GitHub weebhooks Integrate with Jenkins

If you want automate trigger the build jobs when the new commit push to github . In this particular scenario we will use three types of process to trigger a job in jenkins.

- Build periodically.
- Poll SCM
- web hooks.

In this tutorial we will learn how to integrate github webooks into jenkins. In this scenario when the new changes pushed to girhub the jenkins job will be trigger automatically for particular jenkins job configure of the github repository.
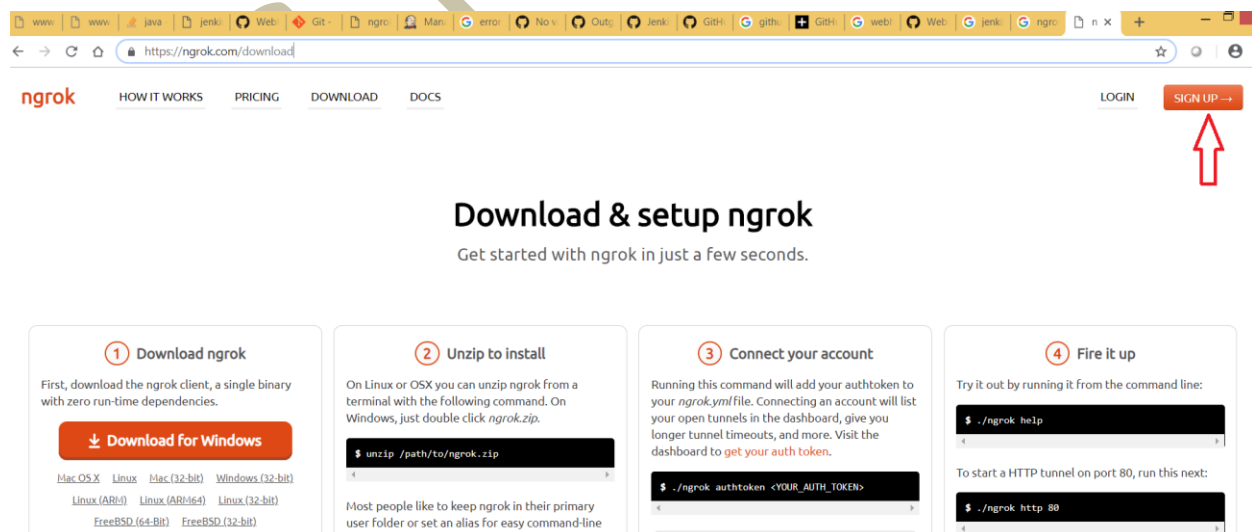
prerequisites :

- jenkins should run in your machine.
- git hub account.
- git hub repository .

if you jenkins is running jenkins in your local machine like (localhost:8080) .you ip shoud be configure as a public ip or DNS or else you jenkins server could not connect with the github.

for this you can make it you localhost to pulic domain trough NGROK. download ngrok into your machine run ngrok.exe file with your localhost and port.

https://ngrok.com/download

once downloaded successfully we need register with ngrok using below link.

once signup successfully you will get a token along with running setp.

open the folder where you unzip the ngrok.exe. run below command.

> ngrok.exe authtoken <YOUR_AUTH_TOKEN>

if linux

./ngrok authtoken <YOUR_AUTH_TOKEN>

it will give result like below.

```
Authtoken saved to configuration file: C:\Users\ssreteam\.ngrok2/ngrok.yml
```
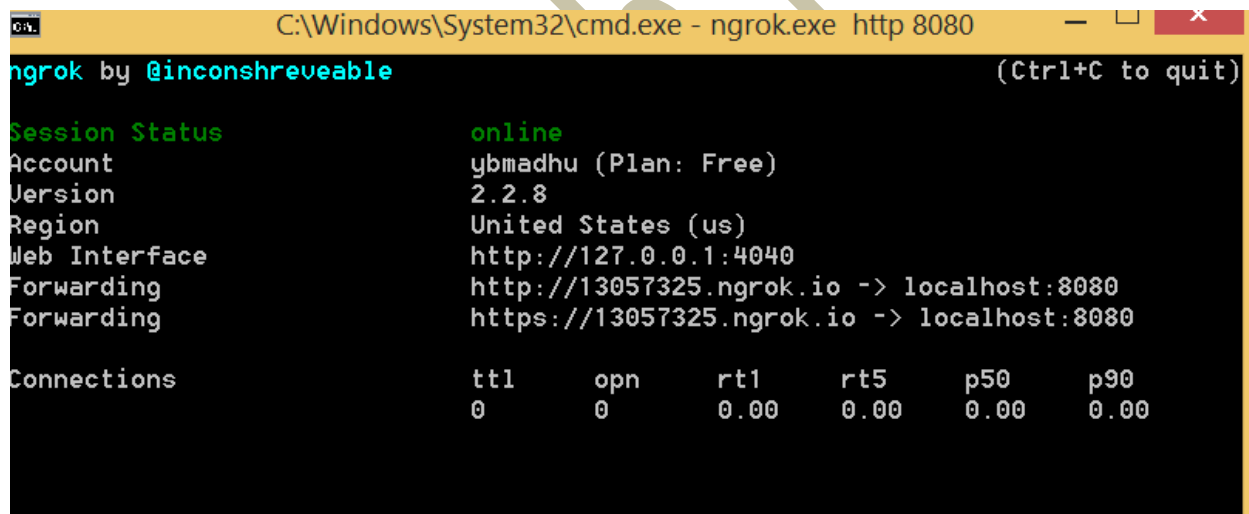
Now run the http and port number along with ngrok command like below.

