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# Create resources

## IAM Role

* For EC2 instances to have Full access on S3

## Create 2 EC2 instances

* Ubuntu AMIs
* Security group should allow access from/to any IP to all ports
* Assign the IAM Role (as created above)

## Create an S3 bucket

Note: optional (but recommended) to use terraform to create above resources

# Install Jenkins on both instances

* sudo apt install openjdk-21-jdk -y
* sudo snap install aws-cli --classic
* sudo wget -O /usr/share/keyrings/jenkins-keyring.asc https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
* echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc]" https://pkg.jenkins.io/debian-stable binary/ | sudo tee /etc/apt/sources.list.d/jenkins.list > /dev/null
* sudo apt-get update
* sudo apt-get install jenkins

# Configure Jenkins on ec2-1 instance

## Browse to <ec2-1 instance public IP>:8080

e.g. <http://ec2-18-232-136-102.compute-1.amazonaws.com:8080/>

## Follow the setup guide

1. get the initial password from the host with the command:

sudo cat /var/lib/jenkins/secrets/initialAdminPassword

1. choose plugins to install
   1. select option “None” at the top right corner.
2. Choose an admin account, and set its password

## Create a test job in Jenkins

# Take a jenkins backup on ec2-1 instance

## Create a tarball

sudo tar -zvcf jenkins-backup.tar.gz /var/lib/Jenkins

## upload backup to the s3 bucket

aws s3 cp jenkins-backup.tar.gz s3://jenkins-backup20250125044553287200000001/jenkins-backup.tar.gz

# Restore backup to ec2-2 Jenkins server

**On the ec2-2 instance**

## Stop Jenkins service

sudo service jenkins stop

## Delete existing Jenkins data

sudo rm -rf /var/lib/Jenkins

## Download the backup from s3

aws s3 cp s3://jenkins-backup20250125044553287200000001/jenkins-backup.tar.gz jenkins-backup.tar.gz

## Extract the tarball

sudo tar -zxvf jenkins-backup.tar.gz -C /

## Start Jenkins service

sudo service jenkins start

## verify the restoration

Browse to Jenkins URL and verify the restoration