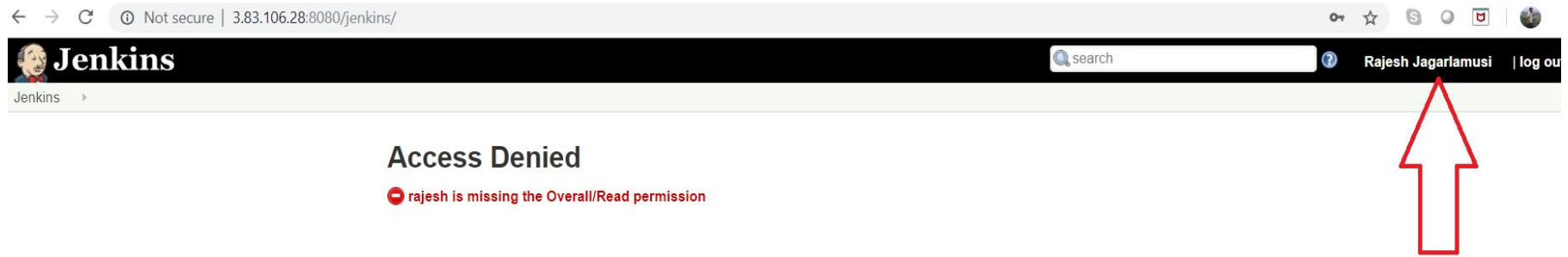


About Jenkins

See the version and license information.

You can't see this role based on option before installing plugin

After installing “Roles strategy plugin” try to login with nomal user. You will get below error



Now, Login with Admin → manage Jenkins → manager and Assign Roles

- New Item
- People
- Build History
- Manage Jenkins
- My Views
- Lockable Resources
- Credentials
- New View

Build Queue

No builds in the queue.

Build Executor Status

1 Idle
2 Idle

Manage and Assign Roles

[Manage Roles](#)
Manage Roles

[Assign Roles](#)
Assign Roles

[Role Strategy Macros](#)
Provides info about macro usage and available macros



You will get this "Manage and Assign Roles" option after installing "Roles Strategy plugin"

Global roles

Provides access and authorization at global level (all)

Only one role

[illegible]

Role to add

Now i'm going to create an role -- for Overall read and view

Add

Project roles

- **Creates roles for specific project**

		Credentials					Job					Run			SCM	Lockable Resources						
Role	Pattern	Create	Delete	Manage	Domains	Update	View	Build	Cancel	Configure	Create	Delete	Discover	Move	Read	Workspace	Delete	Replay	Update	Tag	Reserve	Unlock

Role to add

Pattern

Add


Slave roles

← → ↺

⚠ Not secure | 3.83.106.28:8080/jenkins/role-strategy/manage-roles


☆ S 🔍


👤


 **Jenkins**


admin | log out


Jenkins > Manage and Assign Roles


 New Item


 People


 Build History

 Manage Jenkins

 My Views

 Lockable Resources

 Credentials

 New View


Build Queue

No builds in the queue.



Build Executor Status

1 Idle

2 Idle

 **Manage and Assign Roles**

Global roles

Role	Overall					Credentials					Agent					Job					
	Administer	Read	Create	Delete		ManageDomains	Update	View	Build	Configure	Connect	Create	Delete	Disconnect	Provision	Build	Cancel	Configure	Create	Delete	Discover
 admin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
 employee	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Role to add

Add

Project roles

Role	Pattern	Credentials					Job					Run			SCM	Lockable Resources			
		Create	Delete	ManageDomains	Update	View	Build	Cancel	Configure	Create	Delete	Discover	Move	Read	Workspace	Delete	Replay	Update	Tag



Role to add

Pattern

Add

After check mark --- click -- “Apply and Save”

Project roles

Role	Pattern	Credentials						Job								Run			SCM	Lockable Resources		
		Create	Delete	ManageDomains	Update	View	Build	Cancel	Configure	Create	Delete	Discover	Move	Read	Workspace	Delete	Replay	Update	Tag	Reserve	Unlock	
 Developer	Dev.*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Role to add

**Meaning : user under this role, will
access projects starting with Dev only**

Developer

Pattern

Dev.*

Add

Slave roles

Role	Pattern	Credentials					Agent					Lockable Resources		
		Create	Delete	ManageDomains	Update	View	Build	Configure	Connect	Delete	Disconnect	Provision	Reserve	Unlock

Role to add

Pattern

Add

Save

Apply



 New Item

 People

 Build History

 Manage Jenkins

 My Views

 Lockable Resources

 Credentials

 New View



Manage and Assign Roles



[Manage Roles](#)
Manage Roles



[Assign Roles](#)
Assign Roles



[Role Strategy Macros](#)
Provides info about macro usage and available macros

Select assign roles for assigning roles to a user

Build Queue

No builds in the queue.


