

DVS Technologies Aws & Devops

Compiled and Scrutinized by
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Words To The Students

Though we have taken utmost efforts to present you this book error free, but still it may contain some errors or mistakes. Students are encouraged to bring, if there are any mistakes or errors in this document to our notice. So that it may be rectified in the next edition of this document.

“Suppressing your doubts is Hindering your growth”.

We urge you to work hard and make use of the facilities we are providing to you, because there is no substitute for hard work. We wish you all the best for your future.

“The grass isn’t greener on the other side; the grass is greener where you water it.”

You and your suggestions are valuable to us; Help us to serve you better. In case of any suggestions, grievance, or complaints, please feel free to write us your suggestions, grievance and feedback on the following

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Jenkins Class Notes

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Introduction to Jenkins:

What is Jenkins:

Jenkins is a leading open source automation server, Jenkins provides hundreds of plugins to support building, deploying, and automating any project.

Jenkins is an application that monitors executions of repeated jobs, such as building a software project or jobs run by cron.

Traditionally, development make s/w available in a repository and then operations builds and deploys the software to one or more environments.

A QA(Quality Assurance) team may then execute load and performance test against that build and release it for production use

Jenkins can automate large portions of that repeatable process.

What's so great about it:

Its a open source!

it works for most people

Its easy to setup and configure

Its highly flexible with a ton of plugin support.

Works in just about any environment.

It doesn't use a lot of resources

What's Covered in this course:

CI & CD

Installing Jenkins and Prerequisites

Configuring and securing jenkins

BasicProjects - Configuring and concepts

Folders and views

Working with plugins

and etc ...

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Continuous Integration and Continuous Delivery:

CI:

It's a s/w development practice where contributors are integrating their work frequency. This results in multiple daily integrations to a mainline. Automated testing(post-commit promotion) is commonly used.

Basic Workflow:

1. Checkout from source code management (like git)
2. Branch and make local changes
3. Add or change tests as necessary
4. Trigger automated build locally
5. If successful, consider committing
6. Update with latest from mainline
7. Push changes, build and test on integration

Continuous Delivery:

A s/w development discipline where software is built so that it can be released to production at anytime

Keys and Assumptions:

S/w is always deployable throughout s/w development life cycle (SDLC)
Not breaking the build is prioritized over adding features.
Feedback is fast and production readiness is known.
Push-button deployments are possible of any version of the s/w
Close/Collaborative working relationship

Best practices:

1. Maintain a single source repository
2. Have a common mainline branch (usually master)
3. Automate the build
4. Minimize potential for user error, automate everything possible
5. Make the build self-testing - self-testing code
6. Everyone commits frequently (at least daily preferably)
7. Communication is a key!
8. Frequent mergers will help
9. The working branch should be updated as frequently as possible to help avoid very large diffs while merging.

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10. Build every commit
11. Prioritize fixing broken builds
12. Keep your builds fast !!!
13. Testing environment should be as close to prod as possible
14. Make it easy for anyone to get the latest
15. Keep it open, everyone should see what's happening
16. Automate the deployment

Must Do:

- * Backup Jenkins(at least Jenkins home for job security)
- * use file fingerprinting to manage dependencies
- * Build from source control whenever possible (will generate clean builds)
- * Integrate Jenkins with an issue management or help desk system
- * Take advantages of automated testing(with java builds,) generate and look at the repots
- * Layout your jenkins install on the disk with the most storage (both jenkins jobs and build process will take up space)

- * Before deleting a job have an archive copy. better: never delete, move to an archive group or folder and disable the jobs
- * Resist the temptation to have one build job for multiple environments (dev,test,pord) - Consider creating one job to specialize in each environment to retain flexibility to make changes
- * Email the results to all developers and operations staff for every job, particularly if jenkins is not integrated into and issue management system
- * User Jenkins for common maintenance or clean up tasks that are run regularly.
- * Tag merge or baseline your code in source control after a successful build
- * Keep your jenkins up to date- atleast be on the latest LTS version
- * keep your plugins up to date- review the bug reports and see what they address
- *DON'T BUILD ON MASTER except on very small deployments. If you have more than a dozen jobs and they are used by more than two or three people, set up build slaved to do the work.

All the above are the best practices which helps you to be in safe side.

Build Pipeline:

It is a process by which the software build is broken down in sections:

1. Unit test
2. Acceptance test
3. Packaging
4. Reporting
5. Deployment
6. Notification

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these can then be executed in series, or in parallel, and depending on the Success or failure of any phase, it can automatically be moved to the next phase.

Where is "Devops" in that, through automation, the tools and skills needed are very "cross domain"

Best Practices:

jenkins and devops movement have caused companies to think of common tasks differently:

- * Build Management
- * Release Management
- * Deployment Automation
- * Test Orchestration

Difference b/w CI & CD (continuous delivery):

Continuous delivery is the ability to release at any time.

Continuous integration is just the practice of integrating code continuously.

Continuous Delivery Versus Continuous Deployment:

Continuous Delivery means the code can be delivered at anytime

Continuous deployment is that code is released continuously as part of an automated pipeline

Questions & Answers:

1) What's the difference between Continuous Delivery and Continuous Deployment?
Continuous Delivery means the code CAN be released at any time, while Continuous Deployment means it is released continuously.

2) Which answer best describes Continuous Integration?

A software development practice where contributors are integrating their work very frequently.

3) Which answer best describes Continuous Deployment?

A software development discipline where software is released continuously as part of an automated pipeline.

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4) Which is NOT a Continuous Integration best practice?

Do everything manually with great care.

5) Which answer best describes Continuous Delivery?

A software development discipline where software is built so that it can be released to production at any time.

Jenkins Installation

Prerequisites:

1. Make sure that java is installed

```
yum install java-1.8.0-openjdk-devel -y
java -version
update-alternatives --config java
update-alternatives --config javac
java -version
```

Jenkins Installation:

Note: Here we are going to install jenkins @specific version i.e "2.19.4-1.1". At the end we are going to disable the repo to ma

1. `wget -O /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat-stable/jenkins.repo`
2. `rpm --import http://pkg.jenkins.io/redhat-stable/jenkins.io.key`
3. `yum list --show-duplicates jenkins` :-> Helps to show the duplicates of the packages.
4. `yum install -y jenkins*`
5. `yum-config-manager --disable jenkins` :-> Disables the jenkins repo to avoid auto updates
6. Before restarting the services make sure that port 8080 is free ... using below

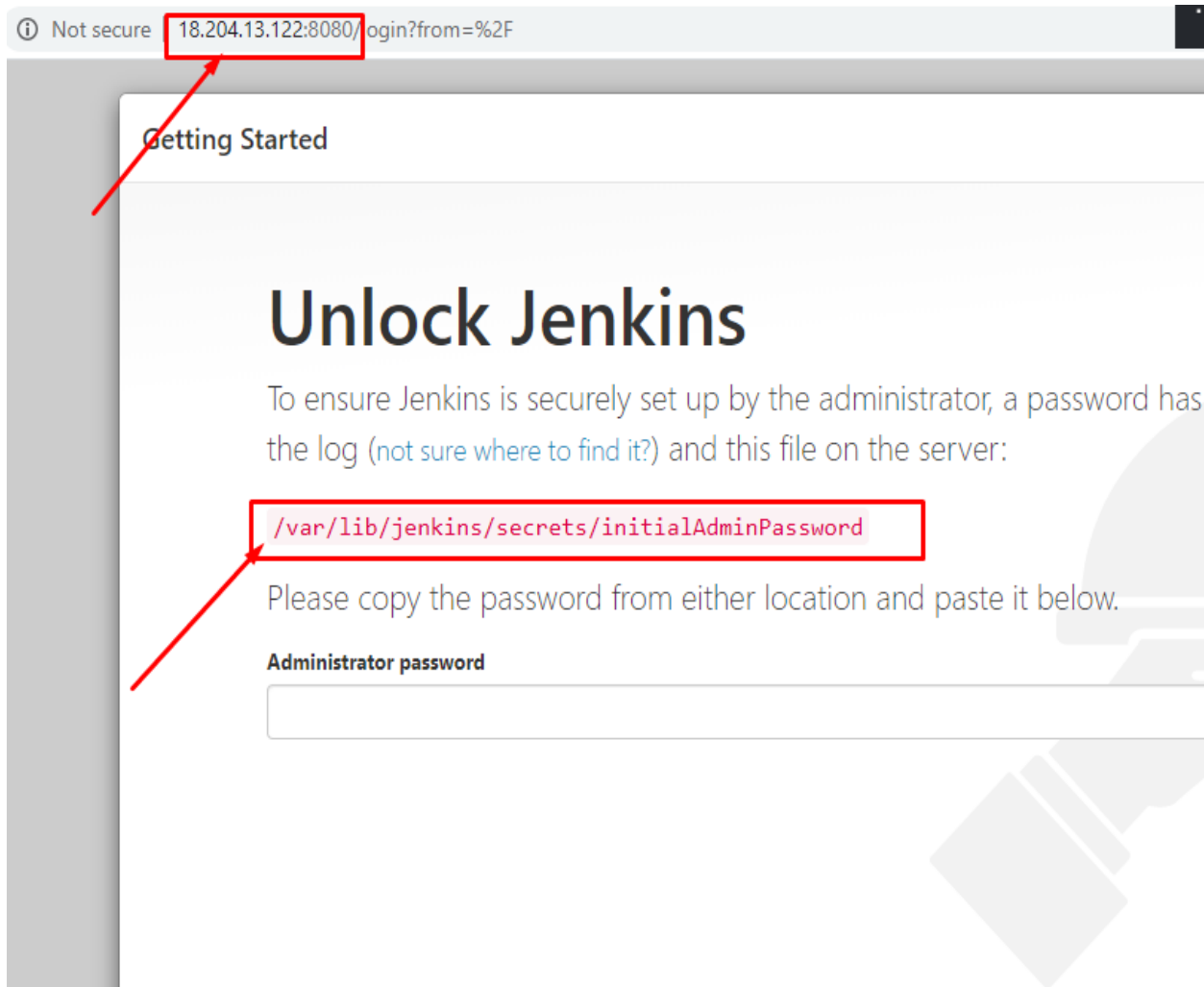
```
netstat -nap|grep :8080
```
7. `service jenkins start`
8. `chkconfig jenkins on`
9. Now open your serverip:8080 it will ask you to do copy the password from "/var/lib/jenkins/secrets/initialAdminPassword". Ope

```
cat /var/lib/jenkins/secrets/initialAdminPassword
75aa5a6089dd4900b0b7c77d01f106ca
```

Verification:

```
[root@jenkins-master ~]# netstat -naptl | grep :8080
[root@jenkins-master ~]# systemctl enable jenkins
jenkins.service is not a native service, redirecting to /sbin/chkconfig.
executing /sbin/chkconfig jenkins on
[root@jenkins-master ~]# systemctl restart jenkins
[root@jenkins-master ~]# netstat -naptl | grep :8080
[root@jenkins-master ~]# netstat -naptl | grep :8080
tcp6      0      0 :::8080          :::*              LISTEN      3911/java
[root@jenkins-master ~]# ps -ef | grep -i 3911
jenkins    3911      1 99 02:47 ?        00:00:19 /etc/alternatives/java -Dcom.sun.akuma.Daemon=daemonized -Djava.awt.headle
ss=true -DJENKINS_HOME=/var/lib/jenkins -jar /usr/lib/jenkins/jenkins.war --logfile=/var/log/jenkins/jenkins.log --webroot
=/var/cache/jenkins/war --daemon --httpPort=8080 --debug=5 --handlerCountMax=100 --handlerCountMaxIdle=20
root      3968  3595  0 02:47 pts/0    00:00:00 grep --color=auto -i 3911
[root@jenkins-master ~]#
```

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In Server:

```
[root@jenkins-master ~]# cat /var/lib/jenkins/secrets/initialAdminPassword
27dfc3f39d5f49c096331a8605919be7
[root@jenkins-master ~]#
```


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Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password has been written to the log (not sure where to find it?) and this file on the server:

```
/var/lib/jenkins/secrets/initialAdminPassword
```

Please copy the password from either location and paste it below.

