

CLOUD COMPUTING

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SRN – PES2UG23CS077

TASK 1

Ss1:

```
ankur@JITU:/mnt/c/Users/an > + <
2026-02-26 08:46:37.815+0000 [id=54]    INFO    jenkins.InitReactorRunner$1#onAttained: Loaded all jobs
2026-02-26 08:46:37.819+0000 [id=49]    INFO    jenkins.InitReactorRunner$1#onAttained: Configuration for all jobs updated
2026-02-26 08:46:37.880+0000 [id=75]    INFO    hudson.util.Retriger#start: Attempt #1 to do the action check updates server
2026-02-26 08:46:38.335+0000 [id=56]    INFO    jenkins.install.SetupWizard#init:
[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]>
[LF]> 5d2db3cb5a054e09884fbde4de767d10
[LF]>
[LF]> This may also be found at: /var/jenkins_home/secrets/initialAdminPassword
[LF]>
[LF]> ****
[LF]> ****
[LF]> ****
2026-02-26 08:46:47.460+0000 [id=52]    INFO    jenkins.InitReactorRunner$1#onAttained: Completed initialization
2026-02-26 08:46:47.481+0000 [id=39]    INFO    hudson.lifecycle.Lifecycle#onReady: Jenkins is fully up and running
2026-02-26 08:46:48.431+0000 [id=75]    INFO    h.m.DownloadService$Downloadable#load: Obtained the updated data file for hudson.tasks.Maven.MavenInstaller
2026-02-26 08:46:48.432+0000 [id=75]    INFO    hudson.util.Retriger#start: Performed the action check updates server successfully at the attempt #1
2026-02-26 08:48:01.052+0000 [id=92]    INFO    hudson.PluginManager#install: Starting installation of a batch of 19 plugins plus their dependencies
```

Ss2:

The screenshot shows the Jenkins dashboard. At the top, there's a navigation bar with a Jenkins logo, a search icon, and a user profile for 'PES2UG23CS077'. Below the navigation bar, the main content area has a title 'Welcome to Jenkins!'. It includes a message: 'This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.' Below this message, there are two sections: 'Start building your software project' and 'Set up a distributed build'. Under 'Start building your software project', there's a 'Create a job' button and a '+' icon. Under 'Set up a distributed build', there are three buttons: 'Set up an agent', 'Configure a cloud', and 'Learn more about distributed builds'. On the left side, there are two collapsed panels: 'Build Queue' (which says 'No builds in the queue.') and 'Build Executor Status' (which says '0/2'). A sidebar on the right contains links: 'My Views', 'Account', 'Appearance', 'Preferences', 'Security', 'Experiments', 'Credentials', and 'Sign out'. At the bottom of the page, there are links for 'REST API' and 'Jenkins 2.541.2'.

TASK -2

Ss3:

```
#6 91.28 Setting up g++ (4:11.2.0-1ubuntu1) ...
#6 91.32 update-alternatives: using /usr/bin/g++ to provide /usr/bin/c++ (<c++>) in auto mode
#6 91.32 update-alternatives: warning: skip creation of /usr/share/man/man1/c++.1.gz because associated file /usr/share/man/man1/g++.1.gz (of
link group <c++>) doesn't exist
#6 91.33 Processing triggers for libc-bin (2.35-0ubuntu3.13) ...
#6 DONE 91.6s

#7 [3/5] WORKDIR /app
#7 DONE 0.1s

#8 [4/5] COPY app.cpp .
#8 DONE 0.1s

#9 [5/5] RUN g++ app.cpp -o app
#9 DONE 0.7s

#10 exporting to image
#10 exporting layers
#10 exporting layers 1.4s done
#10 writing image sha256:7a14cd34452d9a407bb1046fd4621ac4054d75843a01bb7abcd1f11764ec2d02e done
#10 naming to docker.io/library/backend-app done
#10 DONE 1.4s
Finished: SUCCESS
```

Jenkins 2.541.2

Ss4:

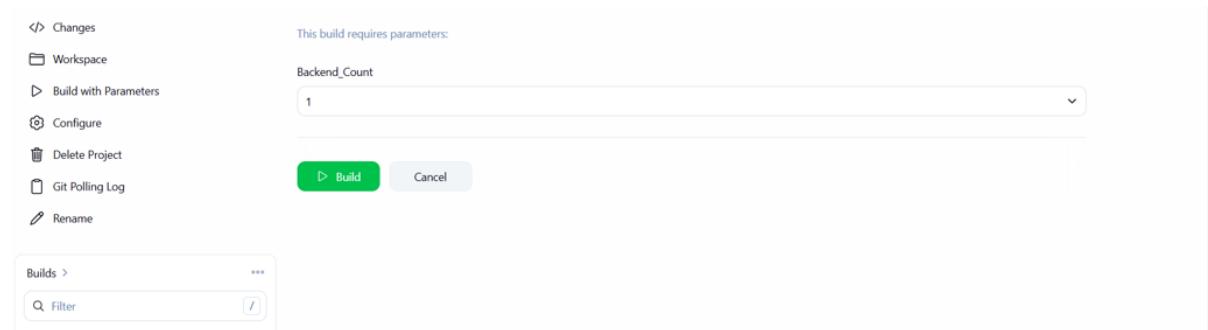
The screenshot shows the Jenkins interface for the project "PES2UG23CS077-backend-build". The left sidebar contains links for Status, Changes, Workspace, Build Now, Configure, Delete Project, Git Polling Log, and Rename. The main content area displays the build history with the last successful build (#7) shown. The build log output is present above the Jenkins version information.

TASK 3

Ss5:

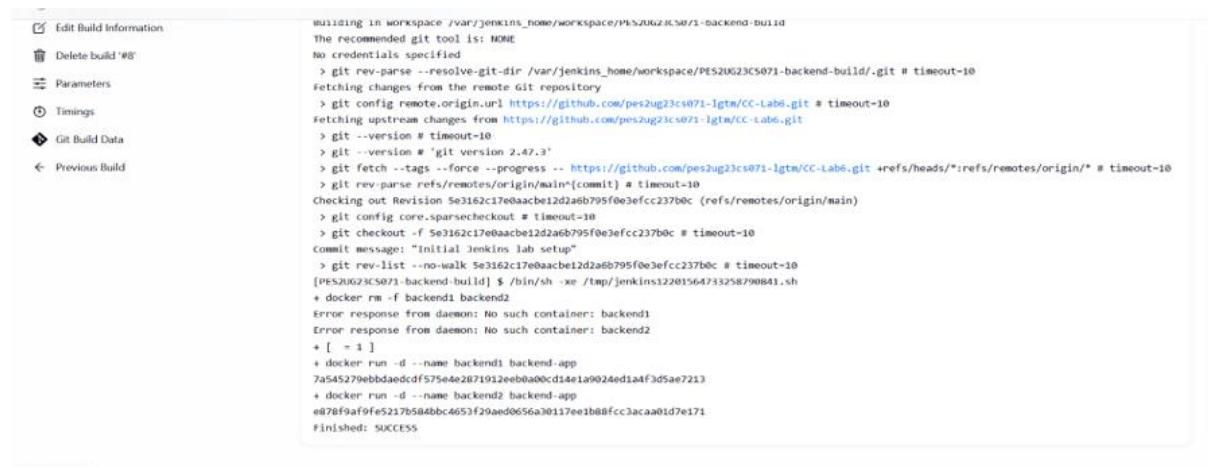
The screenshot shows the Jenkins "Configure" screen for a project. Under the "General" tab, the "This project is parameterized" checkbox is checked. A "Choice Parameter" is defined with the name "Backend_Count" and two choices: "1" and "2". Other tabs visible include GitHub project, Source Code Management, Triggers, Environment, Build Steps, and Post-build Actions.

