How to install Jenkins in Ubuntu

switch user to root

sudo su –

wget -q -O - https://pkg.jenkins.io/debian/jenkins-ci.org.key | sudo apt-key add -

**sudo** sh -c 'echo deb http://pkg.jenkins.io/debian-stable binary/ > /etc/apt/sources.list.d/jenkins.list'

**sudo** apt-get update

**sudo** apt-get install jenkins

**Jenkins runs on port 8080---- add rule in instance tcp as 8080 in SG.**

open in a browser ip:8080

login to jenkins server

Unlock the Jenkins screen

switch user to jeninks

sudo su - jenkins

cat /var/lib/jenkins/secrets/initialAdminPassword

copy and paste the output in the browser password field

Customize Jenkins Screen for installing the plugins

Choose the **install suggested plugins or select plugins to install**

**Click on any one.**

* Getting Started to the installing the plugins
* Create First Admin User give the details

Username—

Password-\_\_

Confirm Password \_\_

Full Name \_\_\_

E-Mail address \_\_

**Click on save and Finish**

**Note:**

**Jenkins folder structure**

**● home dir - /var/lib/jenkins**

**● Main configuration file - /var/lib/jenkins/config.xml**

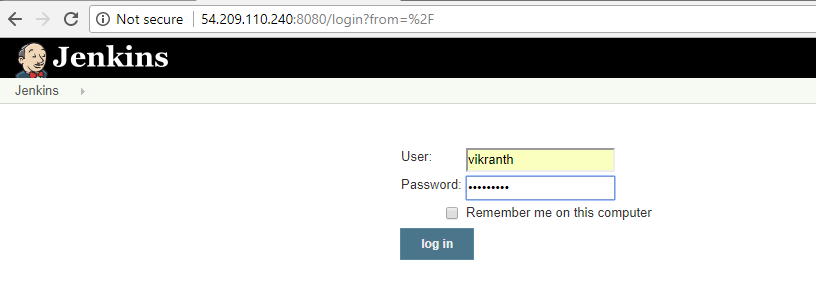
**● change port number - /etc/default/jenkins**

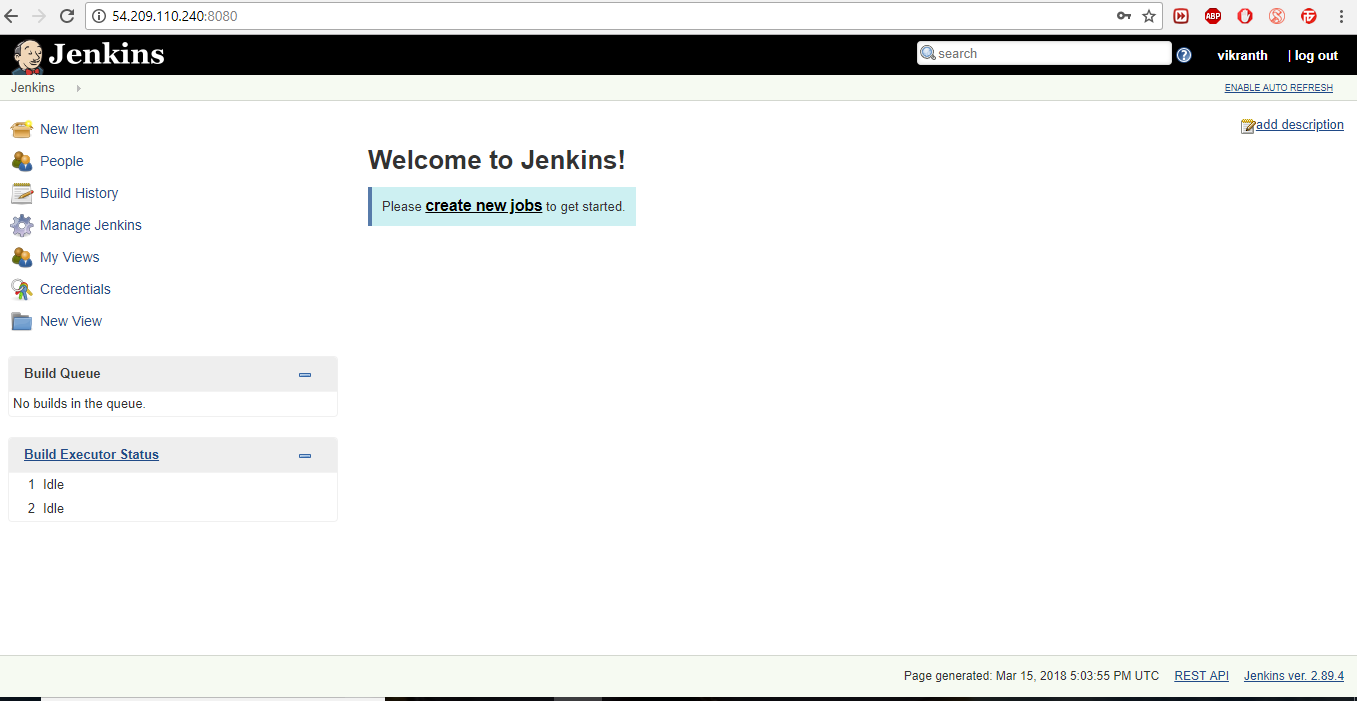
* **How to integrate the Git hub to Jenkins through to User name and Password**

**Jenkins is a continuous integration and continuous delivery tool i.e CI/CD Tool**

**Login to Jenkins server 🡪** [**http://54.209.110.240:8080**](http://54.209.110.240:8080)

**Give the user name and Password🡪 login**

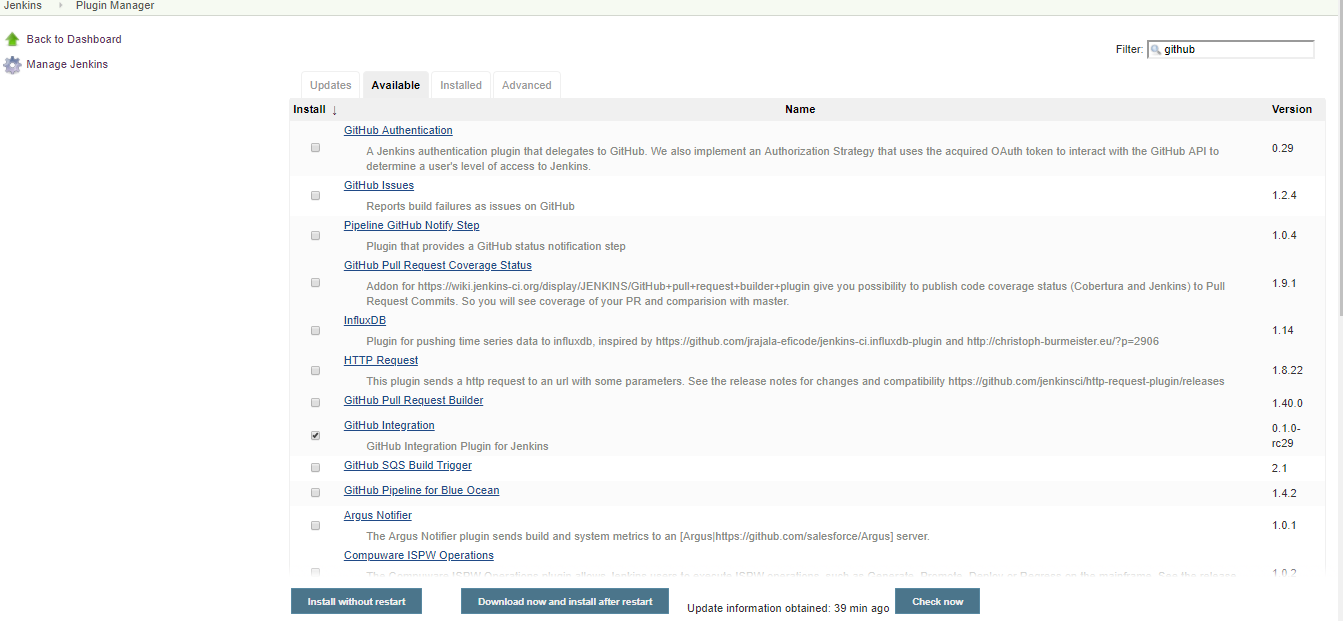
**after login to Jenkins -🡪 this is the Jenkins dashboard**

