

Install jenkins (using docker)

```
#docker run -p 8080:8080 -p 50000:50000  
jenkins/jenkins
```

*once it start open localhost:8080 and enter password prompted on terminal or use :

```
-docker exec -it -u root {container id} binbash  
-cat /var/lib/jenkins/secrets/initialAdminPassword
```

Setting up jenkins

- Select ,install basic plugins
- Create admin user

Setup ec-2

- Create new ec2 instance with default settings
- Ssh into ec2 and install java (same version as jenkins container)
- If its 1.8.0:

```
#sudo amazon-linux-extras enable corretto8
```

```
#sudo yum install java-1.8.0-amazon-corretto
```

```
#sudo yum install java-1.8.0-amazon-corretto-devel
```

- Now allow ssh in your instance:

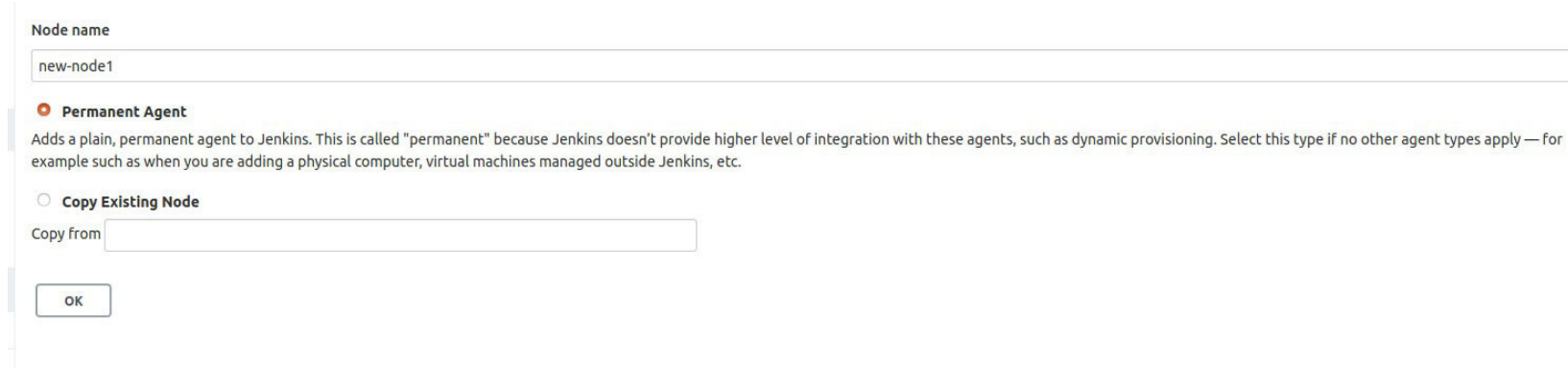
```
#vim /etc/ssh/sshd_config
```

```
-uncomment -port 22 and -ip 0.0.0.0
```

```
-save and exit
```

Setup jenkins slave

- On jenkins (localhost:8080) add slave:
-Dashboard -Nodes -new node



The screenshot shows the 'New Node' configuration page in Jenkins. At the top, there is a 'Node name' label and a text input field containing 'new-node1'. Below this, there are two radio button options. The first option, 'Permanent Agent', is selected and is accompanied by a descriptive paragraph: '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.' The second option, 'Copy Existing Node', is unselected and has a 'Copy from' label followed by an empty text input field. At the bottom left of the form is an 'OK' button.

Node name

new-node1

☒ **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.

☐ **Copy Existing Node**

Copy from

OK

- Configure node
 - Remote root directory : /home/ec2-user
 - Labels : dev
 - Launch method : launch agent via ssh
 - host: ec-2 ip
 - in credentials add new key

Add Credentials

Domain
Global credentials (unrestricted)

Kind
SSH Username with private key

Scope ?
Global (Jenkins, nodes, items, all child items, etc)

ID ?

Description ?

Username
ec2-user

Private Key
☒ Enter directly

Key
Enter New Secret Below
----- paste your ec2 key (*.pem) here -----|

Passphrase

-Host Key Verification
Strategy : manually trusted key
verification strategy

- Save

create new job

- On dashbord
 - new item
 - select freestyle project
 - save

Configure a job

- In build section:
 - select execute shell
- In command:
 - #sudo amazon-linux-extras install docker
 - #sudo service docker start
 - #sudo systemctl enable docker.service
 - #sudo systemctl start docker.service
 - #sudo docker pull postgres
 - #sudo docker run --name some-postgres -p 5432:5432 -e POSTGRES_PASSWORD=mypassword -d postgres
- save

Launch Agent

- Dashboard -manage jenkins -manage nodes
- Select node we created
- Launch node
- Once its online and ready to accept jobs-

Launch job

- Dashboard -{select job(item) we created}
- Build now
- Once its complete ssh into ec2 and verify if docker container for postgres is created or not
`#docker exec -it {container id} psql -u postgres`