Jenkins source code.  
  
**docker-compose.yml**:

services:

jenkins:

container\_name: jenkins

image: jenkins/jenkins

ports:

- "8081:8080" # Use 8081 on host, mapped to 8080 in container

volumes:

- $PWD/jenkins\_home:/var/jenkins\_home

networks:

- net

remote\_host:

container\_name: remote-host

image: remote-host

build:

context: ssh\_img

volumes:

- "$PWD/aws-s3-backup.sh:/tmp/script.sh"

networks:

- net

db\_host:

platform: linux/amd64

container\_name: db

image: mysql/mysql-server:5.7

environment:

- "MYSQL\_ROOT\_PASSWORD=1234"

volumes:

- $PWD/db\_data:/var/lib/mysql

networks:

- net

networks:

net:

**Dockerfile:**FROM fedora:41

RUN yum -y install openssh-server

RUN useradd remote\_user && \

echo "1234" | passwd remote\_user --stdin && \

mkdir /home/remote\_user/.ssh && \

chmod 700 /home/remote\_user/.ssh #only one user is allowed to write data

COPY remote-key.pub /home/remote\_user/.ssh/authorized\_keys

RUN chown remote\_user:remote\_user -R /home/remote\_user/.ssh && \

chmod 600 /home/remote\_user/.ssh/authorized\_keys

RUN ssh-keygen -A

RUN yum -y install mysql #installing mysql

#installing aws cli

RUN yum -y install python3-pip && \

pip3 install --upgrade pip && \

pip3 install awscli

CMD /usr/sbin/sshd -D

**Bash Script:**#/bin/bash

DATE=$(date +%H-%M-%S)

BACKUP=db-$DATE.sql

DB\_HOST=$1

DB\_PASSWORD=$2

DB\_NAME=$3

AWS\_SECRET=$4

BUCKET\_NAME=$5

mysqldump -u root -h $DB\_HOST -p$DB\_PASSWORD $DB\_NAME > /tmp/$BACKUP && \

export AWS\_ACCESS\_KEY\_ID=AKIA4DMVQH6CUPBS66GJ && \

export AWS\_SECRET\_ACCESS\_KEY=$AWS\_SECRET && \

echo "uploading the db dump.. details: $BACKUP" && \

aws s3 cp /tmp/$BACKUP s3://$BUCKET\_NAME/$BACKUP && \

echo "Upload successful."  
  
  
Commands.  
>sudo dnf -y install dnf-plugins-core

>sudo dnf config-manager --add-repo <https://download.docker.com/linux/centos/docker-ce.repo>

Download the latest docker engine version

>sudo dnf install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin

>press Y to continue downloading latest docker engine.

$ sudo systemctl enable --now docker

$ sudo docker run hello-world

>sudo usermod -aG docker admin

>sudo yum update

>sudo yum install docker-compose-plugin

> docker compose version

Check by running the docker compose command

>docker compose.

> docker pull jenkins/Jenkins

>mkdir Jenkins  
>cd Jenkins  
>mkdir Jenkins\_data  
>cd Jenkins\_data  
create a file for docker compose  
>vi docker-compose.yml

> sudo chown 1000:1000 jenkins\_home -R

--> clone the repositroy

Bring up the project live

-->cd jenkins-projects

-->sudo usermod -aG docker admin

-->cd jenkins\_data

-->docker pull jenkins/jenkins

-->sudo chown 1000:1000 jenkins\_home -R

-->docker compose pull (ignore the remote-host container as it defined in Dockerfile)

-->docker compose build

-->docker compose up -d

-->docker images (checks the images created)

-->docker ps ( displays the containers running, Note: 3 container should be up and running).