Build Executor Status

- 1 Idle
- 2 Idle

Manage Jenkins → Manage and assign Roles → Assign roles


← → ↻


⚠ Not secure | 3.83.106.28:8080/jenkins/role-strategy/assign-roles


 **Jenkins**


search


Jenkins ▸ Manage and Assign Roles


 New Item


 People


 Build History

 Manage Jenkins

 My Views

 Lockable Resources

 Credentials

 New View


Build Queue

No builds in the queue.

Build Executor Status





1 Idle

2 Idle

 **Assign Roles**

adding two users under global roles - employee role


Global roles

User/group	admin	employee
 admin	<input checked="" type="checkbox"/>	<input type="checkbox"/>
 Anonymous	<input type="checkbox"/>	<input type="checkbox"/>
 rajesh	<input type="checkbox"/>	<input checked="" type="checkbox"/>
 rajesh1	<input type="checkbox"/>	<input checked="" type="checkbox"/>

User/group to add

Add

Item roles

User/group	Developer	Tester
 Anonymous	<input type="checkbox"/>	<input type="checkbox"/>

User/group to add

Add

Add

Item roles

User/group	Developer	Tester	
 Anonymous	<input type="checkbox"/>	<input type="checkbox"/>	
 rajesh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
 rajeshtester	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

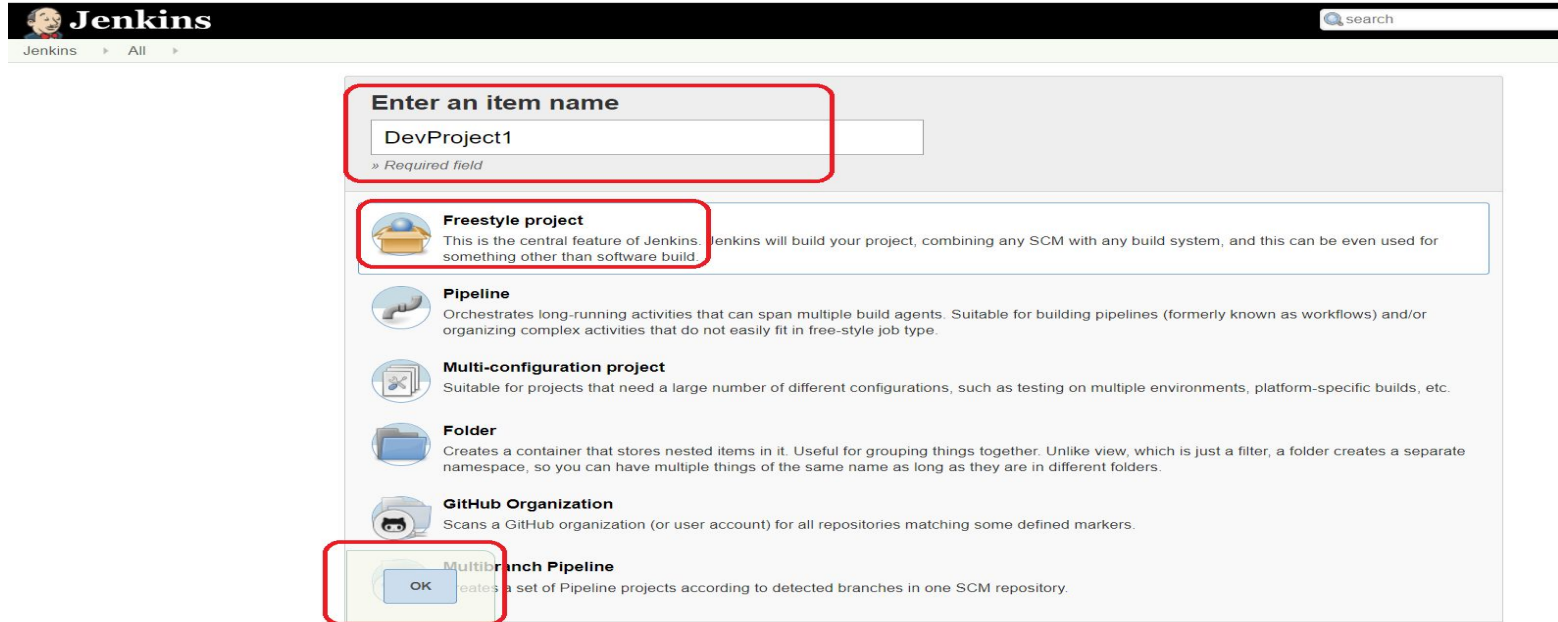
Assigning two users under Project roles --- one in Development, one in tester

