Integrating Git webhooks with Jenkins

Integrating Git webhooks with Jenkins allows your Jenkins server to automatically trigger builds whenever changes are pushed to your Git repository.

Steps to integrate Git webhooks with Jenkins:

1. **Set up a Jenkins Server**: Ensure you have Jenkins installed and running. If not, you can download and install Jenkins from the official website: Jenkins.

2. Configure Jenkins Job:

- Create a new Jenkins job by clicking on "New Item" on the Jenkins dashboard.
- Choose the type of your project (e.g., Freestyle project).
- Configure your project settings, including the Git repository URL, branch to build, build triggers, and build steps.

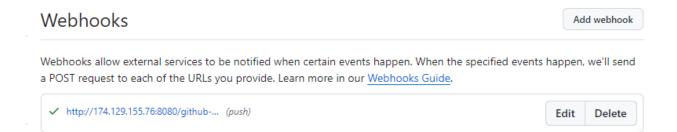
3. Enable Webhooks in Git Repository:

- Go to your Git repository hosting service (e.g., GitHub, GitLab, Bitbucket).
- Navigate to the repository settings.
- Look for the Webhooks or Integrations section.
- Add a new webhook.
- Set the Payload URL to your Jenkins server's webhook URL. This is typically http://your-jenkins-server/github-webhook/ for GitHub.
- Ensure the webhook is set to trigger on push events.
- Save the webhook configuration.

4. Test the Integration:

- Make a change to your Git repository and push it to the remote repository.
- Check your Jenkins dashboard to verify that a new build is triggered automatically.
- 5. **Troubleshooting**: If the webhook doesn't trigger the Jenkins build, check the following:
 - Ensure the webbook URL is correct.

- Check if your Jenkins server is reachable from the internet (if using a self-hosted Jenkins).
- Verify that the webhook is set to trigger on push events.
- Check Jenkins logs for any errors.



Console Output

```
Started by GitHub push by Ramani-github
Running as SYSTEM
Building on the built-in node in workspace /var/lib/jenkins/workspace/job3-webhook
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/job3-webhook/.git # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/Ramani-github/project-cicd.git # timeout=10
Fetching upstream changes from https://github.com/Ramani-github/project-cicd.git
> git --version # timeout=10
> git --version # 'git version 2.40.1'
> git fetch --tags --force --progress -- <a href="https://github.com/Ramani-github/project-cicd.git">https://github.com/Ramani-github/project-cicd.git</a>
+refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 8af718450b893ce476a191cf21912d8a611dcb97 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
 > git checkout -f 8af718450b893ce476a191cf21912d8a611dcb97 # timeout=10
Commit message: "Create webhook"
> git rev-list --no-walk 6678293ae15980505ffb067b29f3432a060b319c # timeout=10
Finished: SUCCESS
```