

CLOUD COMPUTING LAB: WEEK 7

PES1201802127

Siddharth K Rao

1.) Task 1: Setting up jenkins and using Docker

```
MSYS:/6th Semester/Cloud-Cc x sidharth@DESKTOP-SM37VF7: x + v
2021-03-01 18:42:00.484+0000 [id=1] INFO o.e.j.s.handler.ContextHandler#doStart: Started w.@2a492f2a(Jenkins v2.263.4,,file:///var/jenkins_home/war/,AVAILABLE){/var/jenkins_home/war}
2021-03-01 18:42:00.529+0000 [id=1] INFO o.e.j.server.AbstractConnector#doStart: Started ServerConnector@5c86a017{HTTP/1.1, (http/1.1)}{0.0.0.0:8080}
2021-03-01 18:42:00.530+0000 [id=1] INFO org.eclipse.jetty.server.Server#doStart: Started @7486ms
2021-03-01 18:42:00.539+0000 [id=22] INFO winstone.Logger#logInternal: Winstone Servlet Engine running: controlPort=disabled
2021-03-01 18:42:03.705+0000 [id=29] INFO jenkins.InitReactorRunner$1#onAttained: Started initialization
2021-03-01 18:42:03.754+0000 [id=28] INFO jenkins.InitReactorRunner$1#onAttained: Listed all plugins
2021-03-01 18:42:06.096+0000 [id=34] INFO jenkins.InitReactorRunner$1#onAttained: Prepared all plugins
2021-03-01 18:42:06.108+0000 [id=32] INFO jenkins.InitReactorRunner$1#onAttained: Started all plugins
2021-03-01 18:42:06.122+0000 [id=31] INFO jenkins.InitReactorRunner$1#onAttained: Augmented all extensions
2021-03-01 18:42:07.386+0000 [id=31] INFO jenkins.InitReactorRunner$1#onAttained: System config loaded
2021-03-01 18:42:07.396+0000 [id=30] INFO jenkins.InitReactorRunner$1#onAttained: System config adapted
2021-03-01 18:42:07.391+0000 [id=30] INFO jenkins.InitReactorRunner$1#onAttained: Loaded all jobs
2021-03-01 18:42:07.393+0000 [id=33] INFO jenkins.InitReactorRunner$1#onAttained: Configuration for all jobs updated
2021-03-01 18:42:07.429+0000 [id=47] INFO hudson.model.AsyncPeriodicWork#lambda$doRun$0: Started Download metadata
2021-03-01 18:42:07.450+0000 [id=47] INFO hudson.util.Retrier#start: Attempt #1 to do the action check updates server
2021-03-01 18:42:08.917+0000 [id=32] INFO o.s.c.s.AbstractApplicationContext#prepareRefresh: Refreshing org.springframework.web.context.support.StaticWebApplicationContext@4ffffb84: dis
