How to - Install jenkins and configuration on Cloud

Pre-Requisites:

1.Operating system :RHEL/CentOS/Fedora/Ubuntu/Debaian

2. JDK 1.7 or above

3.Docker and git should be installed.

Jenkins installation –RHEL7

1. To install Jenkins on AWS/Gcloud Downloaded Docker Jenkins image through docker command.

2.

```
##############################################

    Command

Docker pull Jenkins:latest

Run docker

docker run -p 8080:8080 -p 50000:50000 -v
/your/home:/var/jenkins_home/Jenkins jenkins

##############################################
```

This will store the Jenkins data in `/your/home` on the host. Ensure that `/your/home` is accessible by the Jenkins user in container

3. docker ps

4. login into container

CMD : docker exec -it {container id} /bin/bash

5.Once Jenkins is up and running, we can open its UI in a browser.

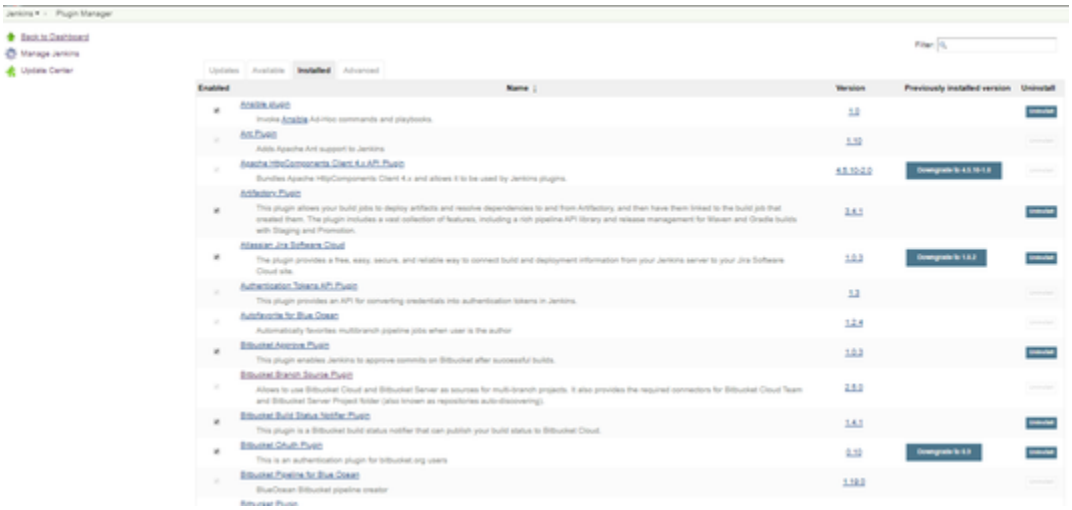
open: http://localhost

Installing Plugins in Jenkins

Once the user has started the jenkins and is able to see the home page, the first thing is to install the plugins.

Go to Jenkins --> Manage Jenkins --> Manage Plugins web link as shown below:-

installed plugins



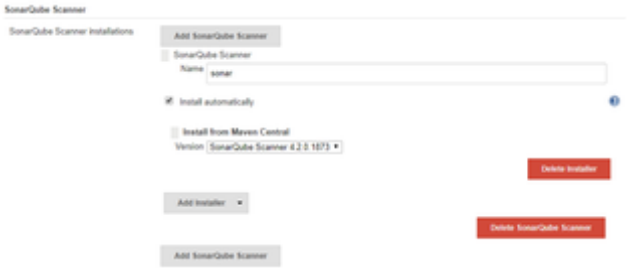
Global tool configuration:

Go to manage Jenkins-->global tool configuration

Go to JDK, Ant installation and click on the add button and enter the respective installation path as shown below.