**  
if u are integrating anything to the Jenkins u should install that particular plugins in the Jenkins**

**so now we are integrating with github🡪 you should install the github integration plugin to ur Jenkins**

**for click on manage Jenkins 🡪 click on Manage Plugins**

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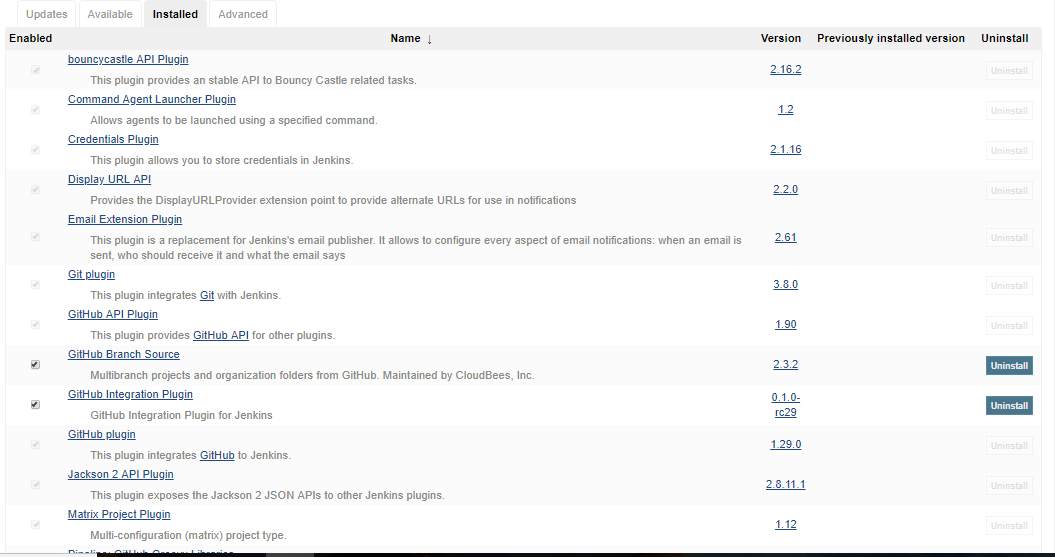
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**Click on Available and search on Filter for github Integrator 🡪 clickon that one and click on Download now and install after restart**

**I will automatically restart ur Jenkins server🡪 login to jenkins server**

**Check the that plugin is installed or not**

**Click on installed search on filter for github integrator**

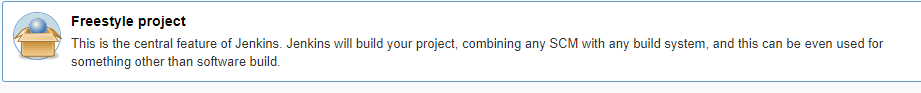
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**Now create one new item 🡪 it nothing but job in Jenkins**

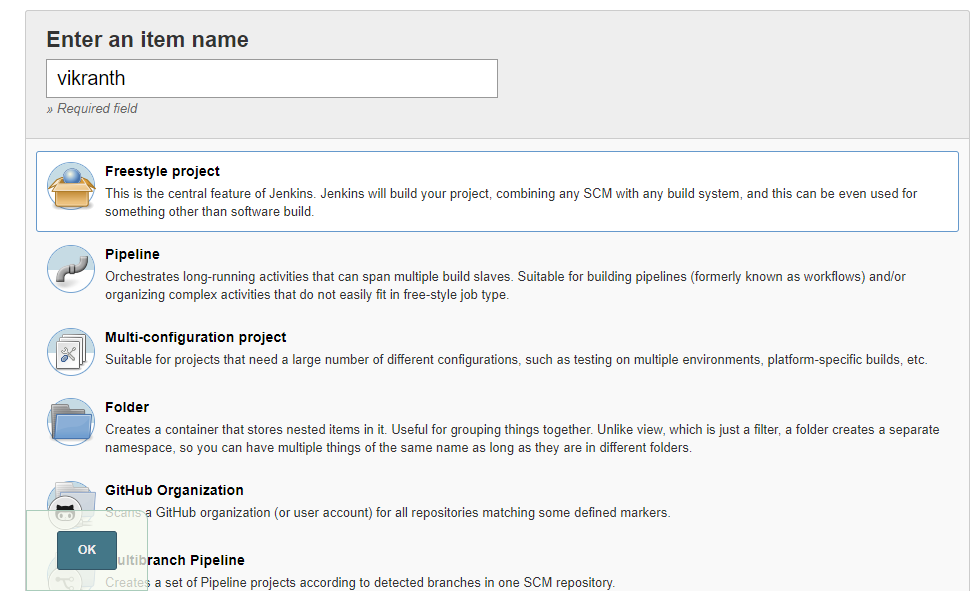
**Left side navigation click on create item **