Administrator password

paste password here

Continue

Customize Jenkins

Plugins extend Jenkins with additional features to support many different needs.

Install suggested plugins

Install plugins the Jenkins community finds most useful.

Select plugins to install

Select and install plugins most suitable for your needs.

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Getting Started

Create First Admin User

Username:	admin
Password:	*****
Confirm password:	*****
Full name:	admin
E-mail address:	admin@gmail.com

fill all details

Jenkins 2.235.3

[Skip and continue as admin](#)

[Save and Continue](#)

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Getting Started

Instance Configuration

Jenkins URL:

The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the BUILD_URL environment variable provided to build steps.

The proposed default value shown is **not saved yet** and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.

Jenkins 2.235.3

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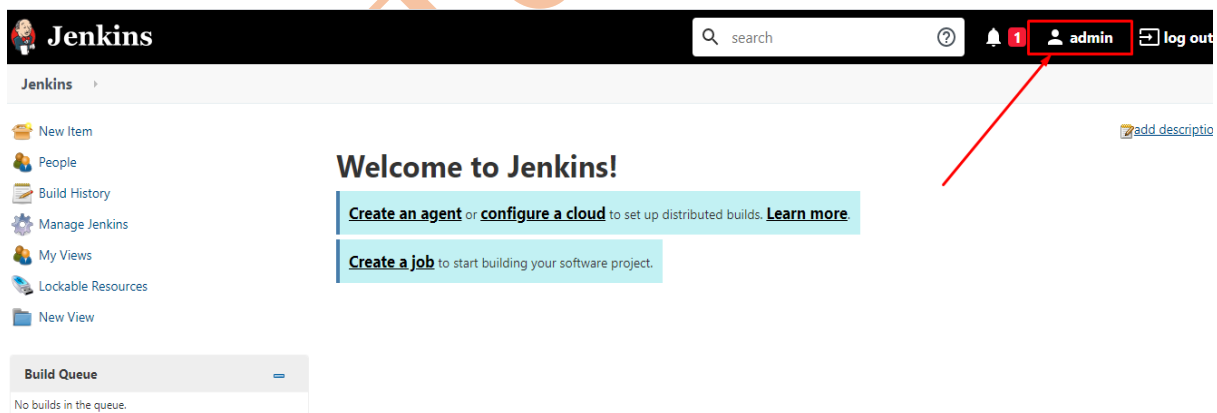
Jenkins is ready!

You have skipped the configuration of the Jenkins URL.

To configure the Jenkins URL, go to "Manage Jenkins" page.

Your Jenkins setup is complete.

Start using Jenkins



The screenshot shows the Jenkins dashboard interface. At the top, there's a black header with the Jenkins logo, a search bar, and user information. The user is logged in as 'admin', which is highlighted with a red box and a red arrow pointing from the 'Start using Jenkins' button in the previous image. Below the header, there's a sidebar with navigation links: New Item, People, Build History, Manage Jenkins, My Views, Lockable Resources, and New View. The main content area displays a 'Welcome to Jenkins!' message with two primary actions: 'Create an agent or configure a cloud' and 'Create a job'. A 'Build Queue' section at the bottom shows 'No builds in the queue'.

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User Management

Creating User:

The screenshot shows the Jenkins dashboard. In the left sidebar, the 'Manage Jenkins' option is highlighted with a red box and a red arrow. The main content area displays a 'Welcome to Jenkins!' message with links to 'Create an agent or configure a cloud' and 'Create a job'. Below this, there are sections for 'Build Queue' and 'Build Executor Status'. At the bottom, there are three cards: 'Configure Global Security', 'Manage Credentials', and 'Configure Credentials'. The 'Manage Users' card is highlighted with a red box and a red arrow. Below the 'Manage Users' card, there is a 'Status Information' section with three cards: 'System Information', 'System Log', and 'Load Statistics'.

Jenkins

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

Welcome to Jenkins!

Create an agent or configure a cloud to set up distributed builds. [Learn more.](#)

Create a job to start building your software project.

Build Queue

No builds in the queue.

Build Executor Status

- 1 Idle
- 2 Idle

Configure Global Security
Secure Jenkins: define who is allowed to access/use the system.

Manage Credentials
Configure credentials

Configure Credentials
Configure the credential types

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

Status Information

- System Information**
- System Log**
- Load Statistics**

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Jenkins > Jenkins' own user database

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 have no direct Jenkins access.

User ID	Name
 admin	admin

Create User

Username:

Password:

Confirm password:

Full name:

E-mail address:

dvsbatch3

.....

.....

dvsbatch3

dvsbatch3@gmail.com

Create User

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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 or have no direct Jenkins access.

User ID	Name
 admin	admin
 dvsbatch3	dvsbatch3

Verifying the Access:



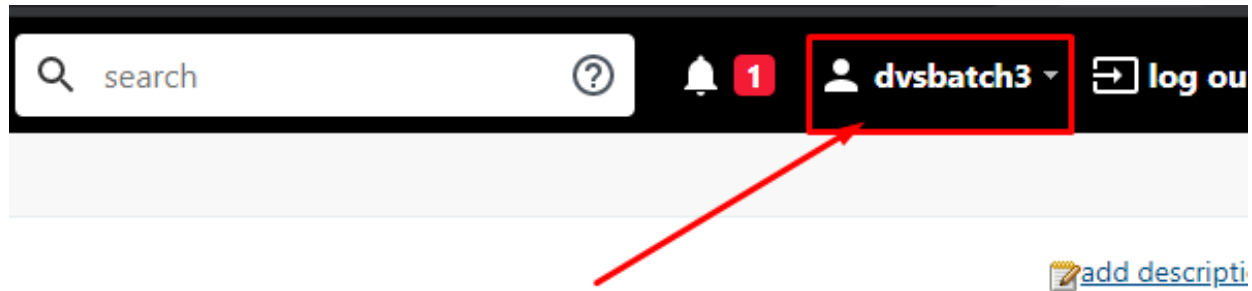
Welcome to Jenkins!

Form fields for Jenkins login:

- Username field: dvsbatch3
- Password field:
- Sign in button
- Keep me signed in checkbox

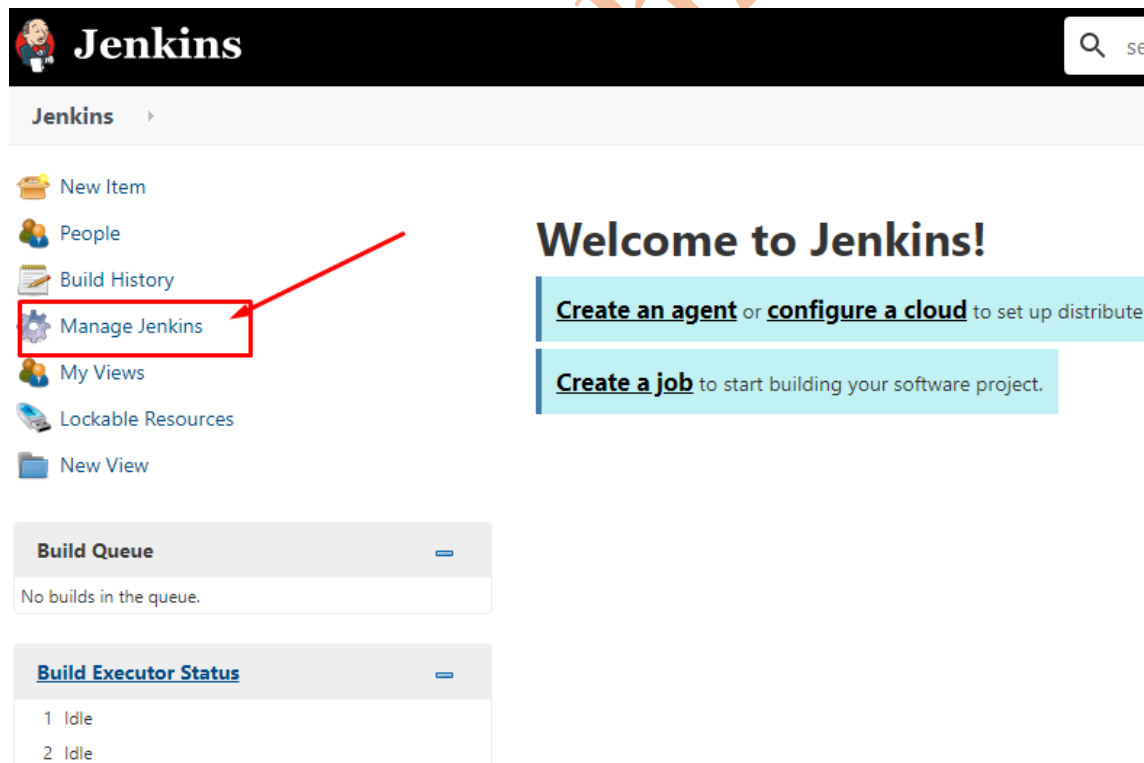
Red arrows point to the username field, the password field, and the Sign in button.

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distributed builds. [Learn more.](#)

Restricting User Access:



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Security



Configure Global Security

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



Manage Credentials

Configure credentials



Configure Jenkins

Configure the types



Manage Users

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

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 Jenkins.



Load Statistics

Check your resource usage to see if you need your builds.



About Jenkins



Get the version and license

Authorization

Strategy

Authorization

- ☐ Anyone can do anything
- ☐ Legacy mode
- ☐ Logged-in users can do anything
- ☒ Matrix-based security

User/group	Overall	Credentials			Agent			Job			Run												
	Administer	Read	Create	Delete	Managed Domains	Update	View	Build	Configure	Connect	Create	Delete	Disconnect	Cancel	Configure	Create	Delete	Discover	Read	Workspace	Delete	Replay	Update
 Anonymous Users	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 Authenticated Users	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Add user or group...

- ☐ Project-based Matrix Authorization Strategy

Markup Formatter

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☐ Anyone can do anything
☐ Legacy mode
☐ Logged-in users can do anything
☒ Matrix-based security

18.204.13.122:8080 says

User or group name:

User/group	Overall	Credentials	Managed Domains	Agent	Job	Run	View	SCM Lockable Resources
Administrator	Administer	Read	Create Delete Update View	Build Configure Connect Create Delete Disconnect Build Cancel Configure Create Delete Discover Read Workspace Delete Replay Update Configure Delete Read Tag Reserve Unlock View				

☐ Project-based Matrix Authorization Strategy

Plain text

Treats all input as plain text. HTML unsafe characters like < and & are escaped to their respective character entities.

nts ☐ Fixed :
☐ Random ☒ Disable

☒ Matrix-based security

User/group	Overall	Credentials	Agent	Job	Run	View	SCM Lockable Resources
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"/>

☐ Project-based Matrix Authorization Strategy

Plain text

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☐ Anyone can do anything
☐ Legacy mode
☐ Logged-in users can do anything
☒ Matrix-based security

18.204.13.122:8080 says
User or group name:

User/group	Overall	Credentials	ManagedDomains	Update	View	Build	Configure	Connect	Create	Delete	Disconnect	Cancel	Configure	Create	Delete	Discover	Read	Workspace	Update	Configure	Create	Delete	Read	Tag	Reserve	Unlock	View
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"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

☐ Project-based Matrix Authorization Strategy

Plain text

Treats all input as plain text. HTML unsafe characters like < and & are escaped to their respective character entities.

