

## TASK 2:

### Aim:

To automate the process of checking out code from Git, installing dependencies, building the application, creating a container, and running the container using Jenkins.

---

### Steps to Run the Task:

#### Step 1: Install Jenkins and Required Plugins

If Jenkins is not installed:

```
sudo apt update
sudo apt install -y openjdk-11-jdk
wget -q -O - https://pkg.jenkins.io/debian/jenkins.io.key | sudo apt-
key add -
sudo sh -c 'echo deb http://pkg.jenkins.io/debian-stable binary/ >
/etc/apt/sources.list.d/jenkins.list'
sudo apt update
sudo apt install -y jenkins
sudo systemctl start jenkins
sudo systemctl enable jenkins
```

- Install **Git**, **Docker**, and **Pipeline Plugin** in Jenkins.
- 

#### Step 2: Create a New Jenkins Job

- Open Jenkins → **New Item** → Enter job name → Select **Pipeline** → Click **OK**.
- 

#### Step 3: Configure Git Webhook (Optional)

- In **GitHub/GitLab**, go to repository settings → Webhooks → Add webhook.
  - Set payload URL: `http://localhost:8080/github-webhook/`
  - Select "Just the push event" → Save.
- 

#### Step 4: Define Jenkins Pipeline Script

Go to **Pipeline** → Select **Pipeline script** and enter the following:

```

pipeline {
    agent any

    environment {
        IMAGE_NAME = "myapp"
        CONTAINER_NAME = "myapp_container"
        REPO_URL = "https://github.com/your-repo.git"
    }

    stages {
        stage('Checkout Code') {
            steps {
                git branch: 'main', url: "${REPO_URL}"
            }
        }

        stage('Install Dependencies') {
            steps {
                sh '''
                sudo apt update
                sudo apt install -y docker.io
                '''
            }
        }

        stage('Build Application') {
            steps {
                sh 'echo "Building application..."'
                # Add build steps for your application (e.g., Maven,
                Gradle, npm install)
            }
        }

        stage('Build Docker Image') {
            steps {
                sh '''
                docker build -t ${IMAGE_NAME}:latest .
                '''
            }
        }

        stage('Run Docker Container') {
            steps {
                sh '''
                docker stop ${CONTAINER_NAME} || true
                docker rm ${CONTAINER_NAME} || true
                docker run -d --name ${CONTAINER_NAME} -p 8080:8080
                ${IMAGE_NAME}:latest
                '''
            }
        }
    }

    post {
        success {
            echo 'Deployment successful!'
        }
        failure {
            echo 'Deployment failed!'
        }
    }
}

