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## SRN:PES2UG23CS140

### Lab 06 - Jenkins and Nginx

#### SS1:

```
2026-02-17 09:40:05.223+0000 [id=1]    INFO  org.eclipse.jetty.server.Server#doStart: jetty-12.1.5; built: 2025-12-03T22:18:24.732Z; git: 4905dd09d/b6b01e92d7b7394bc17bbbe4b625d6; jvm: 21.0.0+19-LTS
2026-02-17 09:40:05.237+0000 [id=1]    INFO  o.e.j.e.w.StandardDescriptorProcessor#visitServlet: NO JSP Support for /, did not find org.eclipse.jetty.ee9.jsp.JettyJspServlet
2026-02-17 09:40:05.257+0000 [id=1]    INFO  o.e.j.s.DefaultSessionIdManager#doStart: Session workerName=node0
2026-02-17 09:40:05.434+0000 [id=1]    INFO  hudson.WebAppMain#contextInitialized: Jenkins home directory: /var/jenkins home found at: EnvVars.masterEnvVars.get("JENKINS HOME")
2026-02-17 09:40:05.487+0000 [id=1]    INFO  o.e.j.s.handler.ContextHandler$Core#doStart: Started oeje9n.ContextHandler@Core@NestedHandler@2459319{[Jenkins v2.541.1., b=file:///var/jenkins.home /war/, a=AVAILABLE, h=oeje9n.ContextHandler$Core@NestedHandler@2459319{[STARTED]}}
2026-02-17 09:40:05.492+0000 [id=1]    INFO  org.eclipse.jetty.server.Server#doStart: Started oejs.ServerConnector@2aa6311a{[HTTP/1.1, (http/1.1)]{0.0.0.0:8080}}
2026-02-17 09:40:05.493+0000 [id=1]    INFO  org.eclipse.jetty.util.log.Log#logInternal: Winstone Servlet Engine running: controlPort=disabled
2026-02-17 09:40:05.493+0000 [id=43]   INFO  winstone.Logger#logInternal: Winstone Servlet Engine running: controlPort=disabled
2026-02-17 09:40:05.559+0000 [id=42]   INFO  jenkins.model.Jenkins#init*: Starting version 2.541.1
2026-02-17 09:40:05.607+0000 [id=51]   INFO  jenkins.InitReactorRunner$1#onAttained: Started initialization
2026-02-17 09:40:05.614+0000 [id=72]   INFO  jenkins.InitReactorRunner$1#onAttained: Listed all plugins
2026-02-17 09:40:05.646+0000 [id=63]   INFO  jenkins.InitReactorRunner$1#onAttained: Prepared all plugins
2026-02-17 09:40:06.050+0000 [id=53]   INFO  jenkins.InitReactorRunner$1#onAttained: Started all plugins
2026-02-17 09:40:06.050+0000 [id=51]   INFO  jenkins.InitReactorRunner$1#onAttained: Augmented all extensions
2026-02-17 09:40:06.050+0000 [id=51]   INFO  jenkins.InitReactorRunner$1#onAttained: Configuration config loaded
2026-02-17 09:40:06.131+0000 [id=49]   INFO  jenkins.InitReactorRunner$1#onAttained: System config adapted
2026-02-17 09:40:06.131+0000 [id=66]   INFO  jenkins.InitReactorRunner$1#onAttained: Loaded all jobs
2026-02-17 09:40:06.132+0000 [id=66]   INFO  jenkins.InitReactorRunner$1#onAttained: Configuration for all jobs updated
2026-02-17 09:40:06.146+0000 [id=86]   INFO  hudson.util.Retrile#start: Attempt #1 to do the action check updates server
2026-02-17 09:40:06.363+0000 [id=56]   INFO  jenkins.install.SetupWizard#init:
[LF]>
[LF]> ****
[LF]> ****
[LF]> ****
[LF]> ****
[LF]> Jenkins initial setup is required. An admin user has been created and a password generated.