Ss6:



This screenshot shows the Jenkins build configuration interface. On the left, there's a sidebar with options like Changes, Workspace, Build with Parameters, Configure, Delete Project, Git Polling Log, and Rename. The main area has a title "This build requires parameters:" followed by a dropdown labeled "Backend_Count" with the value "1". Below this are two buttons: a green "Build" button and a grey "Cancel" button. At the bottom, there's a "Builds >" section with a "Filter" input field.

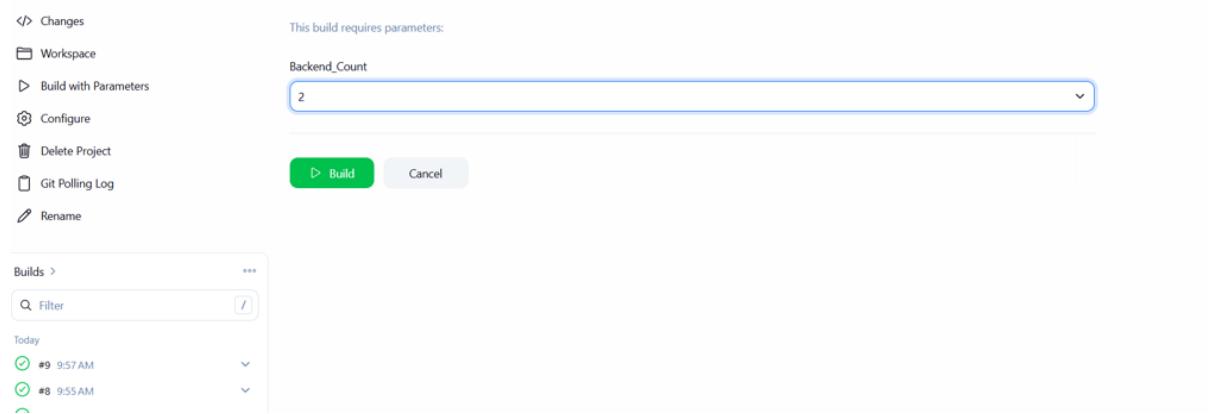
Build count1:



This screenshot shows the Jenkins build log for a build with Backend_Count set to 1. The log output is as follows:

```
building in workspace /var/jenkins_home/workspace/PES2UG23CS071-backend-build
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/PES2UG23CS071-backend-build/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/pes2ug23cs071-lgtm/CC-Lab6.git # timeout=10
Fetching upstream changes from https://github.com/pes2ug23cs071-lgtm/CC-Lab6.git
> git --version # timeout=10
> git --version # git version 2.47.3'
> git fetch --tags --force -progress -- https://github.com/pes2ug23cs071-lgtm/CC-Lab6.git +refs/heads/*:refs/remotes/origin/*
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 5e3162c17e0aacbe12d2a6b795f0e3efcc237b0c (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 5e3162c17e0aacbe12d2a6b795f0e3efcc237b0c # timeout=10
Commit message: "Initial Jenkins lab setup"
> git rev-list --no-walk 5e3162c17e0aacbe12d2a6b795f0e3efcc237b0c # timeout=10
[PES2UG23CS071-backend-build] $ /bin/sh -xe /tmp/jenkins1201564733258790841.sh
+ docker rm -f backend1 backend2
Error response from daemon: No such container: backend1
Error response from daemon: No such container: backend2
+ [ _ = 1 ]
+ docker run -d --name backend1 backend-app
7a545279ebbd4edcf57564e2871912eebb0a0cd14e1a9024ed1a4fd5ae7213
+ docker run -d --name backend2 backend-app
e878f9af9fe5217b584bbc4653f29aed0656a30117ee1b80fc3acaa01d7e171
Finished: SUCCESS
```

Build_Count = 2



This screenshot shows the Jenkins build configuration interface for a build with Backend_Count set to 2. The configuration is identical to the one above, with the "Backend_Count" dropdown set to "2".

