**JENKINS\_NOTES**

**Workspace in Jenkins:**

* a **workspace** is the directory on a node (machine) where Jenkins builds and stores files related to a project. It's essentially the working directory for Jenkins when it executes a job, containing the source code, build scripts, and any temporary files created during the build process.
* Each job or pipeline in Jenkins has its own workspace.
* By default, the workspace directory is located within the Jenkins home directory: **JENKINS\_HOME/workspace/<job\_name>**
* If you're using multiple nodes (agents) in Jenkins, each node will have its own workspace for a job.
* How to clean workspace after a build?

pipeline {

agent any

stages {

stage('Build') {

steps {

sh 'mkdir -p build'

sh 'touch build/computer.txt'

sh 'echo "Mainboard" >> build/computer.txt'

sh 'cat build/computer.txt'

sh 'echo "Display" >> build/computer.txt'

sh 'cat build/computer.txt'

sh 'echo "Keyboard" >> build/computer.txt'

sh 'cat build/computer.txt'

}

}

}

post {

always {

cleanWs()

}

}

}

* The function cleanWs() helps to clean Workspace.

**Storing Build artifacts in Jenkins:**

pipeline {

agent any

stages {

stage('Build') {

steps {

cleanWs()

echo 'Building a new laptop ...'

sh 'mkdir -p build'

sh 'touch build/computer.txt'

sh 'echo "Mainboard" >> build/computer.txt'

sh 'cat build/computer.txt'

sh 'echo "Display" >> build/computer.txt'

sh 'cat build/computer.txt'

sh 'echo "Keyboard" >> build/computer.txt'

sh 'cat build/computer.txt'

}

}

}

post {

success {

archiveArtifacts artifacts: 'build/\*\*'

}

}

}

* **The highlighted function help to archive the artifacts and artifacts will be available in workspace.**

**Combining Multiple shell steps into one:**

pipeline {

agent any

stages {

stage('Build') {

steps {

cleanWs()

echo 'Building a new laptop ...'

sh '''

mkdir -p build

touch build/computer.txt

echo "Mainboard" >> build/computer.txt

cat build/computer.txt

echo "Display" >> build/computer.txt

cat build/computer.txt

echo "Keyboard" >> build/computer.txt

cat build/computer.txt

'''

}

}

}

post {

success {

archiveArtifacts artifacts: 'build/\*\*'

}

}

}

* **The highlighted syntax helps to run multiple shell steps to single step.**

**Defining Environment Variables:**

pipeline {

agent any

environment {

BUILD\_FILE\_NAME = 'laptop.txt'

}

stages {

stage('Build') {

steps {

cleanWs()

echo 'Building a new laptop ...'

sh '''

echo $BUILD\_FILE\_NAME

mkdir -p build

echo "Mainboard" >> build/$BUILD\_FILE\_NAME

cat build/$BUILD\_FILE\_NAME

echo "Display" >> build/$BUILD\_FILE\_NAME

cat build/$BUILD\_FILE\_NAME

echo "Keyboard" >> build/$BUILD\_FILE\_NAME

cat build/$BUILD\_FILE\_NAME

'''

}

}

stage('Test') {

steps {

echo 'Testing the new laptop ...'

sh '''

test -f build/$BUILD\_FILE\_NAME

grep "Mainboard" build/$BUILD\_FILE\_NAME

grep "Display" build/$BUILD\_FILE\_NAME

grep "Keyboard" build/$BUILD\_FILE\_NAME

'''

}

}

}

post {

success {

archiveArtifacts artifacts: 'build/\*\*'

}

}

}

* **The highlighted function help to use the environment variable in pipeline**