play name [Root WebApplicationContext]; startup date [Mon Mar 01 18:42:08 UTC 2021]; root of context hierarchy
2021-03-01 18:42:08.921+0000 [id=32] INFO o.s.c.s.AbstractApplicationContext#obtainFreshBeanFactory: Bean factory for application context [org.springframework.web.context.support.Stati
cWebApplicationContext@4ffffb84]: org.springframework.beans.factory.support.DefaultListableBeanFactory@b899dad
2021-03-01 18:42:08.949+0000 [id=32] INFO o.s.b.f.s.DefaultListableBeanFactory#preInstantiateSingletons: Pre-instantiating singletons in org.springframework.beans.factory.support.Default
ListableBeanFactory@b899dad: defining beans [authenticationManager]; root of factory hierarchy
2021-03-01 18:42:09.262+0000 [id=32] INFO o.s.c.s.AbstractApplicationContext#prepareRefresh: Refreshing org.springframework.web.context.support.StaticWebApplicationContext@55d8eaf1: di
splay name [Root WebApplicationContext]; startup date [Mon Mar 01 18:42:09 UTC 2021]; root of context hierarchy
2021-03-01 18:42:09.262+0000 [id=32] INFO o.s.c.s.AbstractApplicationContext#obtainFreshBeanFactory: Bean factory for application context [org.springframework.web.context.support.Stati
cWebApplicationContext@55d8eaf1]: org.springframework.beans.factory.support.DefaultListableBeanFactory@7f6ae106
2021-03-01 18:42:09.269+0000 [id=32] INFO o.s.b.f.s.DefaultListableBeanFactory#preInstantiateSingletons: Pre-instantiating singletons in org.springframework.beans.factory.support.Default
ListableBeanFactory@7f6ae106: defining beans [filter,legacy]; root of factory hierarchy
2021-03-01 18:42:09.829+0000 [id=32] INFO jenkins.install.SetupWizard#init:

*****
*****
*****

Jenkins initial setup is required. An admin user has been created and a password generated.
Please use the following password to proceed to installation:

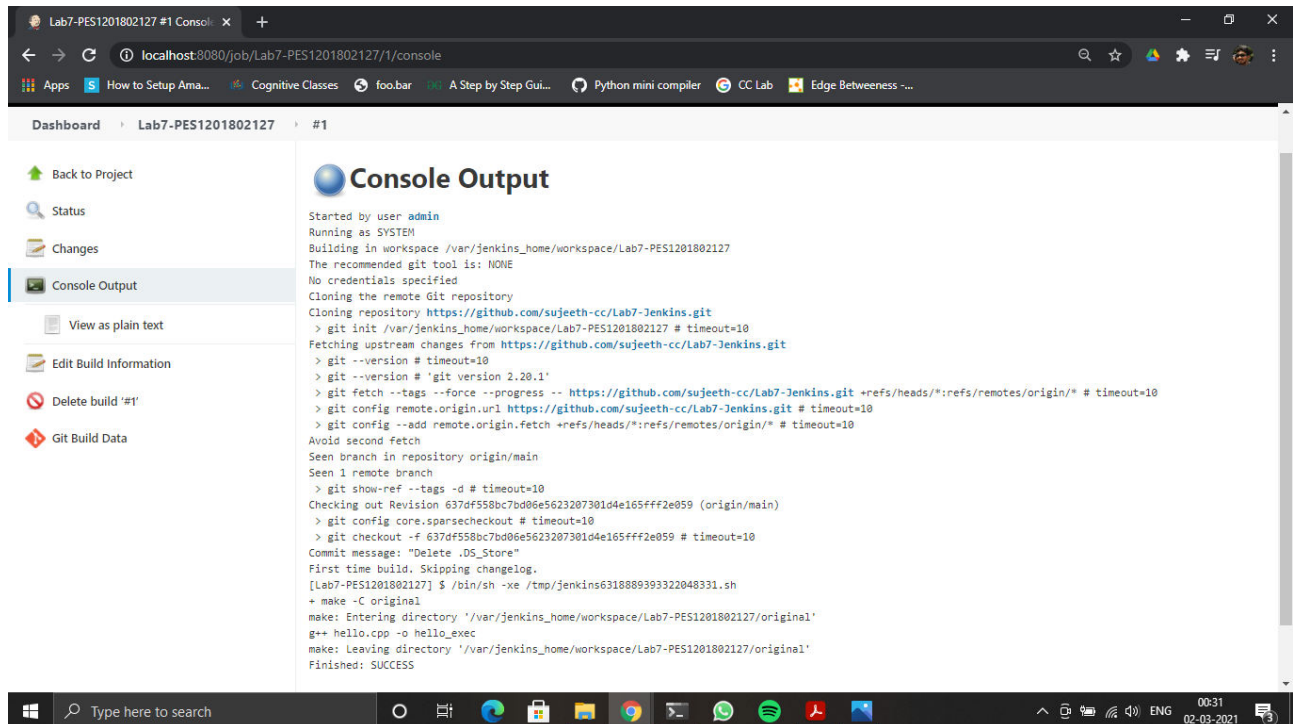
a2d99a9d2f384c8e9f506b63b160987a

This may also be found at: /var/jenkins_home/secrets/initialAdminPassword

*****
*****
*****
```

