

Create Users & Manage Permissions: Role Strategy Plugin

Generally, in a large organization, there are multiple, separate teams to manage and run jobs in Jenkins. But managing this crowd of users and assigning roles to them can prove troublesome.

By default, Jenkins comes with very basic user creation options. You can create multiple users but can only assign the same roles and privileges to them. This not ideal, especially for a large organization.

The **Role Strategy Plugin** allows you to assign different roles and privileges to different users. You will first need to install the plugin in your Jenkins environment.

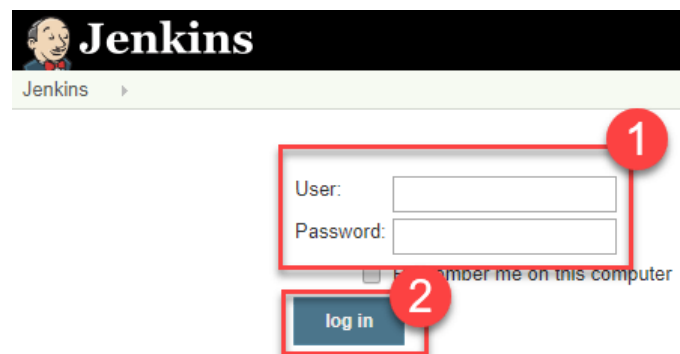
In this lab, you will learn

- [How to Create/Add a User](#)
- [Install Role Strategy Plugin](#)
- [Create Roles](#)
- [Assign a Role](#)
- [Project Roles](#)

How to Create/Add a User

Step 1) Login to your Jenkins dashboard by visiting <http://localhost:8080/>

If you haven't installed Jenkins in your local server, go to the appropriate URL and access your dashboard by using your login credentials.



Step 2) You will now see options to create new users and manage current users.

Step 3)

- Under Manage Jenkins, Click Create User
- Enter User details like password, name, email etc.
- Click Create User



Jenkins > Jenkins' own user database

Back to Dashboard

Manage Jenkins

Create User

Create User

Username: user1

Password:

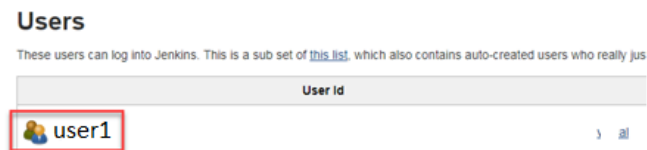
Confirm password:

Full name: Vishal

E-mail address: vishal@gmail.com

Create User

Step 4) User is created



Users

These users can log into Jenkins. This is a sub set of [this list](#), which also contains auto-created users who really jus

User Id
user1

Install Role Strategy Plugin

There are two methods for installing plugins in Jenkins:

1. Installing it through your Jenkins dashboard
2. Downloading the plugin from Jenkins website and installing it manually.

Step 1)

1. Go to **Manage Jenkins**
2. Click on the Manage Plugins option

The screenshot shows the Jenkins dashboard. On the left sidebar, the 'Manage Jenkins' link is highlighted with a red box and a red circle containing the number 1. Below it are links for 'My Views', 'Credentials', and 'New View'. The 'Build Queue' section shows 'No builds in the queue.' The 'Build Executor Status' section shows two idle executors. On the right, there are several configuration options: 'Configure System', 'Configure Global Security', 'Configure Credentials', 'Global Tool Configuration', 'Reload Configuration from Disk', and 'Manage Plugins'. The 'Manage Plugins' section is highlighted with a red box and a red circle containing the number 2. Above it, a blue banner indicates a new version of Jenkins (2.121.3) is available for download. A red warning box above the configuration options states: 'Warnings have been published for the following currently installed components. Jenkins 2.121.2 core and libraries: Multiple security vulnerabilities in Jenkins 2.137 and earlier, and LTS 2.121.2 and earlier'.

