JENKINS ASSIGNMENT 4
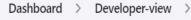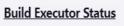
```
"Assignment 4:
Topics Covered:  (User Authentication, User Authorization)
      Assignment on Authentication and Authorization
          Their is an organization which has 3 teams
                - Developer
                - Devops
                - Testing
          First you need to create 9 dummy jenkins jobs.Each job will print their jobname, build number.
              For Developer create 3 dummy jobs.In developer view
                  job1:- dev-1
                  job2:- dev-2
                  job3:- dev-3
              For Testing create 3 dummy jobs. In testing view
                  job1:- test-1
                  job2:- test-2
                  job3:- test-3
              For Devops create 3 dummy jobs. In devops view
                  job1:- devops-1
                  job2:- devops-2
                  job3:- devops-3
          Users in each team:
              developer: [ They can see only dev jobs, can build it, see workspace and configure it ]
                    - developer-1
                    - developer-2
              testing: [ They can see all test jobs ,can build it, see workspace and can configure it, | They can also view dev jobs ]
                    - testing-1
                    - testing-2
              devops:  [ They can see all devops jobs ,can build it, see workspace and can configure it, | They can also view dev and test jobs  ]
                    - devops-1
                    - devops-2
              admin
                    -  admin-1 [ It will have full access ]
          See what Authorization strategy suits it and implement it.
          Also go through all authorization strategy
          Legacy mode
          Project Based
          Matrix Based
          Role-Based
          Point 2:-
          Enable SSO with Goggle"
```

CREATE 9 FREE-STYLE JOBS

CREATE THREE VIEWS
1- DEVELOPER VIEW
2- DEVOPS VIEW
3- TESTING VIEW
AND ASSIGN THE JOBS

Search (CTRL+K)

dheerendra singh bhandari

log out

Dashboard > devops view >

DEVOPS VIEW

New Item

People

Build History

Edit View

Delete View

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Open Blue Ocean

Add description

		All	Developer-view	devops view	testing view	+	

S	W	Name ↓	Last Success	Last Failure	Last Duration	Fav
•••	⚙	devops-1	N/A	N/A	N/A	▷ ☆
•••	⚙	devops-2	N/A	N/A	N/A	▷ ☆
•••	⚙	devops-3	N/A	N/A	N/A	▷ ☆

Icon: S M L

Icon legend   Atom feed for all   Atom feed for failures   Atom feed for just latest builds

Build Queue ⌄

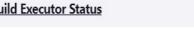No builds in the queue.

Build Executor Status ⌄

🖥 Built-In Node

TESTING VIEW

New Item

People

Build History

Edit View

Delete View

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Open Blue Ocean

Add description

| | All | Developer-view | devops view | testing view | + |

S	W	Name ↓	Last Success	Last Failure	Last Duration		Coverage	Fav	# Issues
⋯	⚙	test-1	N/A	N/A	N/A	▷	n/a	☆	-
⋯	⚙	test-2	N/A	N/A	N/A	▷	n/a	☆	-
⋯	⚙	test-3	N/A	N/A	N/A	▷	n/a	☆	-

Icon: S M L

Icon legend   Atom feed for all   Atom feed for failures   Atom feed for just latest builds

Build Queue ⌄

No builds in the queue.

Build Executor Status ⌄

Built-In Node

Search (CTRL+K)

