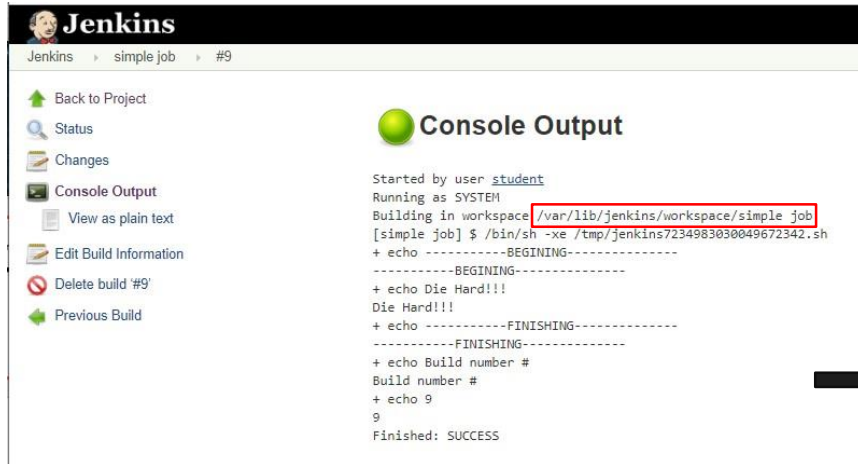


<epam>

Continuous integration / Continuous delivery (deployment). Lecture 2

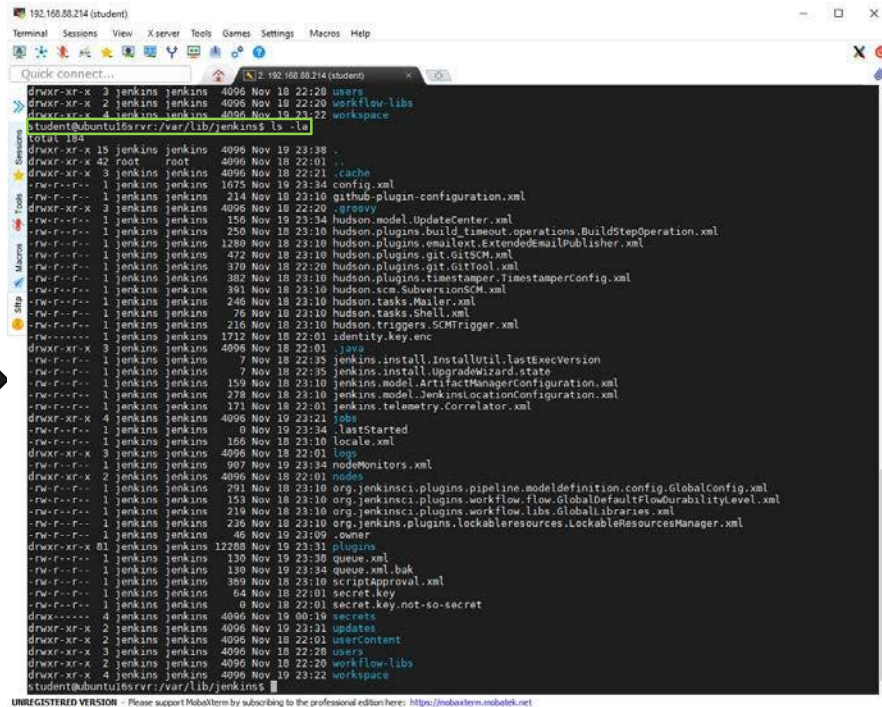
Simple job example in Jenkins.

Job and Build working directories on Jenkins server.



The Jenkins web interface displays the 'simple job' build #9. The 'Console Output' tab is selected, showing the following log:

```
Started by user student
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/simple job
[simple job] $ /bin/sh -xe /tmp/jenkins7234983030649672342.sh
+ echo -----BEGINNING-----
+ echo Die Hard!!!
Die Hard!!!
+ echo -----FINISHING-----
+ echo Build number #
Build number #
+ echo 9
9
Finished: SUCCESS
```

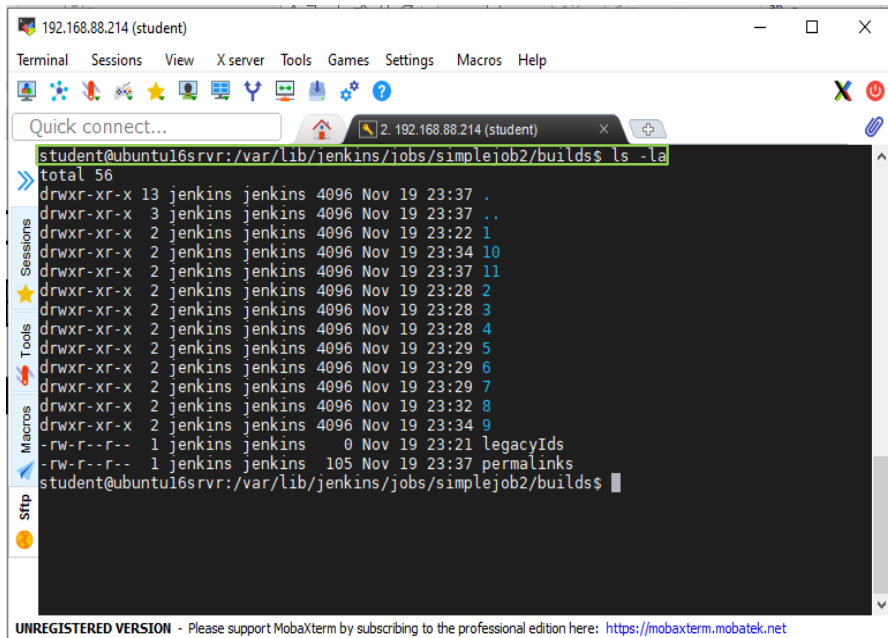


The terminal window shows the file structure of the Jenkins workspace. The command `ls -la` is executed, displaying the following output:

```
student@buntu16srvr:/var/lib/jenkins$ ls -la
total 124
drwxr-xr-x  2 jenkins jenkins 4096 Nov 10 22:20 users
drwxr-xr-x  2 jenkins jenkins 4096 Nov 10 22:20 workflowlibs
drwxr-xr-x  4 jenkins jenkins 4096 Nov 10 22:22 workspace
-rw-r--r--  1 jenkins jenkins 1675 Nov 10 22:20 config.xml
-rw-r--r--  1 jenkins jenkins 214 Nov 10 22:20 github-plugin-configuration.xml
-rw-r--r--  1 jenkins jenkins 4096 Nov 10 22:20 groovy
-rw-r--r--  1 jenkins jenkins 156 Nov 10 22:20 hudson.model.UpdateCenter.xml
-rw-r--r--  1 jenkins jenkins 250 Nov 10 22:20 hudson.plugins.build_timeout.operations.BuildStepOperation.xml
-rw-r--r--  1 jenkins jenkins 1280 Nov 10 22:20 hudson.plugins.email_extended_email_publisher.xml
-rw-r--r--  1 jenkins jenkins 472 Nov 10 22:20 hudson.plugins.git.GitSCM.xml
-rw-r--r--  1 jenkins jenkins 370 Nov 10 22:20 hudson.plugins.git.GitTool.xml
-rw-r--r--  1 jenkins jenkins 382 Nov 10 22:20 hudson.plugins.timestamp.TimestampConfig.xml
-rw-r--r--  1 jenkins jenkins 381 Nov 10 22:20 hudson.scm.SubversionSCM.xml
-rw-r--r--  1 jenkins jenkins 246 Nov 10 22:20 hudson.tasks.Mailer.xml
-rw-r--r--  1 jenkins jenkins 76 Nov 10 22:20 hudson.tasks.Shell.xml
-rw-r--r--  1 jenkins jenkins 216 Nov 10 22:20 hudson.triggers.SCMTrigger.xml
-rw-r--r--  1 jenkins jenkins 1712 Nov 10 22:20 identity.key.enc
drwxr-xr-x  3 jenkins jenkins 4096 Nov 10 22:01 java
-rw-r--r--  1 jenkins jenkins 7 Nov 10 22:20 jenkins.install.InstallUtil.LastExecVersion
-rw-r--r--  1 jenkins jenkins 7 Nov 10 22:20 jenkins.install.UpgradeWizard.state
-rw-r--r--  1 jenkins jenkins 159 Nov 10 22:20 jenkins.model.ArtifactManagerConfiguration.xml
-rw-r--r--  1 jenkins jenkins 278 Nov 10 22:20 jenkins.model.JenkinsLocationConfiguration.xml
-rw-r--r--  1 jenkins jenkins 121 Nov 10 22:01 jenkins-telemetry.Correlator.xml
drwxr-xr-x  4 jenkins jenkins 4096 Nov 10 22:21 jobs
-rw-r--r--  1 jenkins jenkins 0 Nov 10 22:34 lastStarted
-rw-r--r--  1 jenkins jenkins 166 Nov 10 22:10 locale.xml
drwxr-xr-x  3 jenkins jenkins 4096 Nov 10 22:01 logs
-rw-r--r--  1 jenkins jenkins 907 Nov 10 22:34 nodeMonitors.xml
drwxr-xr-x  2 jenkins jenkins 4096 Nov 10 22:01 nodes
-rw-r--r--  1 jenkins jenkins 291 Nov 10 22:20 org.jenkinsci.plugins.pipeline.modeldefinition.config.GlobalConfig.xml
-rw-r--r--  1 jenkins jenkins 153 Nov 10 22:20 org.jenkinsci.plugins.workflow.flow.GlobalDefaultFlowDurabilityLevel.xml
-rw-r--r--  1 jenkins jenkins 219 Nov 10 22:20 org.jenkinsci.plugins.workflow.libs.GlobalLibraries.xml
-rw-r--r--  1 jenkins jenkins 236 Nov 10 22:20 org.jenkins.plugins.lockableresources.LockableResourcesManager.xml
-rw-r--r--  1 jenkins jenkins 46 Nov 10 22:09 gamer
drwxr-xr-x 81 jenkins jenkins 12288 Nov 10 22:31 plugins
-rw-r--r--  1 jenkins jenkins 130 Nov 10 22:30 queue.xml
-rw-r--r--  1 jenkins jenkins 130 Nov 10 22:34 queue.xml.bak
-rw-r--r--  1 jenkins jenkins 369 Nov 10 22:30 scriptApproval.xml
-rw-r--r--  1 jenkins jenkins 64 Nov 10 22:01 secret.key
-rw-r--r--  1 jenkins jenkins 0 Nov 10 22:01 secret.key.not-so-secret
drwxr-xr-x  4 jenkins jenkins 4096 Nov 10 22:19 secrets
drwxr-xr-x  2 jenkins jenkins 4096 Nov 10 22:31 updates
drwxr-xr-x  2 jenkins jenkins 4096 Nov 10 22:01 userContent
drwxr-xr-x  3 jenkins jenkins 4096 Nov 10 22:20 users
drwxr-xr-x  2 jenkins jenkins 4096 Nov 10 22:20 workflowlibs
drwxr-xr-x  4 jenkins jenkins 4096 Nov 10 22:22 workspace
student@buntu16srvr:/var/lib/jenkins$
```

Simple job example in Jenkins.

Don't waste disk space.



192.168.88.214 (student)

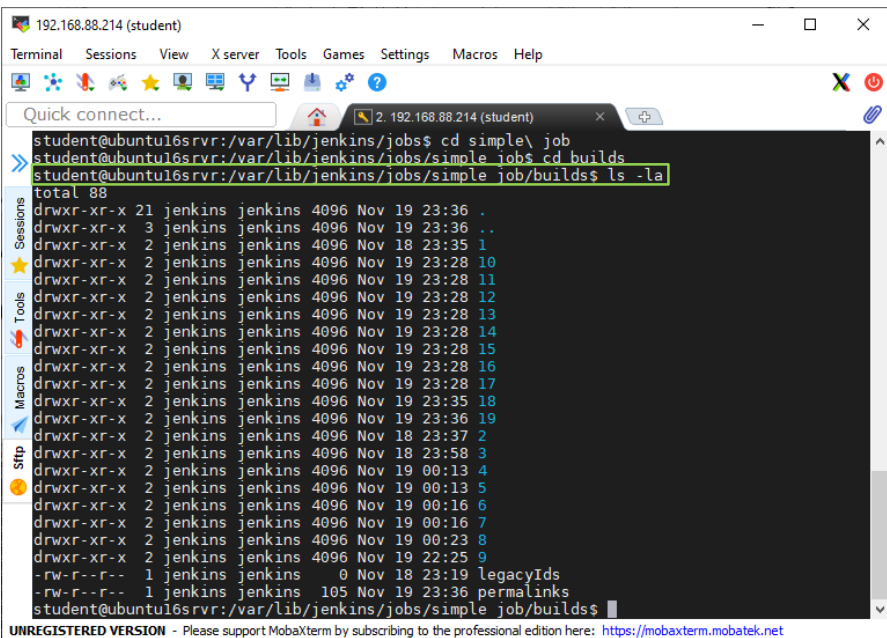
Terminal Sessions View X server Tools Games Settings Macros Help

Quick connect...