1

2

Step 2)

1. In available section, screen Search for "role".
2. Select **Role-based Authorization Strategy** plugin
3. Click on "**Install without restart**" (make sure you have an active internet connection)

The screenshot shows the 'Available' tab in the Jenkins plugin manager. A search filter 'role' is entered in the search bar, highlighted with a red box and a red circle containing the number 1. Below the search bar, there are tabs for 'Updates', 'Available', 'Installed', and 'Advanced'. The 'Available' tab is selected. Below the tabs, there is a table with columns 'Name' and 'Version'. The table contains one entry: 'Role-based Authorization Strategy' with version '2.8.1'. This entry is highlighted with a red box and a red circle containing the number 2. Below the table, there are three buttons: 'Install without restart', 'Download now and install after restart', and 'Click now'. The 'Install without restart' button is highlighted with a red box and a red circle containing the number 3.

1

2

3

Step 3)

Once the plugin is installed, a "success" status will be displayed.

Installing Plugins/Upgrades

Preparation

- Checking internet connectivity
- Checking update center connectivity
- Success

Role-based Authorization Strategy  Success

➡ [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

Click on **Go back to the top page**.

Step 4) Go to **Manage Jenkins** -> Configure Global Security -> Under **Authorization**, select **Role Based Strategy**. Click on **Save**.

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

Authorization

☐ Anyone can do anything

☐ Legacy mode

☐ Logged-in users can do anything

☐ Matrix-based security

☐ Project-based Matrix Authorization Strategy

☒ Role-Based Strategy

Markup Formatter

Markup Formatter

Plain text


Save Apply


Create Roles


In this step, we shall learn to certain roles to a single user or a group of users.


Step 1)


1. Go to **Manage Jenkins**
2. Select **Manage and Assign Roles**



Load Statistics
 Check your resource utilization and see if you need more computers for your builds.



Jenkins CLI
 Access/manage Jenkins from your shell, or from your script.


Script Console
 Executes arbitrary script for administration/trouble-shooting/diagnostics.


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.


Manage Old Data
 Scrub configuration files to remove remnants from old plugins and earlier versions.


Note: that the **Manage and Assign Roles** option will only be visible if you've installed the role strategy plugin.


Step 2) Click on **Manage Roles** to add new roles based on your organization.



Manage and Assign Roles


[Manage Roles](#)
 Manage Roles


[Assign Roles](#)
 Assign Roles


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

Step 3) To create a new role called "developer",

1. Type "developer" under "role".
2. Click on "Add" to create a new role.
3. Now, select the permissions you want to assign to the "Developer" role.
4. Click Save



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
<input checked="" type="checkbox"/> 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"/>
<input checked="" type="checkbox"/> developer	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3

Role to add

1

developer

2

Add

Project roles

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

Role to add

Pattern

Add

4

Save

Apply

Assign a Role

Step 1) Now that you have created roles, let us assign them to specific users.

1. Go to **Manage Jenkins**
2. Select Manage and Assign Roles



Manage and Assign Roles



[Manage Roles](#)

[Manage Roles](#)



[Assign Roles](#)

[Assign Roles](#)



[Role Strategy Macros](#)

Provides info about macro usage and available macros

Step 2) We shall add the new role "developer" to user "user1"

1. Selector developer role checkbox
2. Click Save

Assign Roles

Global roles

User/group	admin	developer
<input checked="" type="checkbox"/> user1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Anonymous	<input type="checkbox"/>	<input type="checkbox"/>

User/group to add

Add

Item roles

User/group
<input checked="" type="checkbox"/> Anonymous

User/group to add

Add

Node roles

User/group
<input checked="" type="checkbox"/> Anonymous

User/group to add

Add

You can assign any role to any user, as per your need.

Project Roles

You can create project specific roles under **Project Roles**.














Step 1) In Manage and Assign Roles

1. Enter a role as "tester"
2. Add a pattern to this by adding **tester.***, so that any username starting with "tester" will be assigned the project roles you specify.
3. Click Add
4. Select privileges
5. Click Save



Manage and Assign Roles

Project roles

Role	Pattern	Credentials					Job					Run			SCM			
		Create	Delete	ManageDomains	Update	View	Build	Cancel	Configure	Create	Delete	Discover	Move	Read	Workspace	Delete	Replay	Update
 tester	tester.*																	

Role to add

tester

Pattern

tester.*

Add

Save

Apply