dheerendra singh bhandari   log out

Dashboard > Manage Jenkins > Jenkins' own user database

↑ Back to Dashboard

⚙ Manage Jenkins
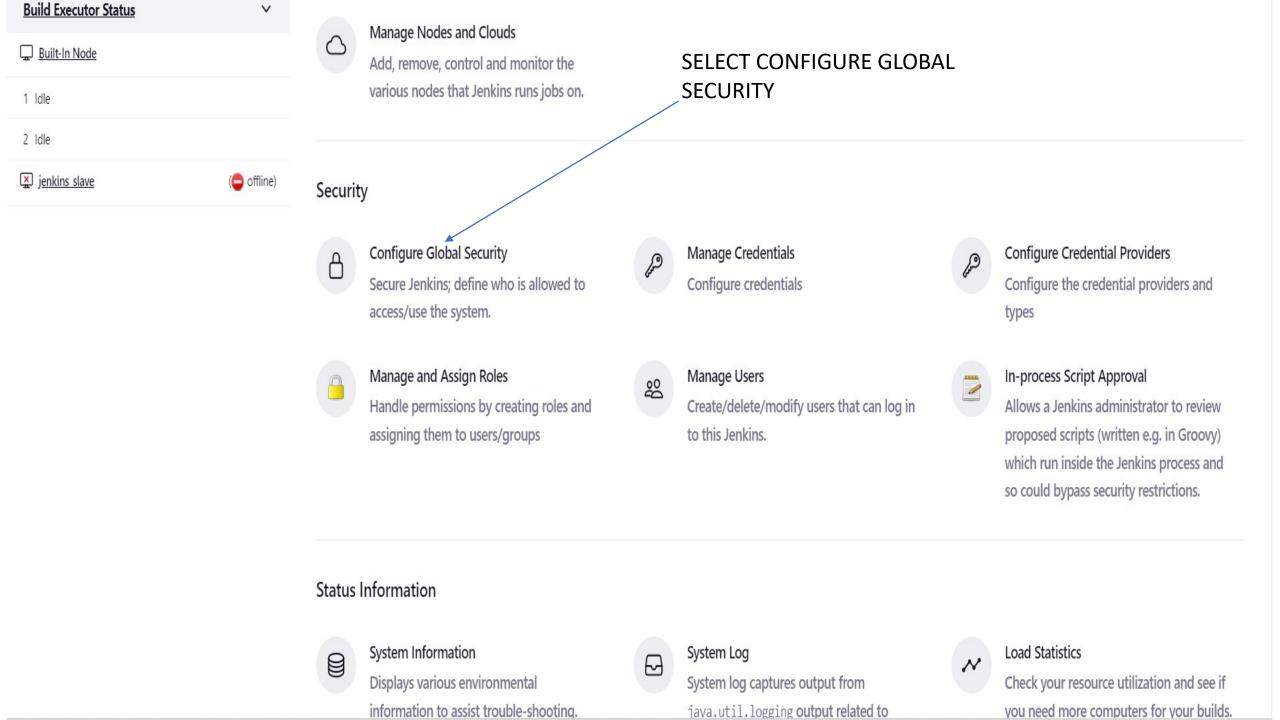
👥 Users

➕ Create User

CREATE 6 USERS

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.
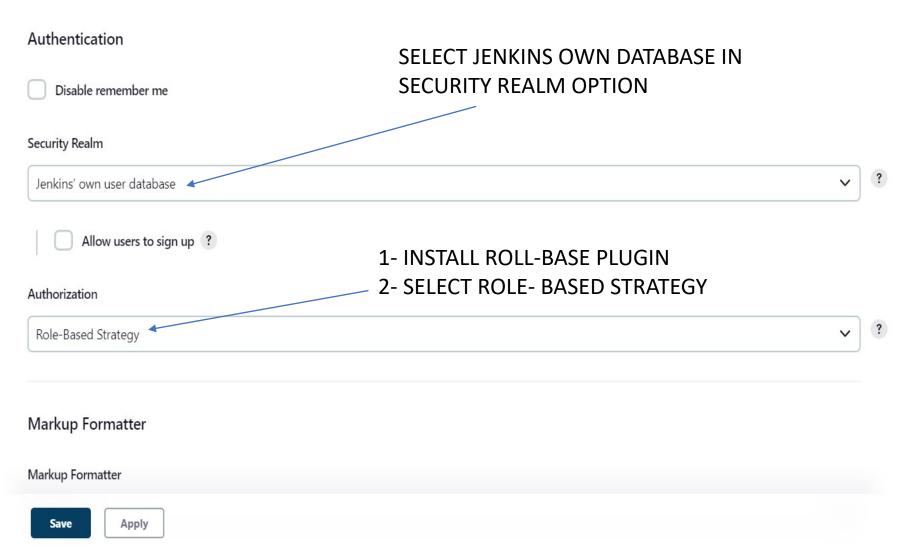
User ID ↓	Name		
👤 admin	dheerendra singh bhandari	⚙	
👤 developer-1	developer	⚙	🗑
👤 developer-2	developer-2	⚙	🗑
👤 devops-1	devops-1	⚙	🗑
👤 devops-2	devops-2	⚙	🗑
👤 testing-1	testing-1	⚙	🗑
👤 testing-2	testing-2	⚙	🗑
👤 zigi	zigi	⚙	🗑

Build Executor Status ⌄

🖥 Built-In Node

1 Idle

2 Idle

❌ jenkins_slave   (⛔ offline)

☁ **Manage Nodes and Clouds**

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

SELECT CONFIGURE GLOBAL
SECURITY

Security

🔒 **Configure Global Security**

Secure Jenkins; define who is allowed to
access/use the system.