```

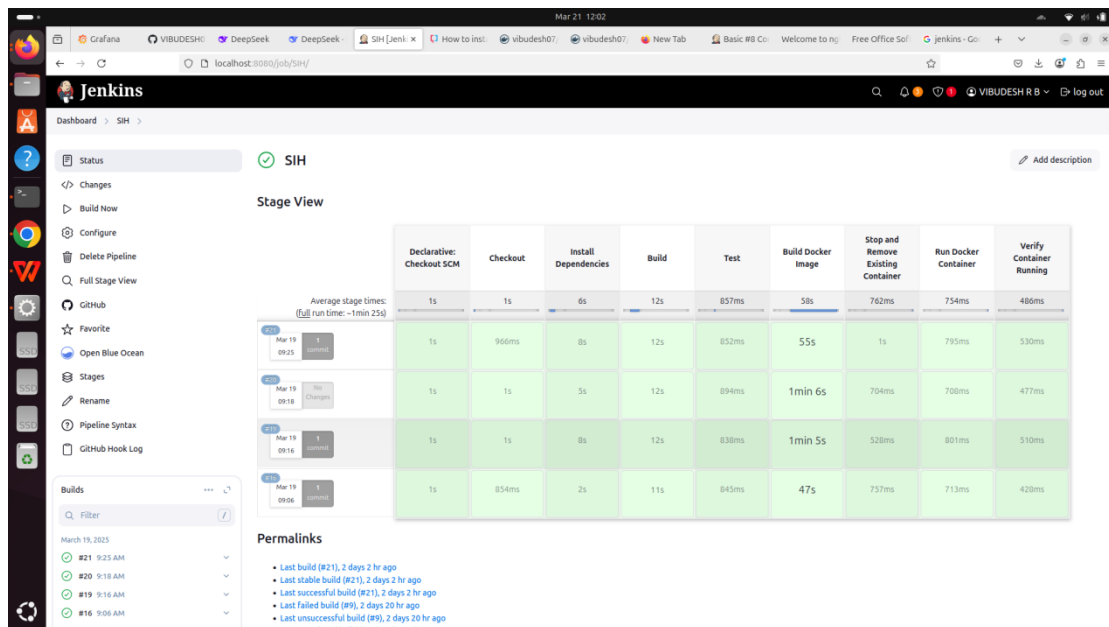
}

## Step 5: Save and Run the Pipeline

- Click **Save** and **Build Now**.
- On the next push to Git, Jenkins will trigger the pipeline automatically.

## Step 6: Verify Deployment

- Run `docker ps` on the server to check if the container is running.
- Open a web browser and go to: `http://your-server-ip:8080` to check the deployed application.



Dashboard > SIH > Configuration

Configure

General

Triggers

Pipeline

Advanced

Repositories

Repository URL

https://github.com/VIBUDES07/SIH12.git

Credentials

- none -

+ Add

Advanced

Add Repository

Branches to build

Branch Specifier (blank for 'any')

main

Add Branch

Repository browser

(Auto)

Additional Behaviours

Add

Save Apply

Mar 21 12:02

localhost:8080/job/SIH/configure

Dashboard > SIH > Configuration

Mar 21 12:03

https://github.com/VIBUDES07/SIH12

VIBUDES07 / SIH12

Code Issues Pull requests Actions Projects Security Insights Settings

SIH12 Public

Pin Unwatch Fork Starred

main 2 Branches 0 Tags

Go to file

Add file

Code

VIBUDES07 Sample 48c31e1 · 2 days ago 54 Commits

public	commit	3 months ago
src	Sample	2 days ago
.gitattributes	commit	3 months ago
.gitignore	commit	3 months ago
Dockerfile	Sample	3 days ago
jenkins	Sample	2 days ago
README.md	commit	3 months ago
package-lock.json	commit	3 months ago
package.json	Sample	3 days ago

README

## Face Liveness Detection and Anti-Spoofing System

This project implements a face liveness detection system using a combination of deep learning techniques, including a YOLOv5 trained model, a Convolutional Neural Network (CNN), and ONNX for model inference. The system also integrates virtual camera prevention and a deepfake detection model based on FaceForensics++.

### Table of Contents

About

No description, website, or topics provided.

Readme

Activity

2 stars

1 watching

0 forks

Releases

No releases published

Create a new release

Packages

No packages published

Publish your first package

Languages

JavaScript 78.0% CSS 13.0%

HTML 5.0% Dockerfile 0.0%

Suggested workflows

Based on your tech stack

Webpack

Build a NodeJS project with npm and webpack

Mar 21 12:03

Webhook x DeepSeek DeepSeek SH Config How to inst vibudesh07 vibudesh07 New Tab Basic Web Co Welcome to ng Free Office Sol Jenkins - Go

https://github.com/VIBUDES07/SH12/settings/hooks

GitHub VIBUDES07 / SH12

Code Issues Pull requests Actions Projects Security Insights Settings

General

Access

Collaborators

Moderation options

Code and automation

Branches

Tags

Rules

Actions

Webhooks

Environments

Codespaces

Pages

Security

Code security

Deploy keys

Secrets and variables

Integrations

GitHub Apps

Email notifications

Autolink references

Webhooks

Add webhook

Webhooks allow external services to be notified when certain events happen. When the specified events happen, we'll send a POST request to each of the URLs you provide. Learn more in our [Webhooks Guide](#).

https://pgware-roles-desired.co... (push)

Edit Delete

Last delivery was successful.

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Mar 21 12:04

vibudesh@vibudesh-Victus-by-HP-Gaming-Laptop-15-fb0xxx: ~/Downloads

vibudesh@vibudesh-Victus-by-HP-Gaming-Laptop-15-fb0xxx: ~

vibudesh@vibudesh-Victus-by-HP-Gaming-Laptop-15-fb0xxx: ~

create node 108644 devops/src/App.css  
create node 108644 devops/src/App.jsx  
create node 108644 devops/src/assets/react.svg  
create node 108644 devops/src/index.css  
create node 108644 devops/src/main.jsx  
create node 108644 devops/vite.config.js  
vibudesh@vibudesh-Victus-by-HP-Gaming-Laptop-15-fb0xxx:~/Project/DEVOPS\_BASIC\$ git push origin main  
Username for 'https://github.com': '[A] [A] [B] C  
vibudesh@vibudesh-Victus-by-HP-Gaming-Laptop-15-fb0xxx:~/Project/DEVOPS\_BASIC\$ ls  
devops README.md  
vibudesh@vibudesh-Victus-by-HP-Gaming-Laptop-15-fb0xxx:~/Project/DEVOPS\_BASIC\$ cd ..  
vibudesh@vibudesh-Victus-by-HP-Gaming-Laptop-15-fb0xxx:~/Project\$ cd ..  
vibudesh@vibudesh-Victus-by-HP-Gaming-Laptop-15-fb0xxx:~\$ cd Downloads  
vibudesh@vibudesh-Victus-by-HP-Gaming-Laptop-15-fb0xxx:~/Downloads\$ ls  
cloudflared-linux-amd64.deb code\_1.98.2-1741788907\_and64.deb DevOps.docx wps-office\_11.1.0.11698.XA\_and64.deb  
vibudesh@vibudesh-Victus-by-HP-Gaming-Laptop-15-fb0xxx:~/Downloads\$ sudo dpkg -i wps-office\_11.1.0.11698.XA\_and64.deb  
[sudo] password for vibudesh:  
Selecting previously unselected package wps-office.  
(Reading database ... 245486 files and directories currently installed.)  
Preparing to unpack wps-office\_11.1.0.11698.XA\_and64.deb ...  
Unpacking wps-office (11.1.0.11698.XA) ...  
Setting up wps-office (11.1.0.11698.XA) ...  
Processing triggers for fontconfig (2.15.0-1.1ubuntu2) ...  
Processing triggers for hicolor-icon-theme (0.17-2) ...  
Processing triggers for shared-mime-info (2.4-4) ...  
Processing triggers for gnome-menus (3.36.0-1.1ubuntu3) ...  
Processing triggers for desktop-file-utils (0.27-2ubuntu1) ...  
vibudesh@vibudesh-Victus-by-HP-Gaming-Laptop-15-fb0xxx:~/Downloads\$ sudo docker ps  
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS  
2f3bb03a4462 gcr.io/k8s-minikube/kicbase:v0.0.46 "/usr/local/bin/entr..." 27 hours ago Up 49 minutes 127.0.0.1:32768->22/tcp, 127.0.0.1:32769->2376/tcp, 127.0.0.1:32770->5000/t  
cp, 127.0.0.1:32771->8443/tcp, 127.0.0.1:32772->32443/tcp minikube  
vibudesh@vibudesh-Victus-by-HP-Gaming-Laptop-15-fb0xxx:~/Downloads\$ sudo docker images  
REPOSITORY TAG IMAGE ID CREATED SIZE  
vibudesh07/dev latest bff7af34115b 2 days ago 142MB  
vibudesh07/signup latest bff7af34115b 2 days ago 142MB  
frontend latest 536e381a0b83 2 days ago 54MB  
my-react-app latest 536e381a0b83 2 days ago 54MB  
mongo latest b81a621037ef 6 days ago 887MB  
hello-world latest 74cc54e27dc4 8 weeks ago 10.1kB  
gcr.io/k8s-minikube/kicbase v0.0.46 472c4be9b29 2 months ago 1.31GB  
vibudesh@vibudesh-Victus-by-HP-Gaming-Laptop-15-fb0xxx:~/Downloads\$

Mar 21 12:08

Grafana Webhooks DeepSeek DeepSeek SH Config How to inst vibudesh07 vibudesh07 New Tab SH #21 c x Welcome to ng Free Office Sof Jenkins - Go + VIBUDES R B log out

localhost:8080/job/SH/21/console

# Jenkins

Dashboard > SH > #21

Status

Changes

Console Output

Edit Build Information

Delete build '#21'

Polling Log

Timings

Git Build Data

Open Blue Ocean

Pipeline Overview

Pipeline Console

Restart from Stage

Replay

Pipeline Steps

Workspaces

Previous Build

## Console Output

Download Copy View as plain text

```
Started by GitHub push by VIBUDES07
Obtained Jenkins from git https://github.com/VIBUDES07/SH12.git
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/SH
[Pipeline] {
[Pipeline] stage
[Pipeline] { Declarative: Checkout SCM
[Pipeline] checkout
The recommended git tool is: git
No credentials specified
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/SH/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/VIBUDES07/SH12.git # timeout=10
Fetching upstream changes from https://github.com/VIBUDES07/SH12.git
> git --version # timeout=10
> git --version # 'git version 2.43.0'
> git fetch --tags --force --progress -- https://github.com/VIBUDES07/SH12.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse origin/main^{commit} # timeout=10
Checking out Revision 48e31e16608925fa419722f2208cf9353321d8e9 (origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 48e31e16608925fa419722f2208cf9353321d8e9 # timeout=10
Commit message: "Sample"
> git rev-list --no-walk 556615b4ab8f2ad010028340ca4ac97522b1908 # timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] tool
[Pipeline] tool
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
```

```
#6 [build 1/6] FROM docker.io/library/node:18@sha256:7f6bccd8e8a1f81bfbb29f5948de5c5507624788dd58cadb946d439426b7c4
#6 resolve docker.io/library/node:18@sha256:7f6bccd8e8a1f81bfbb29f5948de5c5507624788dd58cadb946d439426b7c4 done
#6 DONE 0.0s

#7 [internal] load build context
#7 transferring context: 11.51MB 2.5s done
#7 DONE 2.6s

#8 [build 2/6] WORKDIR /app
#8 CACHED

#9 [build 3/6] COPY package.json package-lock.json ./
#9 CACHED

#10 [build 4/6] RUN npm install
#10 CACHED

#11 [build 5/6] COPY . .
#11 DONE 33.6s

#12 [build 6/6] RUN npm run build
#12 0.740
#12 0.740 > face-authentication-platform@0.1.0 build
#12 0.740 > react-scripts build || true
#12 0.740
#12 2.751 Creating an optimized production build...
#12 2.947 Browserslist: caniuse-lite is outdated. Please run:
#12 2.947   npx update-browserslist-db@latest
#12 2.947   Why you should do it regularly: https://github.com/browserslist/update-db#readme
#12 6.966 [0:33m]One of your dependencies, babel-preset-react-app, is importing the
#12 6.966 "@babel/plugin-proposal-private-property-in-object" package without
#12 6.966 declaring it in its dependencies. This is currently working because
#12 6.966 "@babel/plugin-proposal-private-property-in-object" is already in your
#12 6.966 node_modules folder for unrelated reasons, but it [may break at any time[0:33m.
#12 6.966
#12 6.966 babel-preset-react-app is part of the create-react-app project, [which
#12 6.966 is not maintained anymore[0:33m. It is thus unlikely that this bug will
#12 6.966 ever be fixed. Add "@babel/plugin-proposal-private-property-in-object" to
#12 6.966 your devDependencies to work around this error. This will make this message
```