User/group	Overall	Credentials	Agent	Job											
	Administrator	ManagedDomains	Update	View	Build	Configure	Connect	Create	Delete	Disconnect	Build	Cancel	Configure	Create	Delete
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"/>
dvsbatch3	<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"/>

☐ Project-based Matrix Authorization Strategy

The update permission is necessary to modify

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Agent → Master Security

☒ Enable Agent → Master Access Control

Rules can be tweaked [here](#)

SSH Server

SSHD Port ☐ Fixed : ☐ Random ☒ Disable

Save **Apply**

Jenkins **dvsbatch3**

Jenkins > dvsbatch3

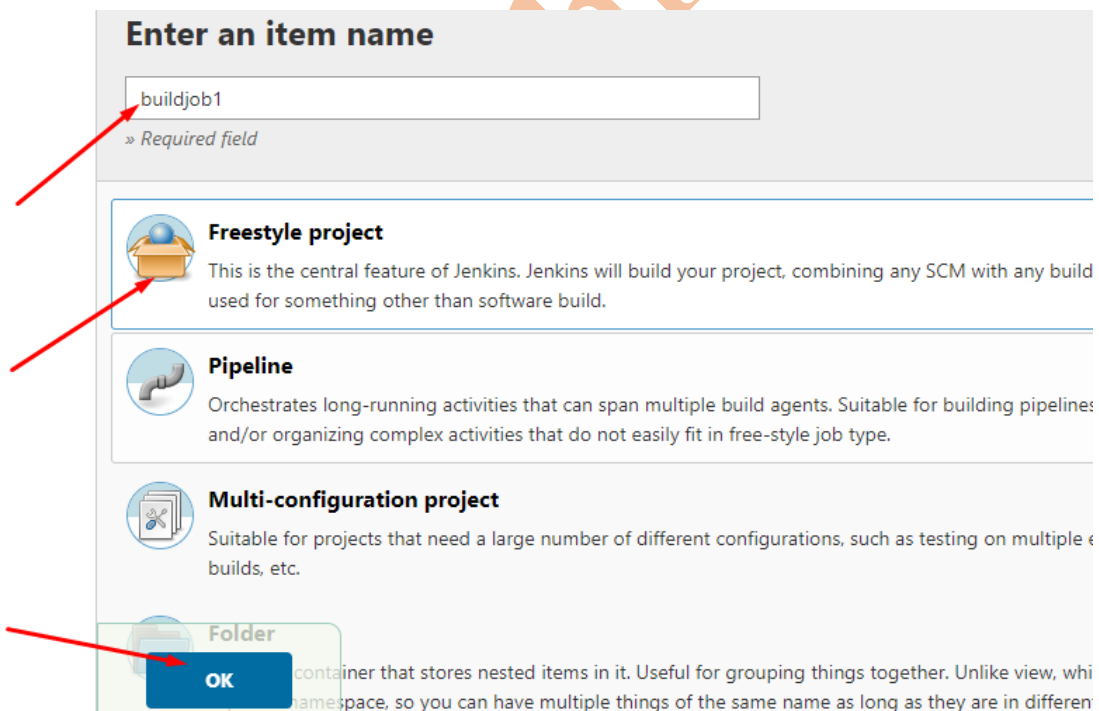
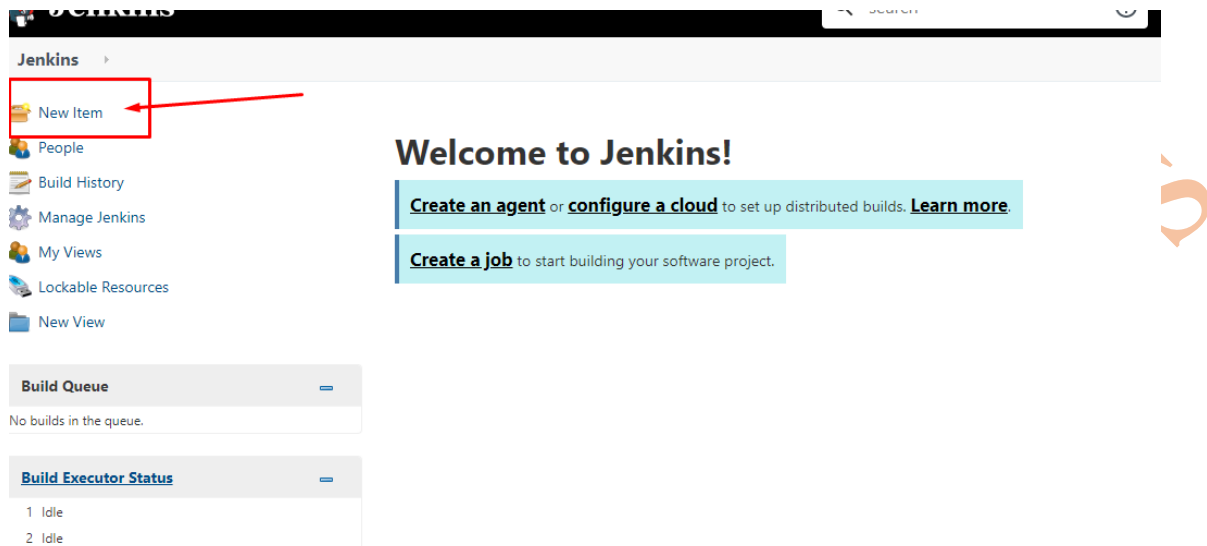
- People
- Status**
- Builds
- Configure
- My Views
- Credentials

dvsbatch3

Jenkins User ID: dvsbatch3

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Creating freestyle jobs



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Jenkins > buildjob1 >

General Source Code Management Build Triggers Build Environment Build Post-build Actions

Description

[Plain text] [Preview](#)

☐ Discard old builds

☐ GitHub project

☐ This build requires lockable resources

☐ This project is parameterized

☐ Throttle builds

☐ Disable this project

☐ Execute concurrent builds if necessary

Advanced...

Build

Execute shell

Command

```
#!/bin/bash
echo "Welcome To Dvs Devops!!!!!"
```

See [the list of available environment variables](#)

Advanced...

Add build step ▾

Post-build Actions

add post-build action ▾

Save Apply

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Jenkins > buildjob1

Back to Dashboard
Status
Changes
Workspace
Build Now
Delete Project
Configure
Rename

Project buildjob1

Workspace
Recent Changes

Permalinks

Build History trend

find

Atom feed for all Atom feed for failures

Page generated

Configure
Rename

Permalinks

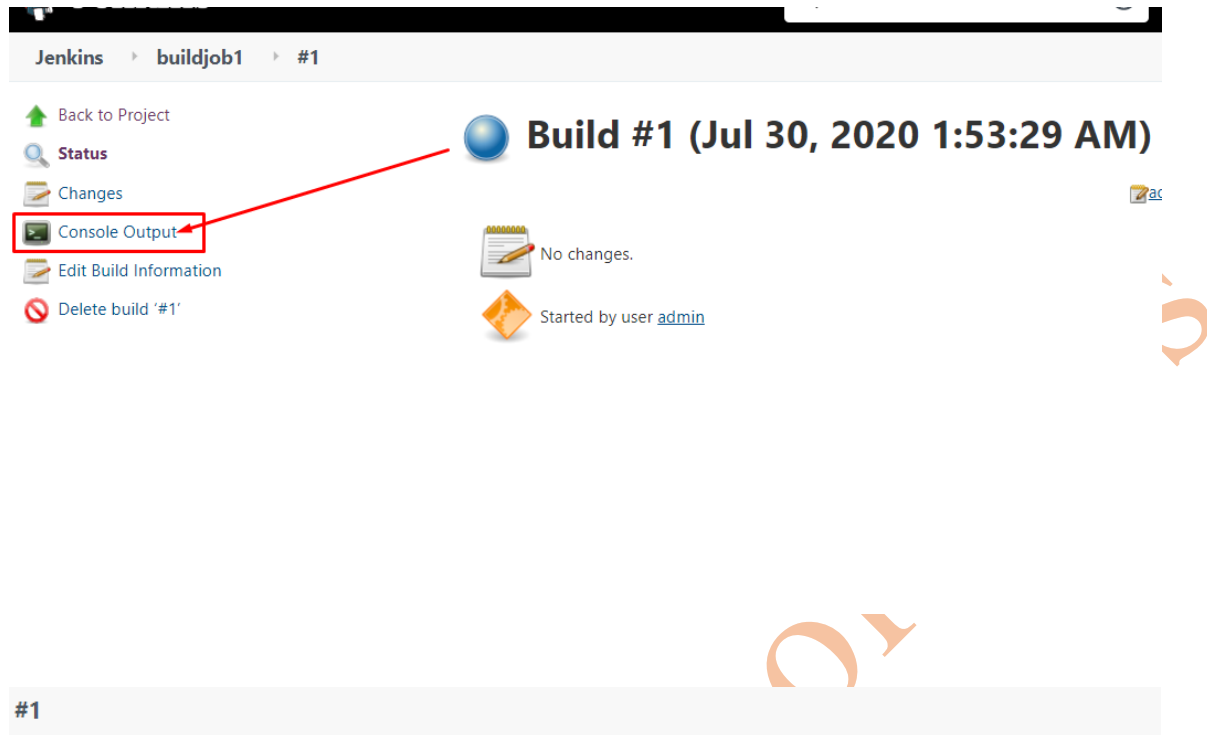
Build History trend

find

#1 Jul 30, 2020 1:53 AM

Atom feed for all Atom feed for failures

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The screenshot shows the Jenkins web interface for a build job named 'buildjob1' with build number '#1'. The breadcrumb navigation at the top reads 'Jenkins > buildjob1 > #1'. On the left sidebar, there are several links: 'Back to Project' (with a green arrow icon), 'Status' (with a magnifying glass icon), 'Changes' (with a document icon), 'Console Output' (with a terminal icon and highlighted by a red box), 'Edit Build Information' (with a pencil icon), and 'Delete build '#1'' (with a red prohibition icon). The main content area features a blue sphere icon followed by the text 'Build #1 (Jul 30, 2020 1:53:29 AM)'. Below this, there is a 'No changes.' message with a notepad icon and a 'Started by user admin' message with a person icon. A red arrow points from the 'Console Output' link in the sidebar to the 'Build #1' title. A large, faint orange watermark 'DVS' is visible in the background.

Console Output

```
Started by user admin
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/buildjob1
[buildjob1] $ /bin/bash /tmp/jenkins4229061691226135451.sh
Welcome To Dvs Devops!!!
Finished: SUCCESS
```

Verifying Build job in the jenkins server:

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```
[root@jenkins-master ~]# cd /var/lib/jenkins/
[root@jenkins-master jenkins]# ls
com.cloudbees.hudson.plugins.folder.config.AbstractFolderConfiguration.xml  nodeMonitors.xml
config.xml                                                                    nodes
hudson.model.UpdateCenter.xml                                                 plugins
hudson.plugins.git.GitTool.xml                                                queue.xml
identity.key.enc                                                             queue.xml.bak
jenkins.install.InstallUtil.lastExecVersion                                secret.key
jenkins.install.UpgradeWizard.state                                           secret.key.not-so-secret
jenkins.security.apitoken.ApiTokenPropertyConfiguration.xml                 secrets
jenkins.security.QueueItemAuthenticatorConfiguration.xml                    updates
jenkins.security.UpdateSiteWarningsConfiguration.xml                         userContent
jenkins.telemetry.Correlator.xml                                              users
jobs                                                                           workflow-libs
logs                                                                           workspace
[root@jenkins-master jenkins]# cd jobs/
[root@jenkins-master jobs]# ls
buildjob1
[root@jenkins-master jobs]# pwd
/var/lib/jenkins/jobs
[root@jenkins-master jobs]#
```

```
[root@jenkins-master jobs]# cd /var/lib/jenkins/workspace/
[root@jenkins-master workspace]# ls -l
total 0
drwxr-xr-x 2 jenkins jenkins 6 Jul 30 01:53 buildjob1
[root@jenkins-master workspace]# cd buildjob1/
[root@jenkins-master buildjob1]# ls -l
```

Adding a slave node

Do the below on slave1

```
[root@ip-172-31-33-185 ~]#
[root@ip-172-31-33-185 ~]# hostnamectl set-hostname slave1
[root@ip-172-31-33-185 ~]# psn
[root@slave1 ~]# id -a jenkins
id: jenkins: no such user
[root@slave1 ~]# useradd jenkins
uid=1001(jenkins) gid=1001(jenkins) groups=1001(jenkins)
[root@slave1 ~]# id -a jenkins
uid=1001(jenkins) gid=1001(jenkins) groups=1001(jenkins)
[root@slave1 ~]# java -version
bash: java: command not found
[root@slave1 ~]# yum install java-1.8.0-openjdk-devel -y
loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core | 3.7 kB 00:00:00
Resolving Dependencies
--> Running transaction check
--> Package java-1.8.0-openjdk-devel.x86_64 1:1.8.0.252.b09-2.amzn2.0.1 will be installed
--> Processing Dependency: java-1.8.0-openjdk(x86_64) = 1:1.8.0.252.b09-2.amzn2.0.1 for package: 1:java-1.8.0-openjdk-d
1-1.8.0.252.b09-2.amzn2.0.1.x86_64
--> Processing Dependency: libjvm.so()(64bit) for package: 1:java-1.8.0-openjdk-devel-1.8.0.252.b09-2.amzn2.0.1.x86_64
```

Not set created user

Install java

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Do below in master