**Enter an item name -🡪 vikranth**

**Select project as a Freestyle project**

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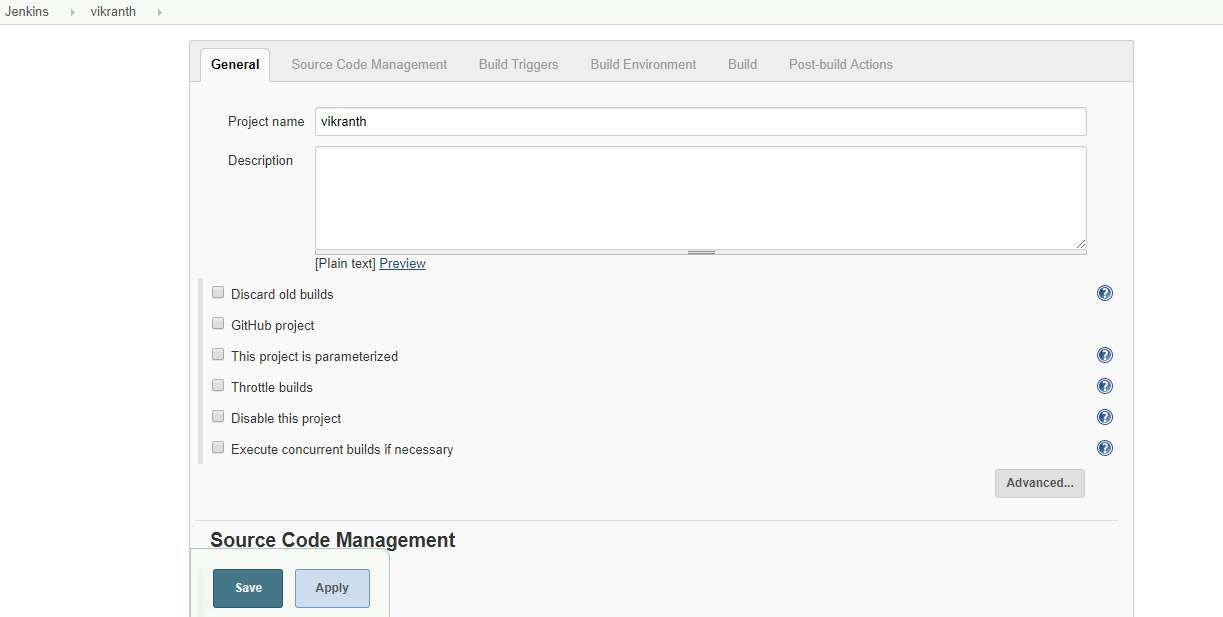
**And click on okay**

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**After that it will redirect to the configure system**

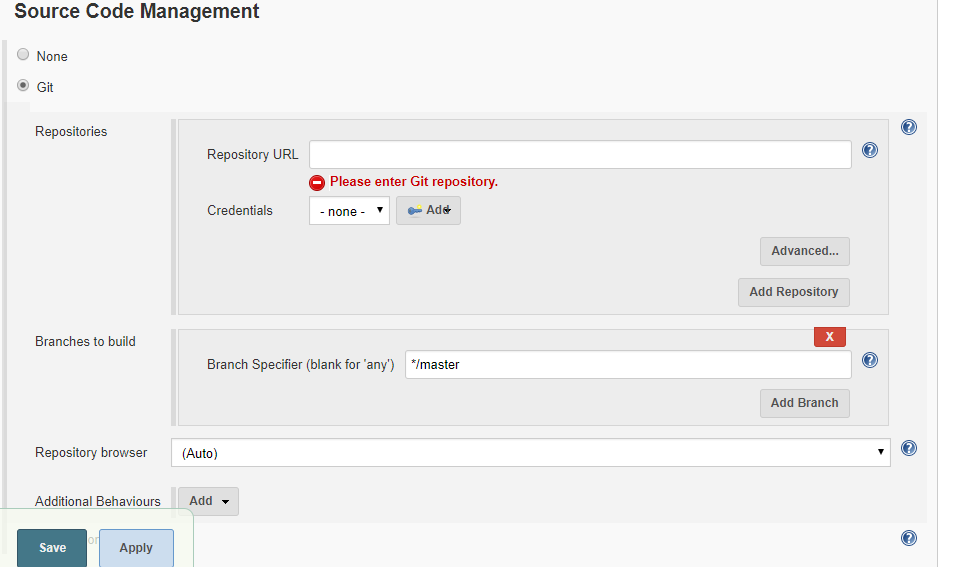
**It has 6 phases i.e**

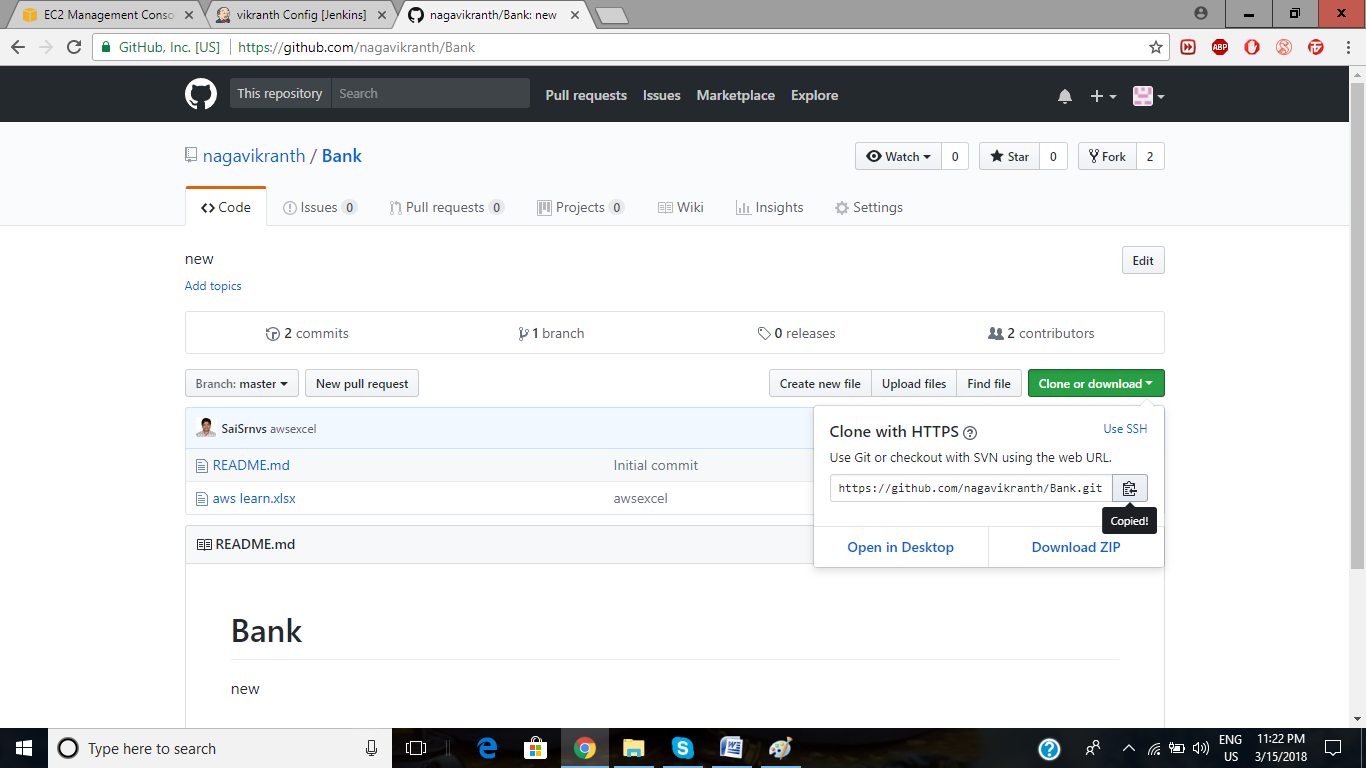
1. **General 2. Source code Management**
2. **Build Trigger 4. Build Environment**
3. **Build 6. Post-Build action**