2. 192.168.88.214 (student)

```
student@ubuntu16srvr:/var/lib/jenkins/jobs/simplejob2/builds$ ls -la
total 56
drwxr-xr-x 13 jenkins jenkins 4096 Nov 19 23:37 .
drwxr-xr-x  3 jenkins jenkins 4096 Nov 19 23:37 ..
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:22 1
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:34 10
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:37 11
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:28 2
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:28 3
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:28 4
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:29 5
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:29 6
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:29 7
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:32 8
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:34 9
-rw-r--r--  1 jenkins jenkins  0 Nov 19 23:21 legacyIds
-rw-r--r--  1 jenkins jenkins 105 Nov 19 23:37 permalinks
student@ubuntu16srvr:/var/lib/jenkins/jobs/simplejob2/builds$
```

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192.168.88.214 (student)

Terminal Sessions View X server Tools Games Settings Macros Help

Quick connect...

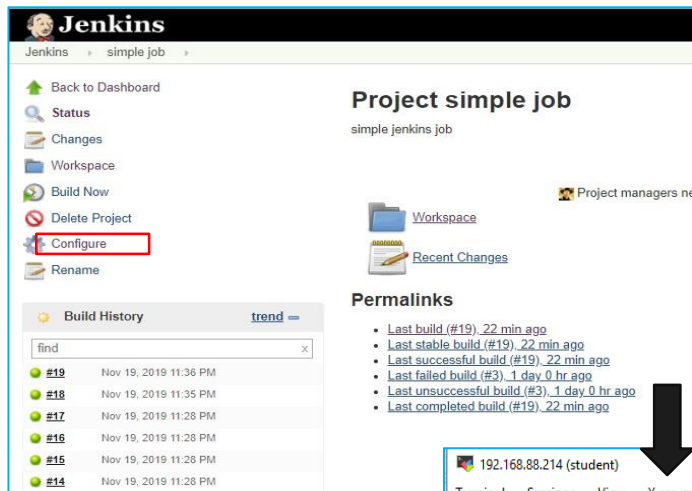
2. 192.168.88.214 (student)

```
student@ubuntu16srvr:/var/lib/jenkins/jobs$ cd simple\ job
student@ubuntu16srvr:/var/lib/jenkins/jobs/simple job$ cd builds
student@ubuntu16srvr:/var/lib/jenkins/jobs/simple job/builds$ ls -la
total 88
drwxr-xr-x 21 jenkins jenkins 4096 Nov 19 23:36 .
drwxr-xr-x  3 jenkins jenkins 4096 Nov 19 23:36 ..
drwxr-xr-x  2 jenkins jenkins 4096 Nov 18 23:35 1
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:28 10
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:28 11
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:28 12
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:28 13
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:28 14
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:28 15
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:28 16
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:28 17
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:35 18
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 23:36 19
drwxr-xr-x  2 jenkins jenkins 4096 Nov 18 23:37 2
drwxr-xr-x  2 jenkins jenkins 4096 Nov 18 23:58 3
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 00:13 4
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 00:13 5
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 00:16 6
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 00:16 7
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 00:23 8
drwxr-xr-x  2 jenkins jenkins 4096 Nov 19 22:25 9
-rw-r--r--  1 jenkins jenkins  0 Nov 18 23:19 legacyIds
-rw-r--r--  1 jenkins jenkins 105 Nov 19 23:36 permalinks
student@ubuntu16srvr:/var/lib/jenkins/jobs/simple job/builds$
```

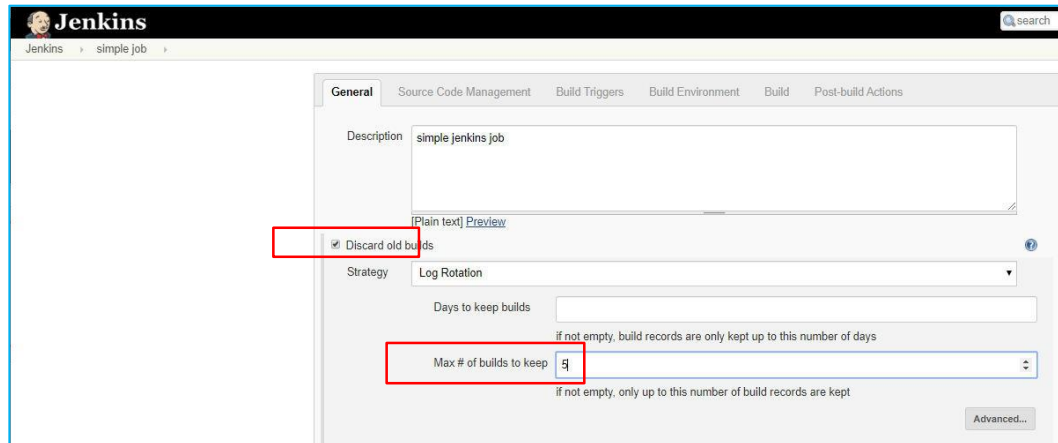
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Simple job example in Jenkins.

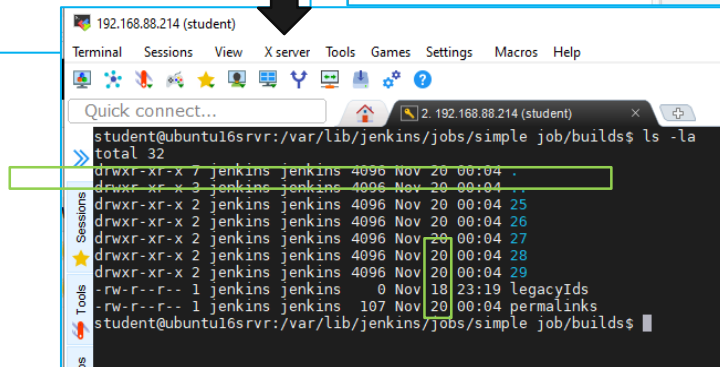
Don't waste disk space.



The screenshot shows the Jenkins web interface for a project named 'simple job'. The left sidebar contains navigation links: 'Back to Dashboard', 'Status', 'Changes', 'Workspace', 'Build Now', 'Delete Project', 'Configure' (highlighted with a red box), and 'Rename'. The main content area displays 'Project simple job' and 'simple jenkins job'. Below this, there are links for 'Workspace' and 'Recent Changes'. A 'Permalinks' section lists several build links, including 'Last build (#19) 22 min ago', 'Last stable build (#19) 22 min ago', 'Last successful build (#19) 22 min ago', 'Last failed build (#3) 1 day 0 hr ago', 'Last unsuccessful build (#3) 1 day 0 hr ago', and 'Last completed build (#19) 22 min ago'. A 'Build History' table is also visible, showing a list of builds with their status and timestamps. A red box highlights the 'Configure' link in the sidebar.



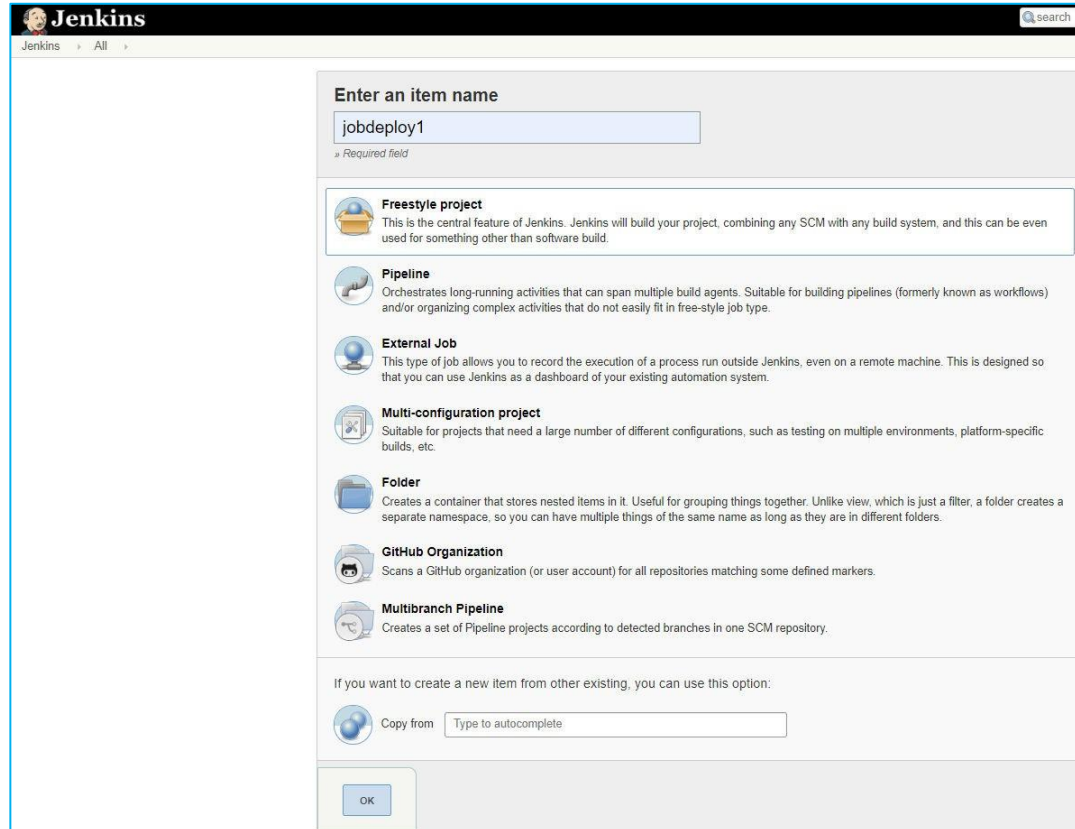
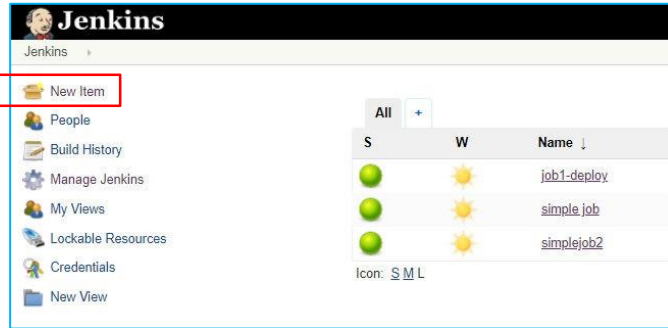
The screenshot shows the 'General' tab of the Jenkins configuration page for 'simple job'. The 'Description' field contains 'simple jenkins job'. The 'Discard old builds' checkbox is checked (highlighted with a red box). The 'Strategy' is set to 'Log Rotation'. The 'Days to keep builds' field is empty. The 'Max # of builds to keep' dropdown is set to '5' (highlighted with a red box). The text 'if not empty, build records are only kept up to this number of days' is visible below the dropdown. The 'Advanced...' button is at the bottom right.



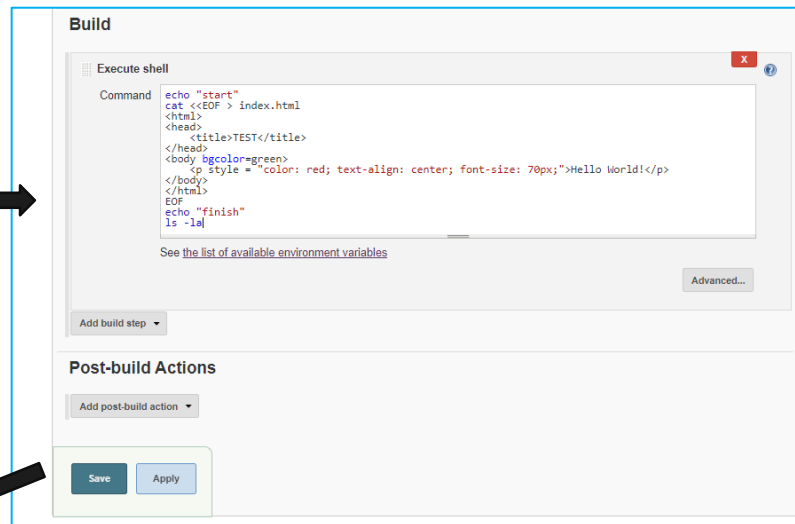
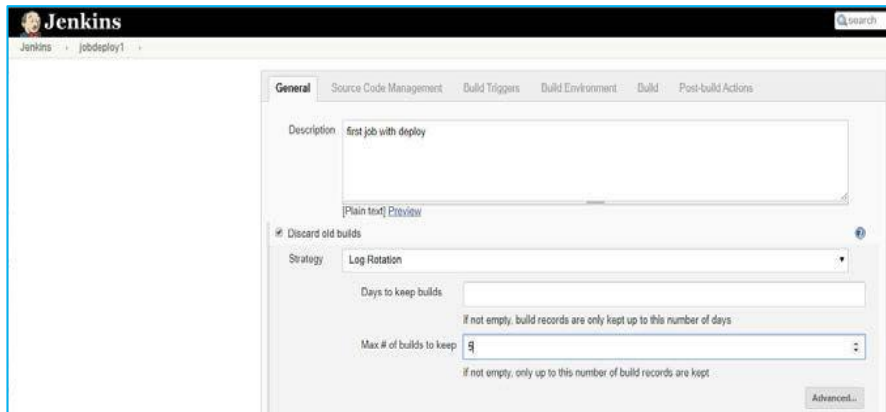
The screenshot shows a terminal window with the command `ls -la` executed in the directory `/var/lib/jenkins/jobs/simple job/builds`. The output shows a list of files and directories, including `jenkins` and `jenkins` directories, and a file named `permalinks`. A green box highlights the `jenkins` directory listing.

```
student@ubuntu16srvr:/var/lib/jenkins/jobs/simple job/builds$ ls -la
total 32
drwxr-xr-x 7 jenkins jenkins 4096 Nov 20 00:04 .
drwxr-xr-x 2 jenkins jenkins 4096 Nov 20 00:04 ..
drwxr-xr-x 2 jenkins jenkins 4096 Nov 20 00:04 25
drwxr-xr-x 2 jenkins jenkins 4096 Nov 20 00:04 26
drwxr-xr-x 2 jenkins jenkins 4096 Nov 20 00:04 27
drwxr-xr-x 2 jenkins jenkins 4096 Nov 20 00:04 28
drwxr-xr-x 2 jenkins jenkins 4096 Nov 20 00:04 29
-rw-r--r-- 1 jenkins jenkins  0 Nov 18 23:19 legacyIds
-rw-r--r-- 1 jenkins jenkins 107 Nov 20 00:04 permalinks
student@ubuntu16srvr:/var/lib/jenkins/jobs/simple job/builds$
```