🔑 **Manage Credentials**

Configure credentials

🔑 **Configure Credential Providers**

Configure the credential providers and
types

🔒 **Manage and Assign Roles**

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

👥 **Manage Users**

Create/delete/modify users that can log in
to this Jenkins.

📝 **In-process Script Approval**

Allows a Jenkins administrator to review
proposed scripts (written e.g. in Groovy)
which run inside the Jenkins process and
so could bypass security restrictions.

Status Information

🗄 **System Information**

Displays various environmental
information to assist trouble-shooting.

🗄 **System Log**

System log captures output from
java.util.logging output related to

📈 **Load Statistics**

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

Dashboard > Manage Jenkins > Configure Global Security

Back to Dashboard

Manage Jenkins

Configure Global Security

Authentication

SELECT JENKINS OWN DATABASE IN
SECURITY REALM OPTION

Disable remember me

Security Realm

Jenkins' own user database

Allow users to sign up ?

1- INSTALL ROLL-BASE PLUGIN
2- SELECT ROLE- BASED STRATEGY

Authorization

Role-Based Strategy

Markup Formatter

Markup Formatter

Save   Apply

Build Executor Status   ⌄

🖥 Built-In Node

1 Idle

2 Idle

☒ jenkins slave   ⊖ offline)

Manage Nodes and Clouds

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

Security

Configure Global Security

Secure Jenkins; define who is allowed to access/use the system.

Manage Credentials

Configure credentials

Configure Credential Providers

Configure the credential providers and types

Manage and Assign Roles

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

Manage Users

Create/delete/modify users that can log in to this Jenkins.

In-process Script Approval

Allows a Jenkins administrator to review proposed scripts (written e.g. in Groovy) which run inside the Jenkins process and so could bypass security restrictions.

SELECT MANAGE
AND ASSIGN ROLES

Status Information

System Information

Displays various environmental information to assist trouble-shooting.

System Log

System log captures output from java.util.logging output related to

Load Statistics

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

Jenkins

Search (CTRL+K)

dheerendra singh bhandari

log out

+ New Item

People

Build History

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Open Blue Ocean

Build Queue

Manage and Assign Roles

Manage Roles
Manage Roles

SELECT MANAGE ROLES

Assign Roles
Assign Roles

Role Strategy Macros
Provides info about macro usage and available macros

Build History

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Open Blue Ocean

Build Queue

No builds in the queue.

Build Executor Status

Built-In Node

1 Idle

2 Idle

jenkins slave (offline)

CREATE GROUP- EMPLOYEE

Global roles

Role	Overall		Credentials					Agent							Job											Run			View				SCM	
	Administer	Read	Create	Delete	ManageDomains	Update	View	Build	Configure	Connect	Create	Delete	Disconnect	Provision	Build	Cancel	Configure	Create	Delete	Discover	Move	Read	Workspace	Delete	Replay	Update	Configure	Create	Delete	Read	Tag	
Employee	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
admin	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Role to add

GIVE OVERALL READ PERMISSION
TO EMPLOYEE

Add

Item roles

Role	Pattern	Credentials				Job												Run			View				SCM
		Create	Delete	ManageDomains	Update	View	Build	Cancel	Configure	Create	Delete	Discover	Move	Read	Workspace	Delete	Replay	Update	Configure	Create	Delete	Read	Tag
developer	"dev-.*"	☐	☐	☐	☐	☑	☑	☐	☑	☑	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐
devops	"devops.*"	☐	☐	☐	☐	☑	☑	☐	☑	☑	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐
testing	"test.*"	☐	☐	☐	☐	☑	☑	☐	☑	☑	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐

ADD ROLE AND
GIVE PATTERN

Role to add

CLICK ON SAVE

Save   Apply

Jenkins

Search (CTRL+K)

dheerendra singh bhandari

log out

+ New Item

People

Build History

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Open Blue Ocean

Manage and Assign Roles
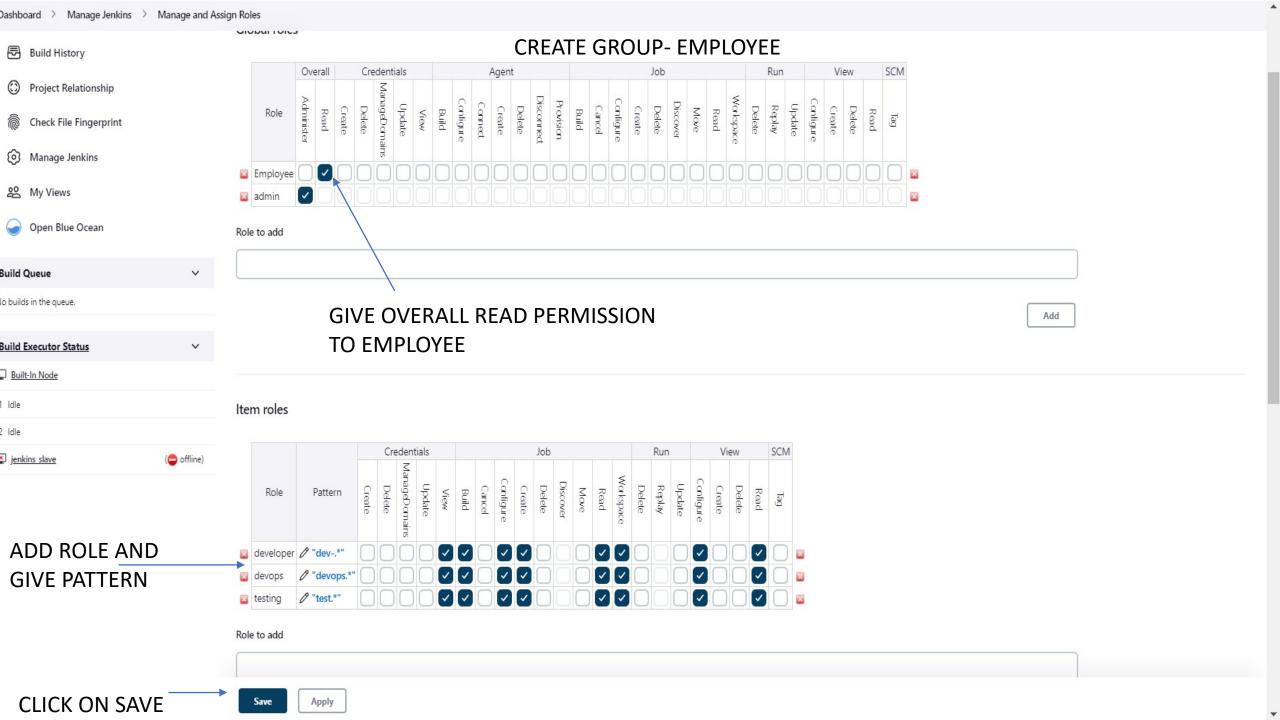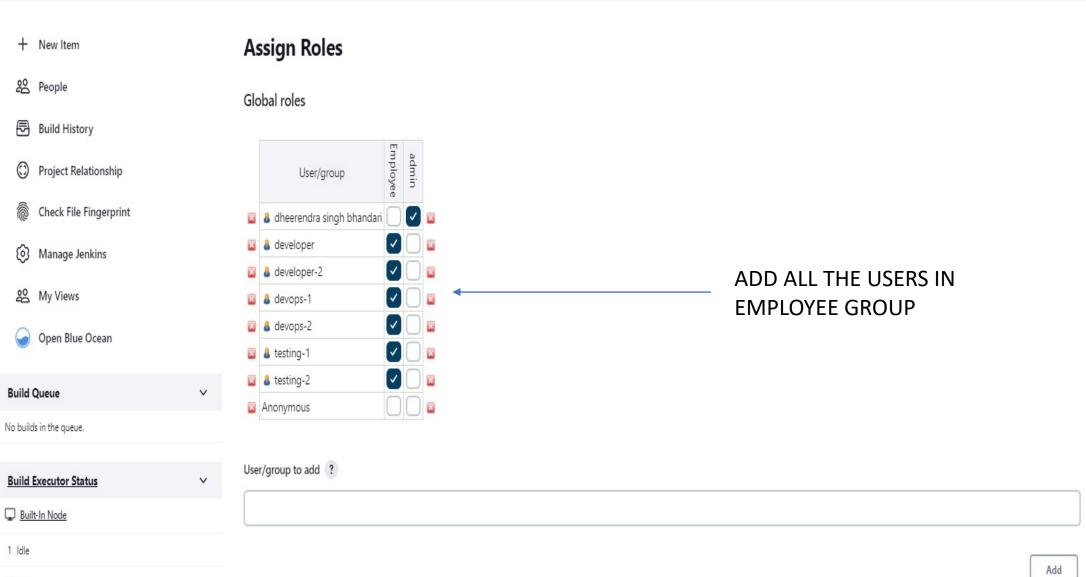
Manage Roles
Manage Roles

