# Receive GitHub webhooks on Jenkins without public IP

## Step 1: Create GitHub repository

First things first, we need to get a repository! If you haven’t got GitHub account, get one. You will need it later to login to Webhook Relay too. Once you have logged into GitHub, look for a green “New Repository” button on the bottom right corner and click it.

## Step 2: Jenkins Installation (if you already have it - ignore this step)

Jenkins can easily be installed on Ubuntu by importing and adding the GPG keys to the system. Enabling the Jenkins repository:

$ wget -p -O - https://pkg.jenkins.io/debian/jenkins.io.key | sudo apt-key add -

Now Install Jenkins:

$ sudo apt update

$ sudo apt install jenkins

The Jenkins service should automatically start on the installation of Jenkins. To verify the status of Jenkins service.

$ sudo systemctl status jenkins

Now, to configure the firewall for the Jenkins server using the UFW tool, we need to enable the firewall and open port 8080 for remote access from anywhere.

$ sudo ufw allow 8080

$ sudo ufw enable

$ sudo ufw reload

$ sudo ufw status

## Set Up Jenkins

To set up Jenkins, type your domain name or IP address along with port 8080 in the browser’s address bar, and you should have the Unlock Jenkins page asking for a password.

<http://localhost:8080>

get the jenkins password

$ sudo cat /var/lib/jenkins/secrets/initialAdminPassword

## Step 3: Setting up Jenkins with GitHub-Plugin

The easiest way to start receiving GitHub webhooks is by using this plugin https://plugins.jenkins.io/github

* Go to your Jenkins plugin manager
* Find and install ‘**’GitHub plugin’’**
* GitHub API Plugin - GitHub Integration Plugin

## Step 4: Configuring Webhook Relay

First, you will have to register and download the agent. if you don’t have an account yet (you can use GitHub OAuth option since you would already have an account with it).

<https://my.webhookrelay.com/login>

## Step 5: Setting up Webhook Relay agent

To login with the CLI use token key/secret: <https://my.webhookrelay.com/tokens>

Copy the relay login and run on your machine:

$ relay login -k your-token-key -s your-token-secret

Now, you will then need to start forwarding webhooks to Jenkins:

$ relay forward --bucket github-jenkins http://localhost:8080/github-webhook/

## Step 6: Configuring Jenkins Job

When you want Jenkins to do something - create a job. In this case we will be using **Freestyle project**.

Ngrox: local server to public server

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**Zapier**

The free tier allows you to create an unlimited number of Zaps (automations) but restricts them to 100 tasks per month. Webhooks are considered tasks within Zaps.

Simple Zaps with a single webhook trigger and one action might fit within the **100 task limit**.

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How to Get Started with Webhooks by Zapier

<https://help.zapier.com/hc/en-us/articles/8496083355661-How-to-Get-Started-with-Webhooks-by-Zapier>

Webhooks are Premium Zap app.