> ngrok.exe http 80

if linux

./ngrok http 80

this will give output like below.

```
C:\Windows\System32\cmd.exe - ngrok.exe  http 8080

ngrok by @inconshreveable                                    (Ctrl+C to quit)

Session Status              online
Account                     ybmadhu (Plan: Free)
Version                     2.2.8
Region                      United States (us)
Web Interface               http://127.0.0.1:4040
Forwarding                  http://13057325.ngrok.io -> localhost:8080
Forwarding                  https://13057325.ngrok.io -> localhost:8080

Connections                 ttl      opn      rt1      rt5      p50      p90
                            0        0        0.00     0.00     0.00     0.00
```
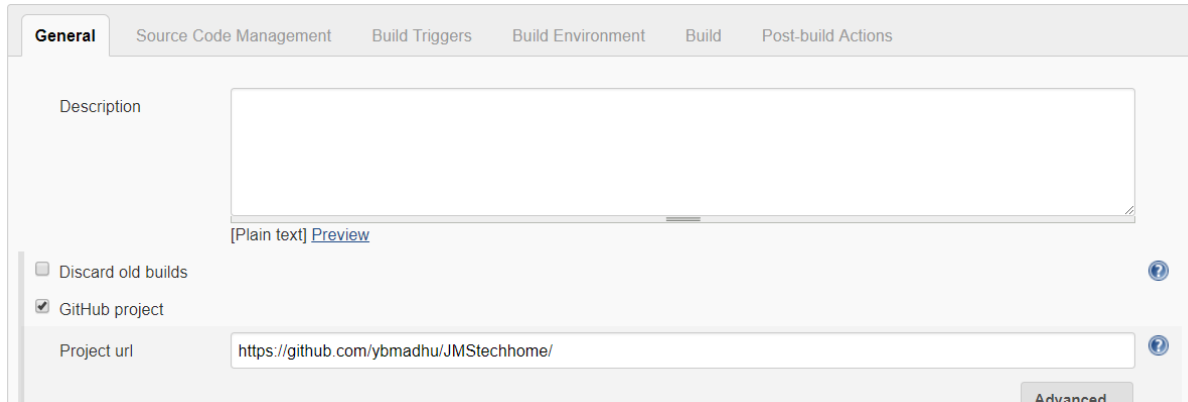
if you to stop or quite press ctrl+c.