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**As per our requirement we have to integrate the git hub to Jenkins**

**So gitbub is scm now click on source code management 🡪 and click on git**

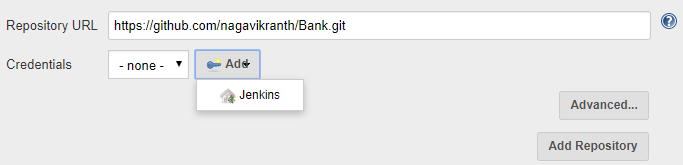
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**I am having github repo i.e bank now I am copying the github repo and pasting to the Jenkins repo url **

**Give the Repository URL https://github.com/nagavikranth/Bank.git**

**After that go to the credentials click on add**

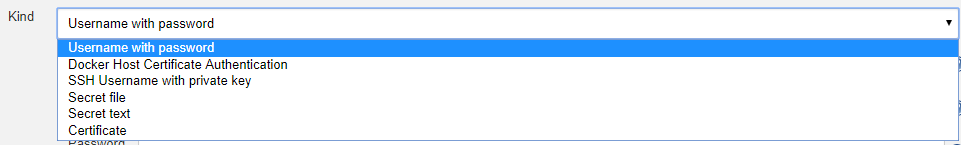
**select Jenkins**

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**Now click on Jenkins it opens on page**

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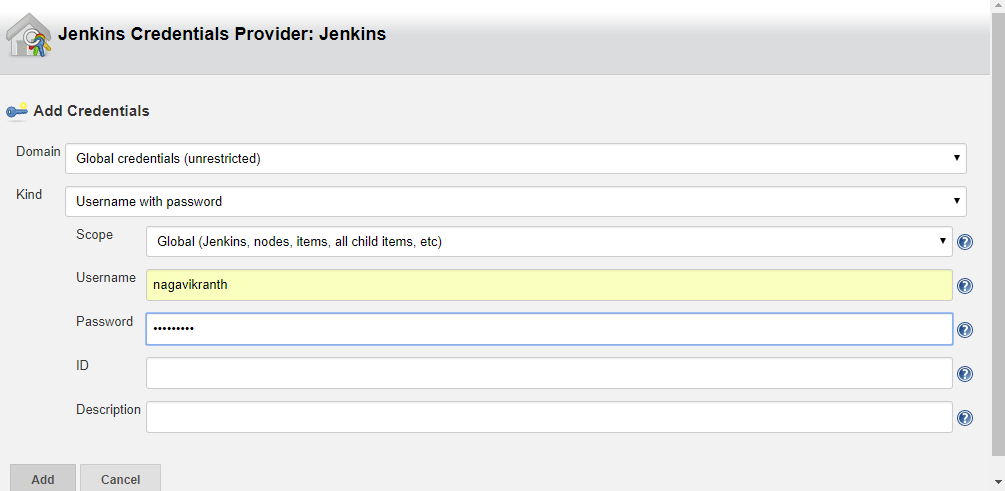
**Kind select ur option in the drop down**

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**Now I am selecting as username with password**

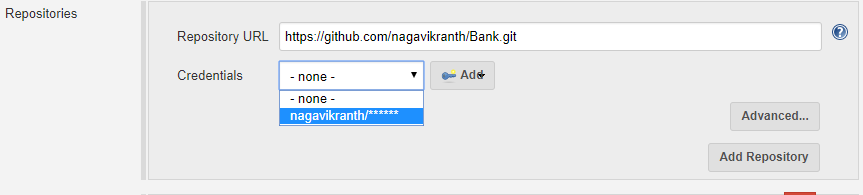
**Here u has to give github user name and password**

**After that click on add**

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**After that it will in scm page**

**Now click on credentials take dropdown as ur username and password**

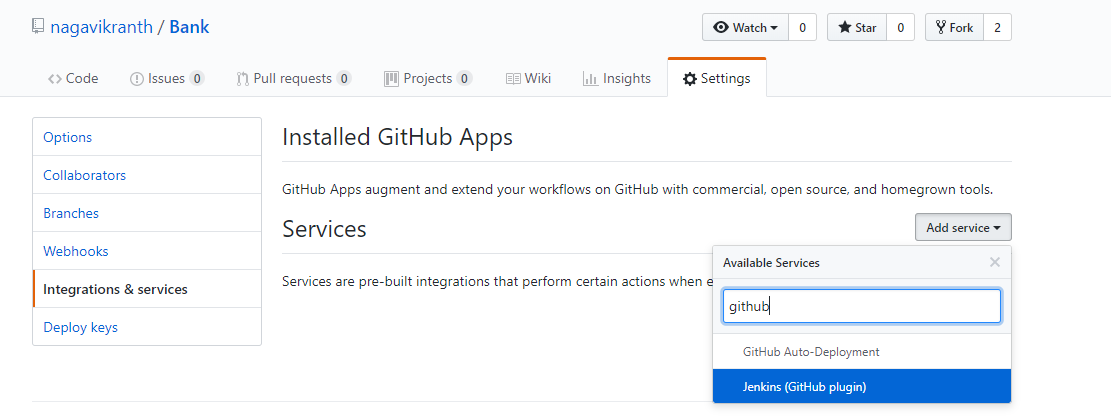
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**Now click on apply and save**

**Upto now we are given the git hub repo details to the Jenkins**

**Now go to git hub repo settings-🡪 left side navigation click on integration & services**

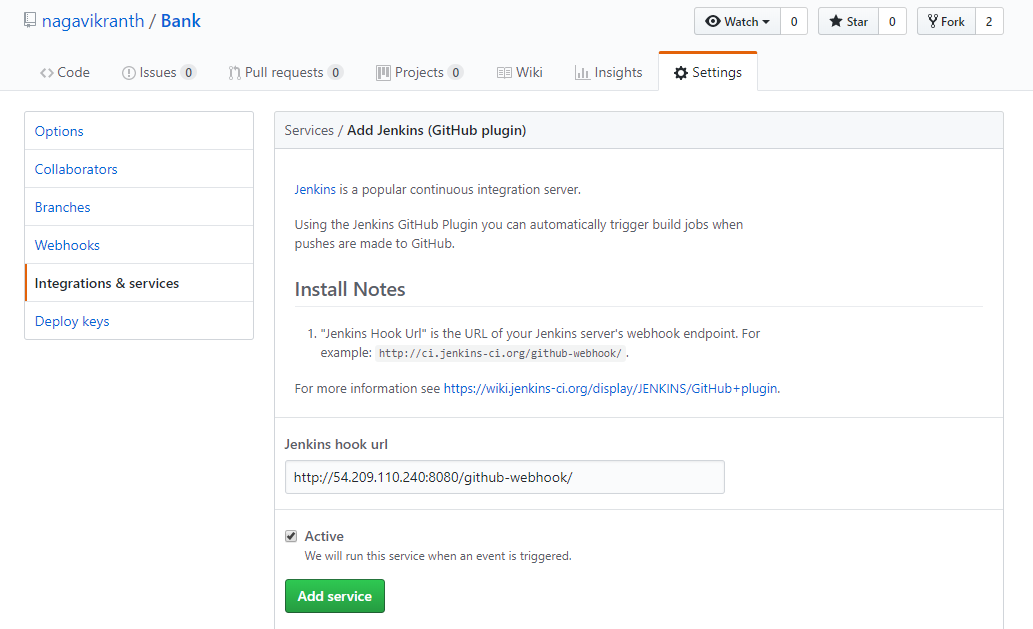
**Now click on add services dropdown 🡪 search in filter service as Jenkins github plugin**

