

-what is the benefit of using master-slave architecture rather than building on master only ?

a master-slave architecture in Jenkins offers scalability, parallel execution, resource optimization, distributed testing, high availability, isolation, security, and flexibility. By leveraging multiple slave nodes, you can improve build efficiency, reduce build times, and enhance the overall stability and reliability of your CI/CD processes.

-what is different between authorization and authentication ?

authentication focuses on verifying the identity of a user or entity, while authorization determines what resources and actions an authenticated user or entity is permitted to access. Authentication establishes trust, while authorization enforces access control policies and permissions. Both authentication and authorization work together to ensure the security and controlled access to systems and resources.

-make jenkins-shared-library and make your jenkinsfile which you used in lab2 to point to this library

Sharable libraries available to any Pipeline jobs running on this system. These libraries will be trusted, meaning they run without "sandbox" restrictions and may use @Grab.

Library

Name ?

lab3

Default version ?

main

Cannot validate default version until after saving and reconfiguring.

☐ Load implicitly ?

☒ Allow default version to be overridden ?

☒ Include @Library changes in job recent changes ?

Retrieval method

Modern SCM

Loads a library from an SCM plugin using newer interfaces optimized for this purpose. The recommended option when available.

Source Code Management

Git

Project Repository ?

https://github.com/Fady-Elia/jenkins_setup

Credentials ?

fady-elia/*****

Add

```

@Library ('lab3') _
pipeline {
    agent any
    parameters {
        booleanParam(name:'project', defaultValue: true, description:'this paramater help you to know project name')
        choice(name: 'namespace', choices:['dev','prod','stage'], description: ' ' )
    }

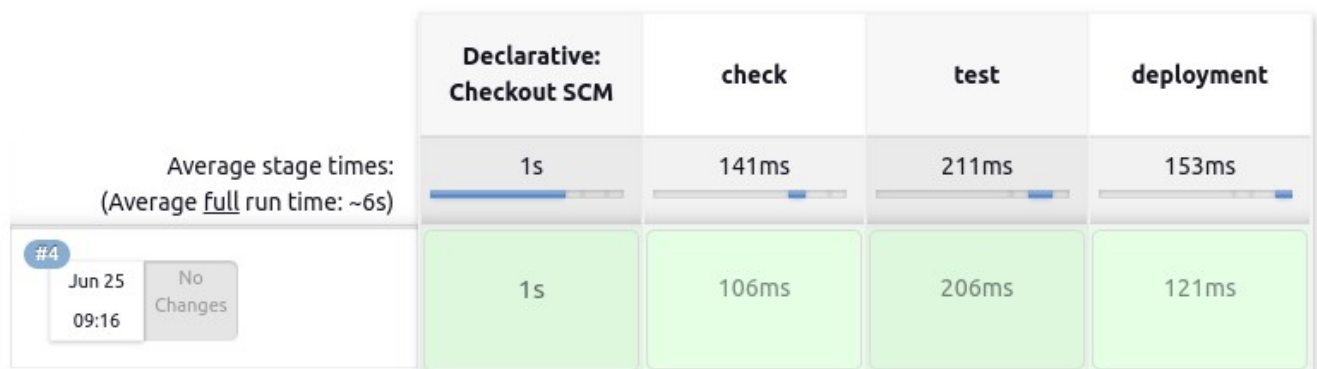
    stages {
        stage('check') {
            steps {
                echo "checking your code"
                echo "${params.namespace}"
            }
        }
    }
}

```

Pipeline main

Full project name: multibranch pipeline/main

Stage View



try to make new slave as container or ec2 server and configure master to use it

New node

Node name

slave

Type

☒ Permanent Agent

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

Create

Search (CTRL+K)






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Nodes

+ New Node

S	Name ↓	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	141.68 GB	2.00 GB	141.68 GB	0ms 
	ec2-slave	Linux (amd64)	In sync	5.35 GB	 0 B	5.35 GB	3727ms 
Data obtained		2 min 32 sec	2 min 32 sec	2 min 21 sec	2 min 32 sec	2 min 21 sec	2 min 28 sec

Expanded the channel window size to 4MB

[06/25/23 09:24:53] [SSH] Starting agent process: cd "/home/ubuntu/jenkins_home" && java -jar remoting.jar -workDir /home/ubuntu/jenkins_home -jar-cache /home/ubuntu/jenkins_home/remoting/jarCache

Jun 25, 2023 9:24:53 AM org.jenkinsci.remoting.engine.WorkDirManager initializeWorkDir

INFO: Using /home/ubuntu/jenkins_home/remoting as a remoting work directory

Jun 25, 2023 9:24:53 AM org.jenkinsci.remoting.engine.WorkDirManager setupLogging

INFO: Both error and output logs will be printed to /home/ubuntu/jenkins_home/remoting

<===[JENKINS REMOTING CAPACITY]===>channel started

Remoting version: 3107.v665000b_51092

Launcher: SSHLauncher

Communication Protocol: Standard in/out

This is a Unix agent

WARNING: An illegal reflective access operation has occurred

WARNING: Illegal reflective access by jenkins.slaves.StandardOutputSwapper\$ChannelSwapper to constructor java.io.FileDescriptor(int)

WARNING: Please consider reporting this to the maintainers of jenkins.slaves.StandardOutputSwapper\$ChannelSwapper

WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations

WARNING: All illegal access operations will be denied in a future release

Evacuated stdout

Agent successfully connected and online