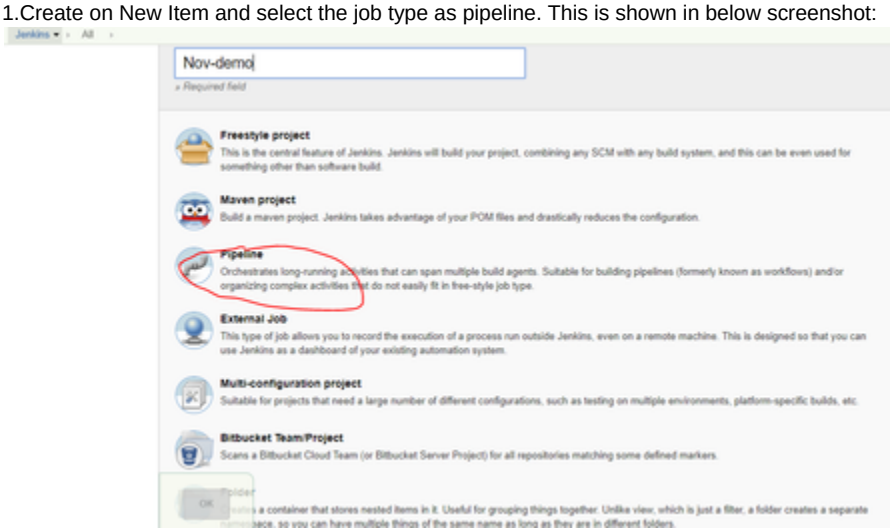
JDK

831px

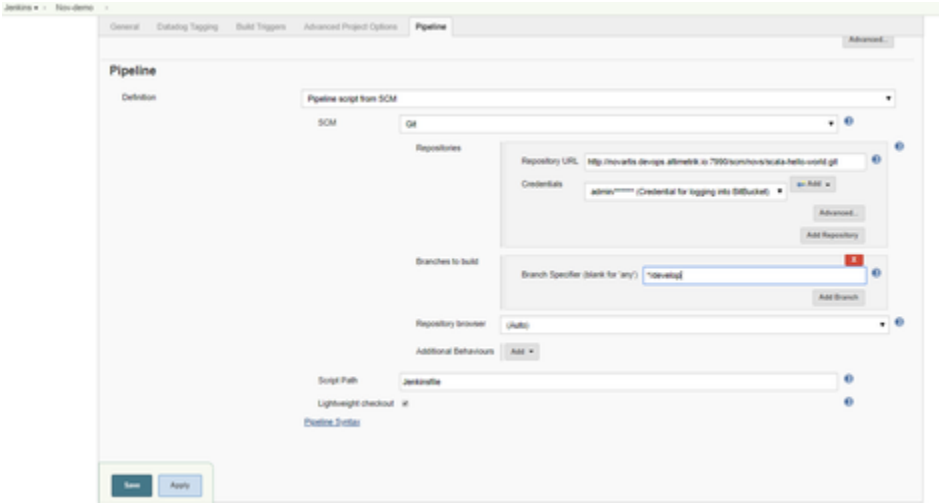


Creating pipeline job in jenkins:

To create a pipeline in Jenkins follow under mentioned steps:
1.Create on New Item and select the job type as pipeline. This is shown in below screenshot:



2.Configure job



3.Jenkins file stage

a. Build stage

```
####################

Build Stage

####################

In this stage its build the scala code and compile the packages

stage('Build') {
            steps {
                checkout scm
                echo 'Start Compiling'
                build 'Scala'
            }
```

b. Sonar test

```
############
Sonar Test
############

In this stage sonar code quality tests are executed on the scala code
which was checked out from repository

stage('Sonar Test') {
            steps {
                echo 'Start Sonar Test'
                sonar 'Scala'
            }
        }
```

c. Publish

```
####################
Publish the code to
nexus/artifactory

####################

In this stage it publish the articfats in to nexus repository

 script {
                    withCredentials([usernamePassword(credentialsId:
'artifactory', passwordVariable: 'pass', usernameVariable: 'user')]) {
                        version = nextVersionFromGit()
                        sh "sed -i  '/ThisBuild \\/ version/c\\ThisBuild
\\/ version          :=\"${version}\"' build.sbt"
                        sh "${tool name: 'sbt',
type:'org.jvnet.hudson.plugins.SbtPluginBuilder$SbtInstallation'}/bin/sb
t package"
                        echo "Deploy
target/scala-2.12/hello-world_2.12-${version}.jar "
                        sh "curl -u ${user}:${pass} -T
target/scala-2.12/hello-world_2.12-${version}.jar
'http://novartis.devops.altimetrik.io:8081/artifactory/scala-project/hel
lo-world_${version}.jar'"
                    }
                }
```