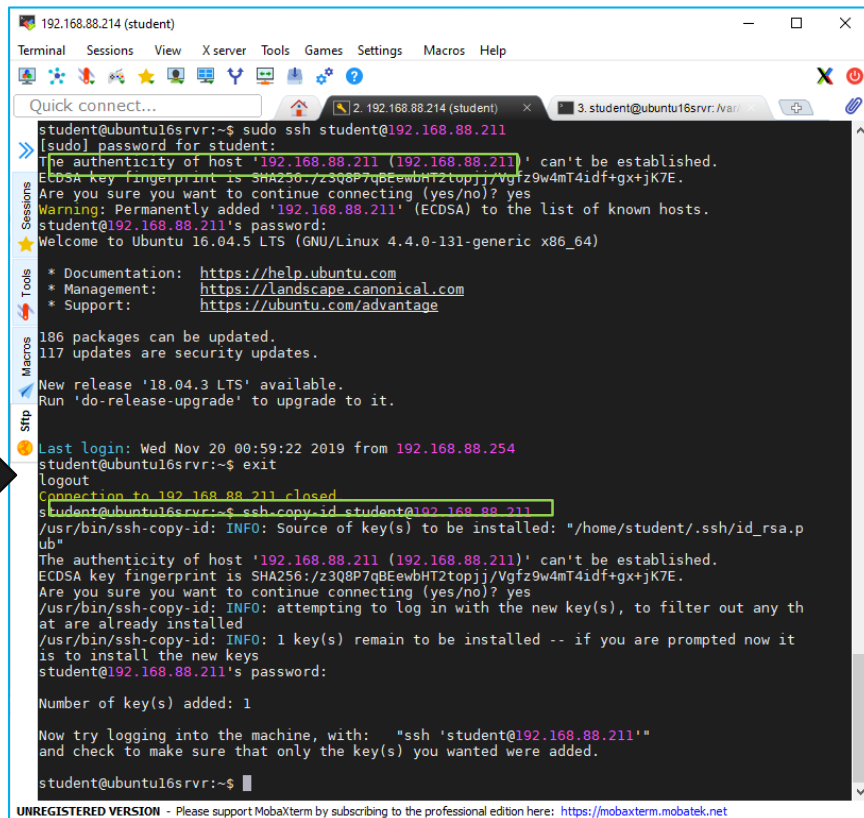
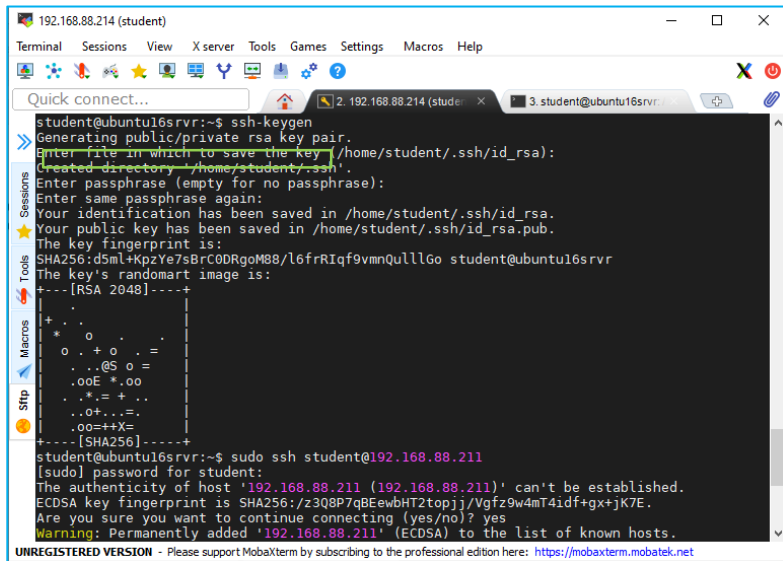
Simple job example in Jenkins with deploy.



Simple job example in Jenkins with deploy.

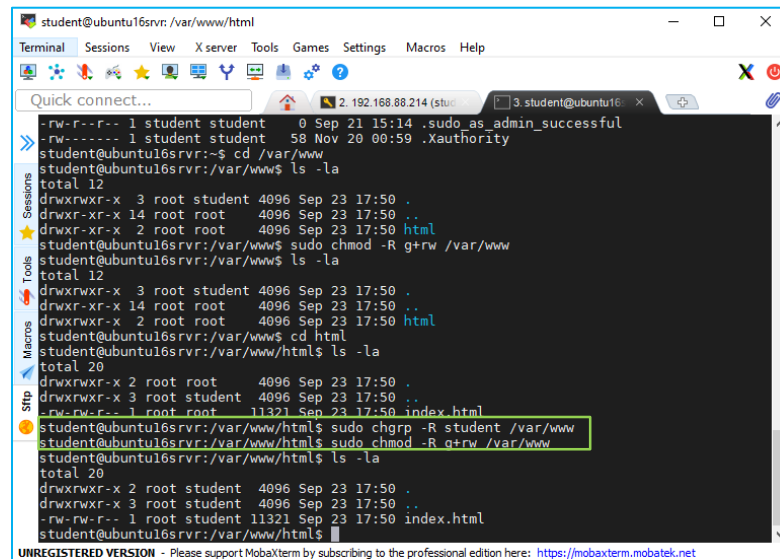
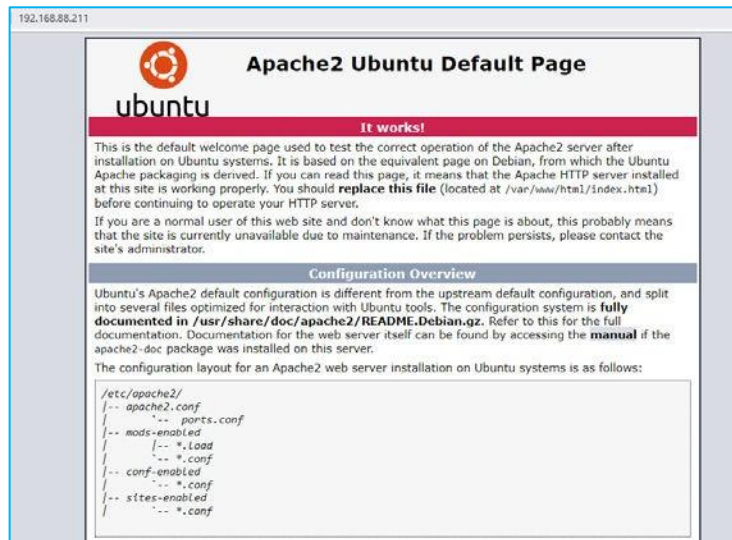


Simple job example in Jenkins with deploy. Establish SSH connection without login/password



Simple job example in Jenkins with deploy.

Establish privileges for /var/www



Simple job example in Jenkins with deploy. Establish SSH connection without login/password

On instance with Jenkins (example):

1) We have to use *-o StrictHostKeyChecking=no*:

```
scp -v -o StrictHostKeyChecking=no index.html student@192.168.88.211:/var/www/html
```

instead of:

```
scp -v index.html student@192.168.88.211:/var/www/html
```

2) We have to copy *id_rsa* to */var/lib/jenkins/.ssh*

3) The */var/lib/jenkins/.ssh* directory and files inside of it should be owned by *jenkins*

Simple job example in Jenkins with deploy.

Establish SSH connection without login/password

Build

Execute shell

Command

```
echo "start"
cat <<EOF > index.html
<html>
<head>
  <title>TEST</title>
</head>
<body bgcolor=green>
  <p style="color: red; text-align: center; font-size: 70px;">Hello World!</p>
</body>
</html>
EOF
echo "finish"
ls -la
echo "-----deploy-----"
scp -v -o StrictHostKeyChecking=no index.html student@192.168.88.211:/var/www/html
```

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

Advanced...

Add build step

Post-build Actions

Add post-build action

Save Apply

Jenkins

jobdeploy1 #10

Back to Project

Status

Changes

Console Output

View as plain text

Edit build information

Delete build #10

Previous Build

Console Output

```
Started by user student
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/jobdeploy1
[jobdeploy1] $ /bin/sh -xe /tmp/jenkins50374037373662092.sh
+ echo start
start
+ cat
+ echo finish
finish
+ ls -la
total 12
drwxr-xr-x 2 jenkins jenkins 4096 Nov 20 00:42 .
drwxr-xr-x 6 jenkins jenkins 4096 Nov 20 00:42 ..
-rw-r--r-- 1 jenkins jenkins 166 Nov 20 02:22 index.html
+ echo -----deploy-----
-----deploy-----
+ scp -v -o StrictHostKeyChecking=no index.html student@192.168.88.211:/var/www/html
Executing: program /usr/bin/ssh host 192.168.88.211, user student, command scp -v -t /var/www/html
OpenSSH 7.2p2 Ubuntu-0ubuntu2.4, OpenSSL 1.0.2g 1 Mar 2016
debug1: Reading configuration data /etc/ssh/ssh_config
debug1: /etc/ssh/ssh_config line 19: Applying options for *
debug1: Connecting to 192.168.88.211 [192.168.88.211] port 22.
debug1: Connection established.
debug1: client_input_channel_req: channel 0 rtype exit-status reply 0
debug1: channel 0: free: client-session, nchannels 1
debug1: fd 0 clearing O_NONBLOCK
debug1: fd 1 clearing O_NONBLOCK
debug1: fd 2 clearing O_NONBLOCK
Transferred: sent 2616, received 2580 bytes, in 0.1 seconds
Bytes per second: sent 24194.9, received 23861.9
debug1: Exit status 0
Finished: SUCCESS
```



Simple job example in Jenkins with deploy using plugin

"Publish Over SSH"

The image illustrates the setup of a Jenkins job using the 'Publish Over SSH' plugin. It is divided into two main sections: the Jenkins web interface and a terminal window.

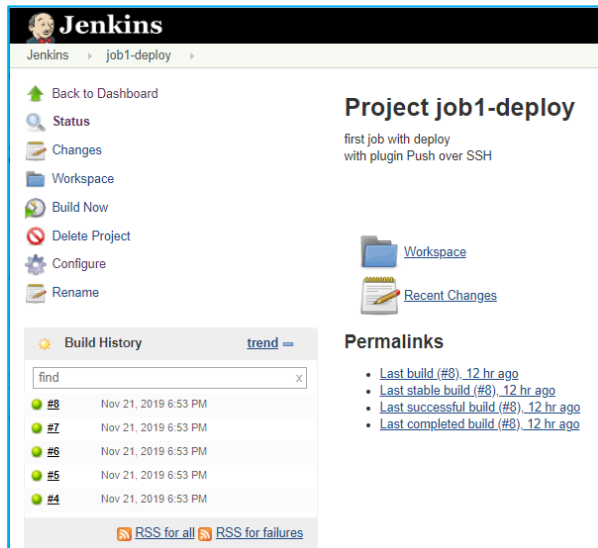
Jenkins Interface:

- Plugin Manager:** Shows the 'Publish Over SSH' plugin under the 'Available' tab. The 'Download now and install after restart' button is highlighted with a red box.
- Configuration:** The 'Jenkins - configuration' page shows the 'SSH Servers' section. A new server is configured with the following details:
 - Name:** apache
 - Hostname:** 192.168.88.211
 - Username:** student
 - Remote Directory:** /var/www/html
- Buttons:** The 'Success' button (labeled 4) and the 'Text Configuration' button (labeled 3) are highlighted with red boxes.