[LF]> Please use the following password to proceed to installation:
[LF]> 42ef8518c5e14a7191ccbba0fd041a06
[LF]>
[LF]> This may also be found at: /var/jenkins_home/secrets/initialAdminPassword
[LF]>
[LF]> ****
[LF]> Jenkins InitReactorRunner$1#onAttained: Completed initialization
2026-02-17 09:40:29.132+0000 [id=68]   INFO  jenkins.InitReactorRunner$1#onAttained: Jenkins is fully up and running
2026-02-17 09:40:29.144+0000 [id=42]   INFO  hudson.lifecycle.Lifecycle#onReady: Jenkins: Obtained the updated data file for hudson.tasks.Maven.MavenInstaller
2026-02-17 09:40:49.412+0000 [id=86]   INFO  h.m.DownloadableService$Downloadable#load: Obtained the updated data file for hudson.tasks.Maven.MavenInstaller
2026-02-17 09:40:49.413+0000 [id=86]   INFO  hudson.PluginManager$Install: Performing a forced check for updates semantically correctly, as the previous check was stale
2026-02-17 09:40:49.241+0000 [id=119]  INFO  hudson.PluginManager$Install: Starting installation of a batch of 21 plugins plus their dependencies
2026-02-17 09:44:09.275+0000 [id=119]  INFO  hudson.PluginManager$Install: Adding dependent install of ionicons-api for plugin cloudbees-folder
2026-02-17 09:44:09.276+0000 [id=119]  INFO  hudson.model.UpdateSite$Plugin#deploy: Adding dependent install of commons-lang3-api for plugin ionicons-api
2026-02-17 09:44:09.276+0000 [id=126]  INFO  hudson.model.UpdateCenter$DownloadJob#run: Starting the installation of commons-lang3-api on behalf of admin
2026-02-17 09:44:09.276+0000 [id=119]  INFO  hudson.model.UpdateCenter$DownloadJob#run: Starting the installation of json-path-api for plugin build-timeout
2026-02-17 09:44:09.277+0000 [id=119]  INFO  hudson.model.UpdateSite$Plugin#deploy: Adding dependent install of asm-api for plugin json-path-api
2026-02-17 09:44:09.277+0000 [id=119]  INFO  hudson.model.UpdateSite$Plugin#deploy: Adding dependent install of token-macro for plugin build-timeout
2026-02-17 09:44:09.277+0000 [id=119]  INFO  hudson.model.UpdateSite$Plugin#deploy: Adding dependent install of workflow-step-api for plugin token-macro
2026-02-17 09:44:09.278+0000 [id=119]  INFO  hudson.model.UpdateSite$Plugin#deploy: Adding dependent install of structs for plugin workflow-step-api
```

```
~ > docker pull jenkins/jenkins:lts

lts: Pulling from jenkins/jenkins
17e22d939f17: Pulling fs layer
a1c44ba8dd7a: Pulling fs layer
99ddb13f3ebf: Pulling fs layer
e92c5cf141dc: Pulling fs layer
406f94702a48: Pulling fs layer
7ad60f966cc5: Pulling fs layer
39483126681f: Pulling fs layer
ed559592686a: Pulling fs layer
213d96e0ed06: Pulling fs layer
57364cf49183: Pulling fs layer
5b302cbb8ad3: Pulling fs layer
Digest: sha256:dlea795c6faccd7f549a21c40e5e43ffcc5fbc5f48683d9b24750f26e8079d772
Status: Downloaded newer image for jenkins/jenkins:lts
docker.io/jenkins/jenkins:lts
```