here **http://13057325.ngrok.io** this is out public domain of your system we need to configure this your in github weebhooks.
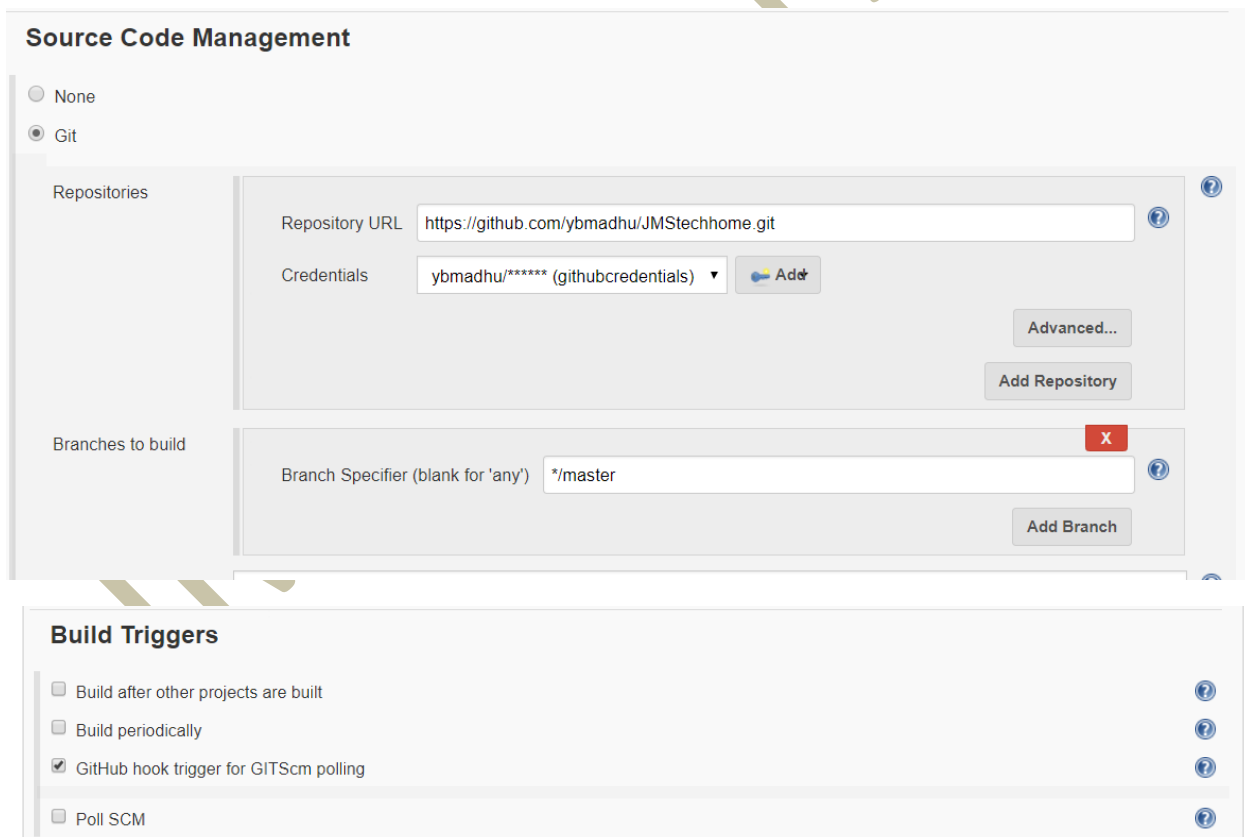
Now our Public DNS is ready lets move into the jenkins configuration.

goto jenkins home page select which project need to be trigger with hooks.open the project -->goto configure --> goto general section select github project enter the github project url without .git extention --> goto build trigger section select a check box **GitHub hook trigger for GITScm polling.**

if not configure earlier github and jenkins do it in scm section select and git and enter url of github repository and credentials of your github.

then apply and save the changes.

Now we need to modify the configure global security to allow CSRF.

Goto manage jenkins --> configure global security --> CSRF Protection --> deselect the **Prevent Cross Site Request Forgery exploits.**

Agent protocols...

CSRF Protection

☐ Prevent Cross Site Request Forgery exploits

CLI

Now goto github account and select repository which we are going to build with webhooks.

goto settings --> select webhooks --> enter thepayload url we just created with ngrok.

and update the webhook.

http://<jenkinsurl>/ github-webhook/

<> Code   ⓘ Issues 0   Pull requests 0   Projects 0   Wiki   Insights   ⚙ Settings

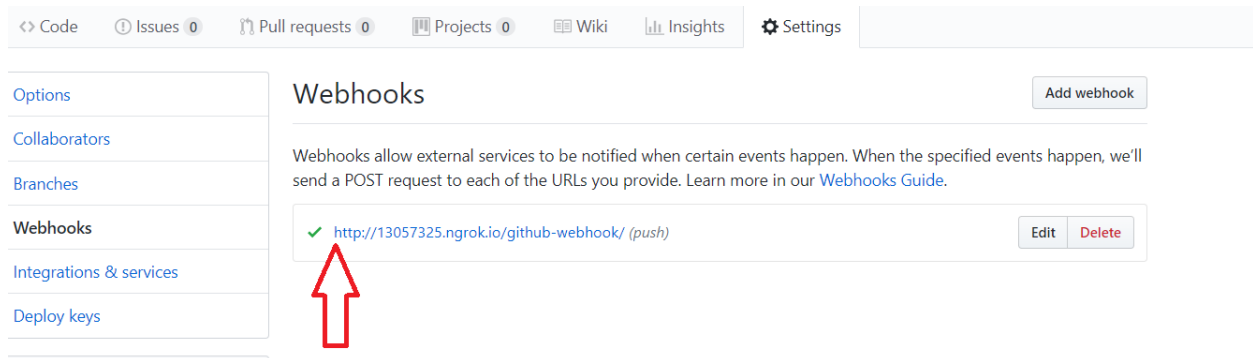| Options	Webhooks / **Manage webhook**
Collaborators	We'll send a POST request to the URL below with details of any subscribed events. You can also specify which data format you'd like to receive (JSON, x-www-form-urlencoded, *etc*). More information can be found in our developer documentation.
Branches	
Webhooks	**Payload URL** *
Integrations & services	http://13057325.ngrok.io/github-webhook/
Deploy keys	**Content type**
	application/x-www-form-urlencoded ⬍
Moderation	**Secret**
Interaction limits	