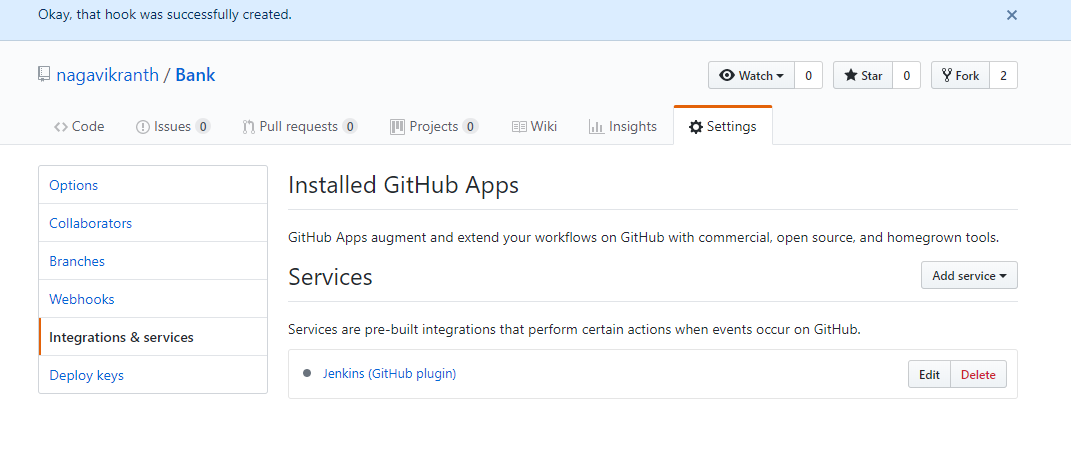
**click on that after we will get confirmation password to add the service**

**After that give the Jenkins hook url i.e**

**Example : url ur Jenkins/github-webhook/**

**http://54.209.110.240:8080/ github-webhook/ -🡪 after that click on add service**

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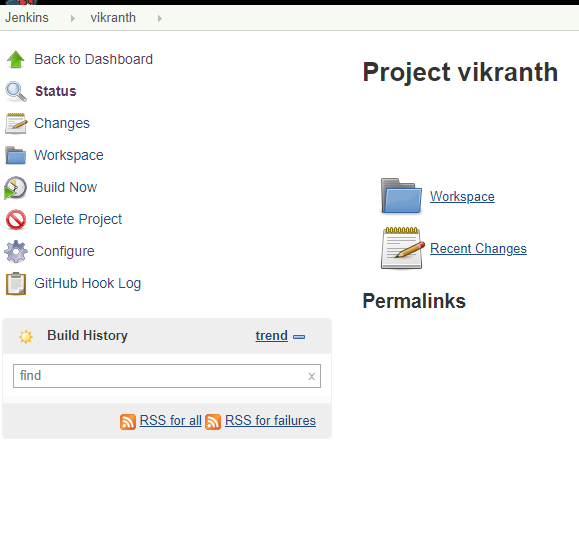
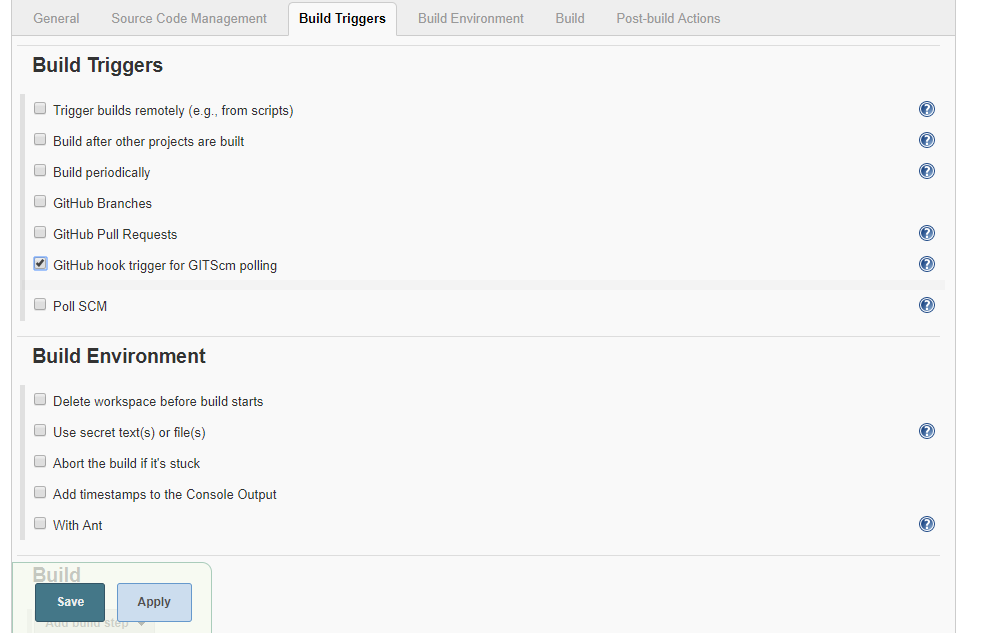
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**Now the hook was successfully created**

**Herer now when ever ur committing and pushing into the github automatically build should be created in the Jenkins job**

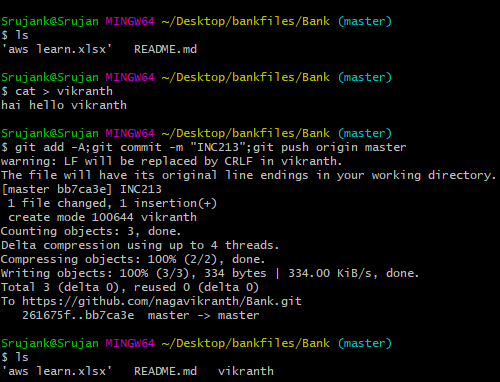
**For that go to the Jenkins job click on configure 🡪 build triggers**