```
[root@jenkins-master buildjob1]# su -s /bin/bash - jenkins
Last login: Thu Jul 30 02:34:26 UTC 2020 on pts/0
-bash-4.2$ whoami
jenkins
-bash-4.2$ ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/var/lib/jenkins/.ssh/id_rsa):
Created directory '/var/lib/jenkins/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /var/lib/jenkins/.ssh/id_rsa.
Your public key has been saved in /var/lib/jenkins/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:E2PKvf88+j7rWdaeazoQ8A7l0n5eQ25ulZ04SdNqIaw jenkins@jenkins-master
The key's randomart image is:
+---[RSA 2048]-----+
|
| . o . |
|+ B . . |
| . * = o |
| S * . * o |
| . * * @o |
| . * X o |
| E B X= |
| .oXOO |
+---[SHA256]-----+
```

```
-bash-4.2$ hostname
jenkins-master
-bash-4.2$ id -a
uid=996(jenkins) gid=994(jenkins) groups=994(jenkins)
-bash-4.2$ cat ~/.ssh/id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDPRYN3+LqZGkMrj0V
uolmX39+UnXO3YSbInPSB0ZBvhqj6PnUoZTM5G9eFVGibMZZZGgUf2N
15AaPRR+R030QCus534Es8MJiltCXfEXnA2Cj1Vt9lbfald7Zj3Zpp7
1zWz1Y6nUhXTZT5IXJJWJPgE6iO2NLRxWeCVMSmnoyobeLTWrzh2fBK
MMjREx+F6n9cHaka54Fqb2Eu5xZsGM8hmVBescD/kS9rN5RqbJe5419
9KoLQvHIHaHq7pG6949foEdfxBmiPVKC4Kd jenkins@jenkins-master
-bash-4.2$ [jenkins@slave1 ~]$ whoami
jenkins
[jenkins@slave1 ~]$ pwd
/home/jenkins
[jenkins@slave1 ~]$ mkdir .ssh
[jenkins@slave1 ~]$ chmod 700 .ssh
[jenkins@slave1 ~]$ cd .ssh/
[jenkins@slave1 .ssh]$ touch authorized_keys
[jenkins@slave1 .ssh]$ chmod 600 authorized_keys
[jenkins@slave1 .ssh]$ echo "ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDPRYN3+LqZGkMrj0V
uolmX39+UnXO3YSbInPSB0ZBvhqj6PnUoZTM5G9eFVGibMZZZGgUf2N
15AaPRR+R030QCus534Es8MJiltCXfEXnA2Cj1Vt9lbfald7Zj3Zpp7
1zWz1Y6nUhXTZT5IXJJWJPgE6iO2NLRxWeCVMSmnoyobeLTWrzh2fBK
MMjREx+F6n9cHaka54Fqb2Eu5xZsGM8hmVBescD/kS9rN5RqbJe5419
9KoLQvHIHaHq7pG6949foEdfxBmiPVKC4Kd jenkins@jenkins-master" >authorized_keys
[jenkins@slave1 .ssh]$
```

*Copy public key of
master to slave1*

DVS Technologies Aws & Devops

```
jenkins@slave1:~$ ssh slave1
-bash-4.2$ ssh slave1
Warning: Permanently added 'slave1 (172.31.33.185)' to the list of known hosts.
Last login: Thu Jul 30 02:38:32 2020

 _ _ _ _ _
| | | | |
|_|_|_|_|_| Amazon Linux 2 AMI

https://aws.amazon.com/amazon-linux-2/

[jenkins@slave1 ~]$
[jenkins@slave1 ~]$
```

Configure Slave Node in jenkins :

Jenkins

Search

Jenkins

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

S	W	Name	Last Success	Last Failure
		buildjob1	52 min - #1	N/A

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

[Legend](#) [Atom feed for all](#) [Atom feed](#)

Build Queue

No builds in the queue.

Build Executor Status

- 1 Idle
- 2 Idle

Page generated: 1/30/2020

DVS Technologies Aws & Devops

System Configuration

Configure System
Configure global settings and paths.

Global Tool Configuration
Configure tools, their locations and automatic installers.

Manage Plugins
Add, remove, disable or enable plugins that can extend the functionality of Jenkins.

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 Provider
Configure the credential providers

Manage Users
Manage users and their roles

Jenkins > **Nodes**

Back to Dashboard
 Manage Jenkins
 New Node
 Configure Clouds
 Node Monitoring

S	Name ↓	Architecture	Clock Difference	Free Disk Space	Free Swap Space
	master	Linux (amd64)	In sync	6.21 GB	0
	Data obtained	10 min	10 min	10 min	10 min

Build Queue
No builds in the queue.

Build Executor Status
1 Idle
2 Idle

DVS Technologies Aws & Devops

Node name

☒ **Permanent Agent**

Adds a plain, permanent agent to Jenkins. This is called "permanent" because Jenkins doesn't provide high integration with these agents, such as dynamic provisioning. Select this type if no other agent types apply – such as when you are adding a physical computer, virtual machines managed outside Jenkins, etc.

Name

Description

of executors

Remote root directory

Labels

Usage

Launch method

Host

DVS Technologies Aws & Devops

Launch method: Launch agents via SSH

Host: slave1

Credentials: - none - **Add**

Host Key Verification Strategy: Known hosts file Verification

Advanced...

Availability: Keep this agent online as much as possible

Node Properties

☐ Disable deferred wipeout on this node

Add Credentials

Domain: Global credentials (unrestricted)

Kind: SSH Username with private key

Scope: Global (Jenkins, nodes, items, all child items, etc)

ID: slave1privatekey

Description: slave1privatekey

Username: jenkins

Private Key: ☒ Enter directly

No Stored Value

Add

DVS Technologies Aws & Devops

Usage: Use this node as much as possible

Scope: Global (Jenkins, nodes, items, all child items, etc)

ID: slave1privatekey

Description: slave1privatekey

Username: jenkins

Private Key: ☒ Enter directly

Key:

Passphrase:

Add Cancel

Environment variables ☐

Tool Locations ☐

```
[jenkins@slave1 ~]$  
[jenkins@slave1 ~]$ logout  
Connection to slave1 closed.  
-bash-4.2$  
-bash-4.2$  
-bash-4.2$  
-bash-4.2$ hostname  
jenkins-master  
-bash-4.2$ cat ~/.ssh/id_rsa  
-----BEGIN RSA PRIVATE KEY-----  
MIIEpAIBAAKCAQEAz0Wdd/i6mRpDK49FcYsckLSZeJsvppbqJZ19  
z0gdGQb4ao+j51KGUzORvXhVromzGWWRoFH9jW1CyK/W4E8KPx8J  
Arkud+BLPDCSjBq13xF5wN9o9VbFZW32pXe2Y92aae3heQbMcFEQ  
1IcU2U+SFyScCT4B00jtjS0cVnglTEpp6MqG3i08Ec4dnwSqOhKs  
0RMfhep/XB2pGueBam9hLucWbBjPIZlQXrHA/5EvazeUamyXueNf  
3m/SqC0LxyB2h6u6RuvePX6BHX8QZoj1SguCnQIDAQABAoIBAHEf  
iGgv8PsYflavQ8LFG3AkuUGmXiX1xkr2VaRD9I8TAAHhd63trTb  
2p/wfI/WDFImnDfTKXgQhkZzJ+VOAkhyGj5e212MR51yBtAI/Y//  
wbcmn+fJySoPZBbYXm4pozce8tgGoao+CG+SeZ5cw+S9aSO9DpZO  
je10QCzGiv8Tpb4muWqb1LPE3VdlrUexGolL5KyZRTs8GHnEn4eY  
AqVg9HjL314a0op5uVzRHxGotsf2SKSqH1vXUVHvttAVCYG82QEW  
CXU+MwECgYEA9RJjd+AkbZpIPWx1V5j/u091uRKms5dYxz8rvTIC  
DTFYEhMV+0R6TfbRkay7TwtXuOk0mLgg/e01L+echKzvEoye53V  
wDzBKHLFrcGcl7NiObjHwGThFANCP8K/iYucb+Um/cdCPVTRbP
```

Launch method: Launch agents via SSH

Host: slave1

Credentials: jenkins (slave1privatekey) Add

Host Key Verification Strategy: Not verifying Verification Strategy

Advanced...

Availability: Keep this agent online as much as possible

Node Properties

☐ Disable deferred wipeout on this node

☐ Environment variables

☐ Tool Locations

Save

DVS Technologies Aws & Devops

Nodes

Dashboard

enkins

e

Clouds

onitoring

S	Name ↓	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Tem
	master	Linux (amd64)	In sync	6.21 GB	0 B	
	slave1	Linux (amd64)	In sync	6.46 GB	0 B	
Data obtained 3.7 sec			3.6 sec	3.6 sec	3.6 sec	3.6 sec

queue.

tor Status

Executing build job in slave1

Jenkins

New Item

People

Build History

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Lockable Resources

New View

Build Queue

No builds in the queue.

Build Executor Status

master

S	W	Name ↓	Last Success	Last Failure	Last Duration
		buildjob1	1 hr 1 min - #1	N/A	0.13 sec

Icon: S M L

Legend

Atom feed for all


Atom feed for failures


Atom feed for just latest build


DVS Technologies Aws & Devops

Enter an item name

» Required field

**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.

**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

for 54.90.27.4...

testingslave1

General Source Code Management Build Triggers Build Environment Build Post-build Actions

☐ Disable this project

☐ Execute concurrent builds if necessary

☒ Restrict where this project can be run

Label Expression

[Label slave1](#) is serviced by 1 node. Permissions or other restrictions provided by plugins may prevent this job from running on those nodes.

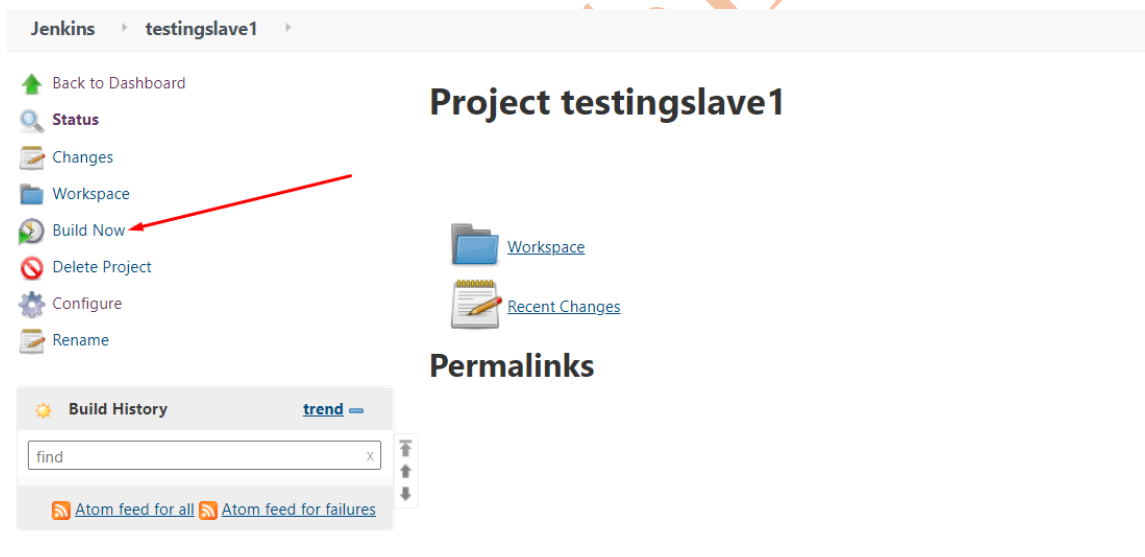
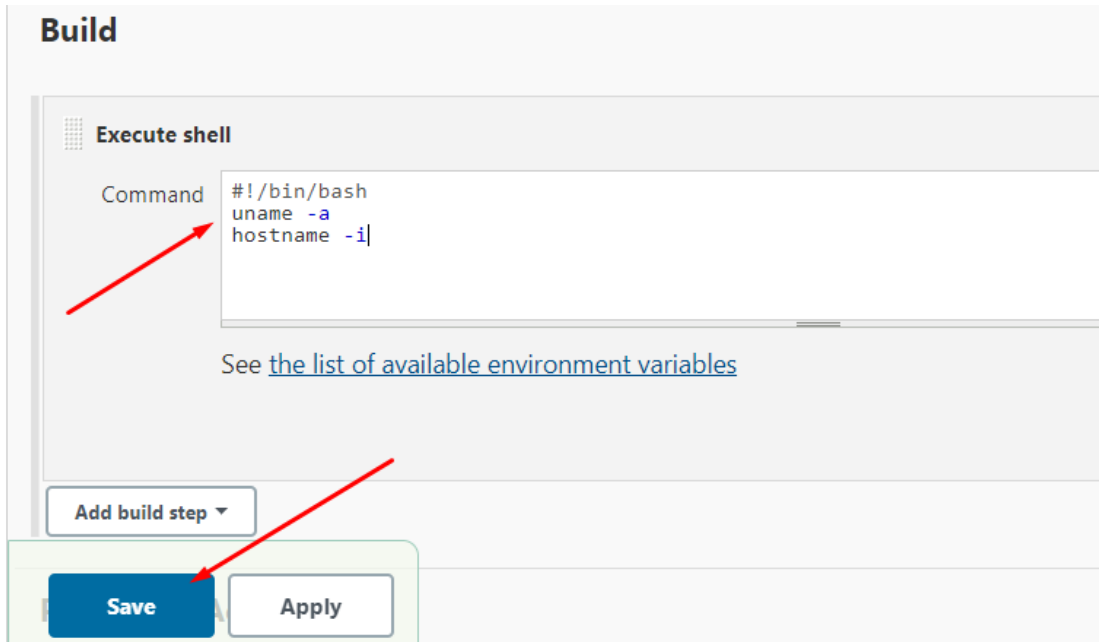
Source Code Management

☒ None

☐ Git

☐ Subversion

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DVS Technologies Aws & Devops

[Jenkins](#) > [testingslave1](#)

[Back to Dashboard](#)
 [Status](#)
 [Changes](#)
 [Workspace](#)
 [Build Now](#)
 [Delete Project](#)
 [Configure](#)
 [Rename](#)

Project testingslave1

[Workspace](#)
 [Recent Changes](#)

Permalinks

- [Last build \(#1\), 24 sec ago](#)
- [Last stable build \(#1\), 24 sec ago](#)
- [Last successful build \(#1\), 24 sec ago](#)
- [Last completed build \(#1\), 24 sec ago](#)

Build History [trend](#)

#1 Jul 30, 2020 2:57 AM

[Atom feed for all](#) [Atom feed for failures](#)

[Jenkins](#) > [testingslave1](#) > [#1](#)

[Back to Project](#)
 [Status](#)
 [Changes](#)
 [Console Output](#)
 [Edit Build Information](#)
 [Delete build '#1'](#)

Build #1 (Jul 30, 2020 2:

No changes.
 Started by user [admin](#)

DVS Technologies Aws & Devops

Jenkins > testingslave1 > #1

- Back to Project
- Status
- Changes
- Console Output**
 - View as plain text
- Edit Build Information
- Delete build '#1'

Console Output

Started by user [admin](#)
Running as SYSTEM
Building remotely on [slave1](#) in workspace /home/jenkins/workspace, [testingslave1] \$ /bin/bash /tmp/jenkins1298549368843896533.sh
Linux slave1 4.14.186-146.268.amzn2.x86_64 #1 SMP Tue Jul 14 18:01:00 UTC 2019; root:x86_64; fe80::c04:b8ff:fe74:cf9%eth0 172.31.33.185
Finished: SUCCESS

Plugin Manager

Installing thin backup plugin :

Jenkins >

- New Item
- People
- Build History
- Project Relationship
- Check File Fingerprint
- Manage Jenkins**
- My Views
- Lockable Resources
- New View

S	W	Name ↓	Last Success	Last Failure
		buildjob1	1 hr 12 min - #1	N/A
		testingslave1	8 min 22 sec - #1	N/A

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

Legend [Atom feed for all](#) [Atom feed for failure](#)

Build Queue
No builds in the queue.

Build Executor Status
 master

DVS Technologies Aws & Devops



Global Tool Configuration

Configure tools, their locations and automatic installers.



Manage Plugins

Add, remove, disable or enable plugins that can extend the functionality of Jenkins.



Manage Credentials

Configure credentials



Configure Credential Providers



thinbackup

Updates

Available

Installed

Advanced

Enabled

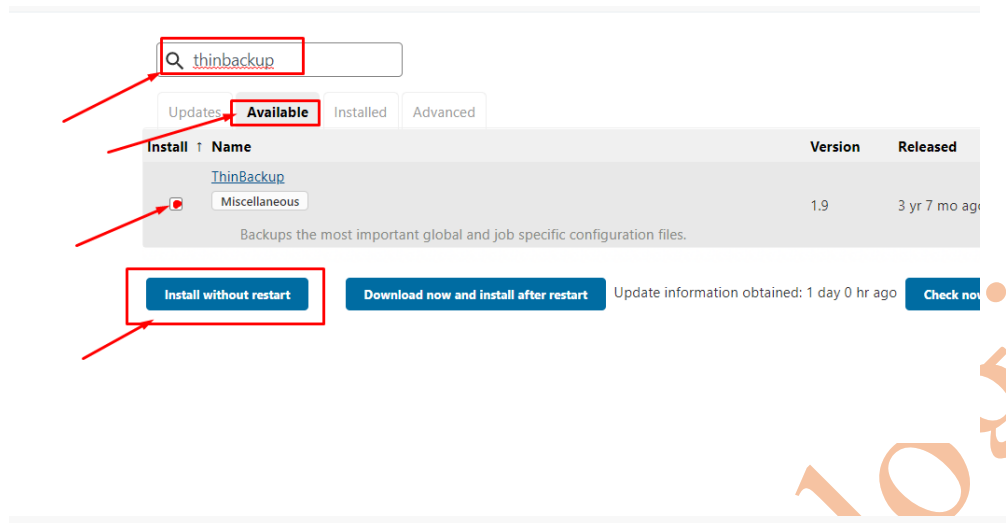
Name ↓

Version

Previous

pkg not installed

DVS Technologies Aws & Devops



Installing Plugins/Upgrades

Preparation

- Checking internet connectivity
- Checking update center connectivity
- Success

ThinBackup

Success

Loading plugin extensions

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

DVS Technologies Aws & Devops

[Back to Dashboard](#)

[Manage Jenkins](#)

[Manage Plugins](#)

Installing Plugins/Upgrades

Preparation

- Checking internet connectivity
- Checking update center connectivity
- Success

ThinBackup

Success

Loading plugin extensions

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

Q thinbackup

Updates

Available

Installed

Advanced


Enabled	Name ↓	Version	Previously installed version	Uninstall
<input checked="" type="checkbox"/>	ThinBackup Backups the most important global and job specific configuration files.	1.9		<button>Uninstall</button>

Downgrade the plugin version:

DVS Technologies Aws & Devops

← → ↻ ⓘ Not secure | updates.jenkins-ci.org/download/plugins/thinBackup/

 [permalink to the latest](#)

 1.9	SHA-1: a651c33c219f91310cb89d06a97c706103bb2f13, SHA-256: a17b94e35a525b741e6a8b05342730f96a244bdc26b3d435164ba42fa6d198da
 1.8	SHA-1: f5456144eff2778d1ee77af7a21345638375bdad, SHA-256: d5b435adca3b598a82863a87b466a010ebcd134e483660ea4b51aa384095a3e8
 1.7.4	SHA-1: 07594b84c1d2d79d4d3a544bd179dbe997bb6287, SHA-256: c288d1f5eee319f8884bc1cba5567eee32762718cead19e6f83ee1b32a656664
 1.7.3	SHA-1: 87fb3eb6dfac1aa37eac164aadeb0ebc85b00d18, SHA-256: 1c4e8b8ce664ed2725abdf83191cb3594f23b92cdb168a1d124c7c1a7f4b5aa
 1.7.2	SHA-1: e3cf6fd0f120350acde4dd2b2c1df3ea2c6d6203, SHA-256: 9828902a2a472f133a5e1fa02c0539447cc9330ce3d07c86687b26036fe3c0f0
 1.7	SHA-1: bab693ecf3155beefdc50f416d8c9e5e94cd6af0, SHA-256: e966248dca7ec3e5618c09f5e009afd99292f760c12e985feedff3769def0a9d
 1.6.2	SHA-1: e9204f6642eb79bfe9ae4dd5fce69a2bd6351873, SHA-256: ff36f2a1bb1c4a9529195babba549f5f9c93eb31f22343739eb6ed89187883da
 1.6.1	SHA-1: c4402cd5c7d5d99ace291387149b6ac889766e78, SHA-256: 139e44d3181827725466e637477d5f32e8888fccc342d885734d1f690a7a4507
 1.6	SHA-1: 02ad7a1bf8ffb30efdd82050ba826ece41e86eab, SHA-256: de65865b652e0aa1296b5182361d21900b4e8bf0a5a0633bd480ae25c55e88bf
	SHA-1: a0d38ae0a93b05d0b9614e7c404cb25a2a1ff92394845318bc

 1.6.1	SHA-1: c4402cd5c7d5d99ace291387149b6ac889766e78, SHA-256: 139e44d3181827725466e637477d5f32e8888fccc342d885734d1f690a7a4507
 1.6	SHA-1: 02ad7a1bf8ffb30efdd82050ba826ece41e86eab, SHA-256: de65865b652e0aa1296b5182361d21900b4e8bf0a5a0633bd480ae25c55e88bf
 1.5	SHA-1: a0d38ae0a93b05d0b9614e7c404cb25a2a1ff92394845318bc

 thinBackup (9).hpi

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The screenshot shows the Jenkins Plugin Manager interface. At the top, the 'Jenkins' menu is open, and 'Plugin Manager' is highlighted with a red box. Below it, the 'Advanced' tab is selected in the 'Updates', 'Available', 'Installed', and 'Advanced' tabs. The 'HTTP Proxy Configuration' section is visible, with fields for 'Server', 'Port', 'User name', 'Password', and 'No Proxy Host'. A red arrow points to the 'Advanced' tab, and another points to the 'Server' field. A large orange watermark '102' is visible on the right side of the page.

Submit

Upload Plugin

You can upload an .hpi file to install a plugin from outside the central plugin repository.

File: No file chosen

Upload

Update Site

URL

Submit

Upload Plugin

You can upload an .hpi file to install a plugin from outside the central plugin repository.

File: thinBackup (9).hpi

Upload

Update Site

URL

DVS Technologies Aws & Devops

Installing Plugins/Upgrades

Preparation

- Checking internet connectivity
- Checking update center connectivity
- Success

ThinBackup

Success

Loading plugin extensions

Success

Preparation

thinBackup

thinBackup plugin is already installed. Jenkins needs to be restarted for the update to take effect.

[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

Page generated:

Jul 30, 2020 3:22:11 AM UTC

REST API

Jenkins 2.235.3



Please wait while Jenkins is restarting ...

Your browser will reload automatically when Jenkins is ready.

Verification:

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✗ No implementation of access control for builds is present. It is recommended that you install [Authorize Project Plugin](#) or another plugin implementing the [QueueItemAuthenticator](#) extension point.

System Configuration



Configure System

Configure global settings and paths.



Global Tool Configuration

Configure tools, their locations and automatic installers.



Manage Plugins

Add, remove, disable or enable plugins that can extend the functionality of Jenkins.

There are updates available



Manage Nodes and Clouds

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

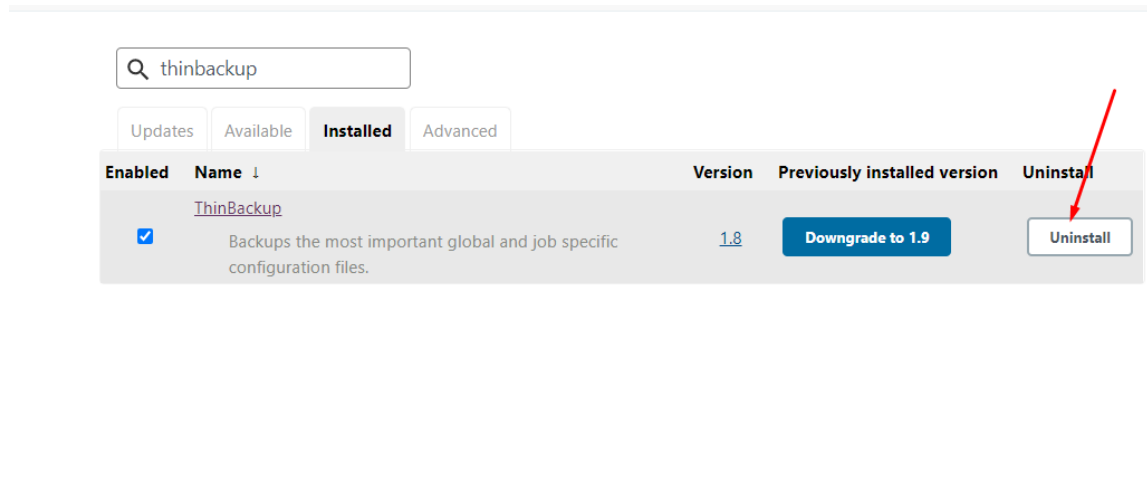
Plugin Manager

Dashboard
Jenkins

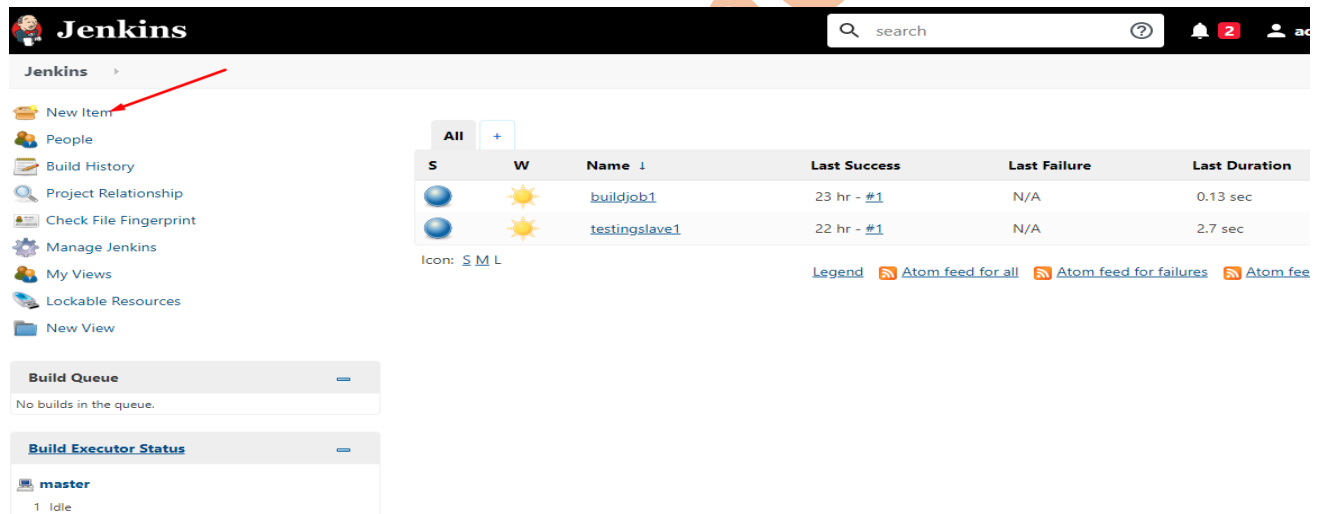
<input type="text" value="thinbackup"/>				
<div>Updates Available Installed Advanced</div>				
Enabled	Name ↓	Version	Previously installed version	Uninstall
<input checked="" type="checkbox"/>	ThinBackup Backups the most important global and job specific configuration files.	1.8		<div>Downgrade to 1.9 Uninstall</div>

Uninstall:

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Working with Parameters



DVS Technologies Aws & Devops

Enter an item name

parameters

» Required field

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 used for something other than software build.

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 builds, etc.

OK

Type here to search

GLOBAL VARIABLE REFERENCE:

← → ↻ ⓘ Not secure | 54.165.110.104:8080/pipeline-syntax/

Jenkins

search

Jenkins

Back

Snippet Generator

Declarative Directive Generator

Declarative Online Documentation

Steps Reference

Global Variables Reference

Online Documentation

Examples Reference

IntelliJ IDEA GDSDL

Overview

This **Snippet Generator** will help you learn the Pipeline Script code which can be used to define various steps interested in from the list, configure it, click **Generate Pipeline Script**, and you will see a Pipeline Script statement with that configuration. You may copy and paste the whole statement into your script, or pick up just the about. (Most parameters are optional and can be omitted in your script, leaving them at default values.)

Steps

Sample Step

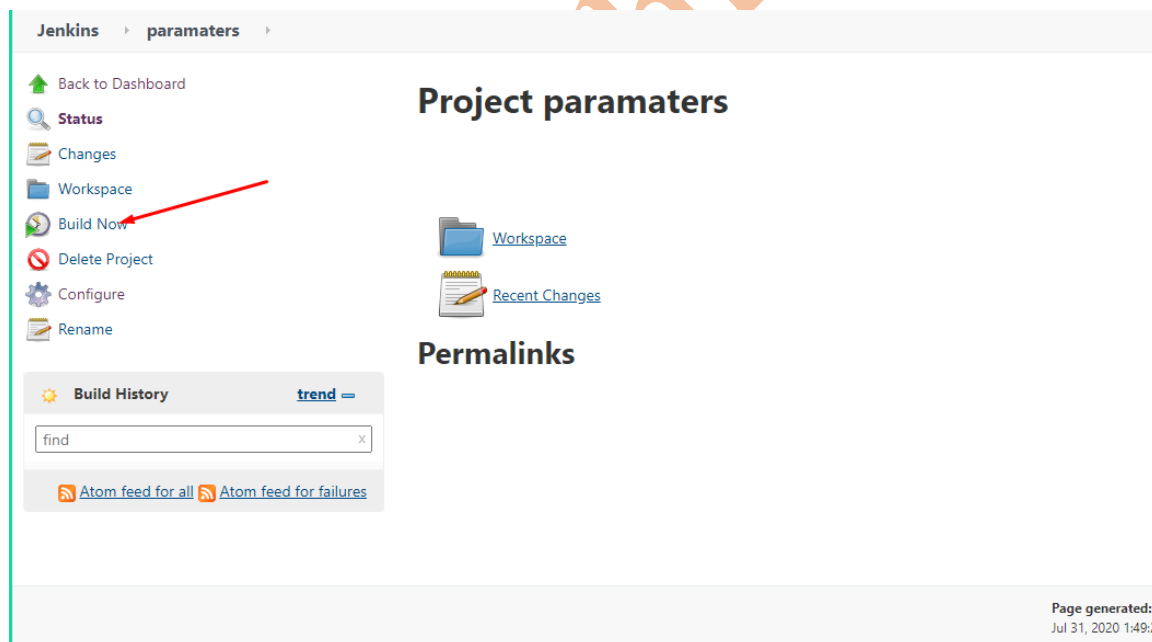
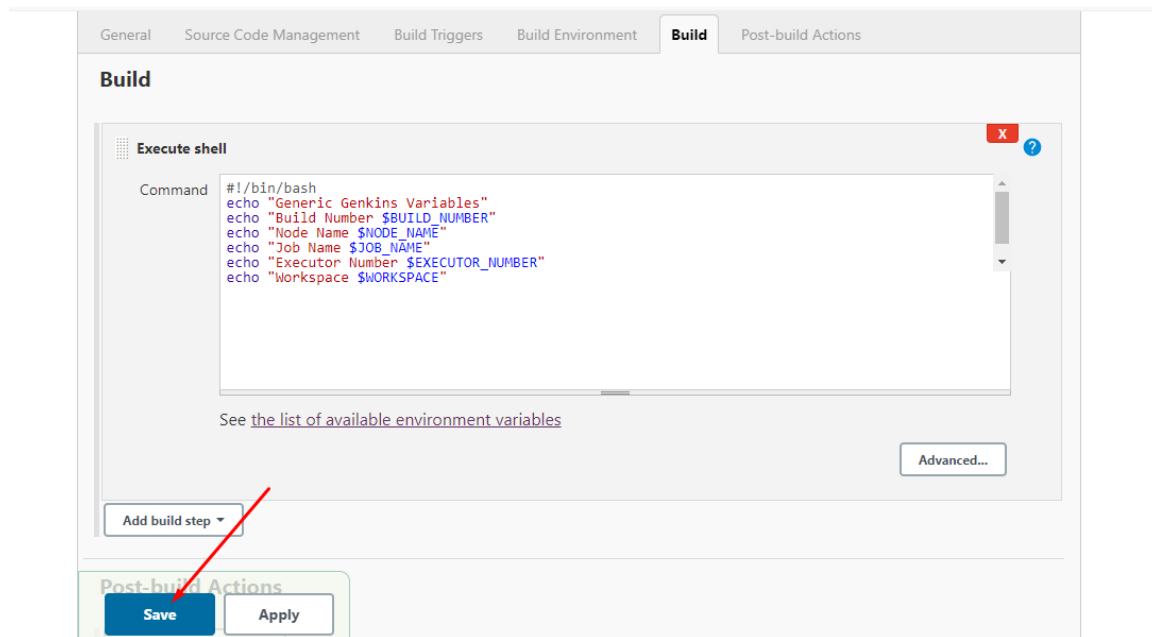
archiveArtifacts: Archive the artifacts

Files to archive

PRINTING DEFAULT VARIABLES/PARAMETERS:

DVS Technologies, Opp Home Town, Beside Biryani Zone, Marathahalli, Bangalore Phone: 9632558585 Mobile: 8892499499 Mail : dvs.training@gmail.com Web: www.dvstechnologies.in

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Delete Project

Configure

Rename



[Recent Changes](#)

Permalinks

Build History [trend](#)

find

#1 Jul 31, 2020 1:49 AM

Atom feed for build Took 2.3 sec [ed for failures](#)

Jenkins > paramaters > #1

Back to Project

Status

Changes

Console Output

View as plain text

Edit Build Information

Delete build '#1'

Console Output

```
Started by user admin
Running as SYSTEM
Building remotely on slave1 (prasad javaapp) in workspace /home/jenkins/workspace/paramaters
[paramaters] $ /bin/bash /tmp/jenkins7401803402011633750.sh
Generic Jenkins Variables
Build Number 1
Node Name slave1
Job Name paramaters
Executor Number 1
Workspace /home/jenkins/workspace/paramaters
Finished: SUCCESS
```

USER DEFINED PARAMETERS:

DVS Technologies Aws & Devops

parameters >

General Source Code Management Build Triggers Build Environment Build Post-build Actions

[Plain text] [Preview](#)

☐ Discard old builds ?

☐ GitHub project ?

☐ This build requires lockable resources ?

☒ This project is parameterized ?

Choice Parameter X ?

Name OS_TYPE ?

Choices solaris ?
hp-ux ?
linux ?

Requires Choices. ?

Description ?

parameters >

General Source Code Management Build Triggers Build Environment Build Post-build Actions

String Parameter X ?

Name subject ?

Default Value jenkins ?

Description mycurrentsubject ?

[Plain text] [Preview](#) ?

☐ Trim the string ?

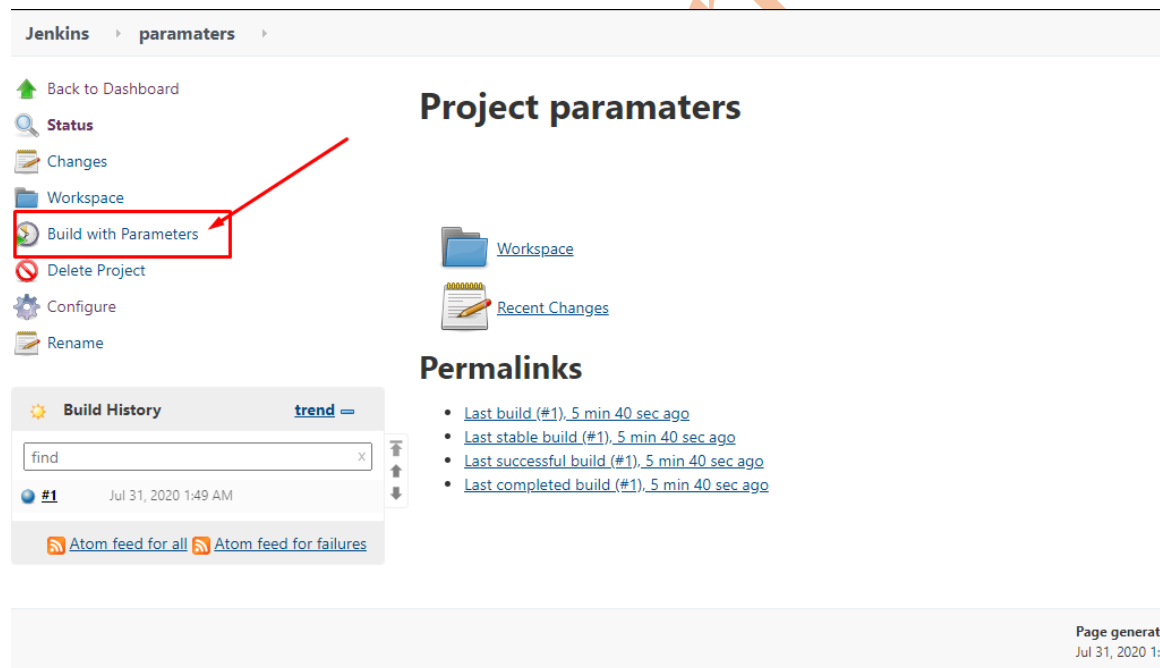
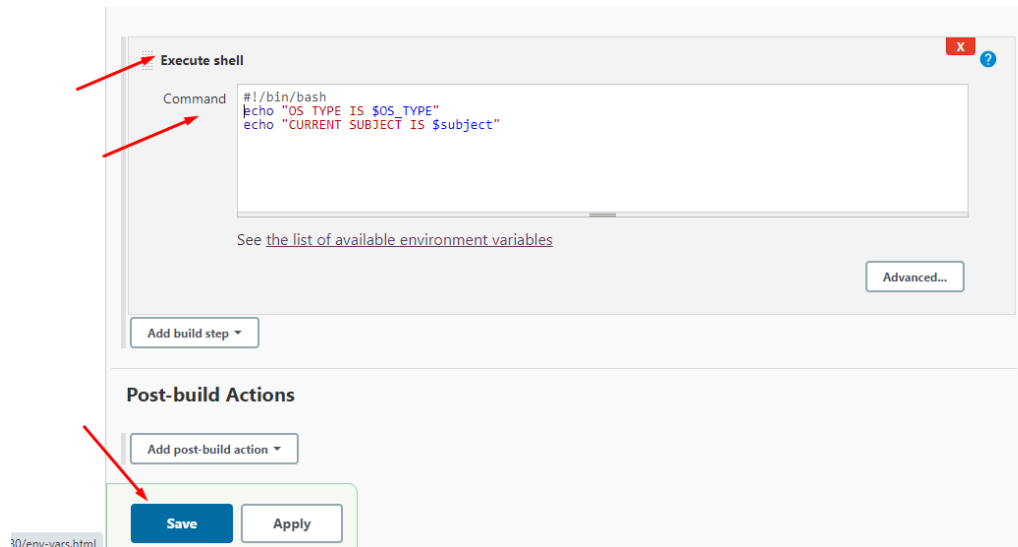
Add Parameter ▾

☐ Throttle builds ?

☐ Disable this project ?

☐ Execute concurrent builds if necessary ?

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DVS Technologies Aws & Devops

parameters

ishboard

Project paramaters

This build requires parameters:

OS_TYPE

subject

mycurrentsubject

Build

istory **trend**

Jul 31, 2020 1:49 AM

[Feed for all](#) [Atom feed for failures](#)

Jenkins parameters

Project paramaters

- [Back to Dashboard](#)
- [Status](#)
- [Changes](#)
- [Workspace](#)
- [Build with Parameters](#)
- [Delete Project](#)
- [Configure](#)
- [Rename](#)

[Workspace](#)

[Recent Changes](#)

Permalinks

- [Last build \(#2\), 0.23 sec ago](#)
- [Last stable build \(#2\), 0.23 sec ago](#)
- [Last successful build \(#2\), 0.23 sec ago](#)
- [Last completed build \(#2\), 0.23 sec ago](#)

Build History **trend**

find

#2 Jul 31, 2020 1:56 AM

#1 Jul 31, 2020 1:49 AM

[Atom feed for all](#) [Atom feed for failures](#)

DVS Technologies Aws & Devops

Jenkins > paramaters > #2

[Back to Project](#)
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Console Output

```
Started by user admin
Running as SYSTEM
Building remotely on slave1 (prasad javaapp) in workspace /home/jenkins/workspace/par
[paramaters] $ /bin/bash /tmp/jenkins3074722440491991912.sh
OS TYPE IS linux
CURRENT SUBJECT IS jenkins
Finished: SUCCESS
```


Working with Git integration


GIT CLONE:


All

Enter an item name

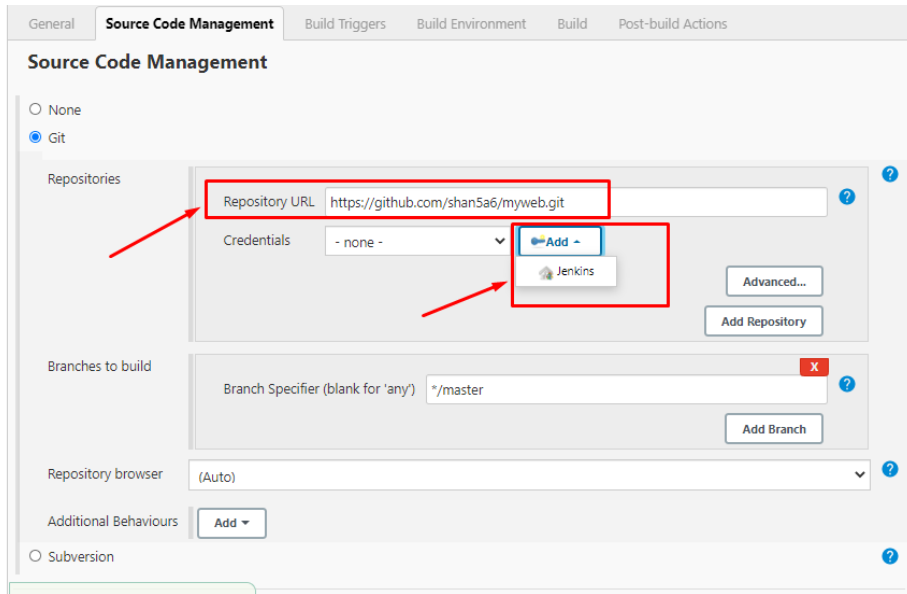
» Required field

**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.

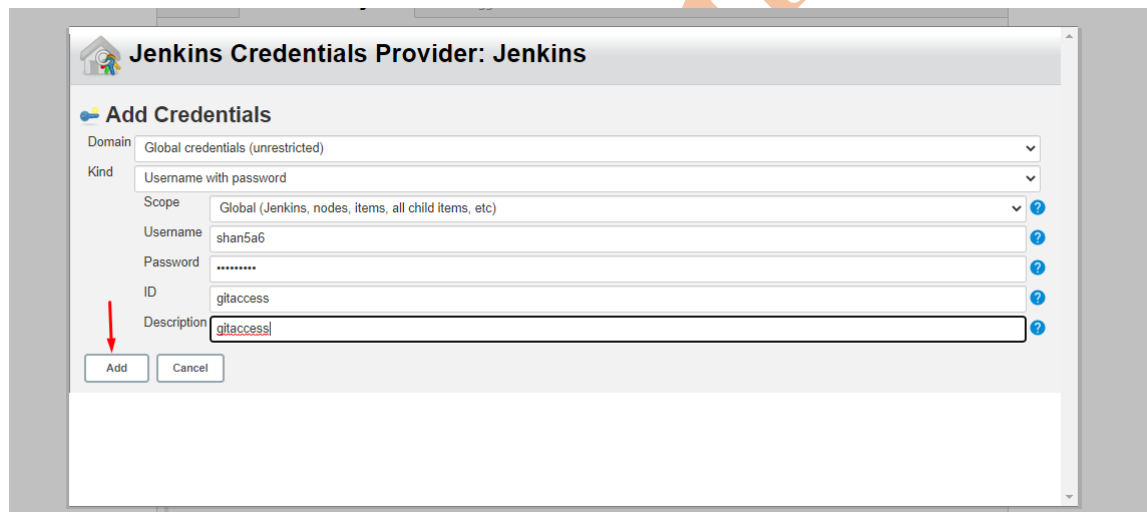
**Pipeline**
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.

**Multi-configuration project**
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

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The image shows the 'Source Code Management' configuration page in Jenkins. The 'Git' radio button is selected. The 'Repository URL' is set to 'https://github.com/shan5a6/myweb.git'. The 'Credentials' dropdown is set to '- none -', and the 'Add' button is highlighted with a red box and an arrow. The 'Branches to build' section has a 'Branch Specifier (blank for \'any\')' set to '*/master'. The 'Repository browser' is set to '(Auto)'. The 'Additional Behaviours' section has an 'Add' button. The 'Subversion' radio button is unselected.



The image shows the 'Jenkins Credentials Provider: Jenkins' window with the 'Add Credentials' form. The 'Domain' is set to 'Global credentials (unrestricted)'. The 'Kind' is set to 'Username with password'. The 'Scope' is set to 'Global (Jenkins, nodes, items, all child items, etc)'. The 'Username' is 'shan5a6', the 'Password' is masked with dots, the 'ID' is 'gitaccess', and the 'Description' is 'gitaccess'. The 'Add' button is highlighted with a red arrow.

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General **Source Code Management** Build Triggers Build Environment Build Post-build Actions

☒ Git

Repositories

Repository URL

Credentials

Advanced...

Add Repository

Branches to build

Branch Specifier (blank for 'any')

Add Branch

Repository browser

Additional Behaviours

☐ Inspect build log for published Gradle build scans

☐ With Ant

Build

Post-build Actions

Project gitclone

Back to Dashboard

Status

Changes

Workspace

Build Now

Delete Project

Configure

Rename

Build History [trend](#)

[Atom feed for all](#) [Atom feed for failures](#)

Permalinks

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[Recent Changes](#)

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Jenkins > gitclone > #2

- Back to Project
- Status
- Changes
- Console Output**
- View as plain text
- Edit Build Information
- Delete build '#2'
- Git Build Data
- No Tags
- Previous Build

Console Output

```
Started by user admin
Running as SYSTEM
Building remotely on slave1 (prasad.javaapp) in workspace /home/jenkins/workspace/git
using credential gitaccess
Cloning the remote Git repository
Cloning repository https://github.com/shan5a6/myweb.git
> git init /home/jenkins/workspace/gitclone # timeout=10
Fetching upstream changes from https://github.com/shan5a6/myweb.git
> git --version # timeout=10
using GIT_ASKPASS to set credentials gitaccess
> git fetch --tags --force --progress -- https://github.com/shan5a6/myweb.git +refs,
> git config remote.origin.url https://github.com/shan5a6/myweb.git # timeout=10
> git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=
> git config remote.origin.url https://github.com/shan5a6/myweb.git # timeout=10
Fetching upstream changes from https://github.com/shan5a6/myweb.git
using GIT_ASKPASS to set credentials gitaccess
> git fetch --tags --force --progress -- https://github.com/shan5a6/myweb.git +refs,
> git config remote.origin.url https://github.com/shan5a6/myweb.git # timeout=10
> git rev-parse refs/remotes/origin/master^{commit} # timeout=10
> git rev-parse refs/remotes/origin/origin/master^{commit} # timeout=10
Checking out Revision e5f21b8c17d5413eeeabe2beb3538cb879dd6699 (refs/remotes/origin/
> git config core.sparsecheckout # timeout=10
> git checkout -f e5f21b8c17d5413eeeabe2beb3538cb879dd6699 # timeout=10
Commit message: "Merge pull request #60 from shan5a6/release"
First time build. Skipping changelog.
Finished: SUCCESS
```

GITHUB with JENKINS Integration:

Jenkins >

- New Item**
- People
- Build History


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› All ›


Enter an item name

git-jenkins-sync

» Required field

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 **Multi-configuration project**
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-builds, etc.

OK

container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder

› git-jenkins-sync ›

General **Source Code Management** Build Triggers Build Environment Build Post-build Actions

☒ Git

Repositories

Repository URL

Credentials

Advanced...

Add Repository

Branches to build

Branch Specifier (blank for 'any')

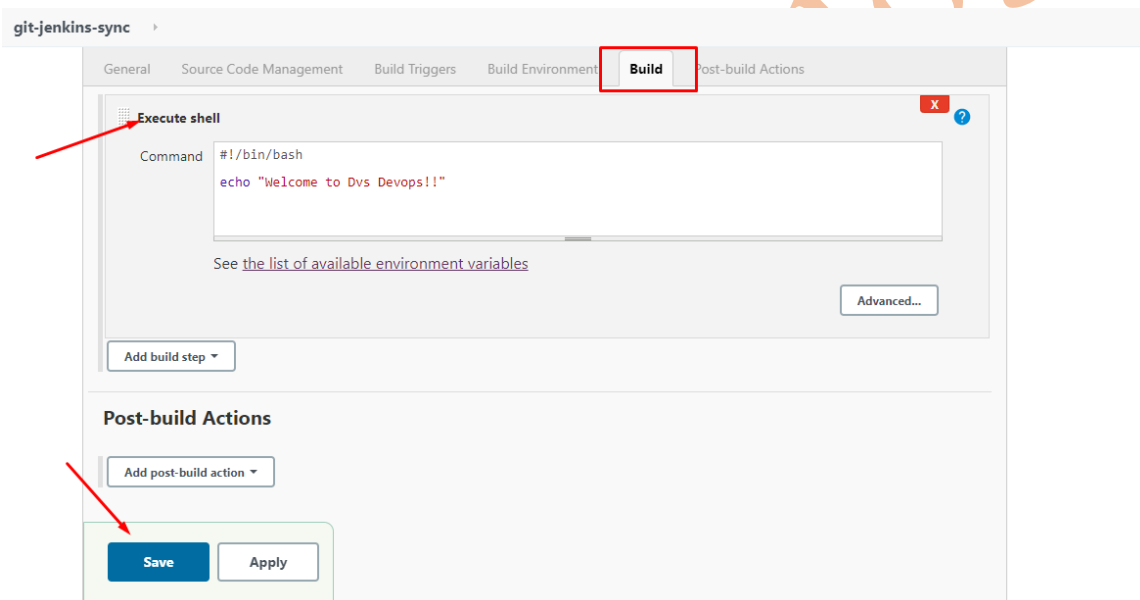
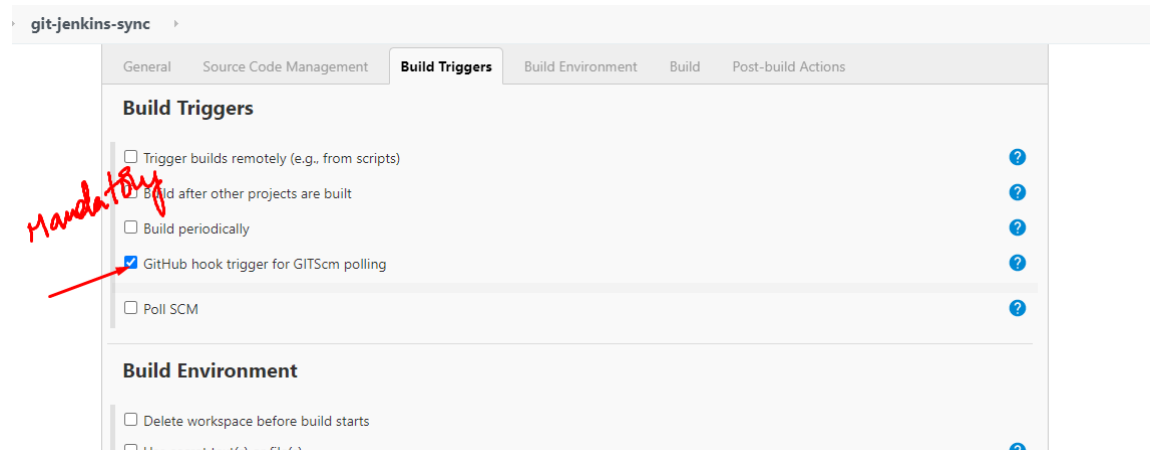
Add Branch

Repository browser

Additional Behaviours

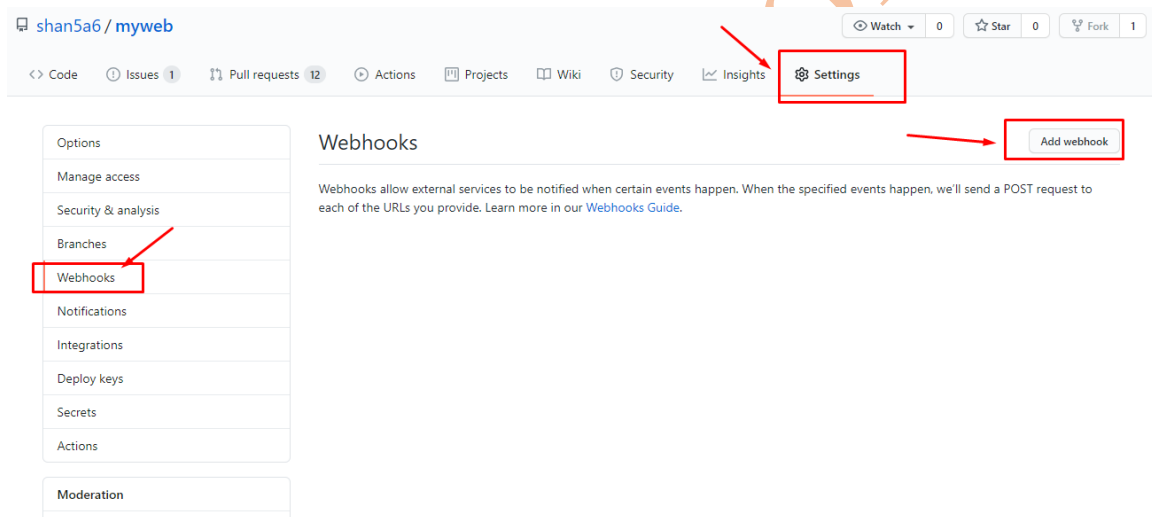
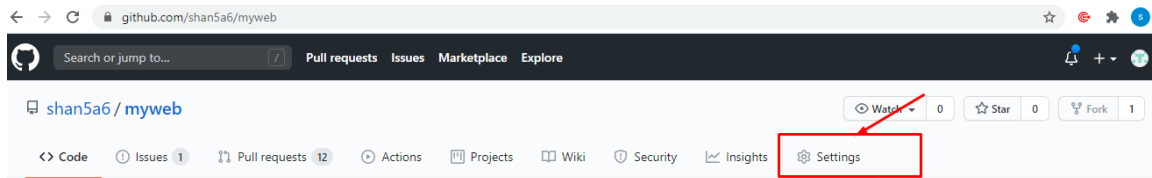
☐ Subversion

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In Git repo do the below:

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The screenshot shows the 'Webhooks / Add webhook' form in GitHub. On the left is a sidebar menu with 'Webhooks' highlighted. The main form contains the following fields and options:

- Payload URL ***: `http://54.165.110.104:8080/github-webhook/`
- Content type**: `application/json`
- Secret**: (Empty text box)
- Which events would you like to trigger this webhook?**:
 - ☒ Just the push event.
 - ☐ Send me everything.
 - ☐ Let me select individual events.
- Active**: ☒ (Note: We will deliver event details when this hook is triggered.)
- Add webhook**: (Green button)

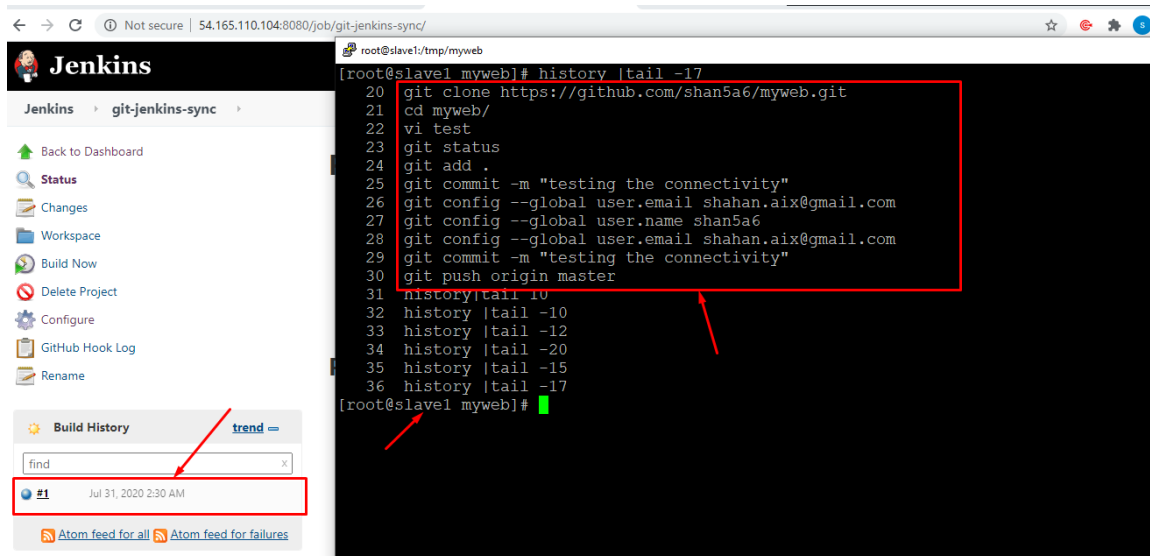
The screenshot shows the 'Webhooks' list page. It includes a table with one entry and an 'Add webhook' button in the top right corner.

Webhooks		Add webhook
<input checked="" type="checkbox"/>	<code>http://54.165.110.104:8080/github-webhook/ (push)</code>	Edit Delete

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Final Testing:

Perform the below to test the connectivity



The screenshot displays the Jenkins web interface on the left and a terminal window on the right. The Jenkins interface shows the 'git-jenkins-sync' job, with a 'Build History' section listing a build from July 31, 2020, at 2:30 AM. The terminal window shows the execution of various git commands to clone a repository, create a file, and push it to the master branch. Red boxes and arrows highlight the 'testing the connectivity' commit message in both the terminal and the Jenkins build history.

```
[root@slave1 tmp/myweb]# history |tail -17
20 git clone https://github.com/shan5a6/myweb.git
21 cd myweb/
22 vi test
23 git status
24 git add .
25 git commit -m "testing the connectivity"
26 git config --global user.email shahan.aix@gmail.com
27 git config --global user.name shan5a6
28 git config --global user.email shahan.aix@gmail.com
29 git commit -m "testing the connectivity"
30 git push origin master
31 history |tail -10
32 history |tail -10
33 history |tail -12
34 history |tail -20
35 history |tail -15
36 history |tail -17
[root@slave1 myweb]#
```

Jenkins Build History:

#	Build	Time
1	Jul 31, 2020 2:30 AM	