1A - Running Docker Container

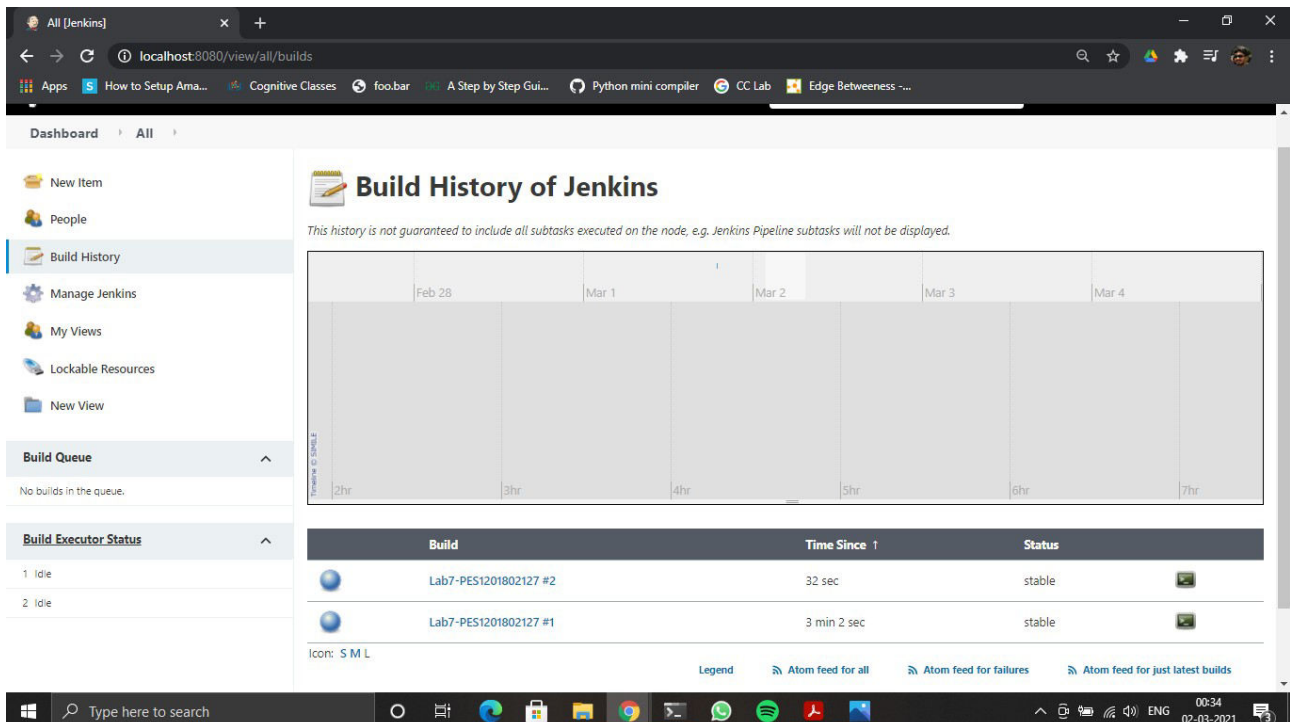
2.) Task 2: Setting up a job in Jenkins to connect to a repository and build C++ hello.cpp



The screenshot shows the Jenkins web interface for a job named 'Lab7-PES1201802127 #1'. The 'Console Output' tab is selected, displaying the following text:

```
Started by user admin
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/Lab7-PES1201802127
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/sujeeth-cc/Lab7-Jenkins.git
> git init /var/jenkins_home/workspace/Lab7-PES1201802127 # timeout=10
Fetching upstream changes from https://github.com/sujeeth-cc/Lab7-Jenkins.git
> git --version # timeout=10
> git --version # 'git version 2.20.1'
> git fetch --tags --force --progress -- https://github.com/sujeeth-cc/Lab7-Jenkins.git --refs/heads/*:refs/remotes/origin/* # timeout=10
> git config remote.origin.url https://github.com/sujeeth-cc/Lab7-Jenkins.git # timeout=10
> git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
Seen branch in repository origin/main
Seen 1 remote branch
> git show-ref --tags -d # timeout=10
Checking out Revision 637df558bc7bd06e5623207301d4e165fff2e059 (origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 637df558bc7bd06e5623207301d4e165fff2e059 # timeout=10
Commit message: "Delete .DS_Store"
First time build. Skipping changelog.
[Lab7-PES1201802127] $ /bin/sh -xe /tmp/jenkins631889393322048331.sh
+ make -C original
make: Entering directory '/var/jenkins_home/workspace/Lab7-PES1201802127/original'
g++ hello.cpp -o hello_exec
make: Leaving directory '/var/jenkins_home/workspace/Lab7-PES1201802127/original'
Finished: SUCCESS
```

2A – Console Output after the build is successful



The screenshot shows the Jenkins web interface for the 'All [Jenkins]' view. The 'Build History of Jenkins' section is displayed, showing a timeline of builds. Below the timeline, a table lists the builds:

Build	Time Since	Status
Lab7-PES1201802127 #2	32 sec	stable
Lab7-PES1201802127 #1	3 min 2 sec	stable

The 'Build Queue' section shows 'No builds in the queue.' and the 'Build Executor Status' section shows two executors in an 'Idle' state.

