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Question: configure jenkins to deploy a docker container runnig nginx to a local docker host .the pipeline should build the docker image and start the container

 **Create a Jenkins Pipeline Job:**

* In Jenkins dashboard -> New Item.
* Select "Pipeline" and name it, e.g., Deploy-Nginx-Docker.
* Scroll down to the "Pipeline" section.

 **Write the Pipeline Script:** Use the following pipeline script in the "Pipeline" section of the Jenkins job. This will build the Nginx Docker image and deploy it on your local machine.

pipeline {

agent any

environment {

DOCKER\_IMAGE = "nginx:custom" // Name of the Docker image

DOCKER\_CONTAINER = "nginx-container" // Name of the Docker container

}

stages {

stage('Build Docker Image') {

steps {

script {

// Build Docker image using the Dockerfile in the working directory

sh 'docker build -t $DOCKER\_IMAGE .'

}

}

}

stage('Stop and Remove Existing Container') {

steps {

script {

// Stop and remove existing container if running

bat '''

docker ps -q -f name=%DOCKER\_CONTAINER% | findstr . && docker stop %DOCKER\_CONTAINER%

docker ps -a -q -f name=%DOCKER\_CONTAINER% | findstr . && docker rm %DOCKER\_CONTAINER%

'''

}

}

}

stage('Run Docker Container') {

steps {

script {

// Run a new container with the built Nginx image

bat 'docker run -d --name %DOCKER\_CONTAINER% -p 8080:80 %DOCKER\_IMAGE%'

}

}

}

}

post {

always {

echo "Pipeline completed!"

}

}

}

**Create Dockerfile in Your Project:** Ensure you have a Dockerfile that builds the Nginx image. Place this Dockerfile in the root of your project:

# Use the official Nginx base image

FROM nginx:latest

# Copy custom index.html file (optional)

COPY ./index.html /usr/share/nginx/html/index.html

**Configure Jenkins Pipeline for Source Code:**

* If your project code (including Dockerfile) is hosted in Git, modify the stage('Build Docker Image') part of the pipeline to include the Git repository clone step:

stage('Clone Repository') {

steps {

git 'https://github.com/your/repository.git'

}

}

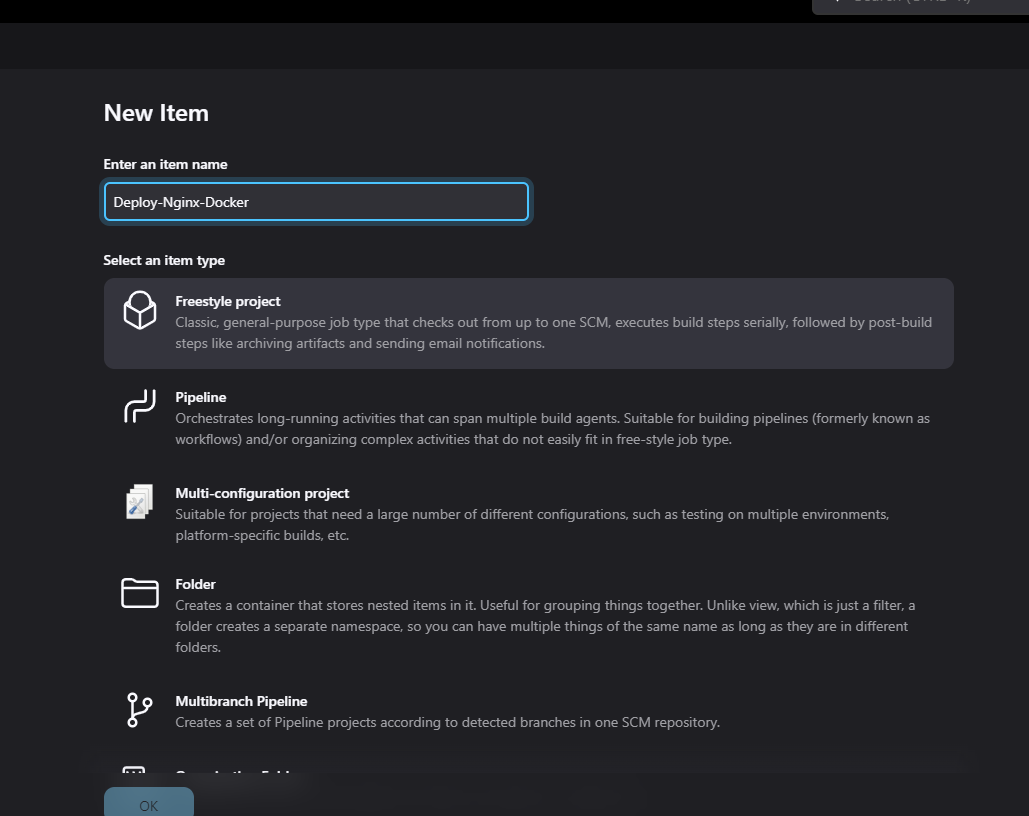
 **Save and Run the Pipeline:**

* After creating the pipeline, click "Save".
* Go to the job page and click "Build Now".
* Check the console output to ensure everything runs smoothly.

 **Access Nginx on Localhost:** After the pipeline runs, access the Nginx container by visiting:

<http://localhost:8080>

screen shot





A screenshot of a computer

Description automatically generated