## SS2:

A screenshot of a web browser showing the Jenkins user profile page. The URL bar shows the Jenkins instance at [http://www.yo.../jenkins](#). The page title is "Jenkins / chandan". The left sidebar has a "Profile" tab selected, showing the Jenkins User ID: PES2UG23CS140. Other tabs include "Builds", "My Views", "Account", "Appearance", "Preferences", "Security", "Experiments", and "Credentials". The main content area is currently empty. At the bottom right, there are links for "REST API" and "Jenkins 2.541.1".

A screenshot of a "Getting Started" dialog titled "Create First Admin User". It contains five input fields: "Username" (PES2UG23CS140), "Password" (redacted), "Confirm password" (redacted), "Full name" (redacted), and "E-mail address" (redacted). At the bottom, there are two buttons: "Skip and continue as admin" and a blue "Save and Continue" button. The footer of the dialog shows "Jenkins 2.541.1".

## SS3:

The screenshot shows the Jenkins console output for build #6. The build was started by user chandan and is running as SYSTEM. It shows the git fetch and checkout process, the execution of Dockerfile, and the final build context loading.

```
Started by user chandan
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/PES2UG23CS140-backend-build
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/PES2UG23CS140-backend-build/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/chandann23/CC_Lab-6 # timeout=10
Fetching upstream changes from https://github.com/chandann23/CC_Lab-6
> git --version # timeout=10
> git --version # git version 2.47.3
> git fetch -tags --force --progress -- https://github.com/chandann23/CC_Lab-6 +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^(commit) # timeout=10
Checking out Revision a370b23cc589eca2896e33dc7cc015ba05f84fad (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f a370b23cc589eca2896e33dc7cc015ba05f84fad # timeout=10
Commit message: 'Initial Jenkins lab setup'
> git rev-list --no-walk a370b23cc589eca2896e33dc7cc015ba05f84fad # timeout=10
[PES2UG23CS140-backend-build] $ /bin/sh -xe /tmp/jenkins509709940858833124.sh
+ docker build -t backend-app backend
#0 building with "default" instance using docker driver

#1 [internal] load build definition from Dockerfile
#1 transferring dockerfile: 185B done
#1 DONE 0.0s

#2 [internal] load metadata for docker.io/library/ubuntu:22.04
#2 DONE 4.2s

#3 [internal] load .dockerignore
#3 transferring context: 2B done
#3 DONE 0.0s

#4 [internal] load build context
```

## SS4:

The screenshot shows the Jenkins project page for PES2UG23CS140-backend-build. It displays the last six builds, showing the build number, timestamp, and status (all successful). A sidebar on the left provides links to workspace, build now, configure, and other project management options.

Builds >

Build	Timestamp	Status
#6	2:17PM	Success
#5	2:15PM	Success
#4	10:13AM	Success
#3	10:12AM	Success
#2	10:09AM	Success

Permalinks

- Last build (#6), 2 min 5 sec ago
- Last stable build (#6), 2 min 5 sec ago
- Last successful build (#6), 2 min 5 sec ago
- Last failed build (#5), 4 min 29 sec ago
- Last unsuccessful build (#5), 4 min 29 sec ago
- Last completed build (#6), 2 min 5 sec ago

## SS5:

The screenshot shows the Jenkins interface for the project 'PES2UG23CS140-backend-build'. The top navigation bar includes links for New Tab, Microsoft Forms, Kroger, Gmail, Facebook - Log..., and Imported from... The main content area displays the build history with a green checkmark icon and the text 'PES2UG23CS140-backend-build'. On the left, there are links for Status, Changes, Workspace, Build with Parameters, Configure, Delete Project, Git Polling Log, and Rename. A 'Permalinks' section lists recent builds. Below is a 'Builds' table with columns for build number, timestamp, and status. The table shows the following builds:

Build	Timestamp	Status
#8	2:27PM	Green
#7	2:25PM	Green
#6	2:17PM	Green
#5	2:15PM	Green
#4	10:13AM	Green
#3	10:12AM	Green
#2	10:09AM	Red

At the bottom right, there are links for REST API and Jenkins 2.541.1.