2B – Stable state of the task

3.) Task 3:

The screenshot shows the Jenkins web interface in a browser. The page title is "Lab7-2-PES1201802127 #1 Console". The left sidebar contains links: "Back to Project", "Status", "Changes", "Console Output" (selected), "View as plain text", "Edit Build Information", and "Delete build '#1'". The main content area is titled "Console Output" and displays the following text:

```
Started by upstream project "Lab7-PES1201802127" build number 3
originally caused by:
  Started by user admin
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/Lab7-2-PES1201802127
[Lab7-2-PES1201802127] $ /bin/sh -xe /tmp/jenkins3936327661857023812.sh
+ /var/jenkins_home/workspace/Lab7-PES1201802127/original/hello_exec
Hello, World
Hello, Jenkins
I have successfully built and run
Finished: SUCCESS
```

The bottom of the page shows the "REST API" and "Jenkins 2.263.4" status. The Windows taskbar at the bottom shows the time as 00:41 on 02-03-2021.

3A – Console Output of the second job

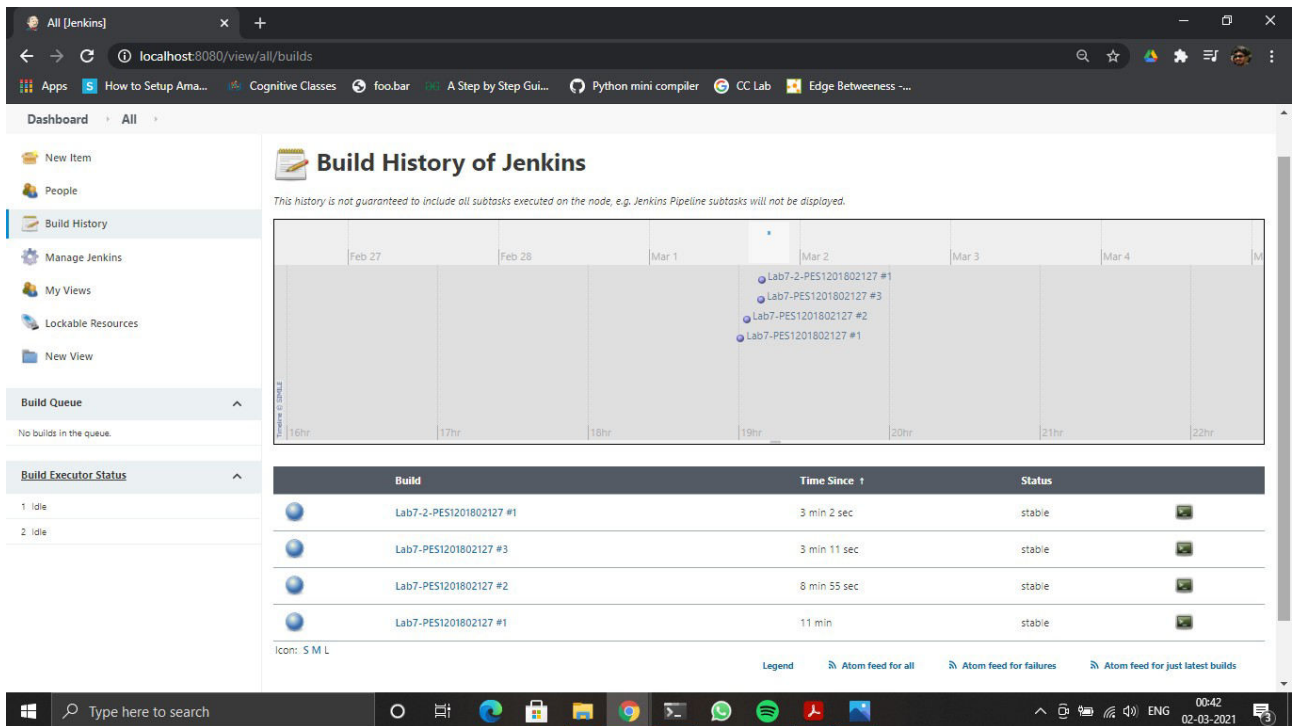
The screenshot shows the Jenkins web interface for the project "Lab7-PES1201802127". The left sidebar contains links: "Back to Dashboard", "Status" (selected), "Changes", "Workspace", "Build Now", "Configure", "Delete Project", "Git Polling Log", "GitHub", and "Rename". The main content area is titled "Project Lab7-PES1201802127" and shows the status "NA". Below this, there are sections for "Workspace", "Recent Changes", "Downstream Projects" (listing "Lab7-2-PES1201802127"), and "Permalinks" (listing links to the last build, last stable build, last successful build, and last completed build, all of which are the same build).