**Checkout the Github hook trigger for GITscm polling🡪 apply and save**

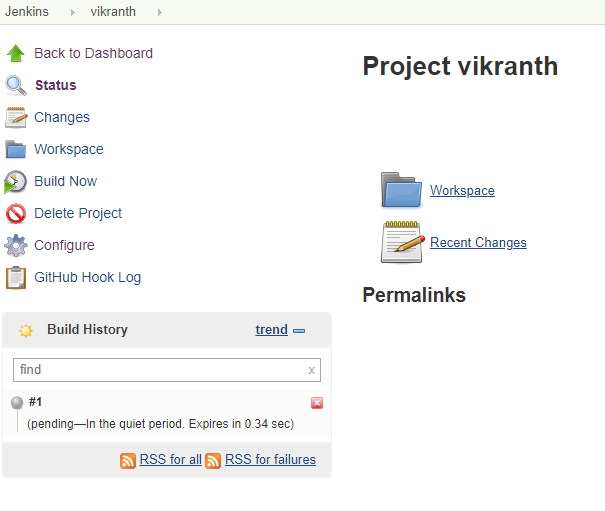
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**Now add and commit and push the file to the github repo**

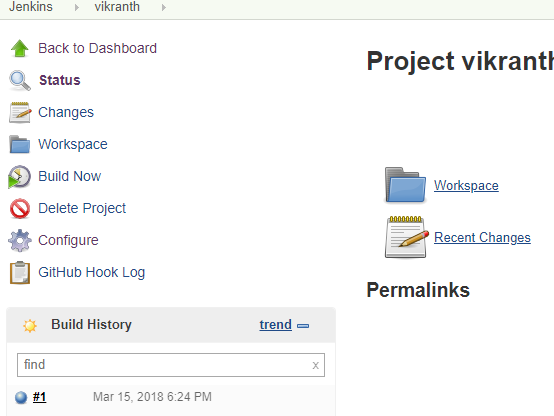
**Check automatically build created in build History**

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**Checkout in Jenkins**

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**Gray ball indicate the initializing the build **

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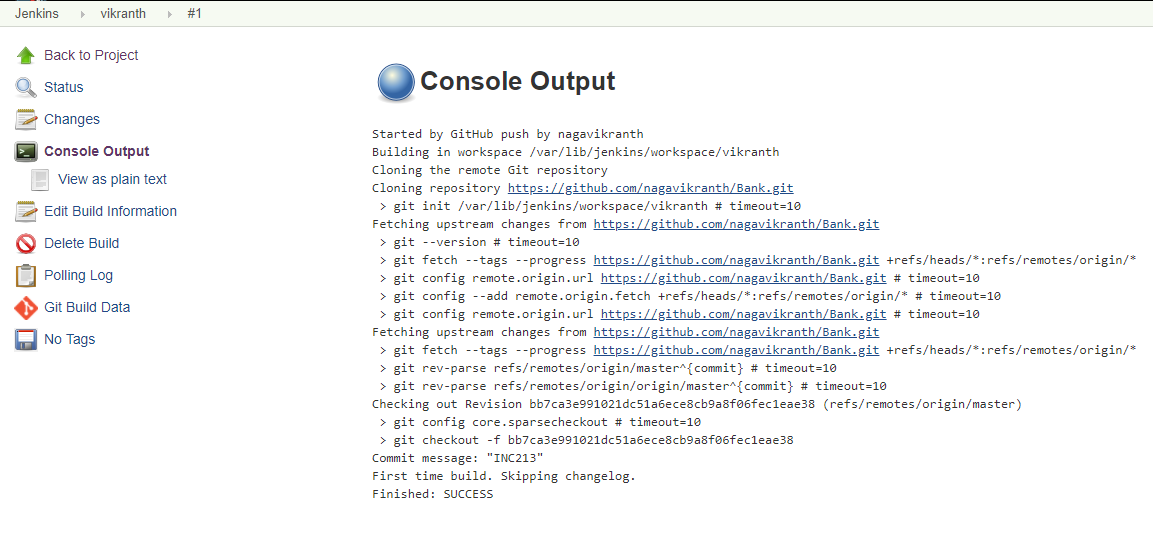
**It is created build automatically**

**This is the process to integrating git hub to Jenkins through user name and password**

**Blue ball indicate the Build was created successfully **

**Click on the blue ball it will show the console output of the build**

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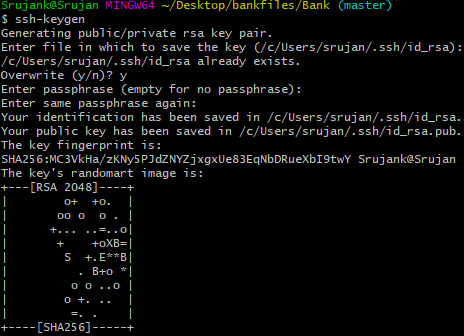
**--------------------------------------------------------------------------------------------------------------------**

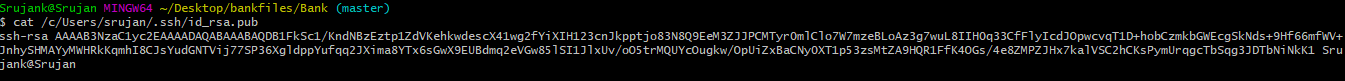
* **How to integrate git hub and Jenkins through SSH key**

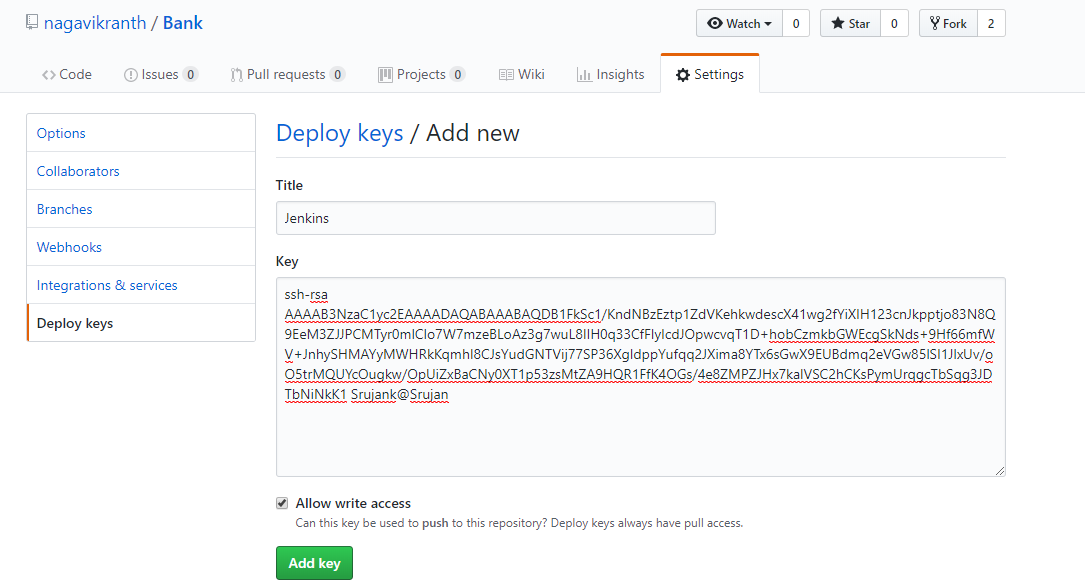
**Before integrate that u should install the github integrator in the Jenkins**