Terminal Window:

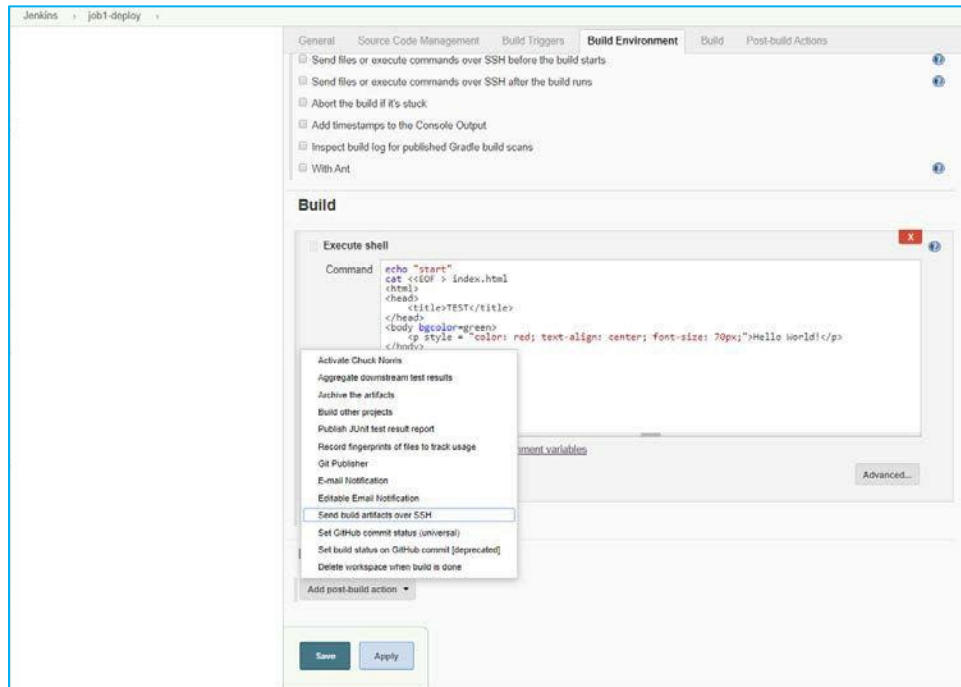
- The terminal shows the command `student@ubuntu16srvr:~/.ssh$ cat id_rsa` being executed.
- The output displays the contents of the `id_rsa` file, which is a private RSA key.
- An arrow points from the 'Success' message in the Jenkins configuration page (labeled 1) to the terminal output.

Simple job example in Jenkins with deploy using plugin “Publish Over SSH”



The screenshot shows the Jenkins web interface for a job named 'job1-deploy'. The left sidebar contains navigation links: 'Back to Dashboard', 'Status', 'Changes', 'Workspace', 'Build Now', 'Delete Project', 'Configure', and 'Rename'. The main content area is titled 'Project job1-deploy' and describes it as 'first job with deploy with plugin Push over SSH'. It includes links for 'Workspace' and 'Recent Changes'. Below this is a 'Permalinks' section with a list of build links: 'Last build (#8) 12 hr ago', 'Last stable build (#8) 12 hr ago', 'Last successful build (#8) 12 hr ago', and 'Last completed build (#8) 12 hr ago'. At the bottom, there is a 'Build History' table with a search bar and a list of builds (#8, #7, #6, #5, #4) all dated 'Nov 21, 2019 6:53 PM'. RSS feeds for 'all' and 'failures' are also provided.

Build Number	Timestamp
#8	Nov 21, 2019 6:53 PM
#7	Nov 21, 2019 6:53 PM
#6	Nov 21, 2019 6:53 PM
#5	Nov 21, 2019 6:53 PM
#4	Nov 21, 2019 6:53 PM



The screenshot shows the 'Build' tab of the Jenkins job configuration page for 'job1-deploy'. The 'Build' section is expanded, showing the 'Execute shell' option. The command field contains a script that echoes 'start', cat's the index.html file, and prints a green 'Hello World!' message. A dropdown menu is open, showing various post-build actions, with 'Send build artifacts over SSH' selected. The 'Advanced...' button is visible at the bottom right of the configuration area.

```
echo "start"
cat <<EOF > index.html
<html>
<head>
<title>TEST</title>
</head>
<body bgcolor=green>
<p style = "color: red; text-align: center; font-size: 70px;">Hello World!</p>
</body>
</html>
```

Post-build Actions:

- Activate Chuck Norris
- Aggregate downstream test results
- Archive the artifacts
- Build other projects
- Publish JUnit test result report
- Record fingerprints of files to track usage
- Git Publisher
- E-mail Notification
- Editable Email Notification
- Send build artifacts over SSH
- Set GitHub commit status (universal)
- Set build status on GitHub commit [deprecated]
- Delete workspace when build is done

Simple job example in Jenkins with deploy using plugin "Publish Over SSH"

The screenshot shows the Jenkins configuration page for a job named 'job1-deploy'. The 'Build' tab is selected, displaying an 'Execute shell' step with a command that creates an HTML file and prints 'Hello World!'. The 'Post-build Actions' section is expanded, showing 'Send build artifacts over SSH' with the SSH server named 'apache' and the transfer set to '*' (all files). The 'Exec command' field is set to 'echo \$BUILD_ID'. The 'Save' and 'Apply' buttons are highlighted with red boxes.

```
Command
echo "start"
cat <EOF > index.html
EOF
<title>test</title>
</head>
<body bgcolor=green>
  <div style = "color: red; text-align: center; font-size: 20px;">Hello World!</div>
</body>
</html>
EOF
echo "Finish"
```

Post-build Actions

Send build artifacts over SSH

SSH Publishers

SSH Server

Name: apache

Transfers

Transfer Set: *

Source files: *

Remove prefix:

Remote directory:

Exec command: echo \$BUILD_ID

Save Apply

The screenshot shows the Jenkins job dashboard for 'job1-deploy'. The 'Build Now' button is highlighted with a red box. The dashboard also displays the job's status, workspace, and build history.

Project job1-deploy

first job with deploy with plugin Push over SSH

Build Now

Build History

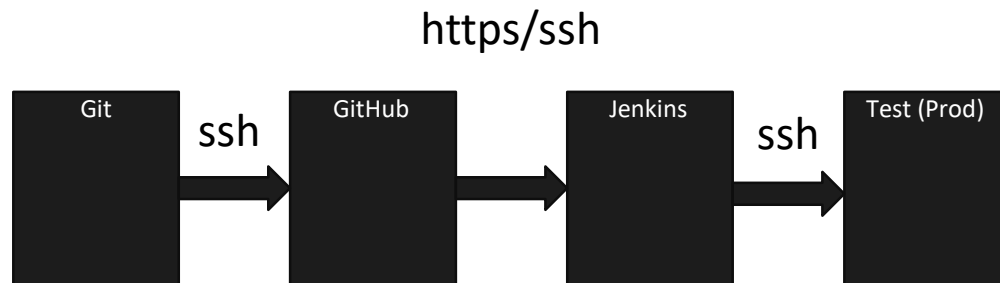
Build Number	Status	Time
#11	Success	Nov 22, 2019 12:40 PM
#10	Success	Nov 22, 2019 12:41 PM
#9	Success	Nov 22, 2019 12:39 PM
#8	Success	Nov 21, 2019 6:53 PM
#7	Success	Nov 21, 2019 6:53 PM

The screenshot shows a web browser displaying the result of the deployment. The page has a green background with the text 'Hello World!' in red and 'Deployed by Publish Over SSH' in yellow.

Hello World!

Deployed by Publish Over SSH

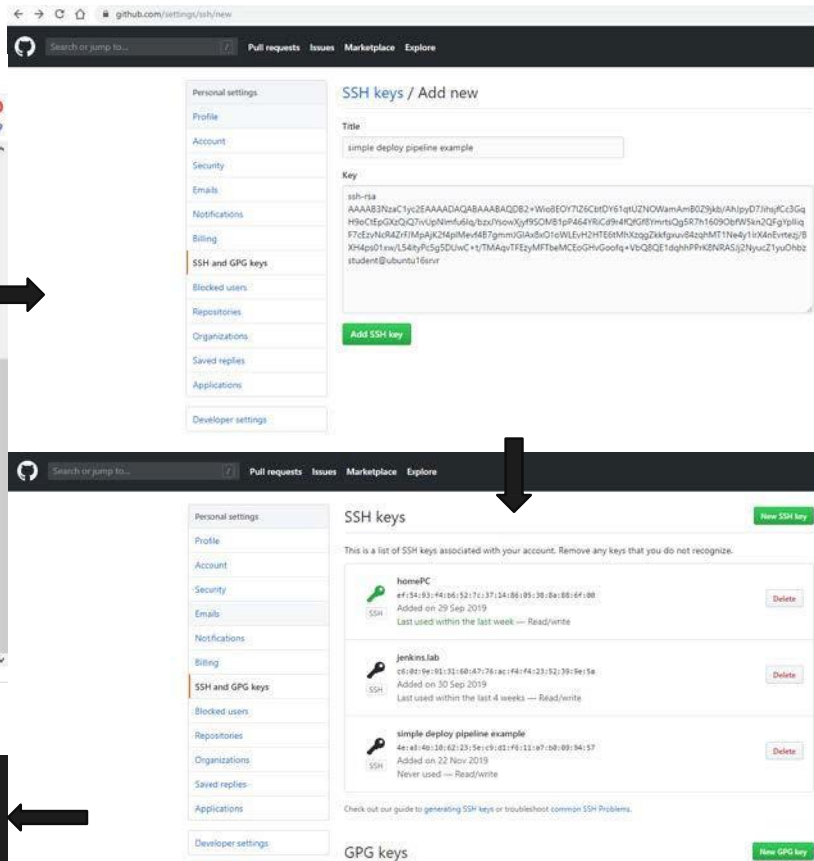
Simple CI/CD pipeline example



Simple CI/CD pipeline example

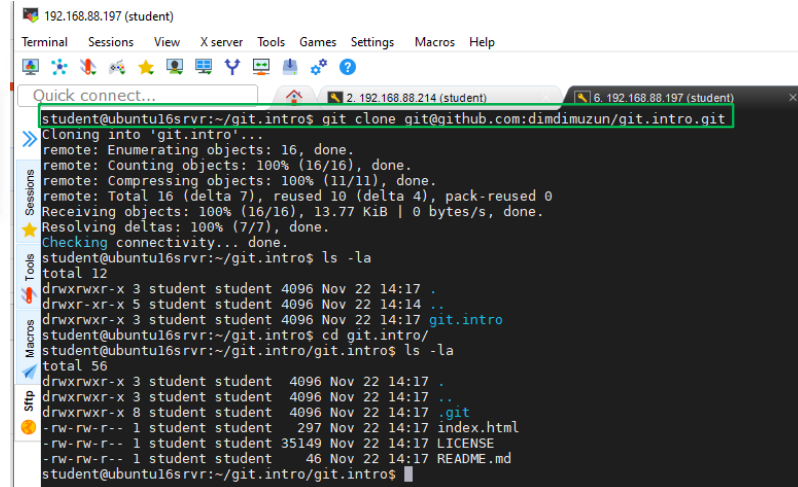
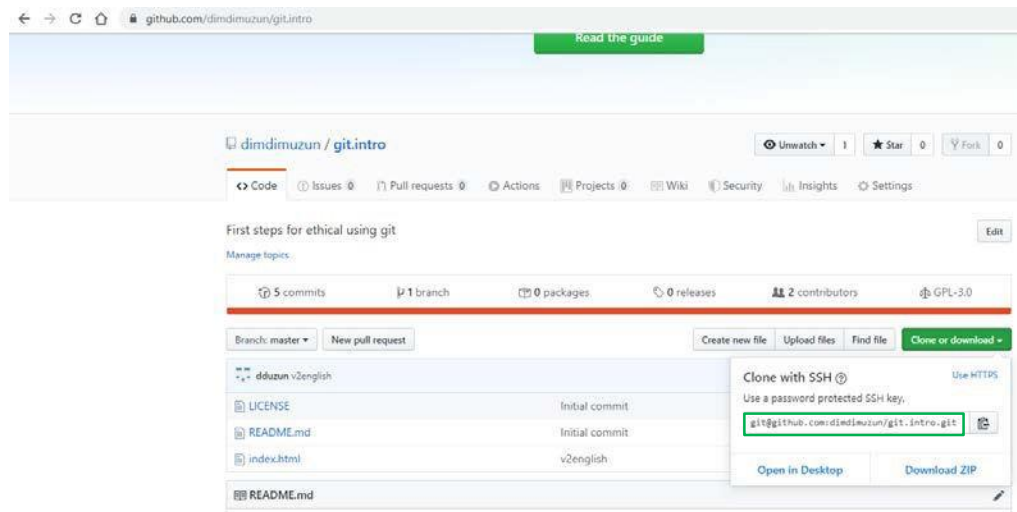
```
192.168.88.197 (student)
Terminal Sessions View X server Tools Games Settings Macros Help

Quick connect...
student@ubuntu16srrv:~$ ps -aux | grep git
student 1812 0.0 0.0 14224 1008 pts/0  S+  13:54  0:00 grep --color=auto git
student@ubuntu16srrv:~$ ls -la
total 22
drwxr-xr-x 3 student student 4096 Nov 22 13:54 .
drwxr-xr-x 3 root      root    4096 Sep 21 15:13 ..
-rw-r--r-- 1 student student 21 Sep 26 06:40 .bash_history
-rw-r--r-- 1 student student 220 Sep 21 15:13 .bash_logout
-rw-r--r-- 1 student student 3771 Sep 21 15:13 .bashrc
drwx----- 2 student student 4096 Sep 21 15:14 .cache
-rw-r--r-- 1 student student 655 Sep 21 15:13 .profile
-rw-r--r-- 1 student student 0 Sep 21 15:14 .sudo_as_admin_successful
-rw-r----- 1 student student 59 Nov 22 13:54 .xauthority
student@ubuntu16srrv:~$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/student/.ssh/id_rsa):
Created directory /home/student/.ssh/.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/student/.ssh/id_rsa.
Your public key has been saved in /home/student/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:ozDRSuxRnxfnTuODPAjNAjUPNsDU2vUyXjheFwabJhs student@ubuntu16srrv
The key's randomart image is:
+--[RSA 2048]--+
oOoP. .
..O.O. .Oo
..+O..Eom...
..O..+at+..
..O..+So+..+
..+O..+..+..
..O..+..+..
..+..+..+..
+-----[SHA256]-----
student@ubuntu16srrv:~$ cd .ssh
student@ubuntu16srrv:~/.ssh$ cat id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDZW10BEOY7Z6ChtDY61qtUZNOWamAmB0Z9jkb/AhJpyD7Jjhsjfcc3Gm9HocTEpGxZQIQ71vUpNlfuB1q/
H9icCtPcQXQZQ2nUqNmfuB1q/bs7sowXy9fSCMB1pP464YbC9H4RCGfTmrtUqS87H1609CbfWY5a2Cfjgq
F7E5pUaZdF1H4p4j24gm4487gmmdG1UwE4VHT6EMMk2ggZ24kgu0d4qHMT1W4y1f6h48m4gB
Xh4pD1wvLS4tyPc5G5DUwC+1TMAqTfEzyMTbMcEgHvGooq+VbQ8QZ1dghPPhK2NRASj2NyuZ7ysoNbz
student@ubuntu16srrv:~/.ssh$
```



```
student@ubuntu16srrv:~/.ssh$ ssh -T git@github.com
The authenticity of host 'github.com (140.82.118.3)' can't be established.
RSA key fingerprint is SHA256:nThbg6kXUpJWGL7ELLIG0CsPROMTxdCARLviKw6E5SY8.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'github.com,140.82.118.3' (RSA) to the list of known hosts.
Hi dimidmizun! You've successfully authenticated, but GitHub does not provide shell access.
```


Simple CI/CD pipeline example



Simple CI/CD pipeline example

```
192.168.88.197 (student)
Terminal Sessions View X server Tools Games Settings Macros Help

Quick connect...
student@ubuntu16srvr:~/git.intro/git.intro$ git commit
** Please tell me who you are.

Run
git config --global user.email "you@example.com"
git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: unable to auto-detect email address (got 'student@ubuntu16srvr.(none)')
student@ubuntu16srvr:~/git.intro/git.intro$ git config --global user.name "DimDim Uzun"
student@ubuntu16srvr:~/git.intro/git.intro$ git config --global user.email dmitriy.d.uzun@gmail.com
student@ubuntu16srvr:~/git.intro/git.intro$ git commit
Aborting commit due to empty commit message.
student@ubuntu16srvr:~/git.intro/git.intro$ git commit
[master fcf5d9] clear some trash
1 file changed, 2 insertions(+), 6 deletions(-)
student@ubuntu16srvr:~/git.intro/git.intro$ git push
warning: push.default is unset; its implicit value has changed in
Git 2.0 from 'matching' to 'simple'. To squelch this message
and maintain the traditional behavior, use:

    git config --global push.default matching

To squelch this message and adopt the new behavior now, use:

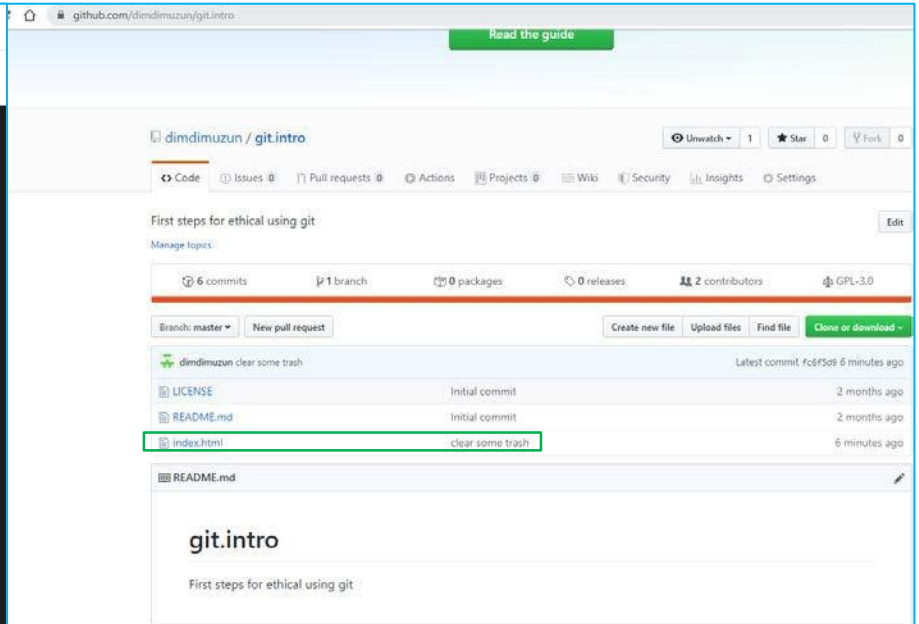
    git config --global push.default simple

When push.default is set to 'matching', git will push local branches
to the remote branches that already exist with the same name.

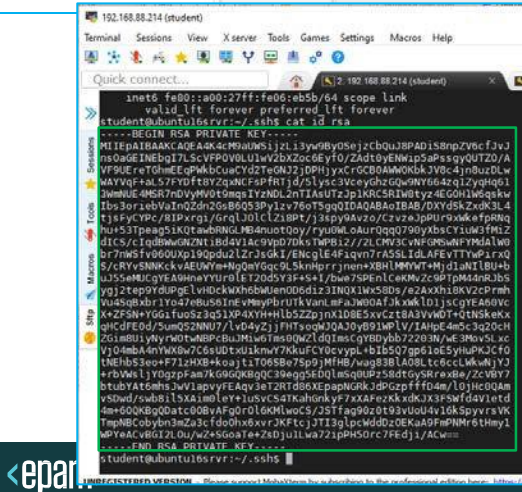
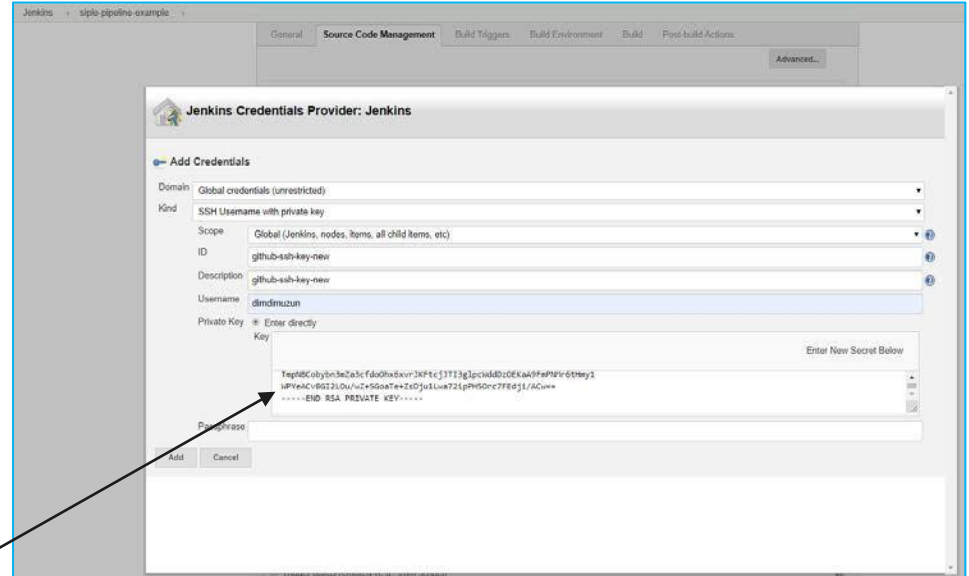
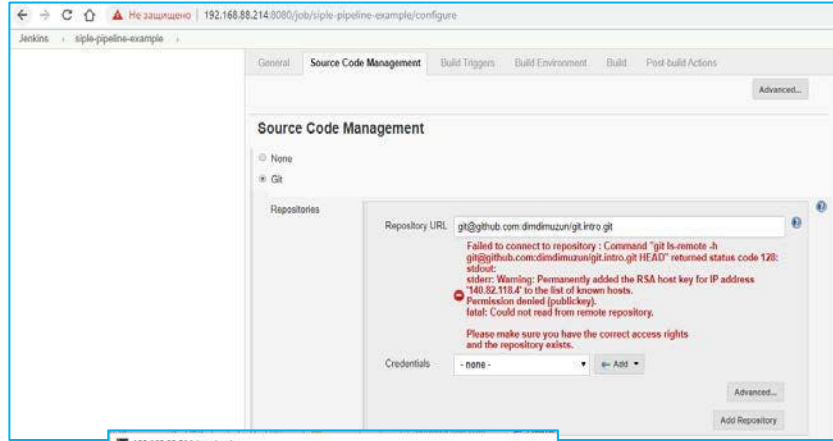
Since Git 2.0, Git defaults to the more conservative 'simple'
behavior, which only pushes the current branch to the corresponding
remote branch that 'git pull' uses to update the current branch.

See 'git help config' and search for 'push.default' for further information.
(the 'simple' mode was introduced in Git 1.7.11. Use the similar mode
'current' instead of 'simple' if you sometimes use older versions of Git)

warning: Permanently added the RSA host key for IP address '140.82.118.4' to the list of known hosts.
Counting objects: 3, done.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 339 bytes | 0 bytes/s, done.
Total 3 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To git@github.com:dimdimuzun/git.intro.git
2963cc8..fc6f5d9 master -> master
student@ubuntu16srvr:~/git.intro/git.intro$
```



Simple CI/CD pipeline example



Simple CI/CD pipeline example

```
192.168.88.214 (student)
Terminal Sessions View X server Tools Games Settings Macros Help
Quick connect...
student@ubuntu16srr:~/ssh$ cat id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQGrhwz1pRZKKPMULfLD0HISj6PMJtC4nw8AOJlyeIXp8m8mew5oYQg0R
uAjsUuU85XQtXBZTdmhzeTj879kE23TIQ1aKno+yyDjBRNk78BU1Q5H5MaGYQ5o9aRsK5oJh3Z4Y0naMMSePL
EKsYIHQBZY4puQXzOly7MMv6Y8HwX5ovsVgN+3xhmREdIWw9FON3/mXXzdvx7IaHMZDD01jrrjOrVnKoeRXd
ay1QTgxJHucNXIxxS32aqwhjMOMvMdMgCrPMmUpELlEhby3LPgQY4fVbqyTAhuzeiU5tVoidB12fYawhPonc/LX0
/vqhPmCp student@ubuntu16srr
student@ubuntu16srr:~/ssh$
```

Personal settings

Profile

Account

Security

Emails

Notifications

Billing

SSH and GPG keys

Blocked users

Repositories

Organizations

Saved replies

Applications

Developer settings

SSH keys / Add new

Title

jenkins

Key

ssh-rsa
AAAAAB3NzaC1yc2EAAAADAQABAAQGrhwz1pRZKKPMULfLD0HISj6PMJtC4nw8AOJlyeIXp8m8mew5oYQg0R
uAjsUuU85XQtXBZTdmhzeTj879kE23TIQ1aKno+yyDjBRNk78BU1Q5H5MaGYQ5o9aRsK5oJh3Z4Y0naMMSePL
EKsYIHQBZY4puQXzOly7MMv6Y8HwX5ovsVgN+3xhmREdIWw9FON3/mXXzdvx7IaHMZDD01jrrjOrVnKoeRXd
ay1QTgxJHucNXIxxS32aqwhjMOMvMdMgCrPMmUpELlEhby3LPgQY4fVbqyTAhuzeiU5tVoidB12fYawhPonc/LX0/v
qhPmCp student@ubuntu16srr

Add SSH key

Source Code Management

None

Git

Repositories

Repository URL

github.com:dmdimzun/git:git

Credentials

dmdimzun (github-ssh-key-new)

Advanced...

Add Repository

Branches to build

Branch Specifier (blank for 'any')

*master

Add Branch

Repository browser

(Auto)

Additional Behaviours

Add

Subversion

Personal settings

Profile

Account

Security

Emails

Notifications

Billing

SSH and GPG keys

Blocked users

Repositories

Organizations

Saved replies

Applications

Developer settings

SSH keys

Now SSH key

This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.

homePC
ef:54:93:f4:b6:52:7c:37:14:86:05:50:8a:88:6f:00
Added on 29 Sep 2019
Last used within the last week — Read/write

Delete

jenkins.lab
c6:04:9e:91:31:60:47:76:ac:f4:f4:23:52:39:9e:5a
Added on 30 Sep 2019
Last used within the last 4 weeks — Read/write

Delete

simple deploy pipeline example
4e1b54b:10:62:23:5e:cf:d1:f6:11:67:00:09:94:57
Added on 22 Nov 2019
Last used within the last week — Read/write

Delete

jenkins
bf:75:ce:51:36:04:07:03:4d:85:0b:04:2a:94:20:f9
Added on 22 Nov 2019
Last used within the last week — Read/write

Delete

Simple CI/CD pipeline example

The screenshot shows the Jenkins web interface for a project named 'siple-pipeline-example'. The left sidebar contains navigation links: 'Back to Dashboard', 'Status', 'Changes', 'Workspace', 'Build Now' (highlighted with a red box), 'Delete Project', 'Configure', and 'Rename'. The main area displays the project name and a 'simple pipeline example' description. Below this are links for 'Workspace' and 'Recent Changes'. A 'Permalinks' section lists build history: 'Last build (#1) 1 min 4 sec ago', 'Last stable build (#1) 1 min 4 sec ago', 'Last successful build (#1) 1 min 4 sec ago', and 'Last completed build (#1) 1 min 4 sec ago'. At the bottom, there is a 'Build History' table with a search bar and a table showing build #1 from Nov 22, 2019 9:22 PM.

The screenshot shows the Jenkins web interface for the 'Console Output' of the 'siple-pipeline-example' project. The left sidebar contains navigation links: 'Back to Project', 'Status', 'Changes', 'Console Output' (highlighted with a green circle), 'View as plain text', 'Edit Build Information', 'Delete build #1', 'Git Build Data', and 'No Tags'. The main area displays the console output, which includes the following text:

```
Started by user student
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/siple-pipeline-example
using credential github-ssh-key-new
Cloning the remote Git repository
Cloning repository git@github.com:dindimuzun/git.intro.git
> git init /var/lib/jenkins/workspace/siple-pipeline-example # timeout=10
Fetching upstream changes from git@github.com:dindimuzun/git.intro.git
> git --version # timeout=10
using GIT_SSH to set credentials github-ssh-key-new
> git fetch --tags --progress git@github.com:dindimuzun/git.intro.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git config remote.origin.url git@github.com:dindimuzun/git.intro.git # timeout=10
> git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
> git config remote.origin.url git@github.com:dindimuzun/git.intro.git # timeout=10
Fetching upstream changes from git@github.com:dindimuzun/git.intro.git
using GIT_SSH to set credentials github-ssh-key-new
> git fetch --tags --progress git@github.com:dindimuzun/git.intro.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/master^{commit} # timeout=10
> git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision fc6f5d9aa43c725e87df8891d7a8a944247dd825 (refs/remotes/origin/master)
> git config core.sparsecheckout # timeout=10
> git checkout -f fc6f5d9aa43c725e87df8891d7a8a944247dd825 # timeout=10
Commit message: "clear some trash"
First time build. Skipping changelog.
[siple-pipeline-example] $ /bin/sh -xe /tmp/jenkins7239419112736577520.sh
+ echo start
start
+ sleep 5
+ echo finish
finish
SSH: Connecting from host [ubuntu16srvr]
SSH: Connecting with configuration [apache] ...
SSH: EXEC: STDOUT/STDERR from command [echo 1] ...
1
SSH: EXEC: completed after 5 ms
SSH: Disconnecting configuration [apache] ...
SSH: Transferred 3 file(s)
Finished: SUCCESS
```

The screenshot shows the Jenkins web interface for the 'Build Output' of the 'siple-pipeline-example' project. The left sidebar contains navigation links: 'Back to Project', 'Status', 'Changes', 'Console Output', 'View as plain text', 'Edit Build Information', 'Delete build #1', 'Git Build Data', and 'No Tags'. The main area displays the build output, which includes the following text:

```
Be silent

This text is green

version in english N1
```

Simple CI/CD pipeline example

← → ↻ 🏠 ⓘ Не защищено | 192.168.88.214:8080/job/siple-pipeline-example/configure

Jenkins » siple-pipeline-example »

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

☐ None
☒ Git

Repositories

Repository URL

Credentials [Add](#)

Branches to build

Branch Specifier (blank for 'any')

Repository browser

Additional Behaviours [Add](#)

☐ Subversion

Build Triggers

☐ Trigger builds remotely (e.g., from scripts)

☐ Build after other projects are built

☒ Build periodically

Schedule

⚠ Do you really mean "every minute" when you say "* * * * *"? Perhaps you meant "H * * * * *" to poll once per hour
Would last have run at Friday, November 22, 2019 4:22:11 PM EET; would next run at Friday, November 22, 2019 4:22:11 PM EET.

☐ GitHub hook trigger for GITScm polling

☐ Poll SCM

← → ↻ 🏠 ⓘ Не защищено | 192.168.88.214:8080/job/siple-pipeline-example/

Jenkins

Jenkins » siple-pipeline-example »

[Back to Dashboard](#)

[Status](#)

[Changes](#)

[Workspace](#)

[Build Now](#)

[Delete Project](#)

[Configure](#)

[Rename](#)

Project siple-pipeline-example

simple pipeline example

[Workspace](#)

[Recent Changes](#)

Permalinks

- [Last build \(#8\), 23 sec ago](#)
- [Last stable build \(#8\), 23 sec ago](#)
- [Last successful build \(#8\), 23 sec ago](#)
- [Last completed build \(#8\), 23 sec ago](#)

Build History [trend](#)

#8	Nov 22, 2019 4:22 PM
#7	Nov 22, 2019 4:21 PM
#6	Nov 22, 2019 4:20 PM
#5	Nov 22, 2019 4:19 PM
#4	Nov 22, 2019 4:18 PM

[RSS for all](#) [RSS for failures](#)

Source Code Management

☐ None

☒ Git

Repositories

Repository URL

Credentials

Branches to build

Branch Specifier (blank for 'any')

Repository browser

Additional Behaviours

☐ Subversion

Build Triggers

☐ Trigger builds remotely (e.g., from scripts)

☐ Build after other projects are built

☐ Build periodically

☐ GitHub hook trigger for GITScm polling

☒ Poll SCM

Schedule

Would last have run at Friday, November 22, 2019 4:25:35 PM EET; would next run at Friday, November 22, 2019 4:25:35 PM EET.

☐ Ignore post-commit hooks

Quick connect...

```
Your branch is ahead of 'origin/master' by 1 commit.
(use "git push" to publish your local commits)
Untracked files:
  index.html.bk

nothing added to commit but untracked files present
student@ubuntu16srvr:~/git.intro/git.intro$ git push
★ warning: push.default is unset; its implicit value has changed in
Git 2.0 from 'matching' to 'simple'. To squelch this message
and maintain the traditional behavior, use:

  git config --global push.default matching

To squelch this message and adopt the new behavior now, use:

  git config --global push.default simple

When push.default is set to 'matching', git will push local branches
to the remote branches that already exist with the same name.

Since Git 2.0, Git defaults to the more conservative 'simple'
behavior, which only pushes the current branch to the corresponding
remote branch that 'git pull' uses to update the current branch.

See 'git help config' and search for 'push.default' for further information.
(the 'simple' mode was introduced in Git 1.7.11. Use the similar mode
'current' instead of 'simple' if you sometimes use older versions of Git)

Counting objects: 3, done.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 328 bytes | 0 bytes/s, done.
Total 3 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To git@github.com:dimdumuzun/git.intro.git
fc6f5d9..c8b1cbb master -> master
student@ubuntu16srvr:~/git.intro/git.intro$
```

UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: <https://mobaxterm.mobatek.net>

Simple CI/CD pipeline example

The screenshot shows the Jenkins web interface. At the top, the browser address bar displays the URL `192.168.88.214:8080/job/siple-pipeline-example/`. The Jenkins logo and navigation menu are on the left. The main content area is titled "Project siple-pipeline-example" and includes links for "Workspace" and "Recent Changes". Below this, a "Permalinks" section lists four links: "Last build (#11), 54 sec ago", "Last stable build (#11), 54 sec ago", "Last successful build (#11), 54 sec ago", and "Last completed build (#11), 54 sec ago". On the bottom left, the "Build History" section shows a list of builds, with build #11 highlighted in green and its timestamp "4:40 PM" circled in red.

← → ↺ 🏠 ⓘ Не защищено | 192.168.88.214:8080/job/siple-pipeline-example/

Jenkins

Jenkins > siple-pipeline-example >

- Back to Dashboard
- Status
- Changes
- Workspace
- Build Now
- Delete Project
- Configure
- Git Polling Log
- Rename

Project siple-pipeline-example

simple pipeline example

[Workspace](#)

[Recent Changes](#)

Permalinks

- [Last build \(#11\), 54 sec ago](#)
- [Last stable build \(#11\), 54 sec ago](#)
- [Last successful build \(#11\), 54 sec ago](#)
- [Last completed build \(#11\), 54 sec ago](#)

Build History

[trend](#)

find

#11	Nov 22, 2019 4:40 PM
#10	Nov 22, 2019 4:24 PM
#9	Nov 22, 2019 4:23 PM
#8	Nov 22, 2019 4:22 PM
#7	Nov 22, 2019 4:21 PM

[RSS for all](#) [RSS for failures](#)

The screenshot shows the GitHub repository page for 'siple-pipeline-example'. The repository has 7 commits, 1 branch, 0 packages, 0 releases, 2 contributors, and is licensed under GPL-3.0. The 'master' branch is selected. A table of files is shown, with 'index.html' highlighted in green. The commit history shows that 'index.html' was changed 5 minutes ago.

7 commits 1 branch 0 packages 0 releases 2 contributors GPL-3.0

Branch: master New pull request

Create new file Upload files Find file Clone or download

dimdimuzun changed color Latest commit c8b1cbb 5 minutes ago

LICENSE	Initial commit	2 months ago
README.md	Initial commit	2 months ago
index.html	changed color	5 minutes ago

The screenshot shows a web browser displaying the output of a CI/CD pipeline. The browser address bar shows the URL `192.168.88.211`. The page content includes the text "Be silent" and "This text is blue". Below this, the text "version in english" is displayed.

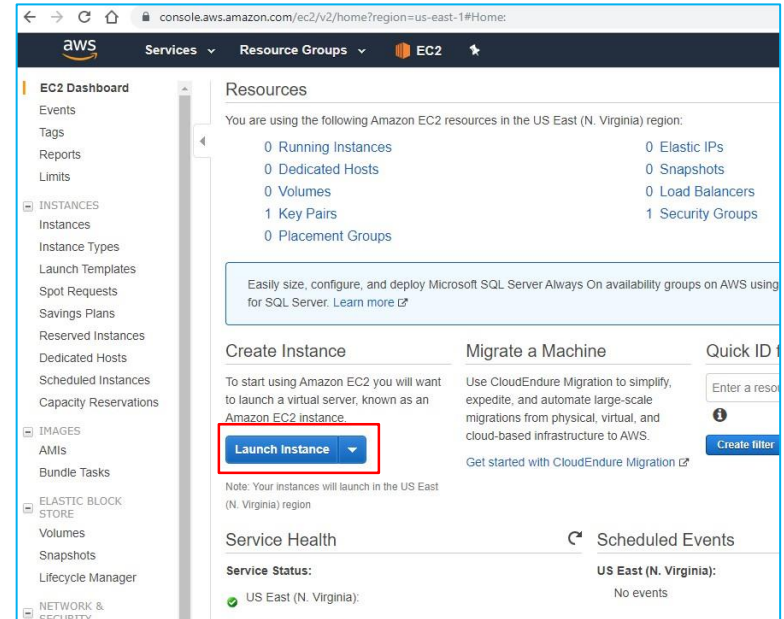
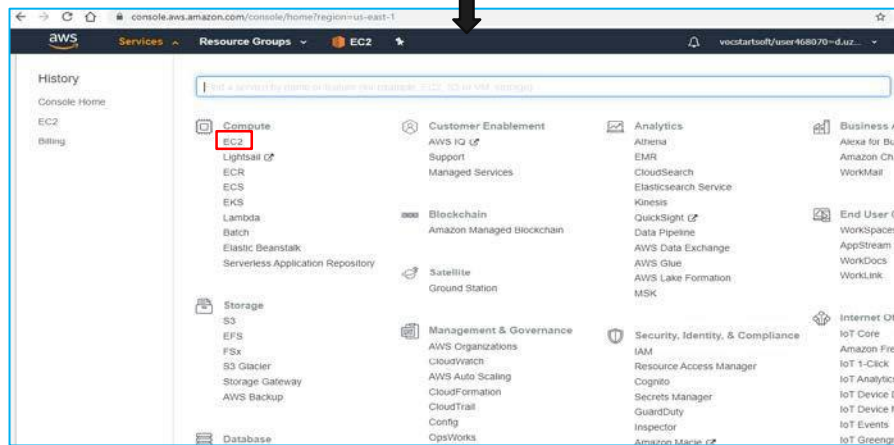
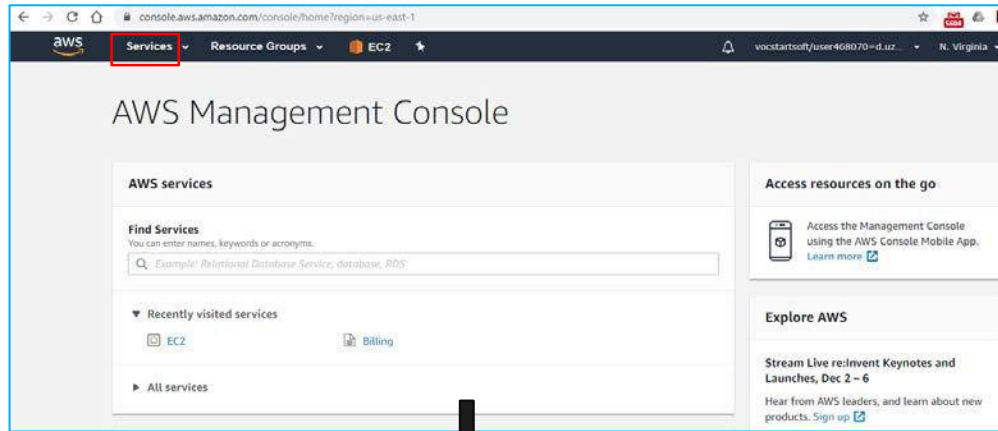
← → ↺ 🏠 ⓘ Не защищено | 192.168.88.211

Be silent

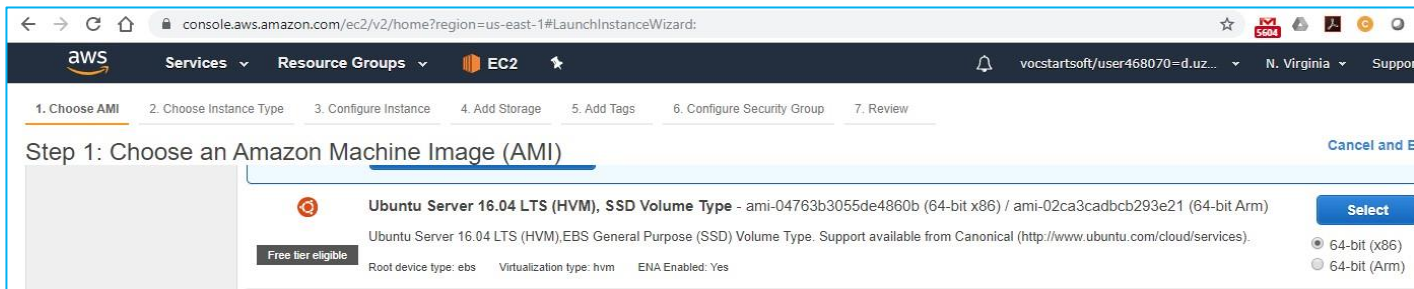
This text is blue

version in english

Simple CI/CD pipeline example using AWS



Simple CI/CD pipeline example using AWS



console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard:

Services Resource Groups EC2

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 1: Choose an Amazon Machine Image (AMI)

Cancel and Exit

Ubuntu Server 16.04 LTS (HVM), SSD Volume Type - ami-04763b3055de4860b (64-bit x86) / ami-02ca3cadbc293e21 (64-bit Arm)

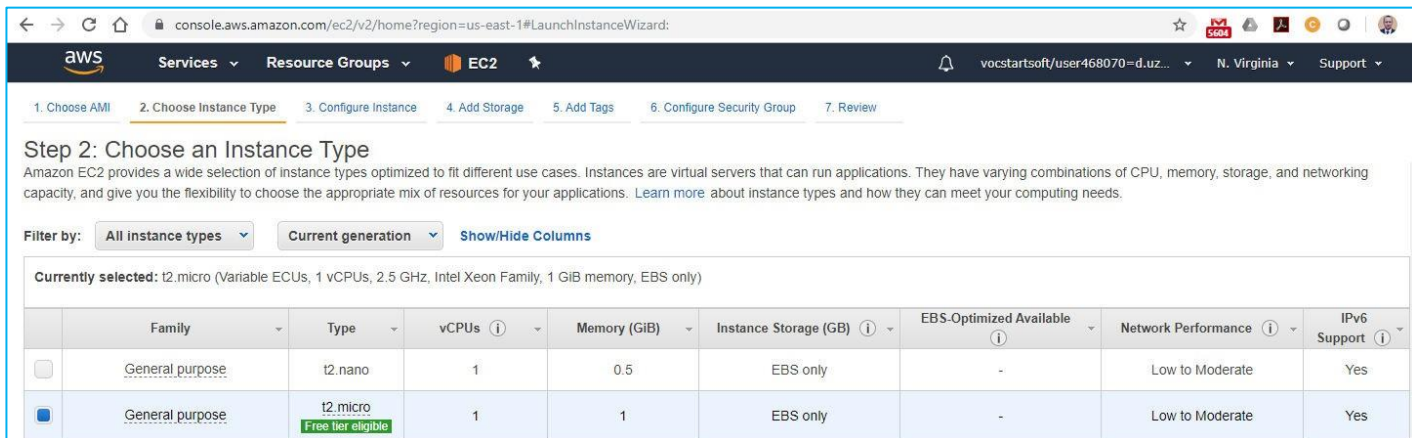
Free tier eligible

Ubuntu Server 16.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select

64-bit (x86)
64-bit (Arm)



console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard:

Services Resource Groups EC2

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance types Current generation Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	General purpose	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	Yes

Simple CI/CD pipeline example using AWS

console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard:

aws Services Resource Groups EC2

1. Choose AMI 2. Choose Instance Type 3. Configure Instance Details 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances ⓘ 1 [Launch into Auto Scaling Group](#) ⓘ

Purchasing option ⓘ ☐ Request Spot instances

Network ⓘ vpc-72d29a08 (default) [Create new VPC](#)

Subnet ⓘ No preference (default subnet in any Availability Zone) [Create new subnet](#)

Auto-assign Public IP ⓘ Use subnet setting (Enable)

Placement group ⓘ ☐ Add instance to placement group

Capacity Reservation ⓘ Open [Create new Capacity Reservation](#)

IAM role ⓘ None [Create new IAM role](#)

Shutdown behavior ⓘ Stop

Enable termination protection ⓘ ☐ Protect against accidental termination

Monitoring ⓘ ☐ Enable CloudWatch detailed monitoring
Additional charges apply.

Tenancy ⓘ Shared - Run a shared hardware instance
Additional charges will apply for dedicated tenancy.

Elastic Inference ⓘ ☐ Add an Elastic Inference accelerator
Additional charges apply.

T2/T3 Unlimited ⓘ ☐ Enable

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Add Storage](#)

Simple CI/CD pipeline example using AWS

The screenshot shows the AWS Management Console interface for the EC2 Launch Instance Wizard, specifically Step 4: Add Storage. The breadcrumb navigation at the top indicates the steps: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage (current step), 5. Add Tags, 6. Configure Security Group, and 7. Review. The main heading is "Step 4: Add Storage". Below the heading, a paragraph explains that the instance will be launched with specific storage settings and that additional EBS volumes can be attached after launch. A table lists the storage configuration for the root volume:

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination
Root	/dev/sda1	snap-0b7112419d20ddeb4	8	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>

Below the table is a button labeled "Add New Volume". At the bottom, a note states: "Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions."

The screenshot shows the AWS Management Console interface for the EC2 Launch Instance Wizard, specifically Step 5: Add Tags. The breadcrumb navigation at the top indicates the steps: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage, 5. Add Tags (current step), 6. Configure Security Group, and 7. Review. The main heading is "Step 5: Add Tags". Below the heading, a paragraph explains that a tag consists of a case-sensitive key-value pair and that tags will be applied to all instances and volumes. A table lists the tags being added:

Key	Value	Instances	Volumes
name	jenkins	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Below the table is a button labeled "Add another tag" with a note "(Up to 50 tags maximum)".

Simple CI/CD pipeline example using AWS

← → ↺ ⌂ console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard

aws Services Resource Groups EC2 vocstartsoft/user468070

1. Choose AMI 2. Choose instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server on your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☒ Create a new security group ☐ Select an existing security group

Security group name:

Description:

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	Custom 0.0.0.0/0	
Custom TCP Rule	TCP	8080	Anywhere 0.0.0.0/0	

Add Rule

Warning
Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known

← → ↺ ⌂ console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard

aws Services Resource Groups EC2 vocstartsoft/user468070-N. Virginia Support

1. Choose AMI 2. Choose instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 7: Review Instance Launch

AMI Details [Edit AMI](#)

Free tier eligible Ubuntu Server 16.04 LTS (HVM), SSD Volume Type - ami-04763b3055de4860b
Ubuntu Server 16.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).
Root Device Type: ebs Visualization type: hvm

Instance Type [Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GiB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

Security Groups [Edit security groups](#)

Security group name: ssh-jenkins
Description: launch-wizard-1 created 2019-11-22T17:10:12.774+02:00

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	0.0.0.0/0	
Custom TCP Rule	TCP	8080	0.0.0.0/0	
Custom TCP Rule	TCP	8080	0/0	

Instance Details [Edit instance details](#)

Storage [Edit storage](#)

Tags [Edit tags](#)

Cancel Previous **Launch**

Simple CI/CD pipeline example using AWS

The screenshot displays the AWS Management Console interface for the EC2 service. The left-hand navigation pane lists various AWS services, including Instances, ELASTIC BLOCK STORE, NETWORK & SECURITY, LOAD BALANCING, and AUTO SCALING. The main content area shows a list of EC2 instances. Two instances are visible: one in a 'terminated' state and another in a 'running' state. The 'running' instance, with ID i-0d46f9c9ebf631e8, is selected. Below the instance list, the 'Description' tab is active, providing detailed information about the instance, such as its configuration, network settings, and launch details. The instance is a t2.micro type in the us-east-1c availability zone, running on the ubuntu/images/hvm-ssd/ubuntu-xenial-16.04-amd64-server-20190913 AMI. It has a public DNS of ec2-54-175-76-124.compute-1.amazonaws.com and a public IP of 54.175.76.124. The IPv6 IP field is highlighted with a green box, showing a dash (-), indicating it is not assigned. The console also shows the instance's status checks, monitoring, and tags.

console.aws.amazon.com/ec2/v2/home?region=us-east-1#Instances:sort=desc:tag:Name

aws Services Resource Groups EC2

Launch Instance Connect Actions

Filter by tags and attributes or search by keyword

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs
	i-04eb9661c8da0b387	t2.micro	us-east-1a	terminated		None		-	-
	i-0d46f9c9ebf631e8	t2.micro	us-east-1c	running	2/2 checks ...	None	ec2-54-175-76-124.co...	54.175.76.124	-

Instance: i-0d46f9c9ebf631e8 Public DNS: ec2-54-175-76-124.compute-1.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID	Instance state	Instance type	Elastic IPs	Availability zone	Security groups	Scheduled events	AMI ID	Platform	IAM role	Key pair name	Owner	Launch time	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs	Private DNS	Private IPs	Secondary private IPs	VPC ID	Subnet ID	Network interfaces	Source/dest. check	T2/T3 Unlimited	EBS-optimized	Root device type
i-0d46f9c9ebf631e8	running	t2.micro		us-east-1c	ssh-jenkins. view inbound rules. view outbound rules	No scheduled events	ubuntu/images/hvm-ssd/ubuntu-xenial-16.04-amd64-server-20190913 (ami-04763b3055de4860b)	-	-	dnipro	744588508031	November 22, 2019 at 5:24:10 PM UTC+2 (less than one hour)	ec2-54-175-76-124.compute-1.amazonaws.com	54.175.76.124	-	ip-172-31-40-108.ec2.internal	172.31.40.108		vpc-72d29a08	subnet-1a2d1546	eth0	True	Disabled	False	ebs

Feedback English (US)

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Simple CI/CD pipeline example using AWS

Session settings

SSH Telnet Rsh Xdmcp RDP VNC FTP SFTP Serial File Shell Browser Mosh Aws S3 WSL

Basic SSH settings

Remote host * 54.175.76.124 ☒ Specify username ubuntu Port 22

Advanced SSH settings

Terminal settings Network settings Bookmark settings

☒ X11-Forwarding ☒ Compression Remote environment: Interactive shell

Execute command: ☐ Do not exit after command ends

SSH-browser type: SFTP protocol ☐ Follow SSH path (experimental)

☒ Use private key C:\Users\User\Downloads\dnipro.p ☐ Adapt locales on remote server

Execute macro at session start: <none>

OK Cancel

54.175.76.124 (ubuntu)

Terminal Sessions View X server Tools Games Settings Macros Help

Quick connect...

MobaXterm 12.2

(SSH client, X-server and networking tools)

- SSH session to ubuntu@54.175.76.124
 - SSH compression : ✓
 - SSH-browser : ✓
 - X11-forwarding : ✓ (remote display is forwarded through SSH)
 - DISPLAY : ✓ (automatically set on remote server)
- For more info, ctrl+click on [help](#) or visit our [website](#)

Welcome to Ubuntu 16.04.6 LTS (GNU/Linux 4.4.0-1092-aws x86_64)

- Documentation: <https://help.ubuntu.com>
- Management: <https://landscape.canonical.com>
- Support: <https://ubuntu.com/advantage>

0 packages can be updated.
0 updates are security updates.

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

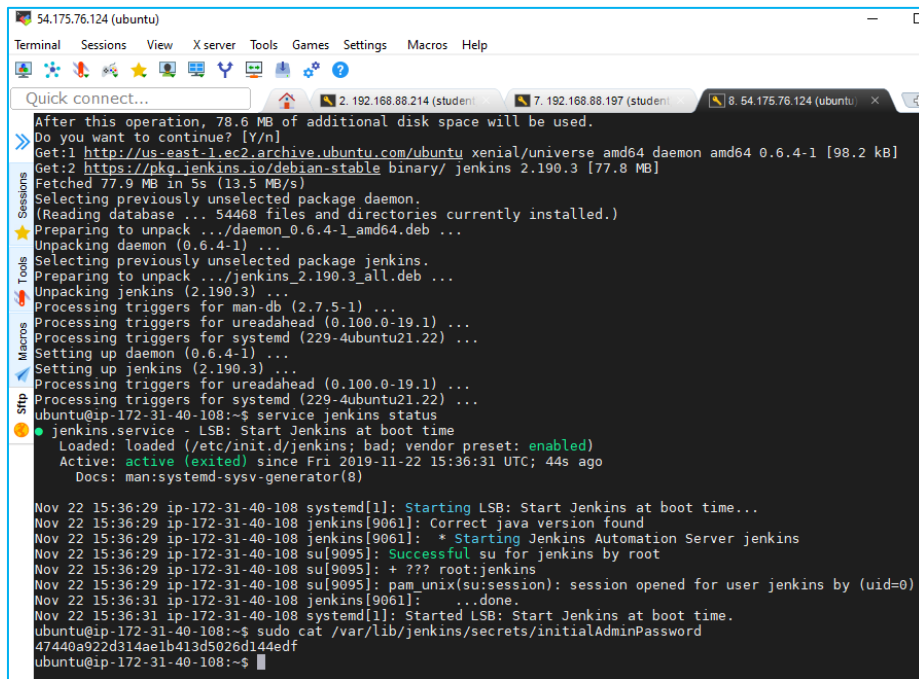
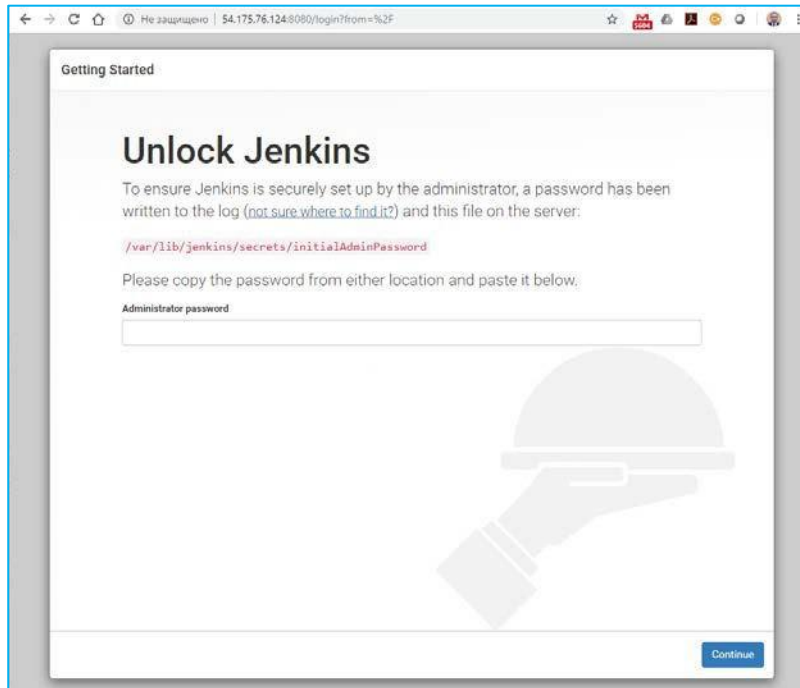
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

/usr/bin/xauth: file /home/ubuntu/.Xauthority does not exist
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

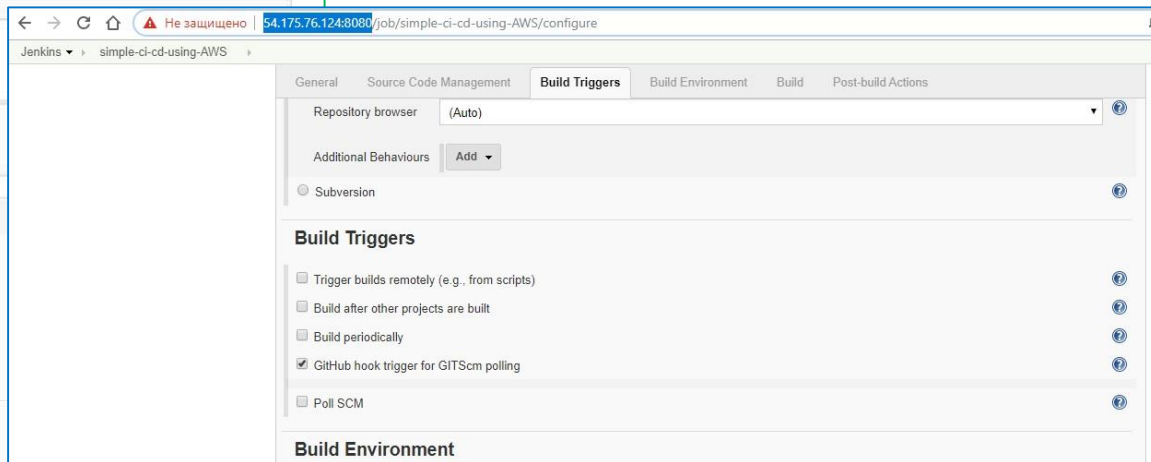
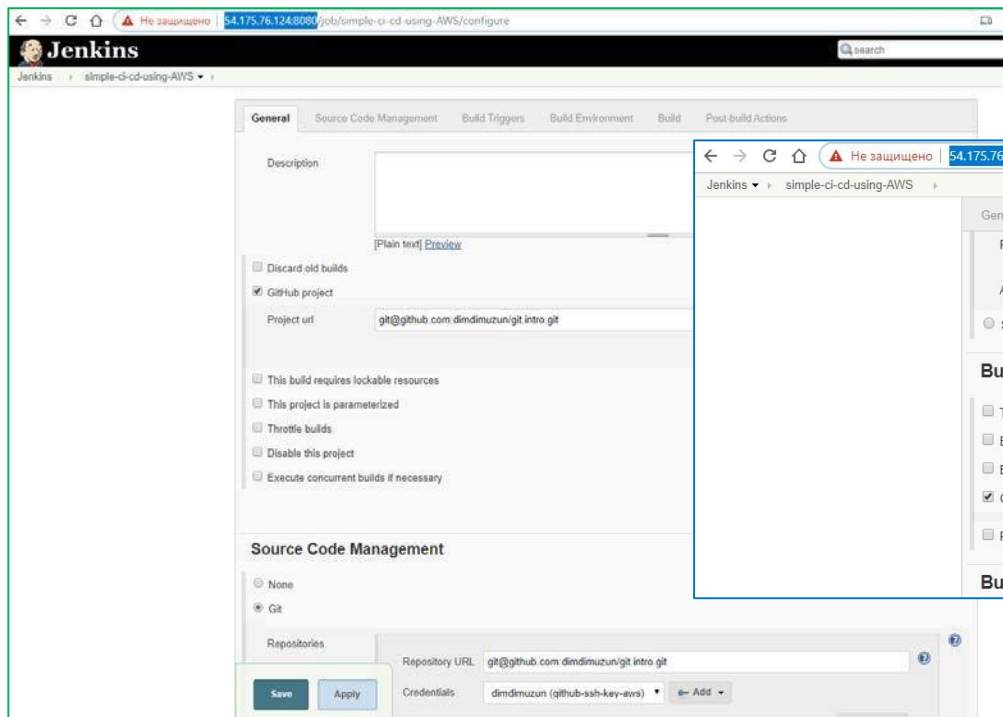
ubuntu@ip-172-31-40-108:~\$

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Simple CI/CD pipeline example using AWS



Simple CI/CD pipeline example using AWS



Simple CI/CD pipeline example using AWS

The screenshot shows the GitHub interface for the repository 'dimdimuzun / git.intro'. The 'Settings' tab is selected, leading to the 'Webhooks / Add webhook' page. On the left, a sidebar lists repository settings: Options, Collaborators, Branches, Webhooks (highlighted), Notifications, Integrations & services, Deploy keys, Secrets, Actions, Moderation, and Interaction limits. The main content area is titled 'Webhooks / Add webhook' and includes a description: 'We'll send a POST request to the URL below with details of any subscribed events. You can also specify which data format you'd like to receive (JSON, x-www-form-urlencoded, etc). More information can be found in our developer documentation.' The 'Payload URL' field is filled with 'http://54.175.76.124:8080/github-webhook/'. The 'Content type' dropdown is set to 'application/json'. There is an empty 'Secret' field. Under 'Which events would you like to trigger this webhook?', the radio button for 'Just the push event.' is selected. The 'Active' checkbox is checked, with a note: 'We will deliver event details when this hook is triggered.' At the bottom is a green 'Add webhook' button.

github.com/dimdimuzun/git.intro/settings/hooks/new

dimdimuzun / git.intro

Unwatch 1 Star 0 Fork 0

Code Issues 0 Pull requests 0 Actions Projects 0 Wiki Security Insights Settings

Options

Collaborators

Branches

Webhooks

Notifications

Integrations & services

Deploy keys

Secrets

Actions

Moderation

Interaction limits

Webhooks / Add webhook

We'll send a POST request to the URL below with details of any subscribed events. You can also specify which data format you'd like to receive (JSON, x-www-form-urlencoded, etc). More information can be found in our developer documentation.

Payload URL *

http://54.175.76.124:8080/github-webhook/

Content type

application/json

Secret

Which events would you like to trigger this webhook?

☒ Just the push event.

☐ Send me everything.

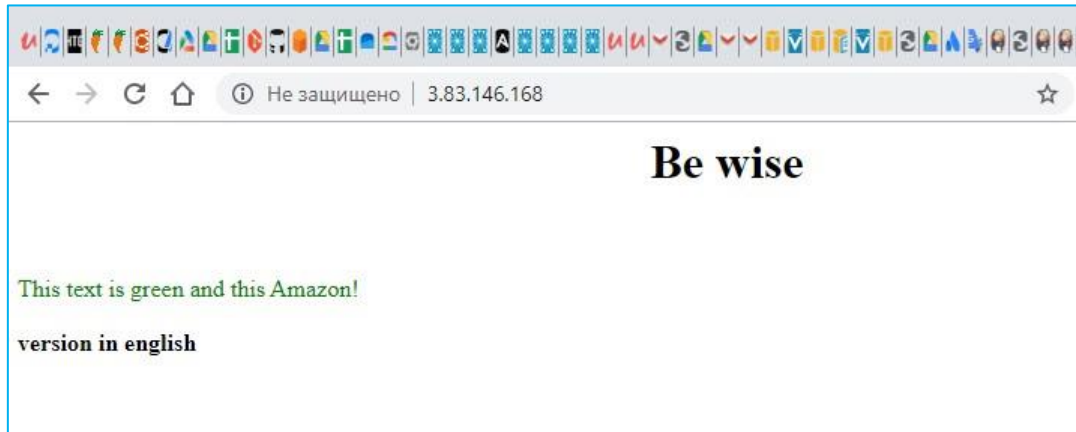
☐ Let me select individual events.

☒ Active

We will deliver event details when this hook is triggered.

Add webhook

Simple CI/CD pipeline example using AWS



References

- <https://wiki.jenkins.io/display/JENKINS/Publish+Over+SSH+Plugin>
- <https://jenkins.io/doc/pipeline/steps/publish-over-ssh/>

Q&A

A stylized world map in a light blue color, centered on the Atlantic Ocean, serving as a background for the slide.

Thank you!