The "Build History" section is visible at the bottom left, showing a list of builds with columns for build number, status, and time. The builds listed are:

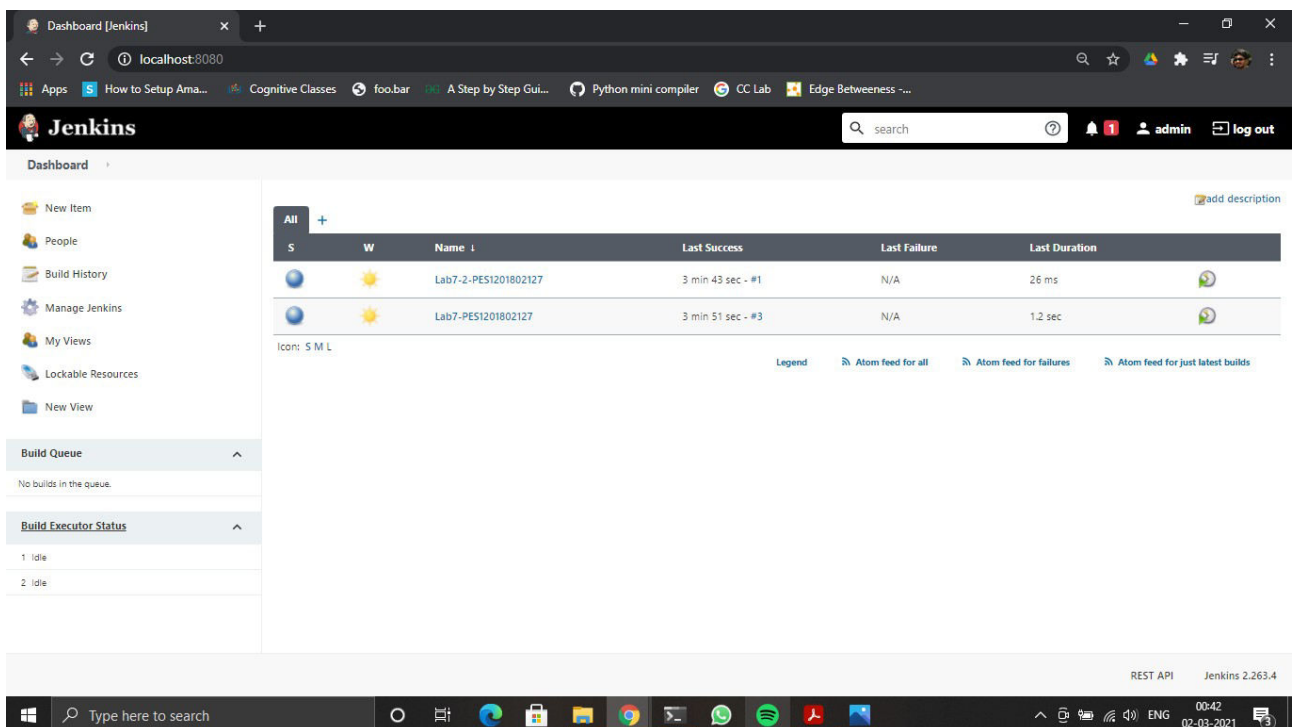
Build Number	Status	Time
#3	Success	Mar 1, 2021 7:09 PM
#2	Success	Mar 1, 2021 7:09 PM
#1	Success	Mar 1, 2021 7:00 PM

The bottom of the page shows the "Atom feed for all" and "Atom feed for failures" links. The Windows taskbar at the bottom shows the time as 00:41 on 02-03-2021.

3B – Status page of the first job



3C – Build History of Jenkins



3D – Jenkins Dashboard