Assign Roles ← AFTER MANAGE ROLE DONE SELECT ASSIGN ROLES
Assign Roles

Role Strategy Macros
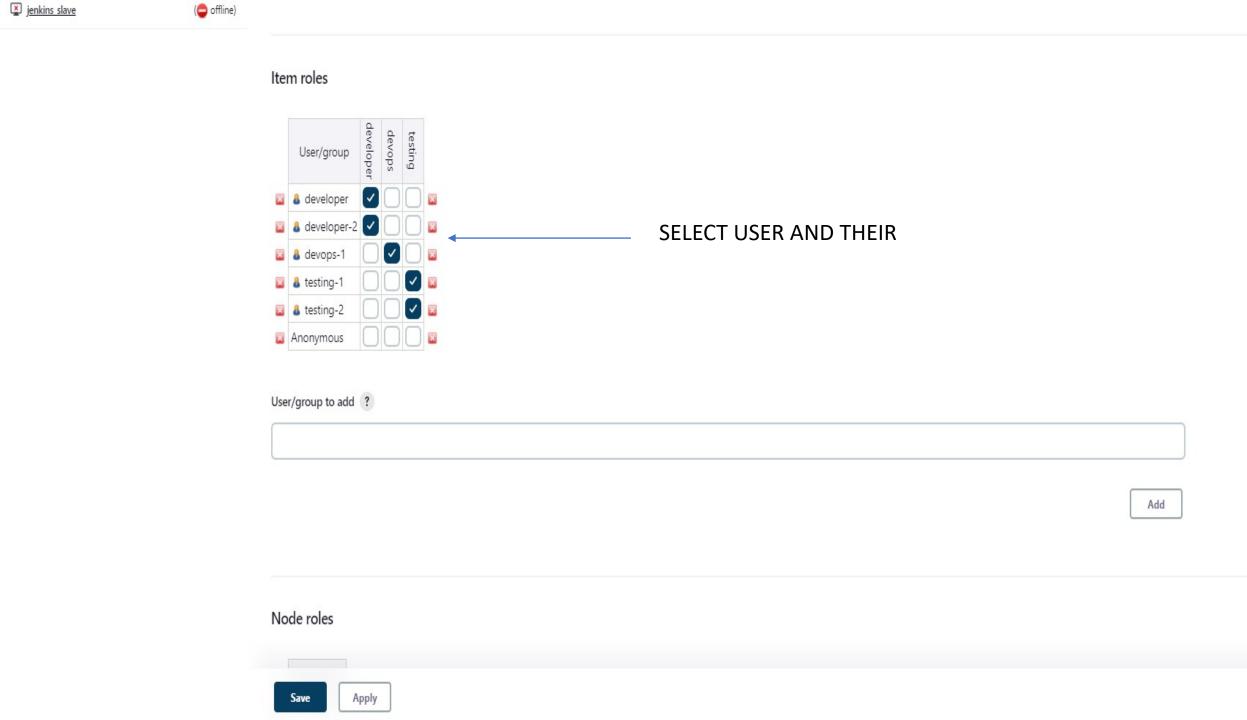Provides info about macro usage and available macros

Build Queue

Jenkins

Search (CTRL+K)

dheerendra singh bhandari

log out

New Item

People

Build History

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Open Blue Ocean

Assign Roles

Global roles

User/group	Employee	admin
dheerendra singh bhandari	☐	☑
developer	☑	☐
developer-2	☑	☐
devops-1	☑	☐
devops-2	☑	☐
testing-1	☑	☐
testing-2	☑	☐
Anonymous	☐	☐

ADD ALL THE USERS IN EMPLOYEE GROUP

User/group to add ?

Add

Build Queue

No builds in the queue.

Build Executor Status

Built-In Node

1 Idle

2 Idle

jenkins slave   offline)

Item roles

	User/group	developer	devops	testing	
⊠	👤 developer	✓	☐	☐	⊠
⊠	👤 developer-2	✓	☐	☐	⊠
⊠	👤 devops-1	☐	✓	☐	⊠
⊠	👤 testing-1	☐	☐	✓	⊠
⊠	👤 testing-2	☐	☐	✓	⊠
⊠	Anonymous	☐	☐	☐	⊠

← SELECT USER AND THEIR

User/group to add ?

Add

Node roles

Save   Apply

DONE ALL THE STEPS NOW LOGIN FROM ALL THE USERS WHICH YOU CREATED AND CHECK THEIR JOBS.

Welcome to Jenkins!

developer-1

•••

Keep me signed in

Sign in

Not secure | 18.231.113.139:8080

InPrivate

Jenkins

Search (CTRL+K)

developer

log out

Dashboard

People

Build History

Project Relationship

Check File Fingerprint

My Views

Open Blue Ocean

All   Developer-view

LOGIN FROM DEVELOPER USER

S	W	Name ↓	Last Success	Last Failure	Last Duration	Coverage	Fav	# Issues
⋯	☼	dev-1	N/A	N/A	N/A	▷	n/a ☆	-
⋯	☼	dev-2	N/A	N/A	N/A	▷	n/a ☆	-
⋯	☼	dev-3	N/A	N/A	N/A	▷	n/a ☆	-

Icon: S   M   L   Icon legend   Atom feed for all   Atom feed for failures   Atom feed for just latest builds

Build Queue

No builds in the queue.

Build Executor Status

Built-In Node

1 Idle

2 Idle

jenkins slave   (offline)

Jenkins

People

Build History

Project Relationship

Check File Fingerprint

My Views

Open Blue Ocean

Build Queue ⌄

No builds in the queue.

Build Executor Status ⌄

🖥 Built-In Node

1 Idle

2 Idle

❌ jenkins slave (⛔ offline)

All | devops view

LOGIN FROM DEVOPS USER

S	W	Name ↓	Last Success	Last Failure	Last Duration		Coverage	Fav	# Issues
⋯	⚙	devops-1	N/A	N/A	N/A	▷	n/a	☆	-
⋯	⚙	devops-2	N/A	N/A	N/A	▷	n/a	☆	-
⋯	⚙	devops-3	N/A	N/A	N/A	▷	n/a	☆	-

Icon: S M L

Icon legend | Atom feed for all | Atom feed for failures | Atom feed for just latest builds

Search (CTRL+K)

testing-1

log out

Dashboard >

People

Build History

Project Relationship

Check File Fingerprint

My Views

Open Blue Ocean

Build Queue ⌄

No builds in the queue.

Build Executor Status ⌄

Built-In Node

1 Idle

2 Idle

jenkins slave (offline)

All   testing view

LOGIN FROM TESTING USER

S	W	Name ↓	Last Success	Last Failure	Last Duration	Coverage	Fav	# Issues
⋯	⚙	test 1	N/A	N/A	N/A	▷	n/a ☆	-
⋯	⚙	test-1	N/A	N/A	N/A	▷	n/a ☆	-
⋯	⚙	test-2	N/A	N/A	N/A	▷	n/a ☆	-
⋯	⚙	test-3	N/A	N/A	N/A	▷	n/a ☆	-

Icon: S   M   L

Icon legend   Atom feed for all   Atom feed for failures   Atom feed for just latest builds