Which events would you like to trigger this webhook?

⦿ Just the push event.

◯ Send me **everything**.

◯ Let me select individual events.

☑ **Active**
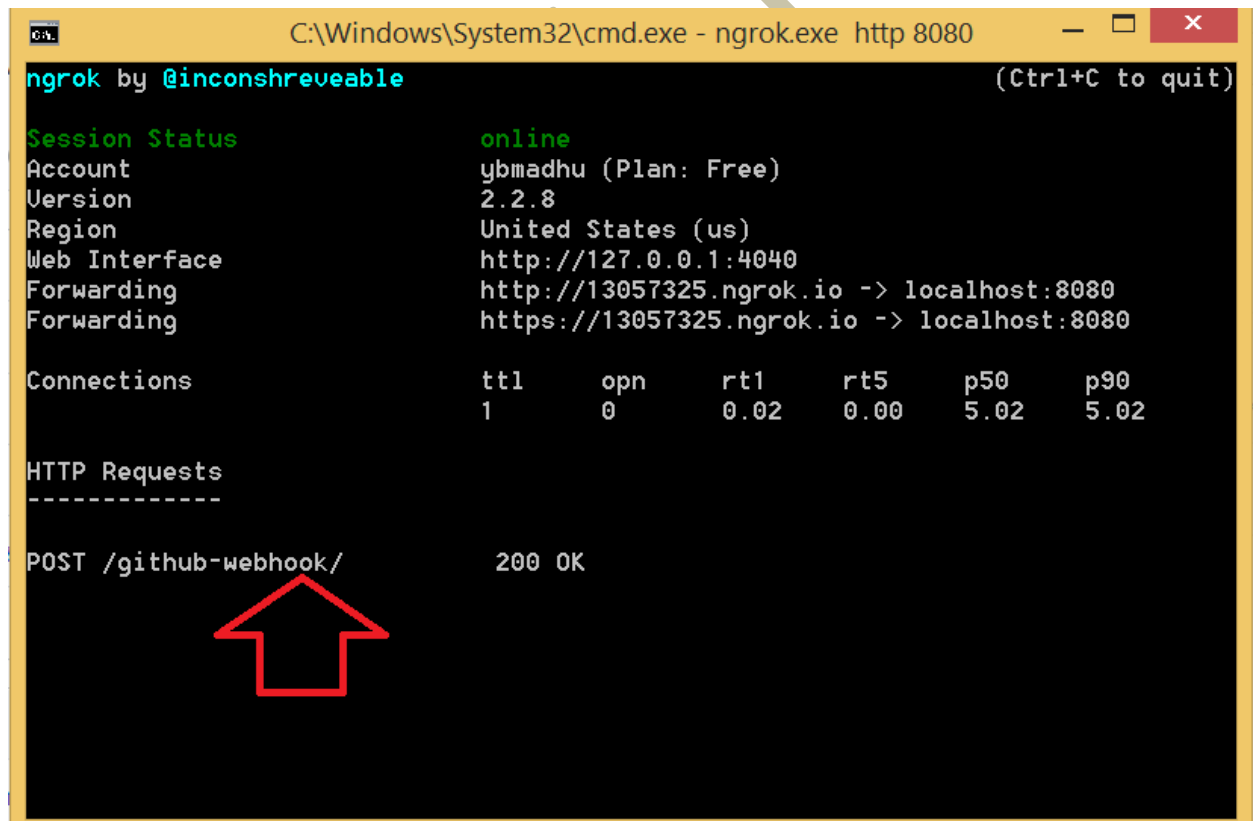We will deliver event details when this hook is triggered

Update webhook   **Delete webhook**

Now click webhook we can see the green tick markit indicates you webhook successfully registered.

Now change something to in your repository using git bash or github and commit the code lets see the trigger is build automatically in jenkins or not and check ngrok console output as well.

Done we are successfully configure the jenkis and github webhooks for automation the trigger a build.