At the bottom, the "Builds >" section shows two completed builds: #9 at 9:57 AM and #8 at 9:55 AM. Both builds are marked with a green checkmark.

</> Changes

Workspace

Build with Parameters

Configure

Delete Project

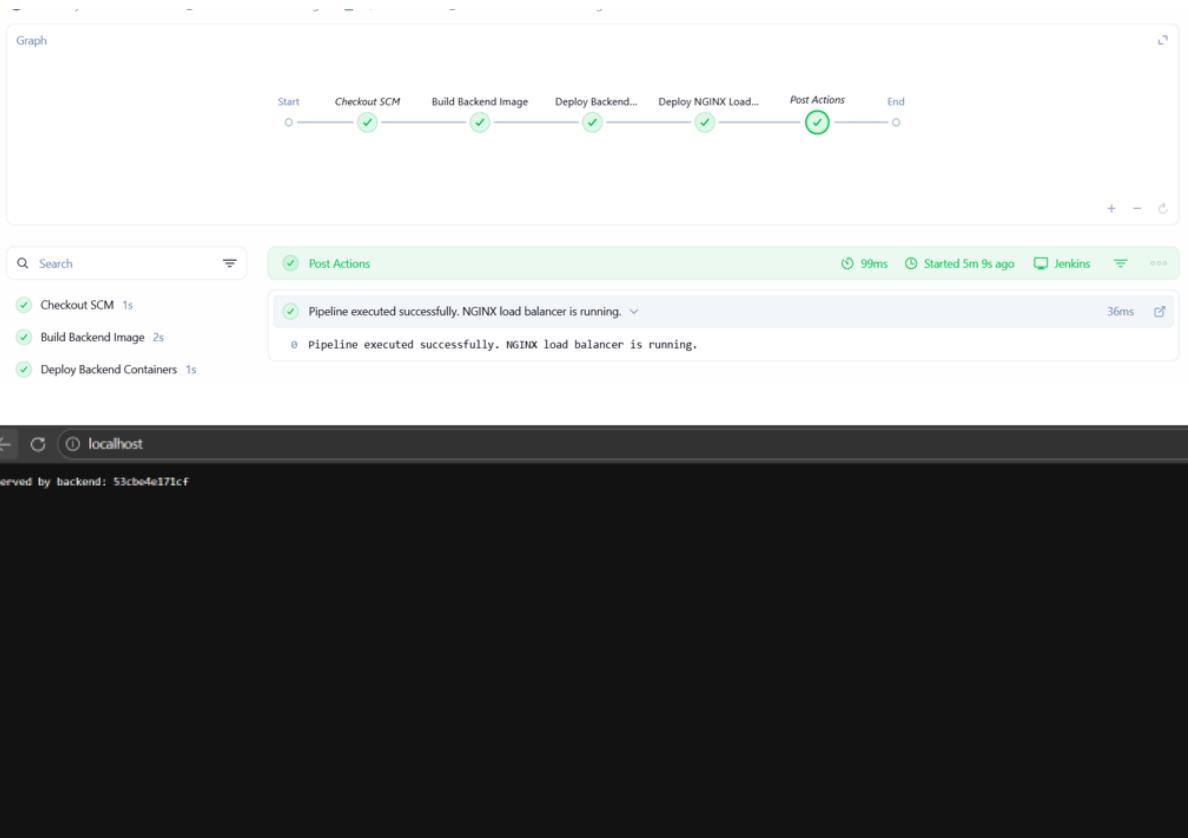
Git Polling Log

Rename

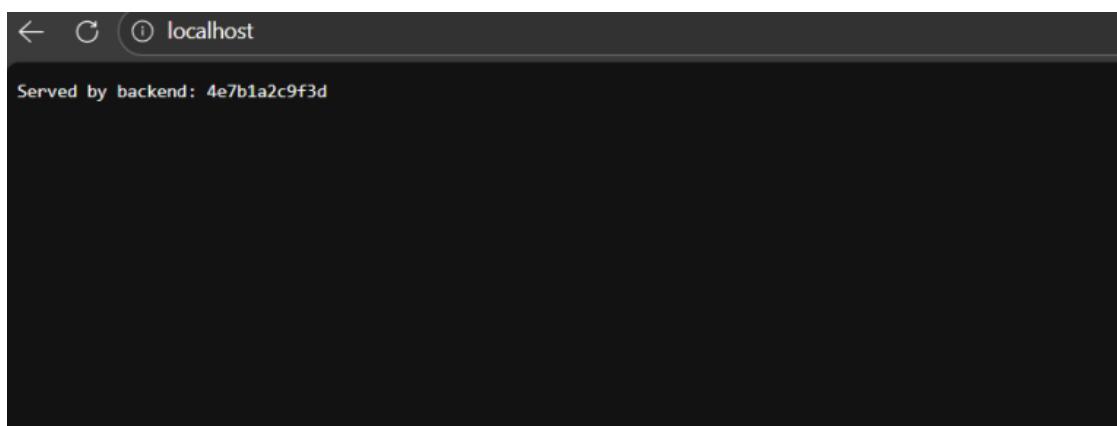