User/group to add

Add

By this, we have added two users under global role and in project roles also - one in development, one in tester


Now, i will create new project by click on - “New Item” in login dashboard



The image shows the Jenkins 'New Item' form. At the top, there's a header with the Jenkins logo and a search bar. Below the header, the form is titled 'Enter an item name'. A text input field contains 'DevProject1', and a red box highlights this field with the text '» Required field' below it. Below the input field, there are several project type options, each with an icon and a description:

- 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. (Highlighted with a red box)
- 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.
- Folder**: Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.
- GitHub Organization**: Scans a GitHub organization (or user account) for all repositories matching some defined markers.
- Multibranch Pipeline**: Creates a set of Pipeline projects according to detected branches in one SCM repository. (Highlighted with a red box, with an 'OK' button next to it)

Click on “OK” --- “Save”

**Jenkins**

admin

log out

search

ENABLE AUTO REFRESH

add description

New Item

People

Build History

Manage Jenkins

My Views

Lockable Resources

Credentials

New View

Build Queue



No builds in the queue.

Build Executor Status

1 Idle

2 Idle

All

S	W	Name ↓	Last Success	Last Failure	Last Duration
		DevProject1	N/A	N/A	N/A

Icon: S M L

This project will be accessed by Dev role at project

Legend RSS for all RSS for failures RSS for just latest builds

Created project will appear at here

Page generated: Feb 3, 2019 7:37:36 AM UTC

REST API

Jenkins ver. 2.150.3

Create one more project “TestProject”

[admin](#)[log out](#)

Jenkins ▶

[ENABLE AUTO REFRESH](#)

New Item

People

Build History

Manage Jenkins

My Views

Lockable Resources

Credentials

New View

[add description](#)

All



S	W	Name ↓	Last Success	Last Failure	Last Duration
		DevProject1	N/A	N/A	N/A
		testproject	N/A	N/A	N/A

Icon: [S](#) [M](#) [L](#)

[Legend](#)

[RSS for all](#)

[RSS for failures](#)

[RSS for just latest builds](#)

Build Queue



No builds in the queue.

[Build Executor Status](#)



1 idle

Two projects created
one starting Dev --- Development role employees can access
one starting test --- Testing role employee can access

Check with different users which you created and confirm
First --- im login with rajesh, who is under Developement
role

← → ↻ Not secure | 3.83.106.28:8080/jenkins/ 🔑 ☆ S 🌐 📧 🌐 ⋮

Jenkins 🔍 search ? **Rajesh Jagarlamusi** | log out

Jenkins ▶

People

Build History

My Views

Lockable Resources

New View

If you observe at here, "Manage Jenkins" option is not shown. cause he is not an admin

S	W	Name ↓	Last Success	Last Failure	Last Duration
🌐	☀️	<u>DevProject1</u>	N/A	N/A	N/A

Icon: [S](#) [M](#) [L](#)

[Legend](#) [RSS for all](#) [RSS for failures](#) [RSS for just latest builds](#)

Build Queue —

No builds in the queue.

Build Executor Status —

1 Idle

2 Idle

ENABLE AUTO REFRESH

[add description](#)

Login with Rajesh (developer), in his dash board we can see only DevProject

If you observe at here "Manage Jenkins" options is not shown. cause: he is not an admin

Icon: [S](#) [M](#) [L](#)

Name ↓
testproject

Legend  [RSS for all](#)  [RSS for failures](#)  [RSS for just latest builds](#)

Process	Last Failure	Last Duration
	N/A	N/A

[Legend](#)  [RSS for all](#)  [RSS for failures](#)  [RSS for just latest builds](#)

By here, Create, Manage & Assign roles completed