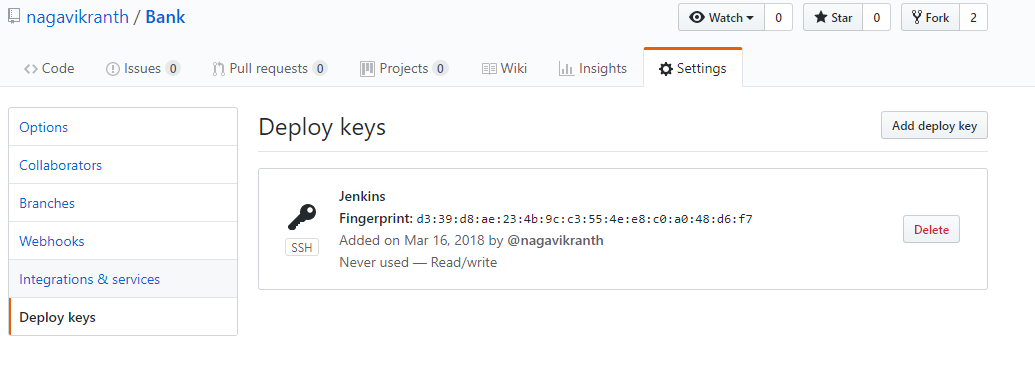
**And github Jenkins service in git hub**

**Generate the ssh key in ur local repo**

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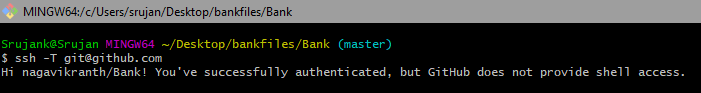
**Copy the public key and add deploy key the paste the key and active the key in git hub**

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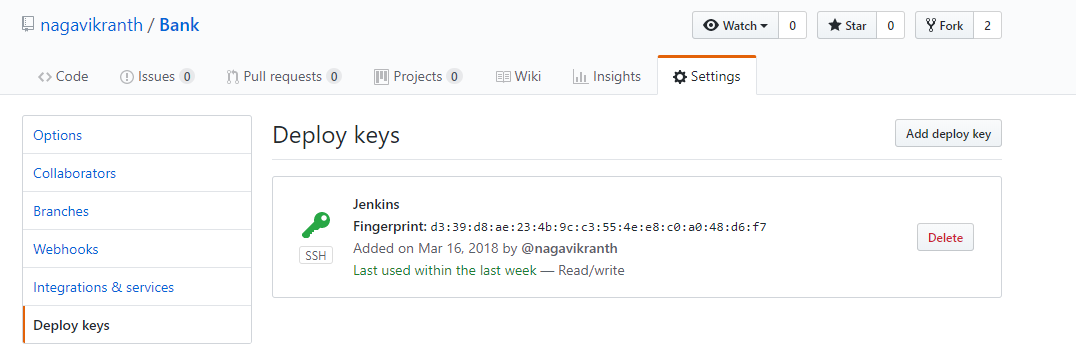
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**Active the deploy key 🡪 run command in git bash**

**ssh –T** [**git@github.com**](mailto:git@github.com)

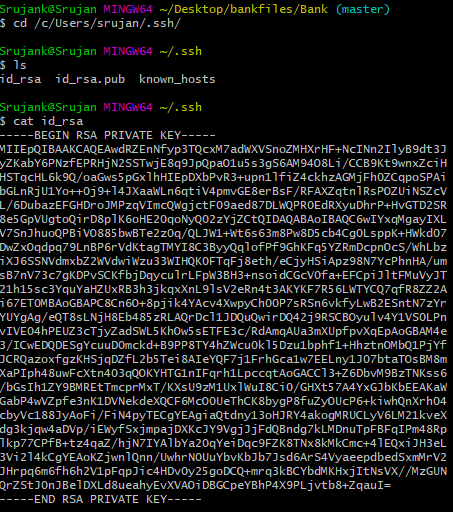
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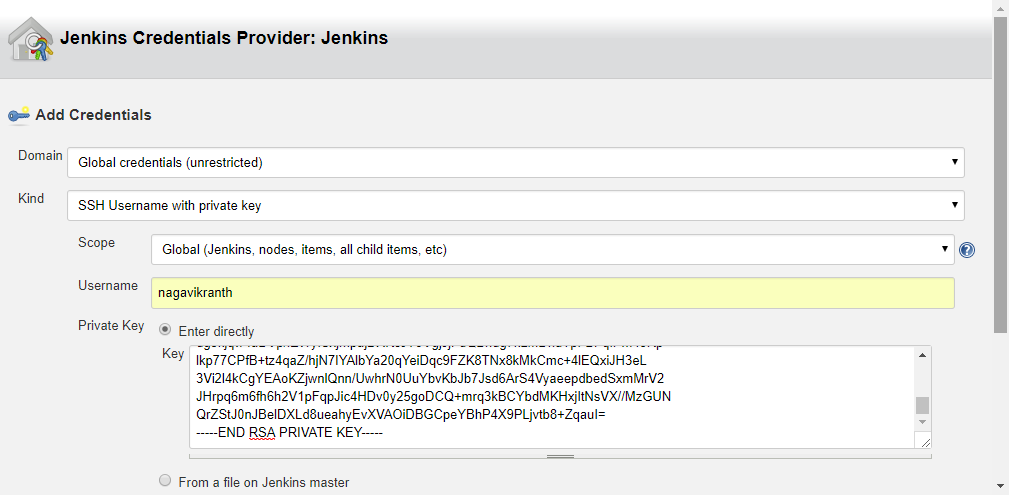
**Now check in git hub deploy keys**

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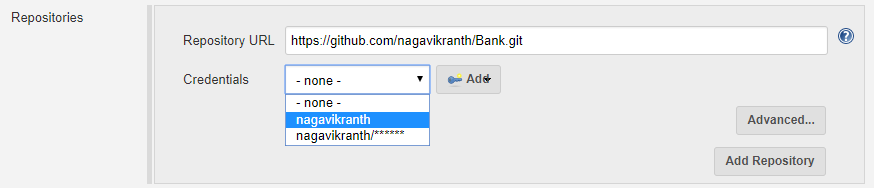
**It is active now**

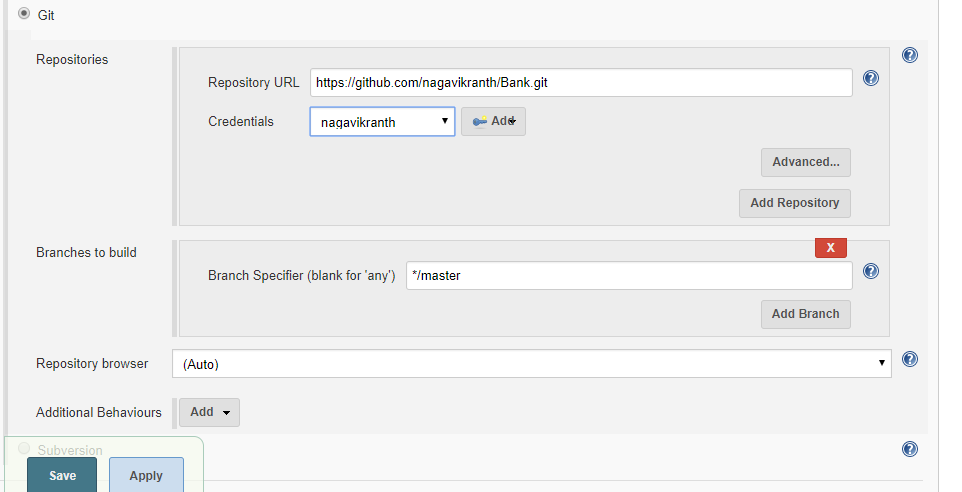
**Now Copy the private key and go to the Jenkins job🡪 configure system🡪 SCM🡪 add 🡪 Jenkins Home🡪 choose kind as SSH and private key give the details and add**

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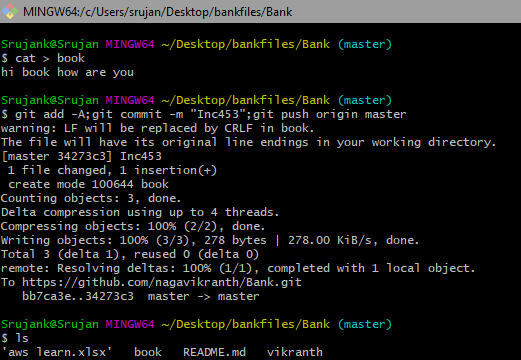
**Add 🡪 Choose credentials as git user name**

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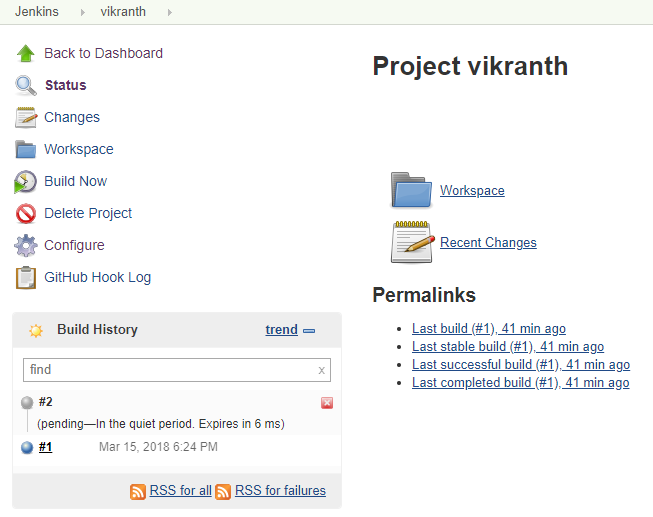
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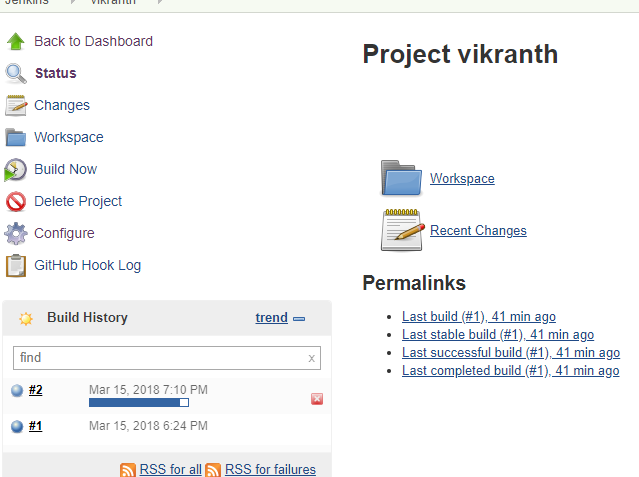
**Apply and save**

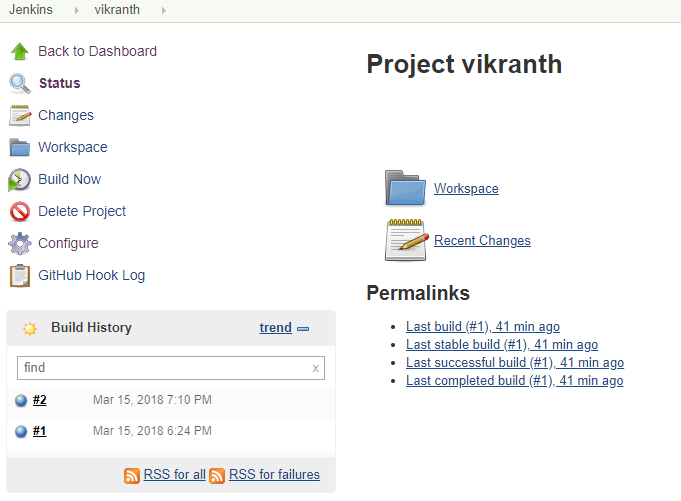
**Now create file and add,commit,push the file to git hub**

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**Check on Jenkins**

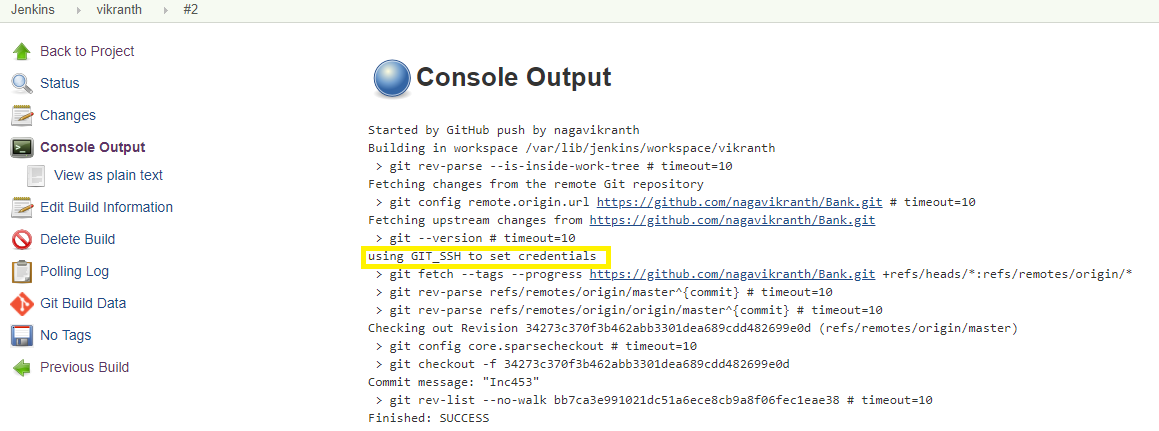
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**Build automatically through git ssh private key**

**Click on console out**

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