## SS6:

The screenshot shows the Jenkins interface for the project 'PES2UG23CS140-backend-build' with the build number '#8' selected. The top navigation bar and sidebar options are identical to SS5. The main content area is titled 'Console' and displays the command-line output of the build process. The output shows the user 'chandana' running as 'SYSTEM' and building in workspace '/var/jenkins\_home/workspace/PES2UG23CS140-backend-build'. It details the git fetch, checkout, and rev-parse steps, along with Docker commands for building backend1 and backend2 containers. The final message 'Finished: SUCCESS' is shown at the bottom.

```
Started by user chandana
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/PES2UG23CS140-backend-build
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/PES2UG23CS140-backend-build/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/chandann23/CC_Lab-6 # timeout=10
Fetching upstream changes from https://github.com/chandann23/CC_Lab-6
> git --version # timeout=10
> git --version # git version 2.47.3
> git fetch --tags --force --progress .. https://github.com/chandann23/CC_Lab-6 +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^(commit) # timeout=10
Checking out Revision a370b23c599eca2896e33d7cc015ba05f84fad (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f a370b23c599eca2896e33d7cc015ba05f84fad # timeout=10
Commit message: "Initial Jenkins lab setup"
> git rev-list --no-walk a370b23c599eca2896e33d7cc015ba05f84fad # timeout=10
[PES2UG23CS140-backend-build] $ /bin/sh -xe /tmp/jenkins7958573017906572584.sh
+ docker rm -f backend1 backend2
backend1
backend2
+ [ _ = 1 ]
+ docker run -d --name backend1 backend-app
07bef041614979dc9b9032c047eca192609ca0033a4458ec11290b15ec8a234
+ docker run -d --name backend2 backend-app
83fb99c0861ec1c058f129b27891878ed37631085c0dfballa78efef5c7abc3d5
Finished: SUCCESS
```

At the bottom right, there are links for Download, Copy, and View as plain text, followed by a Jenkins 2.541.1 link.

**SS7:**

Jenkins | LAB6 PIPELINE-NGINX | #2 / Stages

Graph

```
graph LR; Start((Start)) --> CheckoutSCM[Checkout SCM]; CheckoutSCM --> BuildBackendImage[Build Backend Image]; BuildBackendImage --> DeployBackendContainer[Deploy Backend Container]; DeployBackendContainer --> DeployNGINXLoadBalancer[Deploy NGINX Load Balancer]; DeployNGINXLoadBalancer --> PostActions[Post Actions]; PostActions --> End((End))
```

Graph

Search

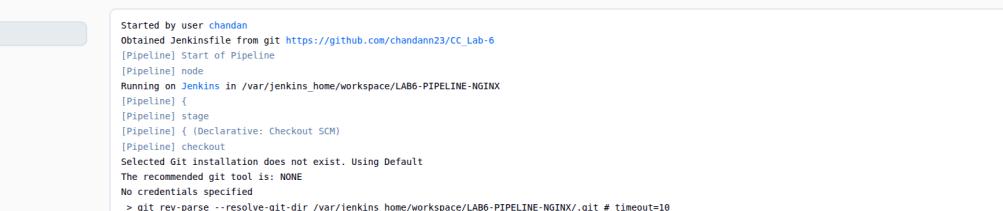
Post Actions

Checkout SCM 1s  
Build Backend Image 2s  
Deploy Backend Containers 4s  
Deploy NGINX Load Balancer 2s  
Post Actions 56ms 2s

Pipeline executed successfully. NGINX load balancer is running.  
Pipeline executed successfully. NGINX load balancer is running.

