Static Application Deployment with Jenkins and Docker

Step 1: Create a Simple Static Application

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index.html

```
<!DOCTYPE html>
<html>
  <head>
    <title>Hello Supraja</title>
  </head>
  <body>
    <h1>Hello Supraja</h1>
  </body>
</html>
```

Step 2: Dockerfile to Serve the App

Dockerfile

```
FROM nginx:alpine
COPY index.html /usr/share/nginx/html/index.html
EXPOSE 80
```

Commands to test locally:

docker build -t hello-supraja .

docker run -d -p 8080:80 hello-supraja

Step 3: Jenkinsfile (CI/CD Pipeline)

Jenkinsfile

```
pipeline {
    agent any

    stages {
        stage('Checkout') {
            steps {
                git branch: 'main', url: 'https://github.com/<your-username>/<your-repo>.git'
            }
        }

        stage('Build Docker Image') {
            steps {
                script {
                    sh 'docker build -t hello-supraja .'
                }
            }
        }
```

```
        stage('Run Container') {

            steps {

                script {

                    sh 'docker rm -f hello-supraja || true'

                    sh 'docker run -d -p 8080:80 --name hello-supraja hello-supraja'

                }

            }

        }

    }

}
```

Step 4: Configure Jenkins

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1. Install Jenkins and Docker on your system (or use Jenkins in Docker).

2. Install Docker Pipeline plugin in Jenkins.

3. Create a new Jenkins pipeline job and connect it to your repo.

4. Trigger the pipeline and Jenkins will build and deploy your app.

Step 5: Verify

Open your browser at:

http://<your-server-ip>:8080

You should see:

Hello Supraja