Instructions to configure a Jenkins job for automated build processes triggered by code commits

Jenkins Job Configuration

Manage Credentials:

- Start by logging into the Jenkins web interface through your http://<ec2-public-ip>:8080.
- Navigate to Manage Jenkins.
- Under the Security section, select Credentials.
- Proceed to the Global credentials domain.
- Click on Add Credentials.
- Enter your DockerHub and GitHub credentials. These can be specified as either a username/password combination or as a secret text containing an access token.

Creating a New Freestyle Project

- On the Jenkins Dashboard, select New Item.
- Enter a name for your job and choose Freestyle project as the job type.
- In the Source Code Management section:
    - Select Git and input the repository URL.
    - Choose the previously added GitHub credentials for repository access.
- Enable the GitHub hook trigger for GITScm polling to allow GitHub to trigger this job.
- Add Build Steps:
    - Select Add build step and choose Execute shell.
    - Enter the necessary shell commands for your build process.

```
export DOCKER_REGISTRY= salmahany3010

export DOCKER_IMAGE= spring-boot

git clone "https://github.com/salmaHany01/MultiCloudDevOpsProject.git"

docker build -t ${DOCKER_REGISTRY}/${DOCKER_IMAGE}:${BUILD_NUMBER} .

docker push ${DOCKER_REGISTRY}/${DOCKER_IMAGE}:${BUILD_NUMBER}

rm -rf image name
```

Setting Up GitHub Webhook

GitHub Webhook Configuration:

- Go to your GitHub repository.
- Navigate to Settings > Webhooks > Add webhook.
- For the Payload URL, enter http://<public-ip>/github-webhook.
  - Replace <public-ip> with:
  - The public IP of your EC2 instance, or
  - Use ngrok for local testing (Note: ngrok is not recommended for production environments and should only be used for testing purposes).
- Set the content type to application/json.
- Under "Which events would you like to trigger this webhook?", select Just the push event.
- Click Add webhook to complete the setup.

Now, any commits and pushes to the repository will automatically trigger the Jenkins job, executing the defined build process.