Permalinks

- Last build (#10), 47 sec ago
- Last stable build (#10), 47 sec ago
- Last successful build (#10), 47 sec ago
- Last failed build (#5), 24 min ago
- Last unsuccessful build (#5), 24 min ago
- Last completed build (#10), 47 sec ago

TASK 4:

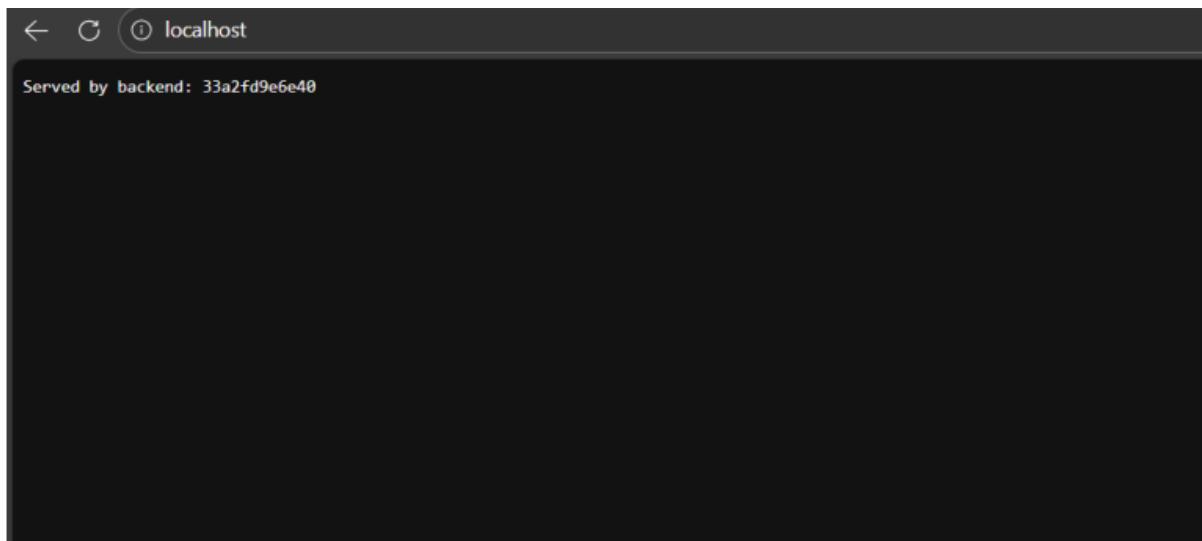


Refresh:

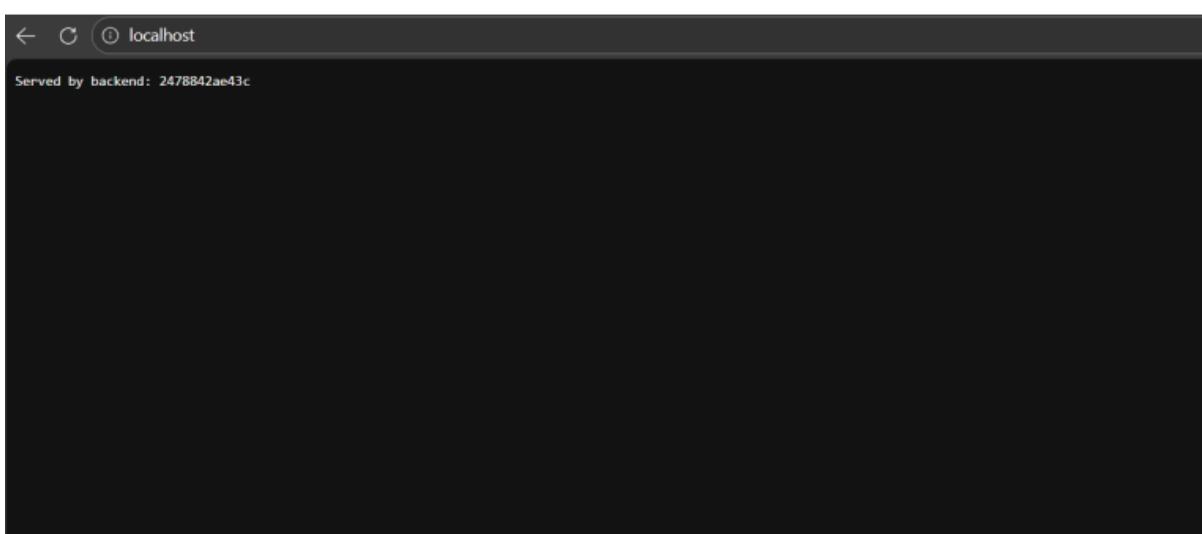


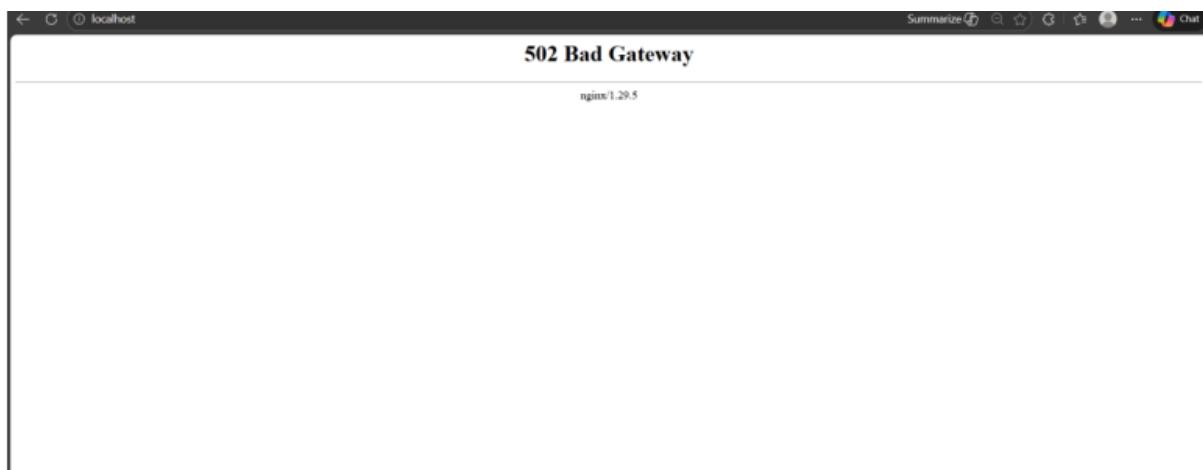
TASK 5

1.Round Robin



2.Least Connections Strategy





IP Hash Strategy :

