

## Experiment No. 3.2

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Branch: **MCA - CCD**

Semester: **IV**

Subject Name: **CI/CD Pipelines**

UID: **22MCC20039**

Section/Group: **MCD-1/ Grp A**

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Subject Code: **22CAP-781**

### 1. Aim/Overview of the practical:

Create a build node and assign maven based job to that build node.

### 2. Code for practical:






- Open Jenkins on localhost.
- Click on Manage Jenkins > Credentials > System > Add
- Create a new Credentials using SSH
- Save ssh path to `~/.ssh/jenkins_agent_key`
- Create SSH Key using command

```
ssh-keygen -f ~/.ssh/jenkins_agent_key
```

```
krish@Arkay MINGW64 ~
$ ssh-keygen -f ~/.ssh/jenkins_agent_key
Generating public/private rsa key pair.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /c/Users/krish/.ssh/jenkins_agent_key
Your public key has been saved in /c/Users/krish/.ssh/jenkins_agent_key.pub
The key fingerprint is:
SHA256:Quhy6wEt3JymzNwL/8o0YTQ0TnXUiBsCpFsYKCsft8M krish@Arkay
The key's randomart image is:
+---[RSA 3072]-----+
| ..0.+..000      |
|o + =..0.. .    |
|..0 o =. o       |
|o .=.B o.        |
|..o+O.X S        |
|.OEB o           |
|  B.+            |
|   = o           |
|   =o.           |
+---[SHA256]-----+
krish@Arkay MINGW64 ~
```

- You can open it using `nano ~/.ssh/Jenkins_agent_key`
- Copy the certificate and Go to Manage Jenkins > Credentials > System > Add credentials and paste certificate.



T	P	Store ↓	Domain	ID	Name
		System	(global) 	jenkins	Jenkins (Jenkins SSH Key)
		System	(global)	Jenkins	Jenkins (Jenkins SSH Key)

## Stores scoped to Jenkins

- Run command

```
docker run -d --rm --name=agent1 --network=jenkins -p 22:22 \
```

```
>> -e "JENKINS_AGENT_SSH_PUBKEY=[your-public-key]" `
```

```
>> jenkins/ssh-agent:jdk17
```

```
PS C:\Users\krish> docker run -d --rm --name=agent1 --network jenkins -p 22:22 `
>> -e "JENKINS_AGENT_SSH_PUBKEY=[your-public-key]" `
>> jenkins/ssh-agent:jdk17
Unable to find image 'jenkins/ssh-agent:jdk17' locally
jdk17: Pulling from jenkins/ssh-agent
609c73876867: Pull complete
1e712917ca50: Pull complete
1b39dbb8d182: Pull complete
56926186b05c: Pull complete
4f4fb700ef54: Pull complete
b26656bb0999: Pull complete
61f05062a490: Pull complete
9c3aee06ddc7: Pull complete
Digest: sha256:c156e30a1a4e98d93ef045f03689375a160297112861907450c510be54f32fbd
```

- Click on Manage Jenkins > Nodes.
- Create a node and select Connect with SSH and select Jenkins SSH.

[illegible]

- After creating node, Create a job to node and click on Build.

Dashboard > First Job to Agent1 >

General Source Code Management **Build Triggers** Build Environment Build Post-build Actions

**Build Triggers**

- ☐ Trigger builds remotely (e.g., from scripts) ?
- ☐ Build after other projects are built ?
- ☐ Build periodically ?
- ☐ GitHub hook trigger for GITScm polling ?
- ☐ Poll SCM ?

**Build Environment**

- ☐ Delete workspace before build starts
- ☐ Use secret text(s) or file(s) ?
- ☐ Abort the build if it's stuck
- ☐ Add timestamps to the Console Output
- ☐ Inspect build log for published Gradle build scans
- ☐ With Ant ?

**Build**

Add build step ▾

Filter

- Add a new template to all docker clouds
- Build / Publish Docker Image
- Execute Windows batch command
- Execute shell**
- Invoke Ant
- Invoke Gradle script
- Invoke top-level Maven targets
- Run with timeout
- Set build status to "pending" on GitHub commit
- Start/Stop Docker Containers

- Build will be completed in few moments.