56ms Started 12s ago Jenkins

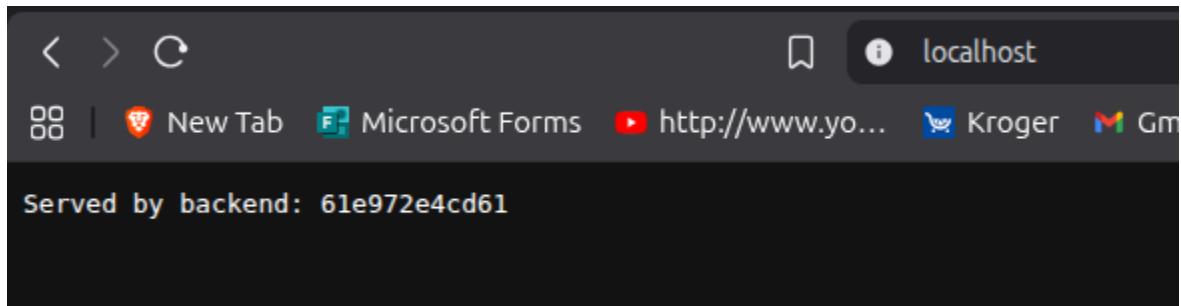
**SS8:**



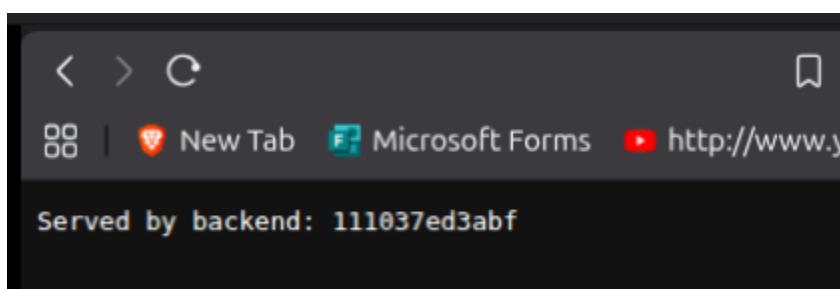
The screenshot shows the Jenkins interface for a pipeline named LAB6-PIPELINE-NGINX, specifically for build #2. The left sidebar contains navigation links: Status, Changes, Console Output (which is selected), Edit Build Information, Delete build #2, Timings, Git Build Data, Pipeline Overview, Restart from Stage, Replay, Pipeline Steps, Workspaces, and Previous Build. The main area is titled "Console" and displays the following log output:

```
Started by user chandan  
Obtained Jenkinsfile from git https://github.com/chandann23/CC_Lab-6  
[Pipeline] Start of Pipeline  
[Pipeline] node  
Running on Jenkins in /var/jenkins_home/workspace/LAB6-PIPELINE-NGINX  
[Pipeline] {  
[Pipeline] stage  
[Pipeline] { (Declarative: Checkout SCM)  
[Pipeline] checkout  
Selected Git installation does not exist. Using Default  
The recommended git tool is: NONE  
No credentials specified  
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/LAB6-PIPELINE-NGINX/.git # timeout=10  
Fetching changes from the remote Git repository  
> git config remote.origin.url https://github.com/chandann23/CC_Lab-6 # timeout=10  
Fetching upstream changes from https://github.com/chandann23/CC_Lab-6  
> git --version # timeout=10  
> git -version # git version 2.47.3'  
> git fetch --tags --force --progress - - https://github.com/chandann23/CC_Lab-6 +refs/heads/*:refs/remotes/origin/* # timeout=10  
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10  
Checking out Revision d48b62807d4a3b4ec9b9cff1fbe9f71d6c43133 (refs/remotes/origin/main)  
> git config core.sparsecheckout # timeout=10  
> git checkout -f d48b62807d4a3b4ec9b9cff1fbe9f71d6c43133 # timeout=10  
Commit message: "changes to the jenkinsfile"  
> git rev-list --no-walk d48b62807d4a3b4ec9b9cff1fbe9f71d6c43133 # timeout=10  
[Pipeline] {  
[Pipeline] // stage  
[Pipeline] withEnv  
[Pipeline] {  
[Pipeline] stage  
[Pipeline] { (Build Backend Image)  
[Pipeline] sh  
+ docker rmi -f backend-app  
Untagged: backend-app:latest
```

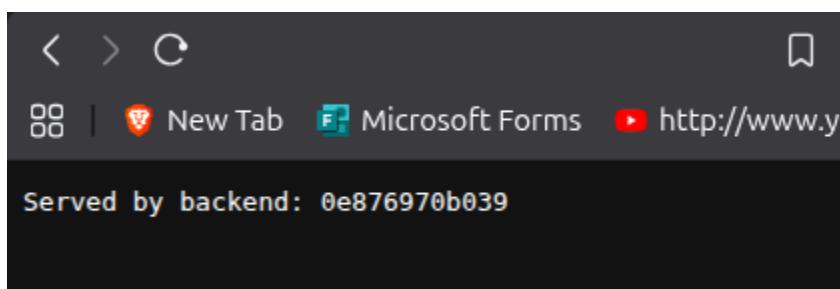
**SS9:**



**SS10:**



**SS11:**



## SS12:



## SS13:

