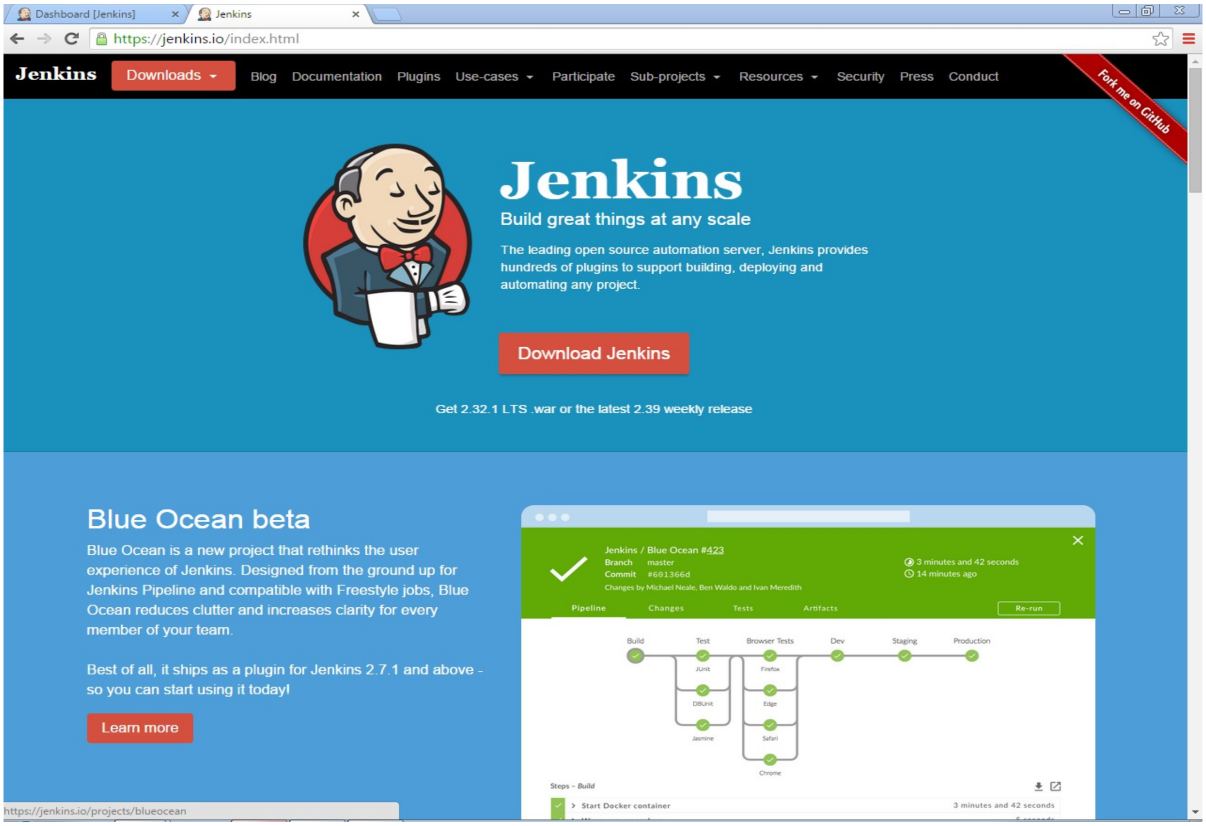
-

1.Jenkins Installation

Step1: Go to the download link https://jenkins-ci.org/.

1). Click on the above link and we can get the home page of the Jenkins official website as shown below.



https://jenkins.io/index.html

Jenkins

Build great things at any scale

The leading open source automation server, Jenkins provides hundreds of plugins to support building, deploying and automating any project.

Get 2.32.1 LTS .war or the latest 2.39 weekly release

Blue Ocean beta

Blue Ocean is a new project that rethinks the user experience of Jenkins. Designed from the ground up for Jenkins Pipeline and compatible with Freestyle jobs, Blue Ocean reduces clutter and increases clarity for every member of your team.

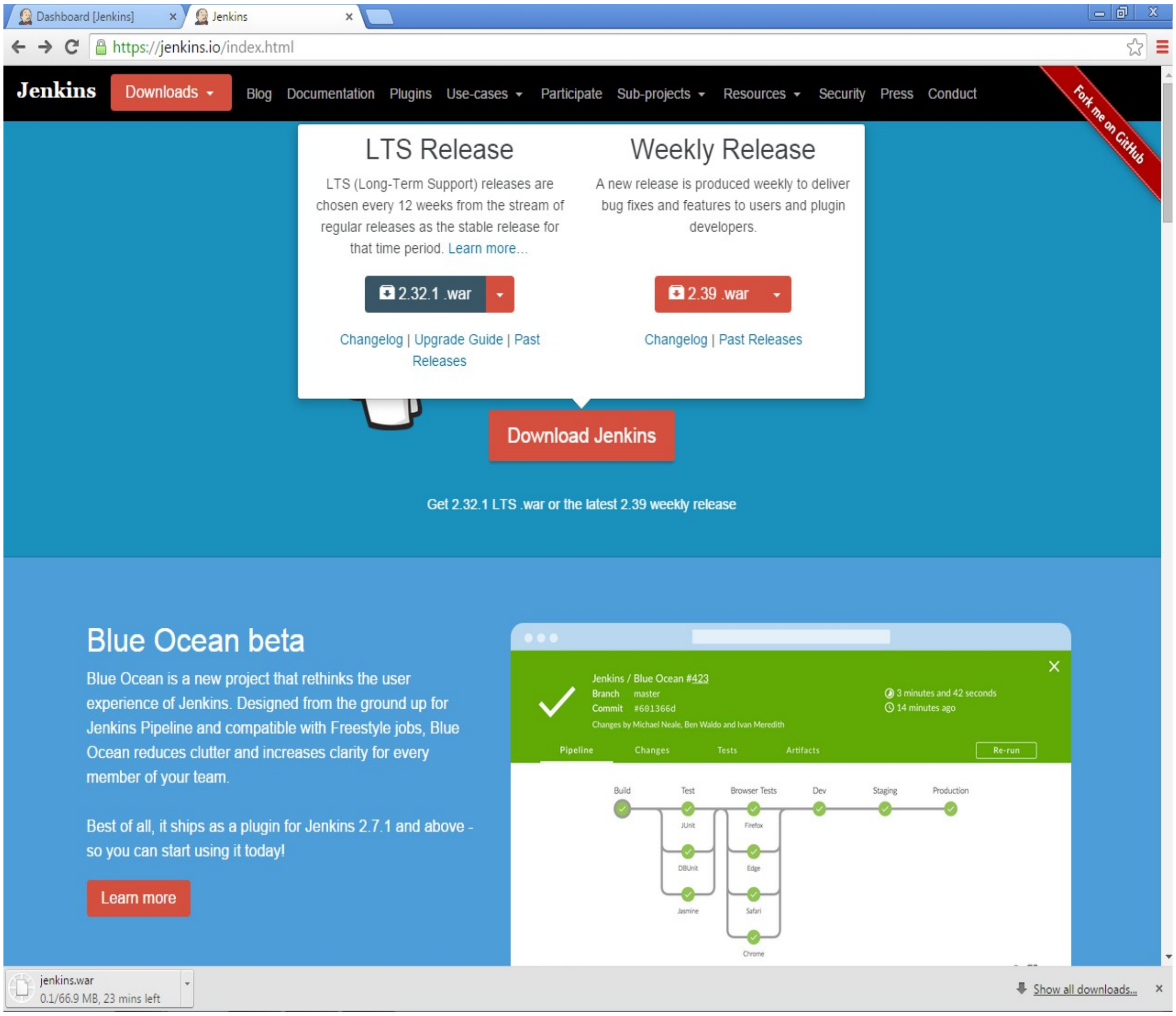
Best of all, it ships as a plugin for Jenkins 2.7.1 and above - so you can start using it today!

Jenkins / Blue Ocean #423
Branch master
Commit #601366d
Changes by Michael Neale, Ben Waldo and Ivan Meredith
3 minutes and 42 seconds
14 minutes ago

Steps - Build
Start Docker container 3 minutes and 42 seconds

https://jenkins.io/projects/blueocean

2). Click on Download button the **latest release** and the **Long-Term support** release will be available for download**.** The past releases are also available for download. Click on 2.32.1.war file downloading is started as shown:



LTS Release

LTS (Long-Term Support) releases are chosen every 12 weeks from the stream of regular releases as the stable release for that time period. Learn more...

Weekly Release

A new release is produced weekly to deliver bug fixes and features to users and plugin developers.

Get 2.32.1 LTS .war or the latest 2.39 weekly release

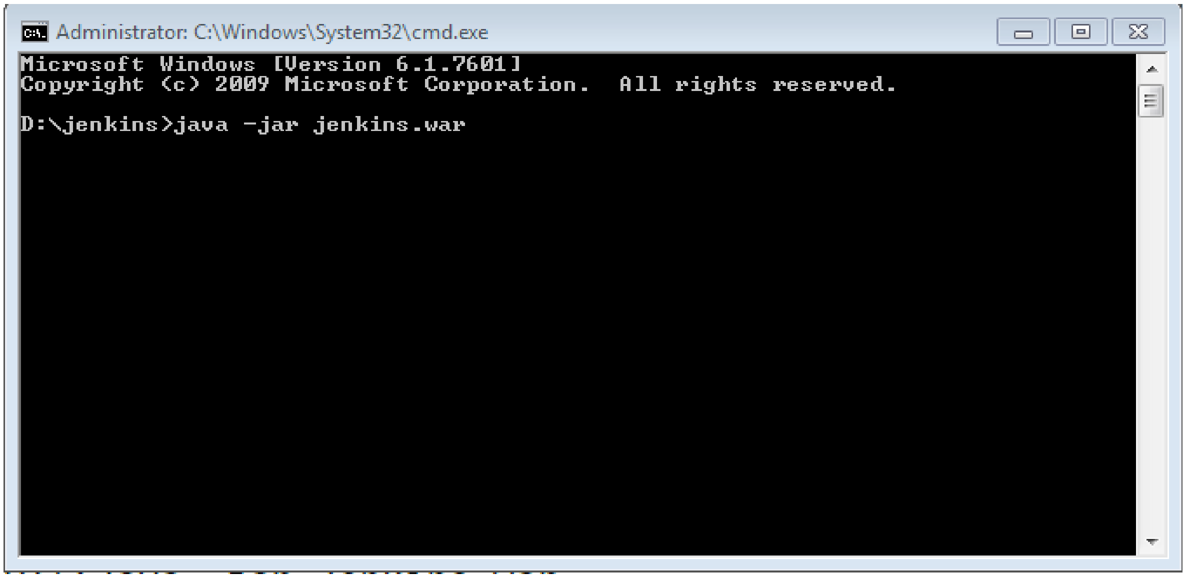
Blue Ocean beta

Blue Ocean is a new project that rethinks the user experience of Jenkins. Designed from the ground up for Jenkins Pipeline and compatible with Freestyle jobs, Blue Ocean reduces clutter and increases clarity for every member of your team.

Best of all, it ships as a plugin for Jenkins 2.7.1 and above - so you can start using it today!

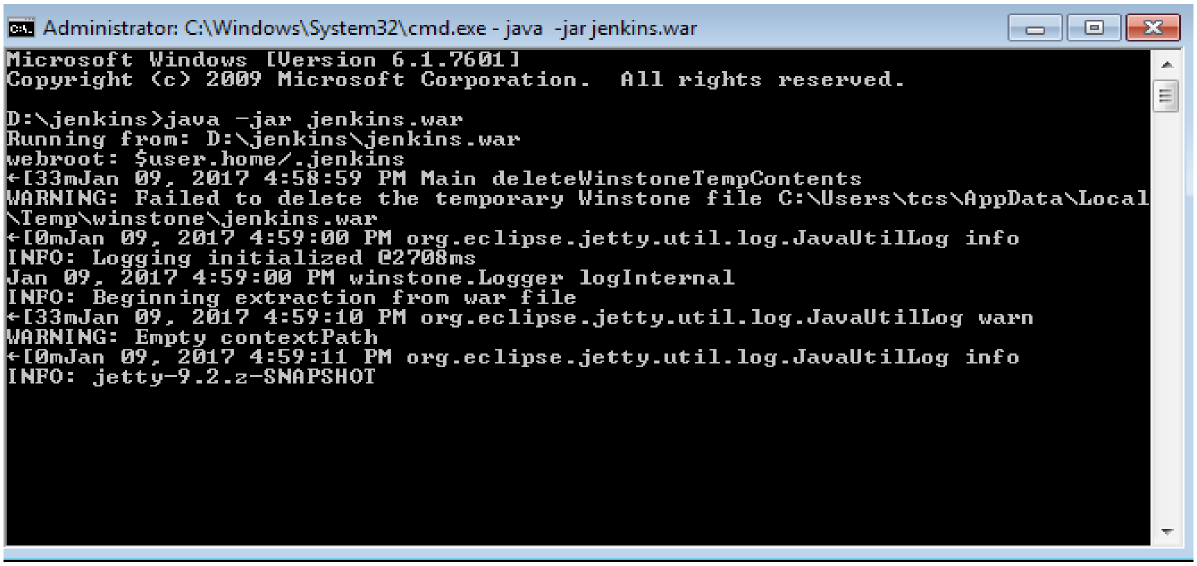
Step2: Starting Jenkins

1). Open the command prompt and browse the directory where Jenkins.war is present. Run the command As
D:\jenkins>java -jar jenkins.war



```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

D:\jenkins>java -jar jenkins.war
```

2). After the command is run, various tasks will run, one of which is the extraction of the war file which is done by an embedded web server called **winstone** as:

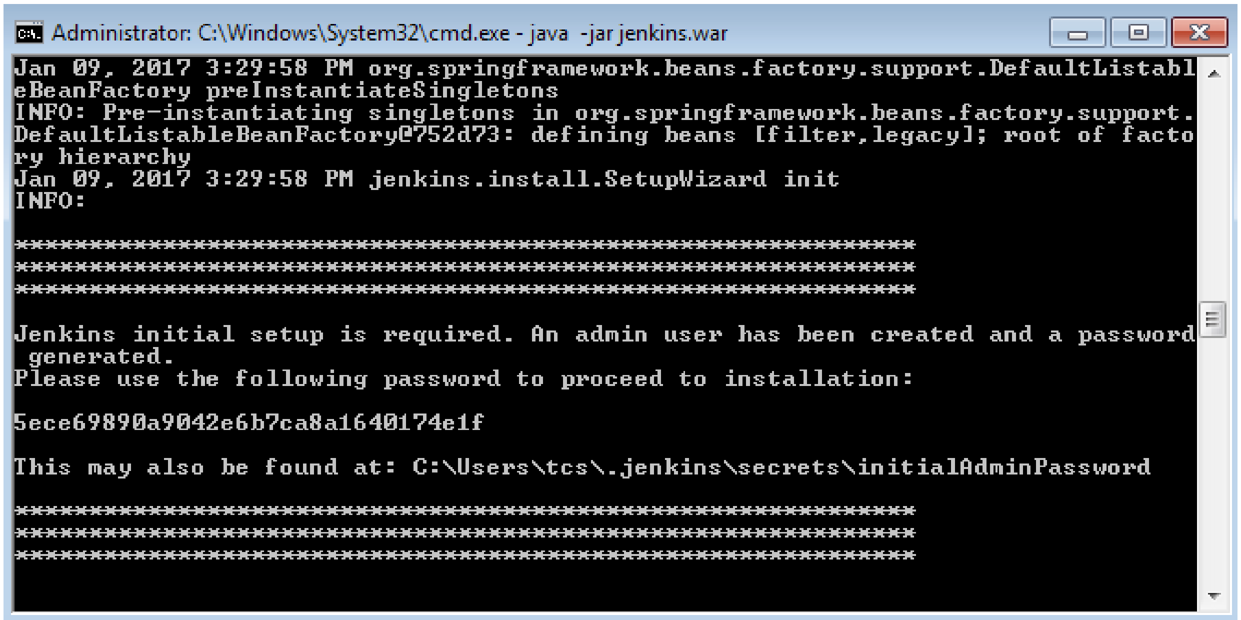


Administrator: C:\Windows\System32\cmd.exe - java -jar jenkins.war

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

D:\jenkins>java -jar jenkins.war
Running from: D:\jenkins\jenkins.war
webroot: $user.home/.jenkins
←[33mJan 09, 2017 4:58:59 PM Main deleteWinstoneTempContents
WARNING: Failed to delete the temporary Winstone file C:\Users\tcs\AppData\Local
\Temp\winstone\jenkins.war
←[0mJan 09, 2017 4:59:00 PM org.eclipse.jetty.util.log.JavaUtilLog info
INFO: Logging initialized @2708ms
Jan 09, 2017 4:59:00 PM winstone.Logger logInternal
INFO: Beginning extraction from war file
←[33mJan 09, 2017 4:59:10 PM org.eclipse.jetty.util.log.JavaUtilLog warn
WARNING: Empty contextPath
←[0mJan 09, 2017 4:59:11 PM org.eclipse.jetty.util.log.JavaUtilLog info
INFO: jetty-9.2.z-SNAPSHOT
```

3). Once the processing is complete without major errors, one password is generated and following line will come in the output of the command prompt

INFO:`Jenkins is fully up and running` As



Administrator: C:\Windows\System32\cmd.exe - java -jar jenkins.war

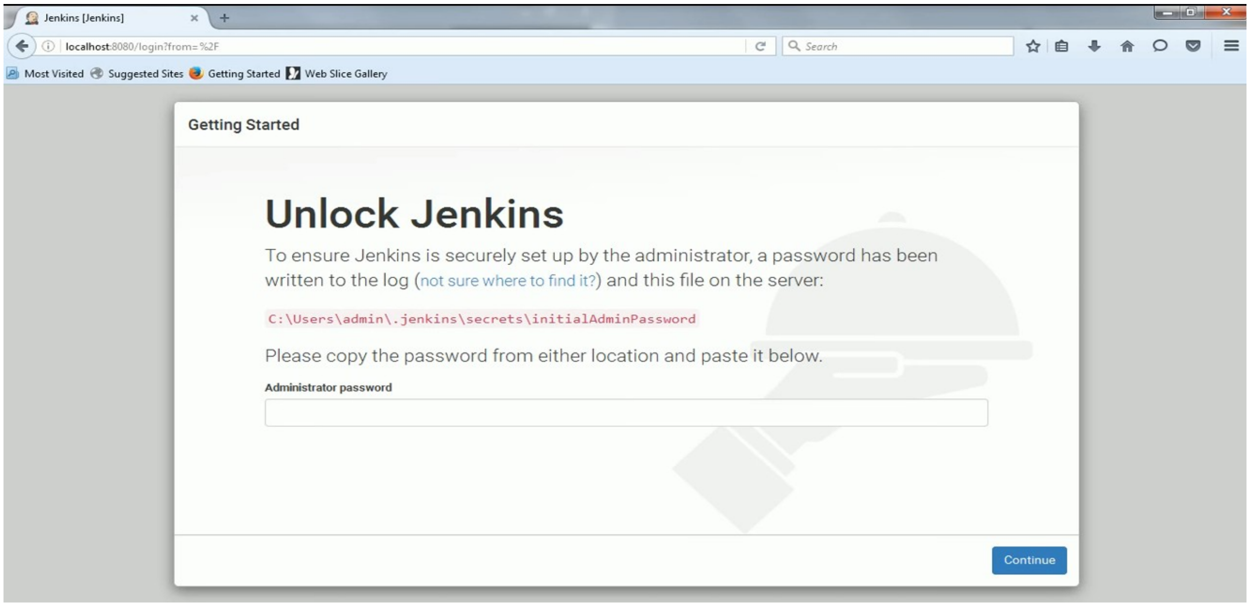
```
Jan 09, 2017 3:29:58 PM org.springframework.beans.factory.support.DefaultListabl
eBeanFactory preInstantiateSingletons
INFO: Pre-instantiating singletons in org.springframework.beans.factory.support.
DefaultListableBeanFactory@752d73: defining beans [filter,legacy]; root of facto
ry hierarchy
Jan 09, 2017 3:29:58 PM jenkins.install.SetupWizard init
INFO:

*************************************************************
*************************************************************
*************************************************************

Jenkins initial setup is required. An admin user has been created and a password
 generated.
Please use the following password to proceed to installation:

5ece69890a9042e6b7ca8a1640174e1f

This may also be found at: C:\Users\tcs\.jenkins\secrets\initialAdminPassword

*************************************************************
*************************************************************
*************************************************************
```

4). Copy the above **password** which is used to proceed to installation.

Password: 5ece69890a9042e6b7ca8a16400174e1f

Step3: Accessing Jenkins

1). Once Jenkins is up and running,go to the link **http://localhost:8080**
This will bring Jenkins login form:



Getting Started

Unlock Jenkins

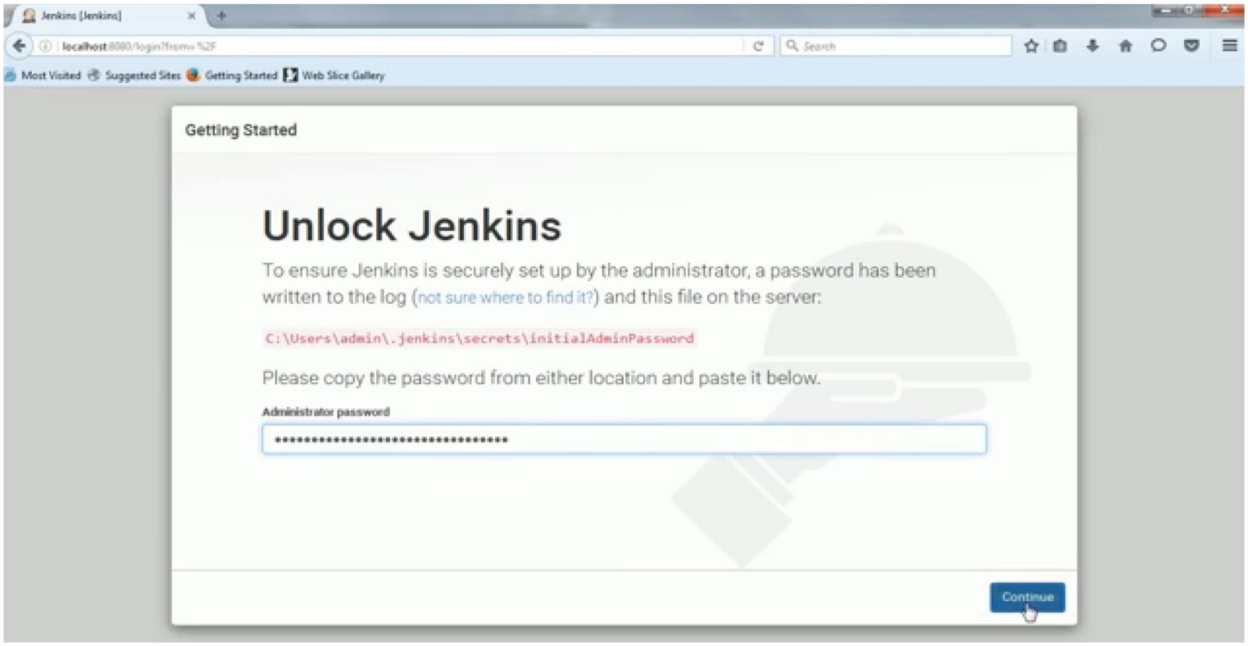
To ensure Jenkins is securely set up by the administrator, a password has been written to the log (not sure where to find it?) and this file on the server:

```
C:\Users\admin\.jenkins\secrets\initialAdminPassword
```

Please copy the password from either location and paste it below.

Administrator password

2). Enter password and click on continue button As:



Getting Started

Unlock Jenkins

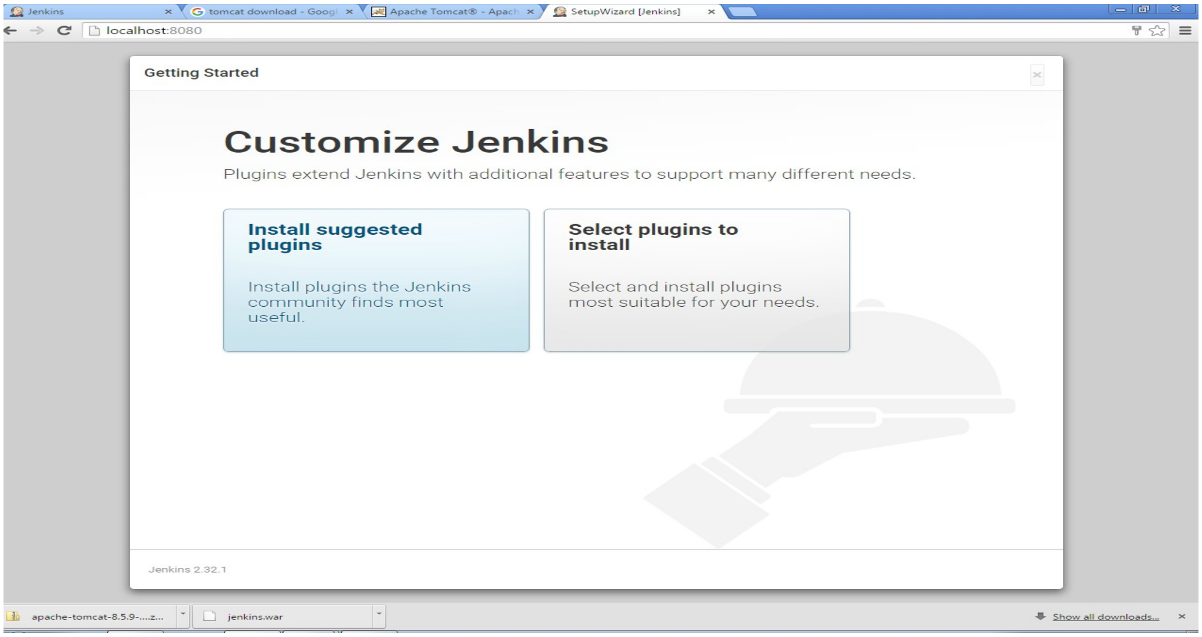
To ensure Jenkins is securely set up by the administrator, a password has been written to the log (not sure where to find it?) and this file on the server:

```
C:\Users\admin\.jenkins\secrets\initialAdminPassword
```

Please copy the password from either location and paste it below.

Administrator password: ••••••••••••••••••••••••••••••••

3). Once we click on continue button a fresh getting started page is open with Customize Jenkins into which we choose **Install Suggested Plugins** shown As:



Getting Started

Customize Jenkins

Plugins extend Jenkins with additional features to support many different needs.

Install suggested plugins

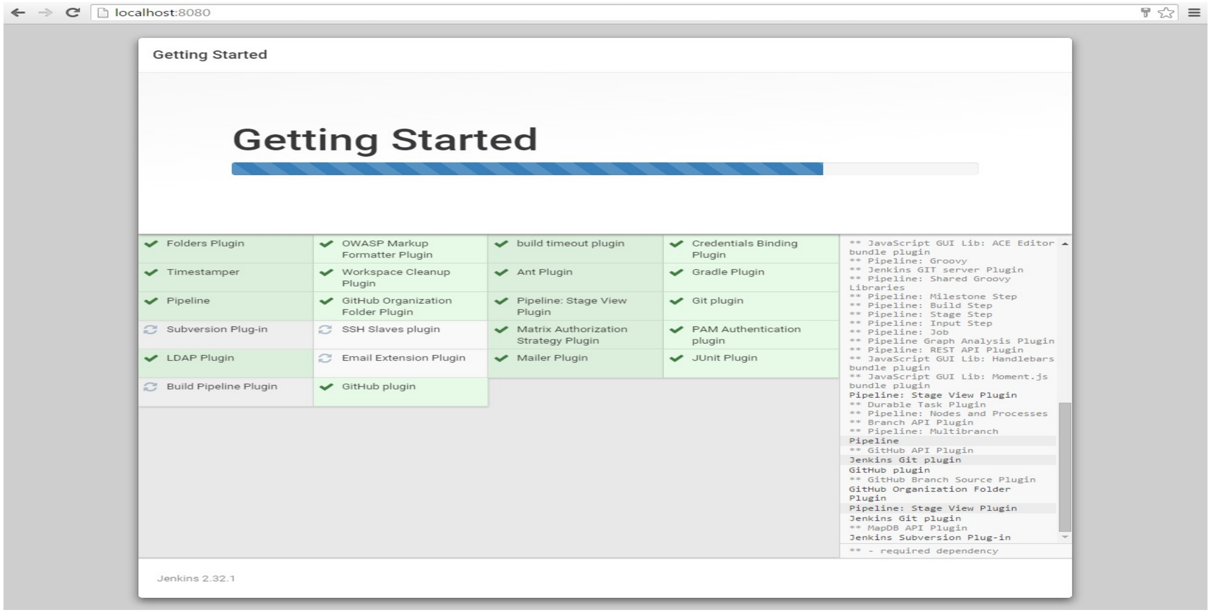
Install plugins the Jenkins community finds most useful.

Select plugins to install

Select and install plugins most suitable for your needs.

Jenkins 2.32.1

4). After clicking on install Suggested plugins all suggested plugins is going to be downloaded as:



Getting Started

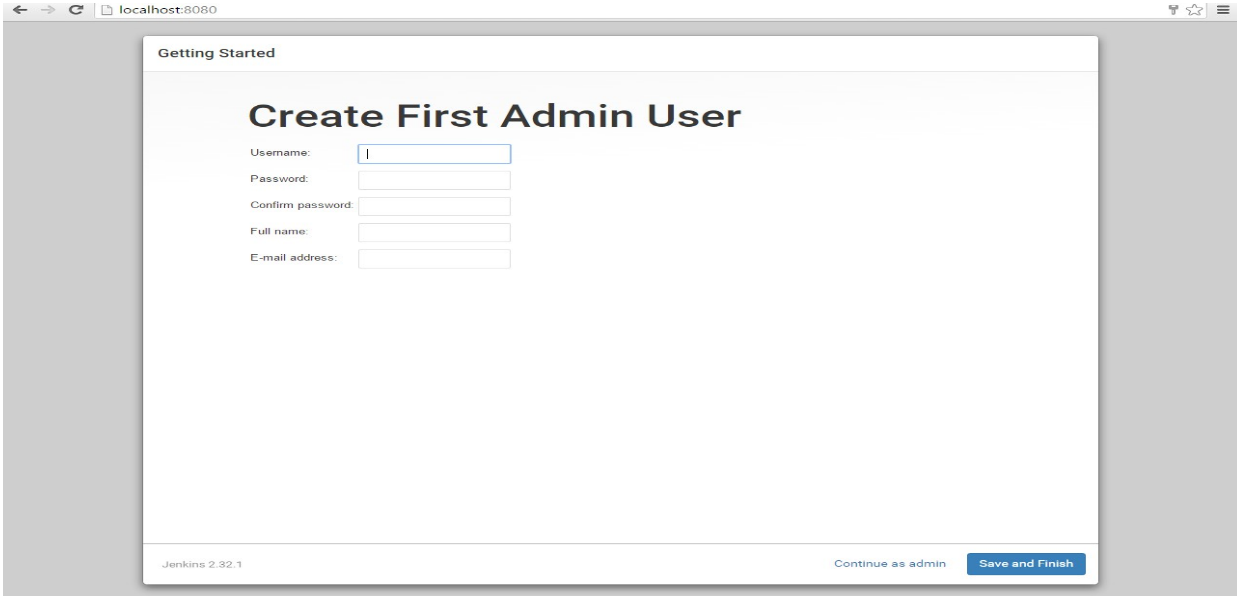
Getting Started

✓ Folders Plugin	✓ OWASP Markup Formatter Plugin	✓ build timeout plugin	✓ Credentials Binding Plugin
✓ Timestamper	✓ Workspace Cleanup Plugin	✓ Ant Plugin	✓ Gradle Plugin
✓ Pipeline	✓ GitHub Organization Folder Plugin	✓ Pipeline: Stage View Plugin	✓ Git plugin
⟳ Subversion Plug-in	⟳ SSH Slaves plugin	✓ Matrix Authorization Strategy Plugin	✓ PAM Authentication plugin
✓ LDAP Plugin	⟳ Email Extension Plugin	✓ Mailer Plugin	✓ JUnit Plugin
⟳ Build Pipeline Plugin	✓ GitHub plugin		

```
** JavaScript GUI Lib: ACE Editor
bundle plugin
** Pipeline: Groovy
** Jenkins GIT server Plugin
** Pipeline: Shared Groovy
Libraries
** Pipeline: Milestone Step
** Pipeline: Build Step
** Pipeline: Stage Step
** Pipeline: Input Step
** Pipeline: Job
** Pipeline Graph Analysis Plugin
** Pipeline: REST API Plugin
** JavaScript GUI Lib: Handlebars
bundle plugin
** JavaScript GUI Lib: Moment.js
bundle plugin
Pipeline: Stage View Plugin
** Durable Task Plugin
** Pipeline: Nodes and Processes
** Branch API Plugin
** Pipeline: Multibranch
Pipeline
** GitHub API Plugin
Jenkins Git plugin
GitHub plugin
** GitHub Branch Source Plugin
GitHub Organization Folder
Plugin
Pipeline: Stage View Plugin
Jenkins Git plugin
** MapDB API Plugin
Jenkins Subversion Plug-in
** - required dependency
```

Jenkins 2.32.1

5). After downloading all plugins a fresh page getting started with Create first admin user is opened as:



Create First Admin User

Username:

Password:

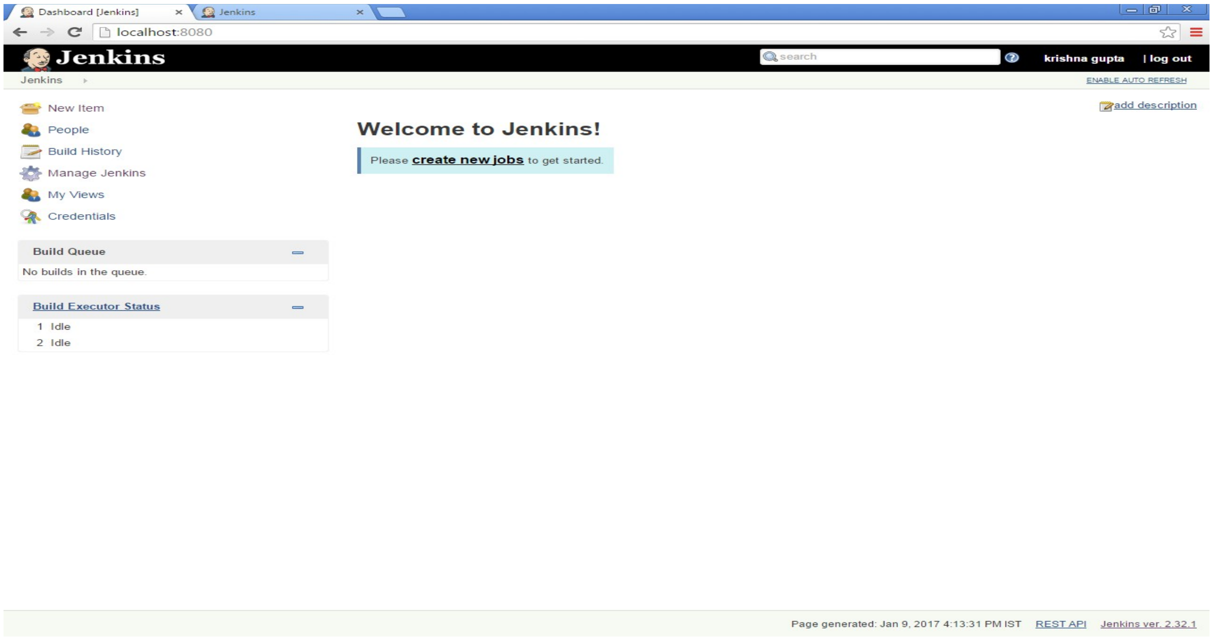
Confirm password:

Full name:

E-mail address:

Create one username, password and filling all information we click on save and finish button.

6). After clicking on save and finish a fresh Jenkins dashboard is open as:



Welcome to Jenkins!

Please **create new jobs** to get started.

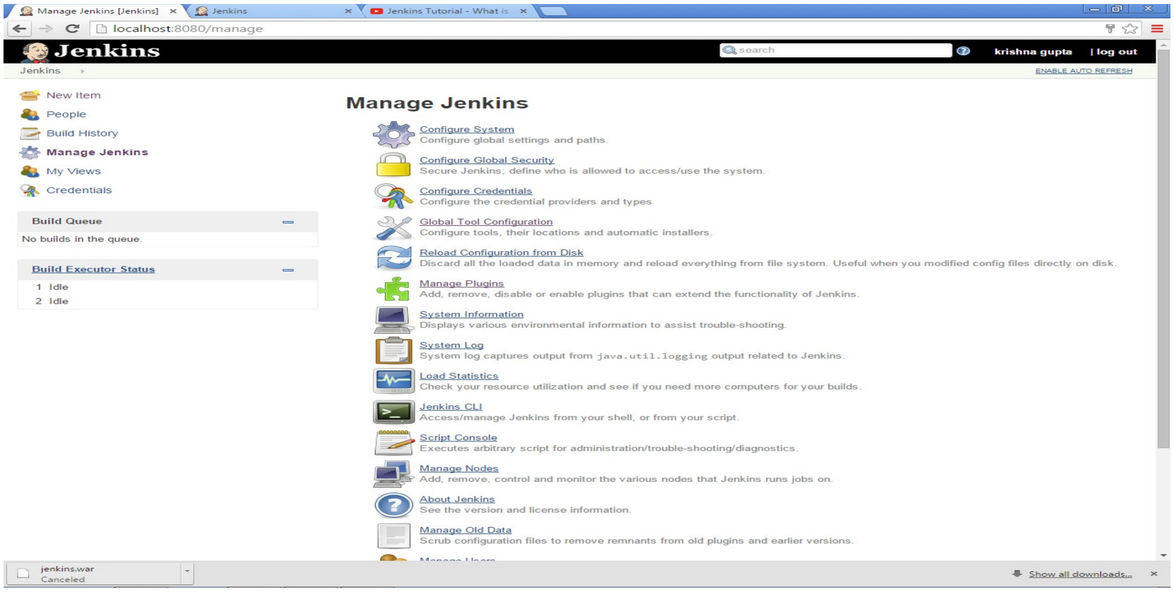
No builds in the queue.

1 Idle
2 Idle

Page generated: Jan 9, 2017 4:13:31 PM IST   REST API   Jenkins ver. 2.32.1

Step4: Installing Jenkins as a window service

1). Click on manage Jenkins on the left-hand side of a menu a list of services are open as:



No builds in the queue.

Manage Jenkins

Configure System
Configure global settings and paths.

Configure Global Security
Secure Jenkins; define who is allowed to access/use the system.

Configure Credentials
Configure the credential providers and types

Global Tool Configuration
Configure tools, their locations and automatic installers.

Reload Configuration from Disk
Discard all the loaded data in memory and reload everything from file system. Useful when you modified config files directly on disk.

Manage Plugins
Add, remove, disable or enable plugins that can extend the functionality of Jenkins.

System Information
Displays various environmental information to assist trouble-shooting.

System Log
System log captures output from `java.util.logging` output related to Jenkins.

Load Statistics
Check your resource utilization and see if you need more computers for your builds.

Jenkins CLI
Access/manage Jenkins from your shell, or from your script.

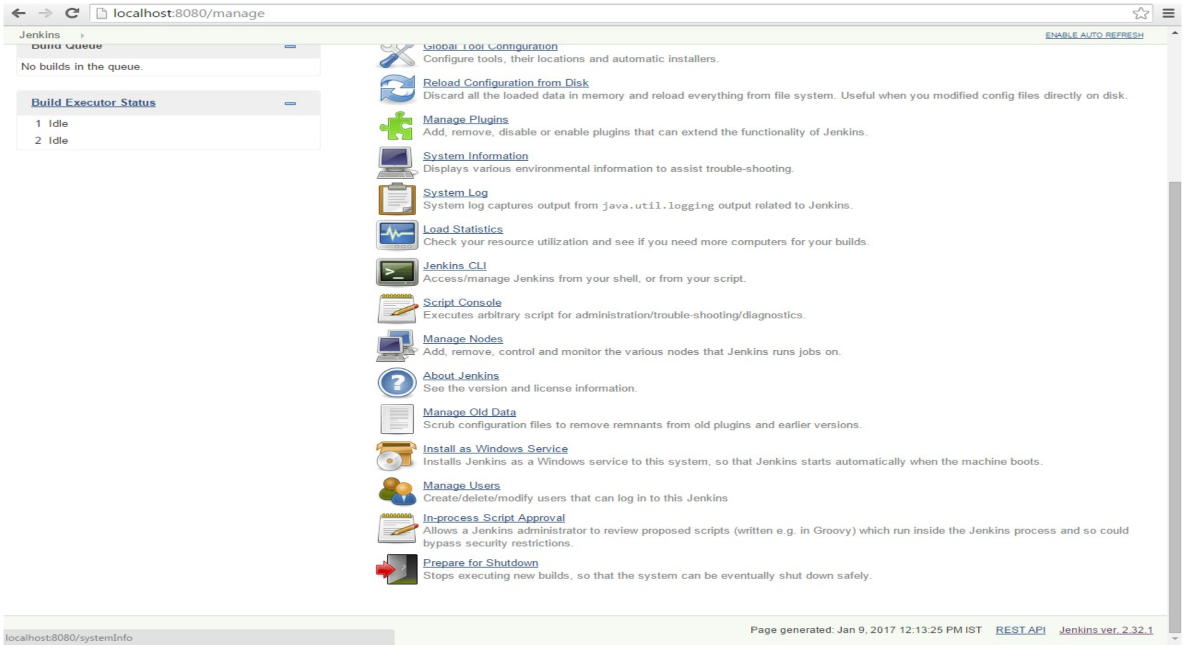
Script Console
Executes arbitrary script for administration/trouble-shooting/diagnostics.

Manage Nodes
Add, remove, control and monitor the various nodes that Jenkins runs jobs on.

About Jenkins
See the version and license information.

Manage Old Data
Scrub configuration files to remove remnants from old plugins and earlier versions.

2). Into which we click on **Install as window services**.



No builds in the queue.

Global Tool Configuration
Configure tools, their locations and automatic installers.

Reload Configuration from Disk
Discard all the loaded data in memory and reload everything from file system. Useful when you modified config files directly on disk.

Manage Plugins
Add, remove, disable or enable plugins that can extend the functionality of Jenkins.

System Information
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Executes arbitrary script for administration/trouble-shooting/diagnostics.

Manage Nodes
Add, remove, control and monitor the various nodes that Jenkins runs jobs on.

About Jenkins
See the version and license information.

Manage Old Data
Scrub configuration files to remove remnants from old plugins and earlier versions.

Install as Windows Service
Installs Jenkins as a Windows service to this system, so that Jenkins starts automatically when the machine boots.

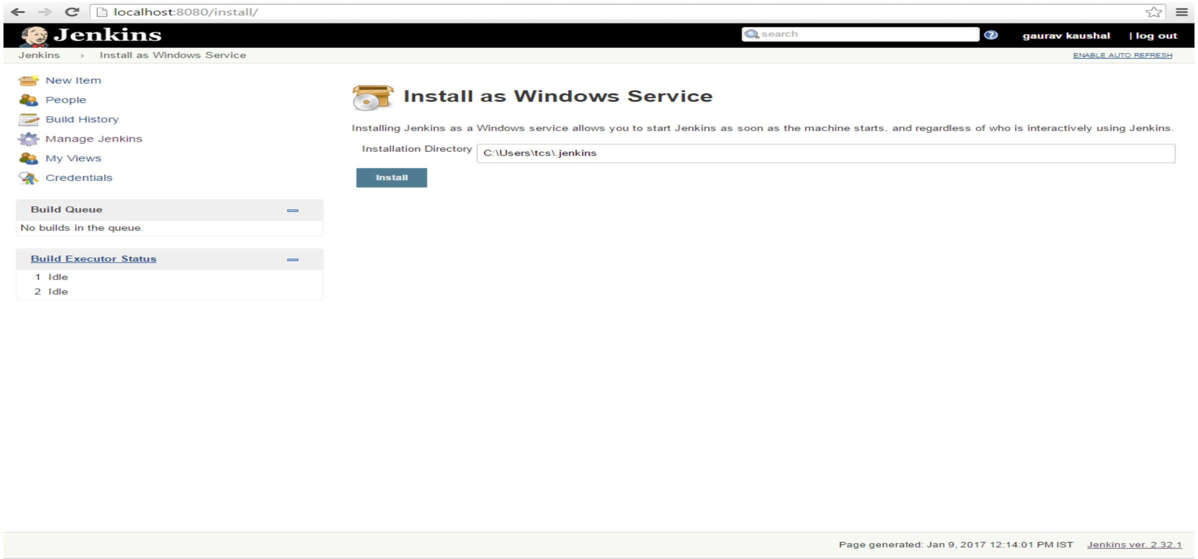
Manage Users
Create/delete/modify users that can log in to this Jenkins

In-process Script Approval
Allows a Jenkins administrator to review proposed scripts (written e.g. in Groovy) which run inside the Jenkins process and so could bypass security restrictions.

Prepare for Shutdown
Stops executing new builds, so that the system can be eventually shut down safely.

Page generated: Jan 9, 2017 12:13:25 PM IST REST API Jenkins ver. 2.32.1

3). After clicking a new page is open with **Installation Directory** and we click on install button as:



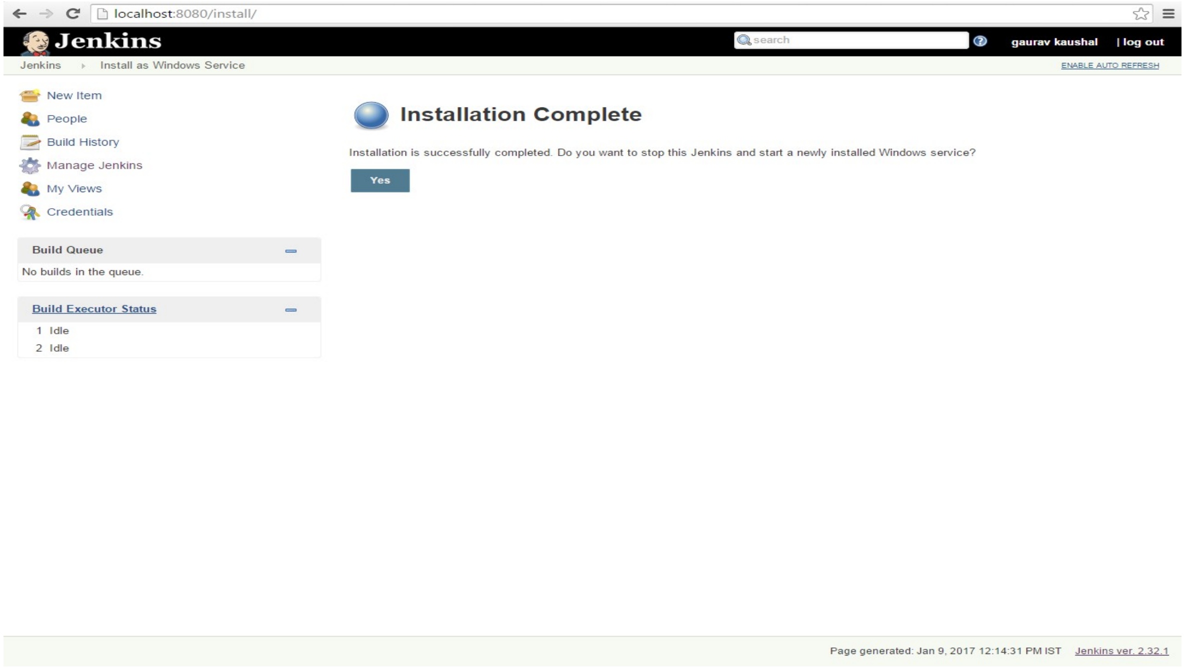
Install as Windows Service

Installing Jenkins as a Windows service allows you to start Jenkins as soon as the machine starts, and regardless of who is interactively using Jenkins.

Installation Directory: C:\Users\tcs\.jenkins

Page generated: Jan 9, 2017 12:14:01 PM IST Jenkins ver. 2.32.1

4). After click on install button a page with **Installation complete** message is opened into which we click on **yes** as:

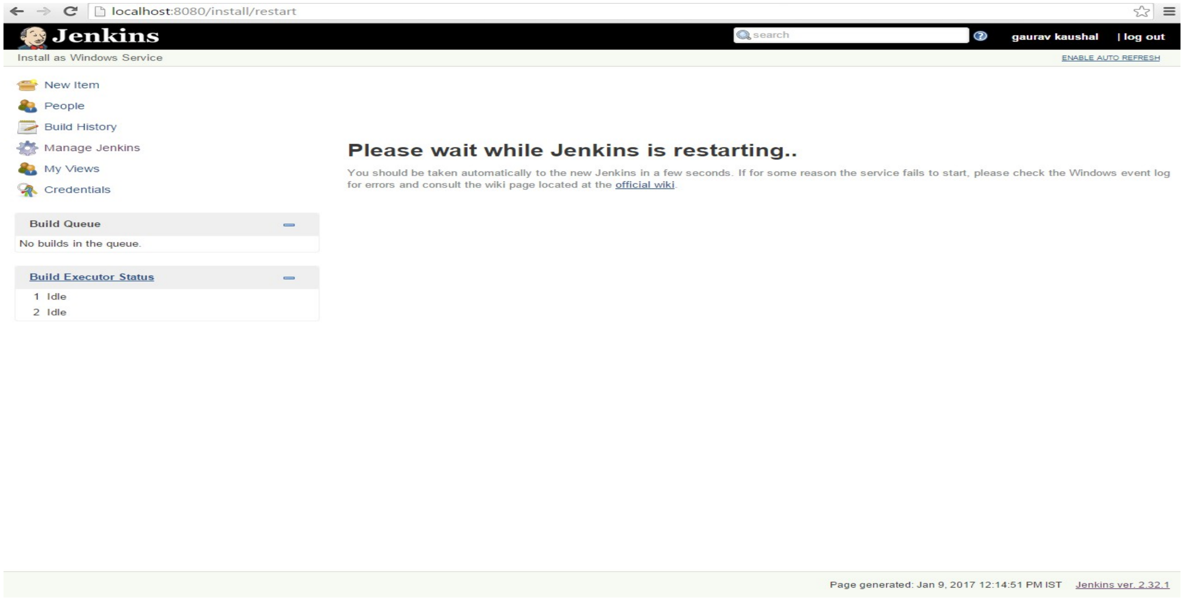


Installation Complete

Installation is successfully completed. Do you want to stop this Jenkins and start a newly installed Windows service?

Page generated: Jan 9, 2017 12:14:31 PM IST Jenkins ver. 2.32.1

5). Once we click on yes button a new page is open as:



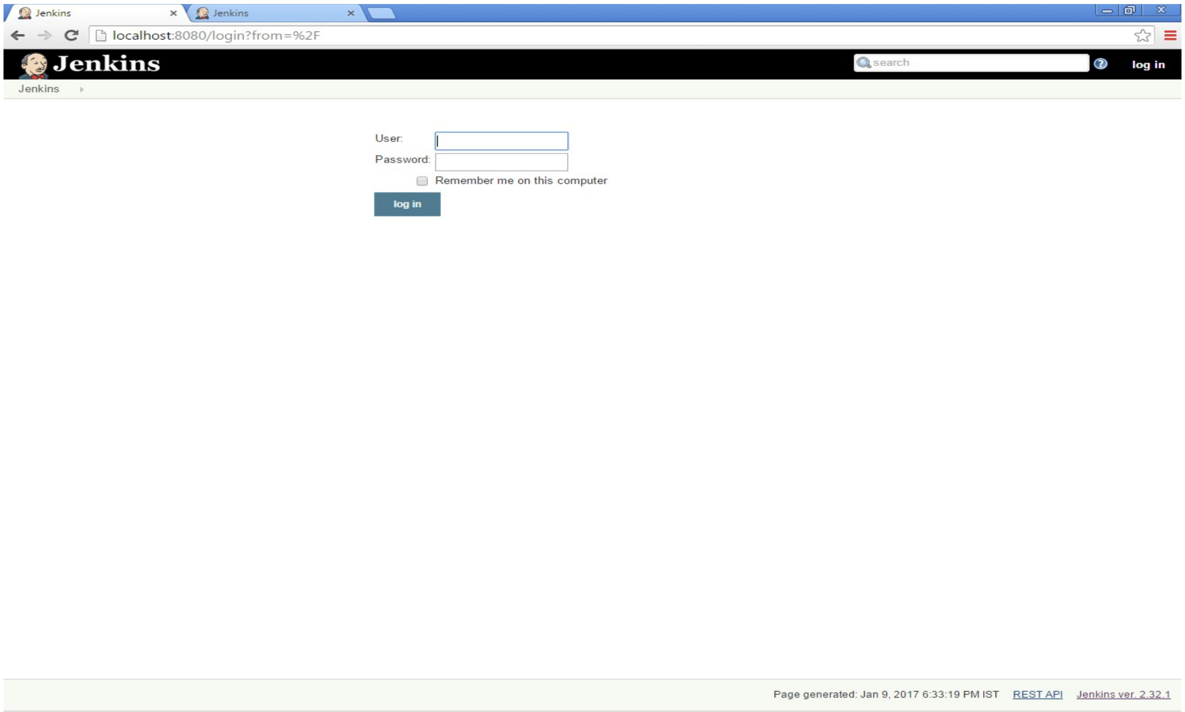
Please wait while Jenkins is restarting..

You should be taken automatically to the new Jenkins in a few seconds. If for some reason the service fails to start, please check the Windows event log for errors and consult the wiki page located at the official wiki.

No builds in the queue.

Page generated: Jan 9, 2017 12:14:51 PM IST

6). After waiting some minutes a new window form is open after login we use Jenkins as a window service as:



User:

Password:

□ Remember me on this computer

Page generated: Jan 9, 2017 6:33:19 PM IST

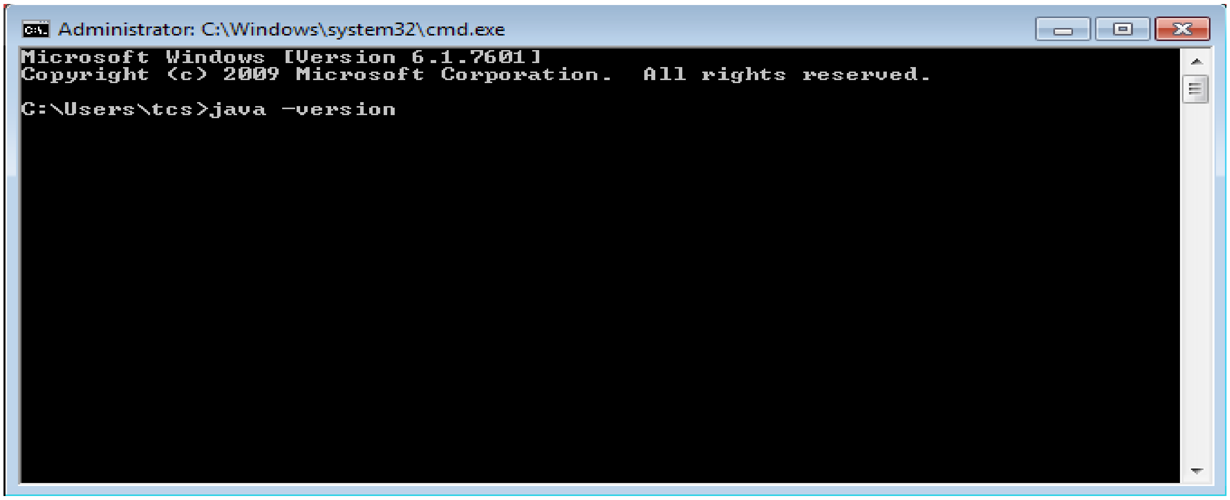
2. Jenkins – Tomcat Setup

The following prerequisites must be met for Jenkins Tomcat setup.

Step 1: Verifying Java Installation

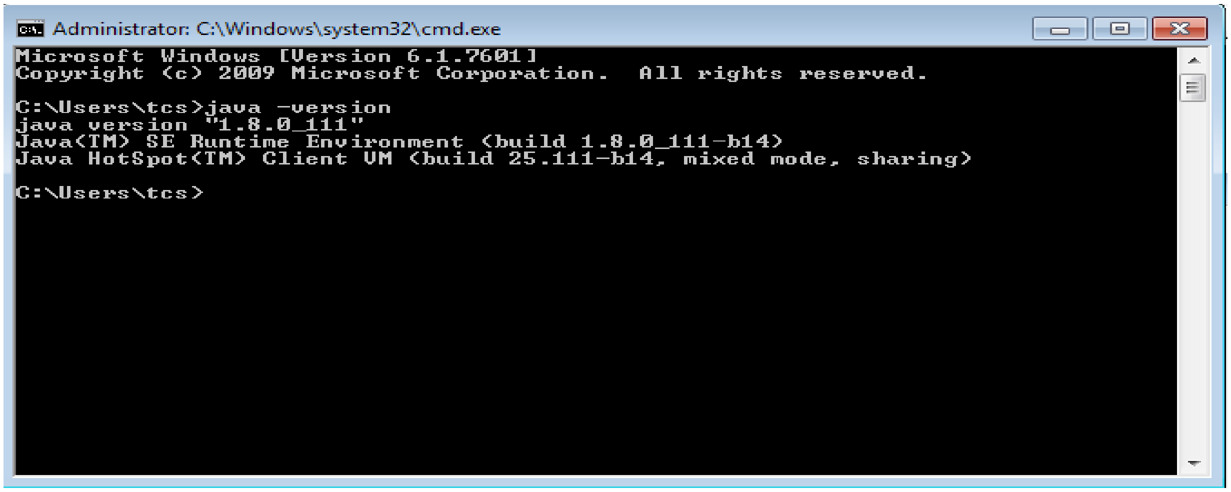
To verify Java installation, open the console and execute the following java command **:**

\>java –version



```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Users\tcs>java -version
```

- If Java has been installed properly on your system, then you should get one of the following outputs, depending on the platform you are working on.



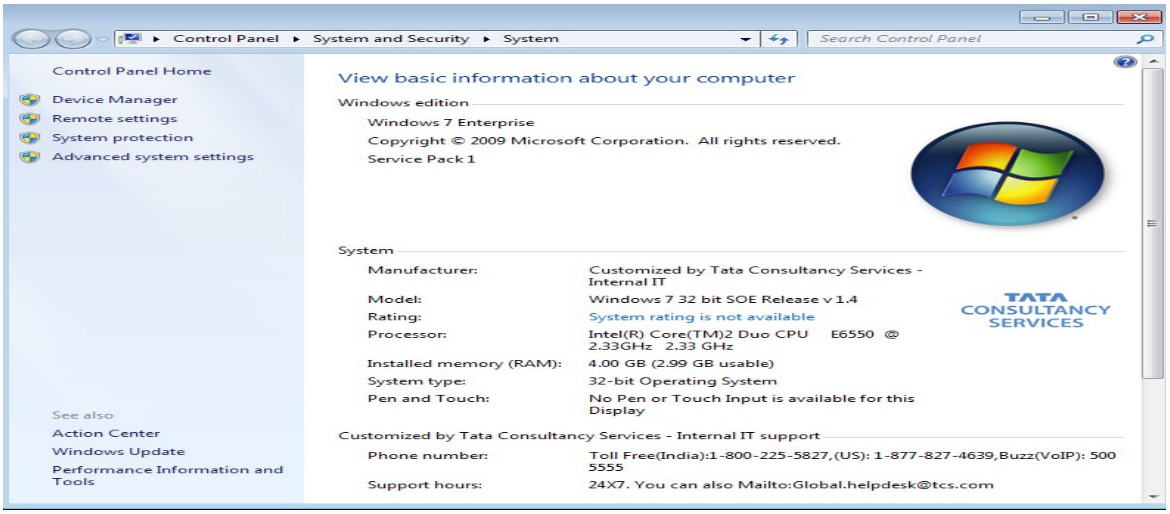
```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Users\tcs>java -version
java version "1.8.0_111"
Java(TM) SE Runtime Environment (build 1.8.0_111-b14)
Java HotSpot(TM) Client VM (build 25.111-b14, mixed mode, sharing)

C:\Users\tcs>
```

Step 2: Verifying Java Installation

Append the full path of the Java compiler location to the System Path.

1). Right Click on **computer** and click on **properties** .

2). Click on **Advance System Setting.**



View basic information about your computer

Windows edition

Windows 7 Enterprise

Copyright © 2009 Microsoft Corporation. All rights reserved.

Service Pack 1

System

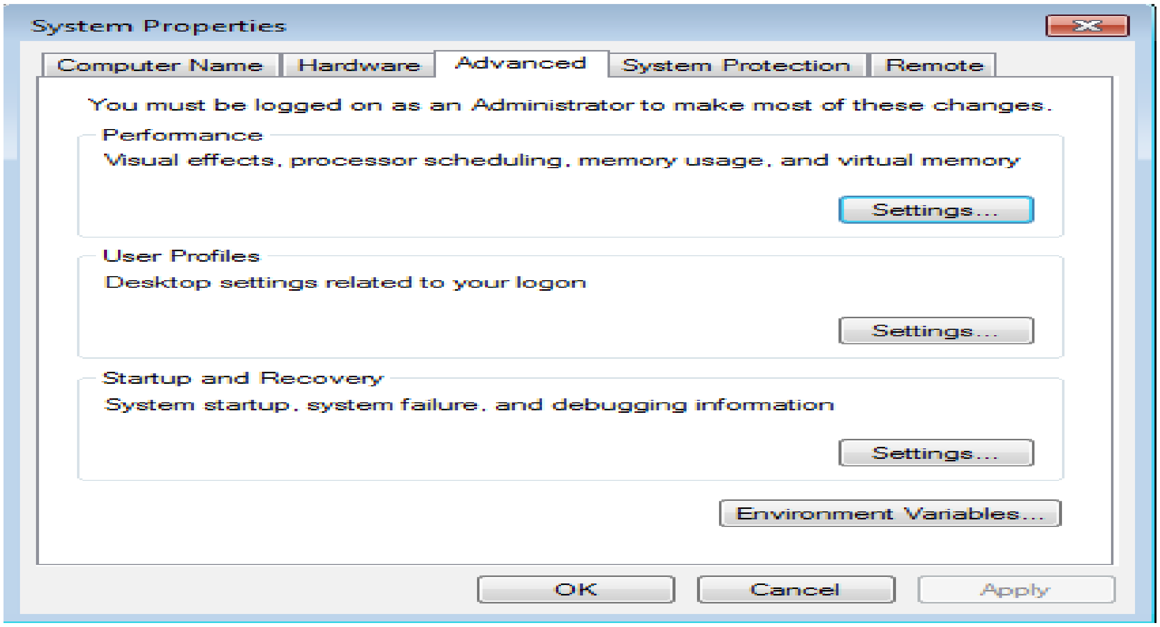
Manufacturer:	Customized by Tata Consultancy Services - Internal IT
Model:	Windows 7 32 bit SOE Release v 1.4
Rating:	System rating is not available
Processor:	Intel(R) Core(TM)2 Duo CPU E6550 @ 2.33GHz 2.33 GHz
Installed memory (RAM):	4.00 GB (2.99 GB usable)
System type:	32-bit Operating System
Pen and Touch:	No Pen or Touch Input is available for this Display

TATA CONSULTANCY SERVICES

Customized by Tata Consultancy Services - Internal IT support

Phone number:	Toll Free(India):1-800-225-5827,(US): 1-877-827-4639,Buzz(VoIP): 500 5555
Support hours:	24X7. You can also Mailto:Global.helpdesk@tcs.com

3). Click on Environment Variables**.**



You must be logged on as an Administrator to make most of these changes.

Performance

Visual effects, processor scheduling, memory usage, and virtual memory

User Profiles

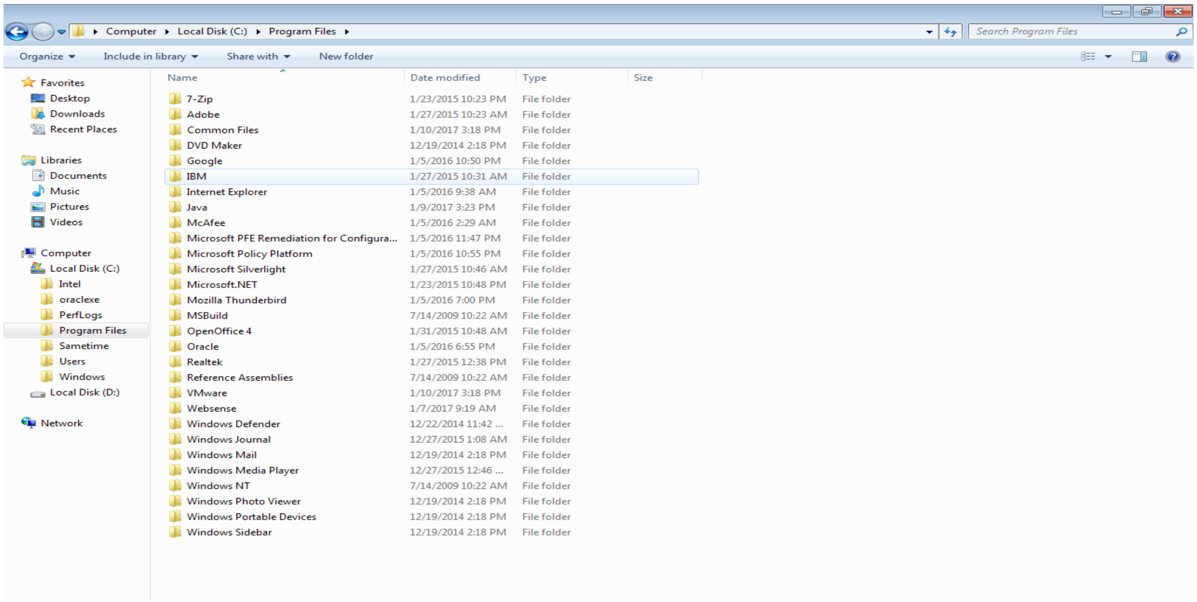
Desktop settings related to your logon

Startup and Recovery

System startup, system failure, and debugging information

4). Set system variable **JAVA_HOME** to **C:\Program Files\Java\jdk1.8.0_111** As:

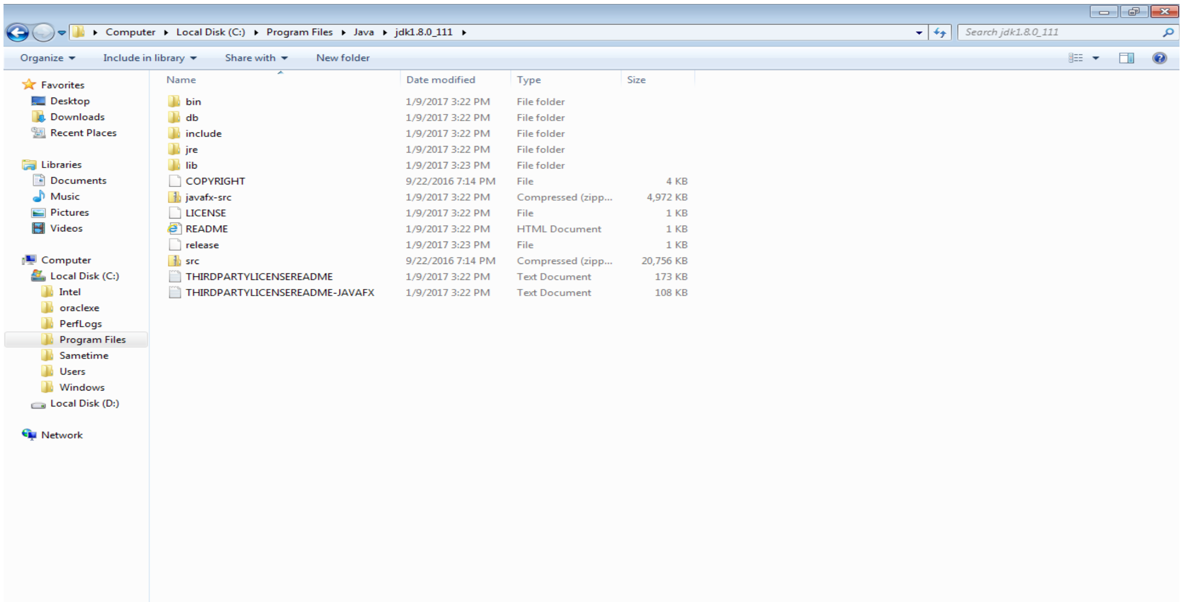
4.1). Go to the directory where java installation is done.



Computer ▸ Local Disk (C:) ▸ Program Files ▸

Name	Date modified	Type	Size
7-Zip	1/23/2015 10:23 PM	File folder	
Adobe	1/27/2015 10:23 AM	File folder	
Common Files	1/10/2017 3:18 PM	File folder	
DVD Maker	12/19/2014 2:18 PM	File folder	
Google	1/5/2016 10:50 PM	File folder	
IBM	1/27/2015 10:31 AM	File folder	
Internet Explorer	1/5/2016 9:38 AM	File folder	
Java	1/9/2017 3:23 PM	File folder	
McAfee	1/5/2016 2:29 AM	File folder	
Microsoft PFE Remediation for Configura...	1/5/2016 11:47 PM	File folder	
Microsoft Policy Platform	1/5/2016 10:55 PM	File folder	
Microsoft Silverlight	1/27/2015 10:46 AM	File folder	
Microsoft.NET	1/23/2015 10:48 PM	File folder	
Mozilla Thunderbird	1/5/2016 7:00 PM	File folder	
MSBuild	7/14/2009 10:22 AM	File folder	
OpenOffice 4	1/31/2015 10:48 AM	File folder	
Oracle	1/5/2016 6:55 PM	File folder	
Realtek	1/27/2015 12:38 PM	File folder	
Reference Assemblies	7/14/2009 10:22 AM	File folder	
VMware	1/10/2017 3:18 PM	File folder	
Websense	1/7/2017 9:19 AM	File folder	
Windows Defender	12/22/2014 11:42 ...	File folder	
Windows Journal	12/27/2015 1:08 AM	File folder	
Windows Mail	12/19/2014 2:18 PM	File folder	
Windows Media Player	12/27/2015 12:46 ...	File folder	
Windows NT	7/14/2009 10:22 AM	File folder	
Windows Photo Viewer	12/19/2014 2:18 PM	File folder	
Windows Portable Devices	12/19/2014 2:18 PM	File folder	
Windows Sidebar	12/19/2014 2:18 PM	File folder	

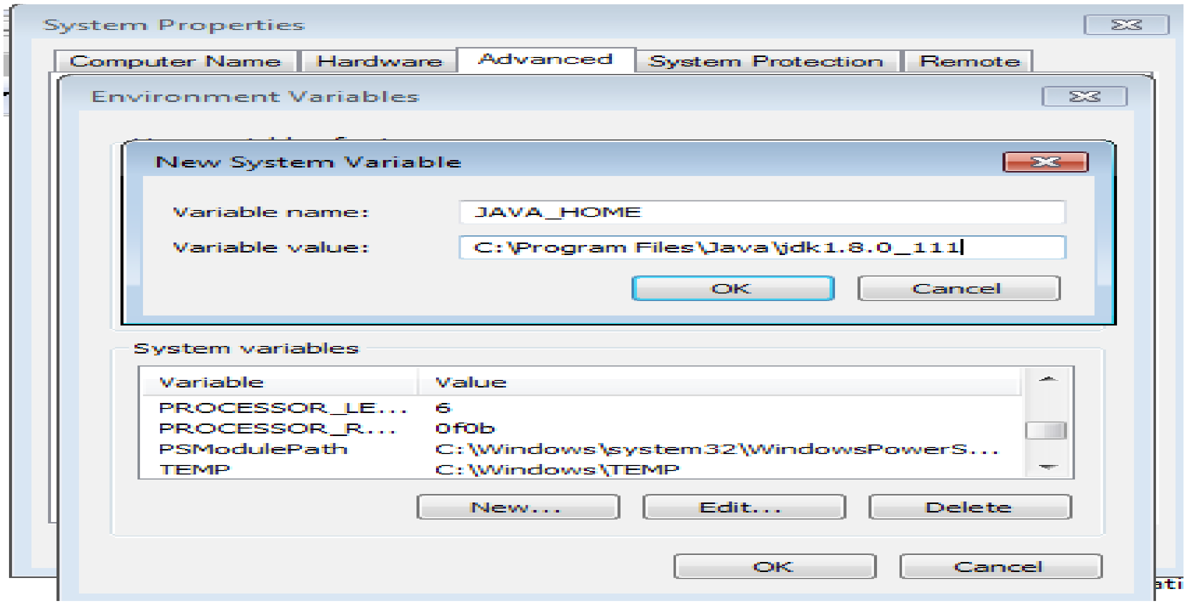
4.2). Click on **java** and then click on **jdk1.8.0_111**.



Computer ▸ Local Disk (C:) ▸ Program Files ▸ Java ▸ jdk1.8.0_111 ▸

Name	Date modified	Type	Size
bin	1/9/2017 3:22 PM	File folder	
db	1/9/2017 3:22 PM	File folder	
include	1/9/2017 3:22 PM	File folder	
jre	1/9/2017 3:22 PM	File folder	
lib	1/9/2017 3:23 PM	File folder	
COPYRIGHT	9/22/2016 7:14 PM	File	4 KB
javafx-src	1/9/2017 3:22 PM	Compressed (zipp...	4,972 KB
LICENSE	1/9/2017 3:22 PM	File	1 KB
README	1/9/2017 3:22 PM	HTML Document	1 KB
release	1/9/2017 3:23 PM	File	1 KB
src	9/22/2016 7:14 PM	Compressed (zipp...	20,756 KB
THIRDPARTYLICENSEREADME	1/9/2017 3:22 PM	Text Document	173 KB
THIRDPARTYLICENSEREADME-JAVAFX	1/9/2017 3:22 PM	Text Document	108 KB

4.3). Copy the above path: **C:\Program Files\Java\jdk1.8.0_111** and then go to environment variables click on **new System variable** write variable name:**JAVA_HOME** and variable value:paste above path

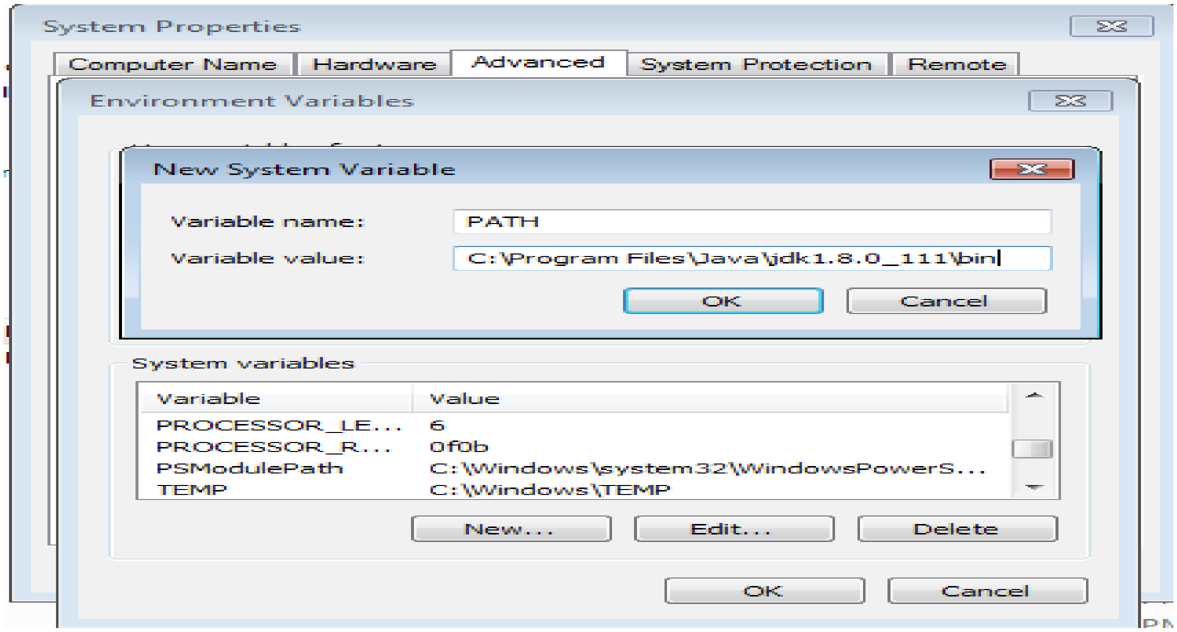


Variable name: JAVA_HOME

Variable value: C:\Program Files\Java\jdk1.8.0_111

Variable	Value
PROCESSOR_LE...	6
PROCESSOR_R...	0f0b
PSModulePath	C:\Windows\system32\WindowsPowerS...
TEMP	C:\Windows\TEMP

4.4). Click on **bin** folder as shown in **step 4.2** and again copy path as:**C:\Program Files\Java\jdk1.8.0_111\bin** then go to environment variable click on **new System variable** write variable name: **PATH** and variable value:paste above path as:



Variable name: PATH

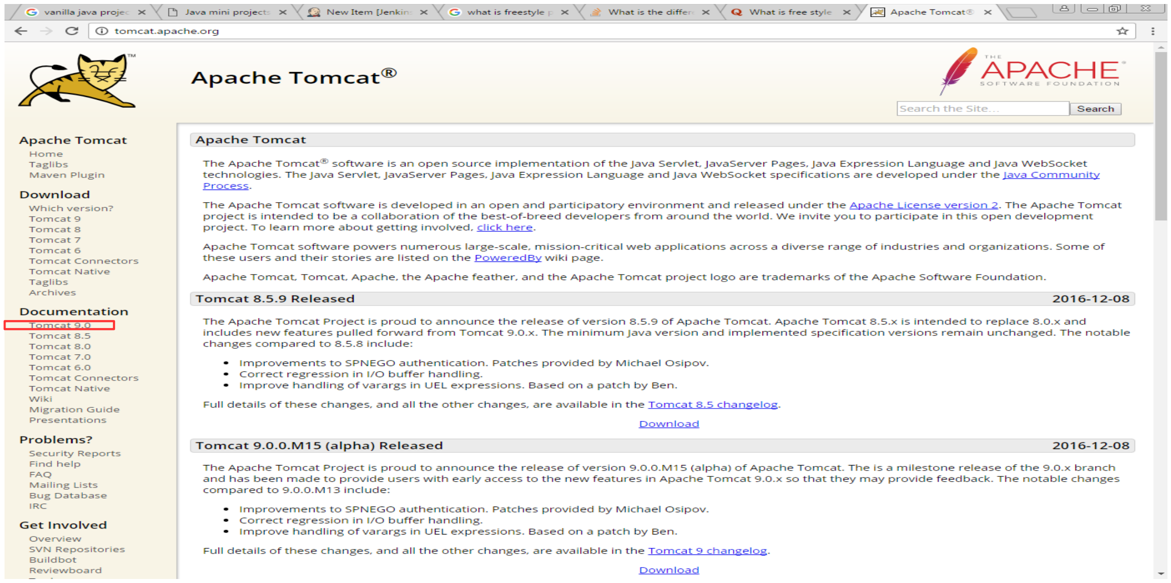
Variable value: C:\Program Files\Java\jdk1.8.0_111\bin

Variable	Value
PROCESSOR_LE...	6
PROCESSOR_R...	0f0b
PSModulePath	C:\Windows\system32\WindowsPowerS...
TEMP	C:\Windows\TEMP

4.5). Click **OK** three times.

Step 3: Download Tomcat

1) Go to download link: **http://tomcat.apache.org/.** We click the above link we can get the home page of the tomcat official website as shown below.



Apache Tomcat

The Apache Tomcat® software is an open source implementation of the Java Servlet, JavaServer Pages, Java Expression Language and Java WebSocket technologies. The Java Servlet, JavaServer Pages, Java Expression Language and Java WebSocket specifications are developed under the Java Community Process.

The Apache Tomcat software is developed in an open and participatory environment and released under the Apache License version 2. The Apache Tomcat project is intended to be a collaboration of the best-of-breed developers from around the world. We invite you to participate in this open development project. To learn more about getting involved, click here.

Apache Tomcat software powers numerous large-scale, mission-critical web applications across a diverse range of industries and organizations. Some of these users and their stories are listed on the PoweredBy wiki page.

Apache Tomcat, Tomcat, Apache, the Apache feather, and the Apache Tomcat project logo are trademarks of the Apache Software Foundation.

Tomcat 8.5.9 Released 2016-12-08

The Apache Tomcat Project is proud to announce the release of version 8.5.9 of Apache Tomcat. Apache Tomcat 8.5.x is intended to replace 8.0.x and includes new features pulled forward from Tomcat 9.0.x. The minimum Java version and implemented specification versions remain unchanged. The notable changes compared to 8.5.8 include:

- Improvements to SPNEGO authentication. Patches provided by Michael Osipov.
- Correct regression in I/O buffer handling.
- Improve handling of varargs in UEL expressions. Based on a patch by Ben.

Full details of these changes, and all the other changes, are available in the Tomcat 8.5 changelog.

Download

Tomcat 9.0.0.M15 (alpha) Released 2016-12-08

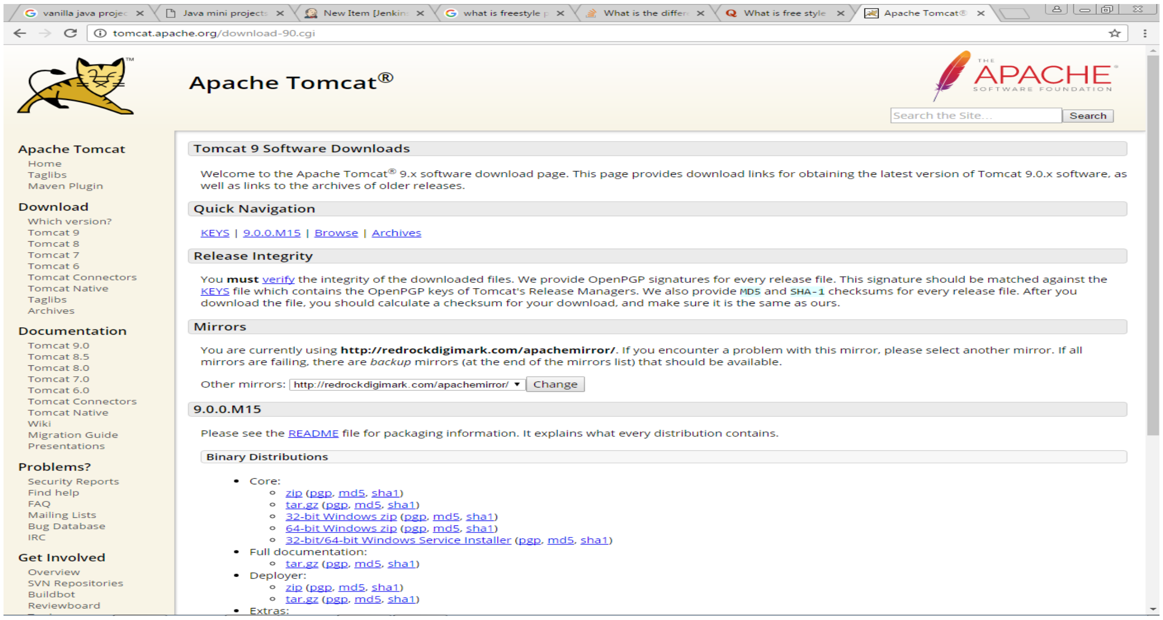
The Apache Tomcat Project is proud to announce the release of version 9.0.0.M15 (alpha) of Apache Tomcat. The is a milestone release of the 9.0.x branch and has been made to provide users with early access to the new features in Apache Tomcat 9.0.x so that they may provide feedback. The notable changes compared to 9.0.0.M13 include:

- Improvements to SPNEGO authentication. Patches provided by Michael Osipov.
- Correct regression in I/O buffer handling.
- Improve handling of varargs in UEL expressions. Based on a patch by Ben.

Full details of these changes, and all the other changes, are available in the Tomcat 9 changelog.

Download

2) Click on download latest version which you want following page is shown as below:



Tomcat 9 Software Downloads

Welcome to the Apache Tomcat® 9.x software download page. This page provides download links for obtaining the latest version of Tomcat 9.0.x software, as well as links to the archives of older releases.

Quick Navigation

KEYS | 9.0.0.M15 | Browse | Archives

Release Integrity

You **must** verify the integrity of the downloaded files. We provide OpenPGP signatures for every release file. This signature should be matched against the KEYS file which contains the OpenPGP keys of Tomcat's Release Managers. We also provide `MD5` and `SHA-1` checksums for every release file. After you download the file, you should calculate a checksum for your download, and make sure it is the same as ours.

Mirrors

You are currently using **http://redrockdigimark.com/apachemirror/**. If you encounter a problem with this mirror, please select another mirror. If all mirrors are failing, there are *backup* mirrors (at the end of the mirrors list) that should be available.

Other mirrors: http://redrockdigimark.com/apachemirror/ ▾

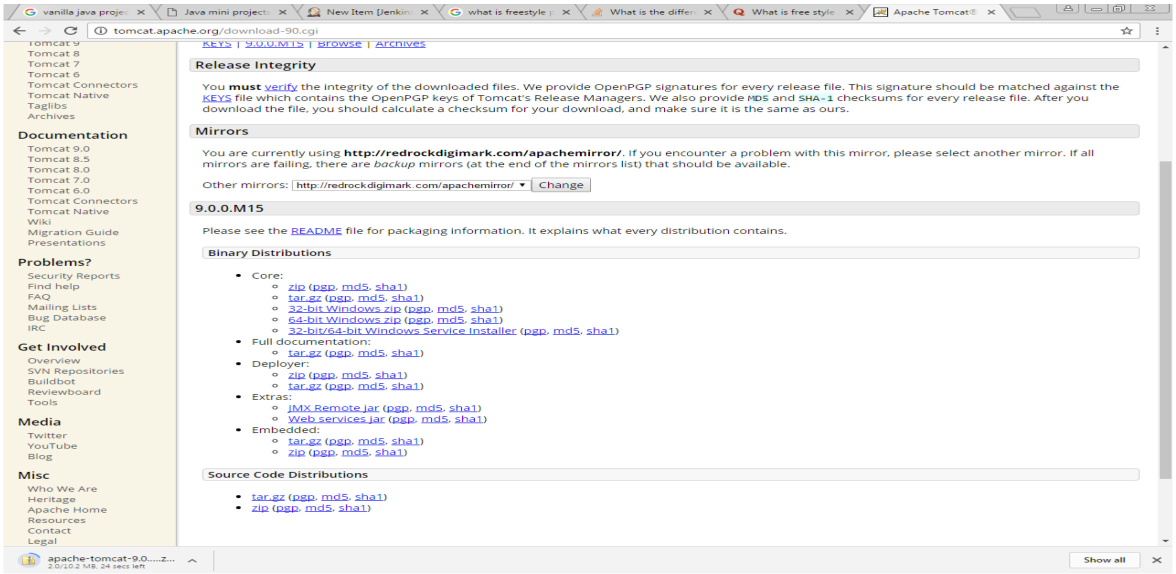
9.0.0.M15

Please see the README file for packaging information. It explains what every distribution contains.

Binary Distributions

- Core:
  - zip (pgp, md5, sha1)
  - tar.gz (pgp, md5, sha1)
  - 32-bit Windows zip (pgp, md5, sha1)
  - 64-bit Windows zip (pgp, md5, sha1)
  - 32-bit/64-bit Windows Service Installer (pgp, md5, sha1)
- Full documentation:
  - tar.gz (pgp, md5, sha1)
- Deployer:
  - zip (pgp, md5, sha1)
  - tar.gz (pgp, md5, sha1)
- Extras:

3) Go to the **'Binary Distributions'** section. Download the 32-bit or 64 bit according to your system compatibility Windows zip file shown as:



KEYS | 9.0.0.M15 | Browse | Archives

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Other mirrors: http://redrockdigimark.com/apachemirror/ ▾ Change

9.0.0.M15

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- Deployer:
  - zip (pgp, md5, sha1)
  - tar.gz (pgp, md5, sha1)
- Extras:
  - JMX Remote jar (pgp, md5, sha1)
  - Web services jar (pgp, md5, sha1)
- Embedded:
  - tar.gz (pgp, md5, sha1)
  - zip (pgp, md5, sha1)

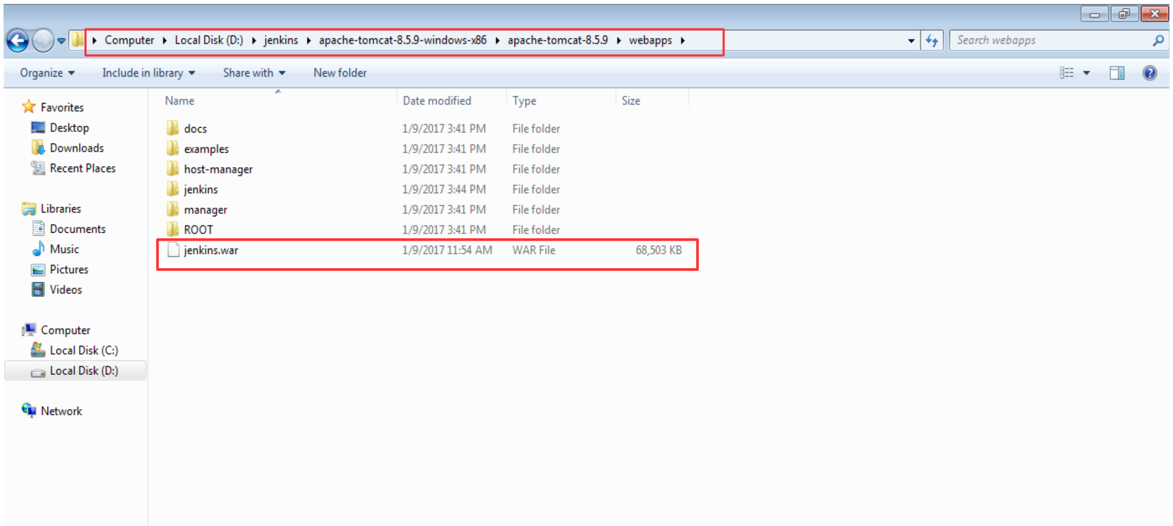
Source Code Distributions

- tar.gz (pgp, md5, sha1)
- zip (pgp, md5, sha1)

4) Then unzip the contents of the downloaded zip file in your desired folder.

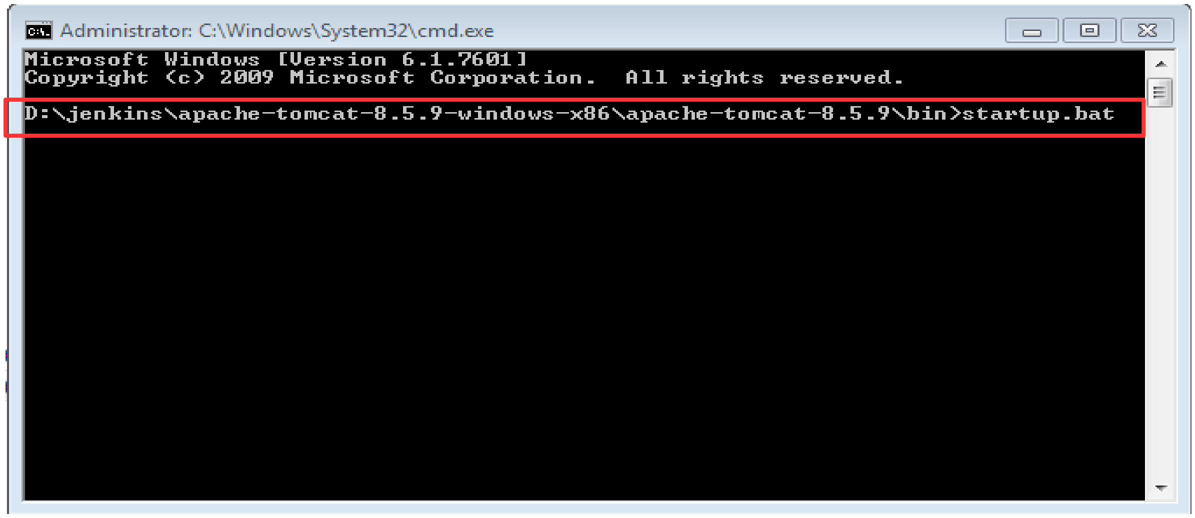
Step 4: Jenkins and Tomcat Setup

1). Copy the **Jenkins.war** file which was downloaded from the previous section and copy it to the **webapps** folder in the tomcat folder.



Name	Date modified	Type	Size
docs	1/9/2017 3:41 PM	File folder	
examples	1/9/2017 3:41 PM	File folder	
host-manager	1/9/2017 3:41 PM	File folder	
jenkins	1/9/2017 3:44 PM	File folder	
manager	1/9/2017 3:41 PM	File folder	
ROOT	1/9/2017 3:41 PM	File folder	
jenkins.war	1/9/2017 11:54 AM	WAR File	68,503 KB

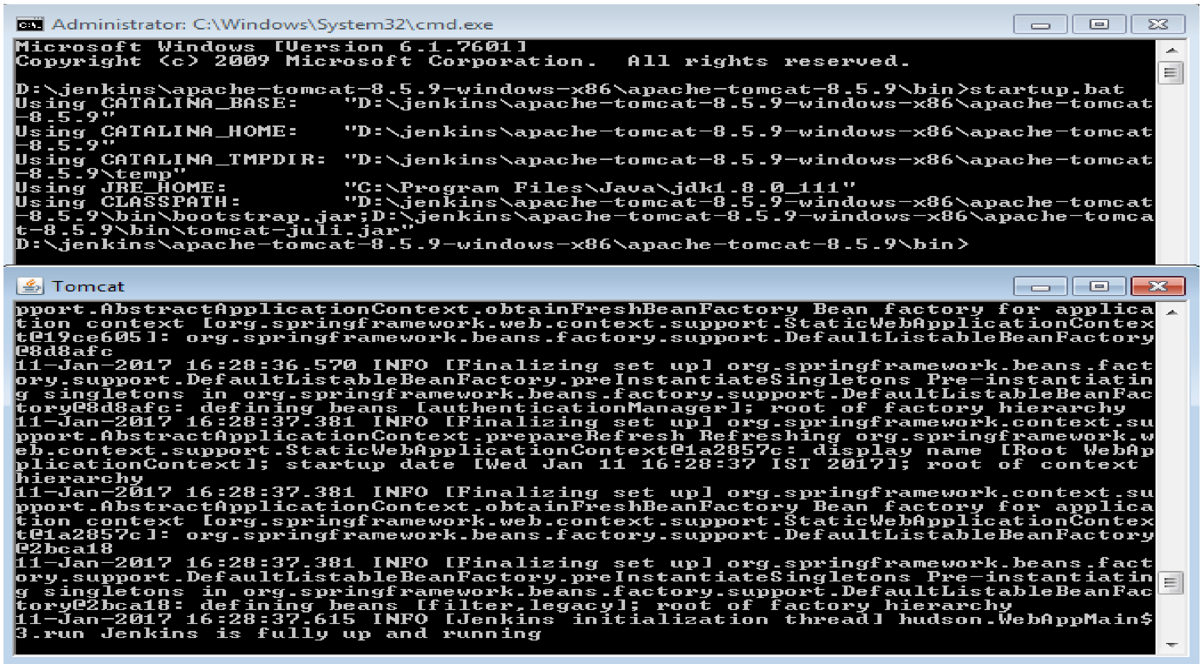
2). Now open the command prompt. From the command prompt, browse to the directory where the tomcat8.5.9 folder is located. Browse to the bin directory in this folder and run the command **startup.bat** as:



```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

D:\jenkins\apache-tomcat-8.5.9-windows-x86\apache-tomcat-8.5.9\bin>startup.bat
```

3). Once the processing is complete without major errors, the following line will come in the output of the command prompt.



```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

D:\jenkins\apache-tomcat-8.5.9-windows-x86\apache-tomcat-8.5.9\bin>startup.bat
Using CATALINA_BASE:   "D:\jenkins\apache-tomcat-8.5.9-windows-x86\apache-tomcat
-8.5.9"
Using CATALINA_HOME:   "D:\jenkins\apache-tomcat-8.5.9-windows-x86\apache-tomcat
-8.5.9"
Using CATALINA_TMPDIR: "D:\jenkins\apache-tomcat-8.5.9-windows-x86\apache-tomcat
-8.5.9\temp"
Using JRE_HOME:        "C:\Program Files\Java\jdk1.8.0_111"
Using CLASSPATH:       "D:\jenkins\apache-tomcat-8.5.9-windows-x86\apache-tomcat
-8.5.9\bin\bootstrap.jar;D:\jenkins\apache-tomcat-8.5.9-windows-x86\apache-tomca
t-8.5.9\bin\tomcat-juli.jar"
D:\jenkins\apache-tomcat-8.5.9-windows-x86\apache-tomcat-8.5.9\bin>
```

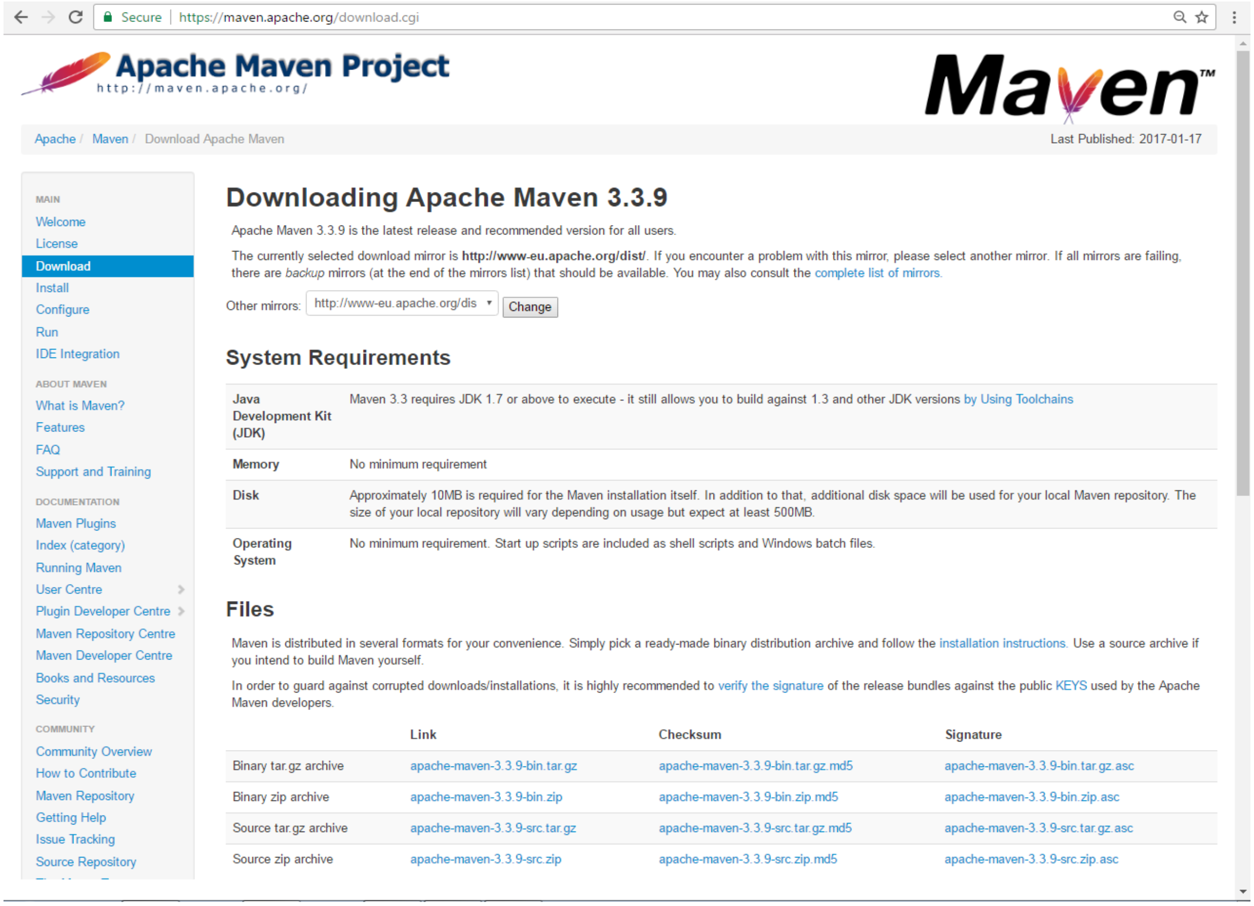
```
pport.AbstractApplicationContext.obtainFreshBeanFactory Bean factory for applica
tion context [org.springframework.web.context.support.StaticWebApplicationContex
t@19ce605]: org.springframework.beans.factory.support.DefaultListableBeanFactory
@8d8afc
11-Jan-2017 16:28:36.570 INFO [Finalizing set up] org.springframework.beans.fact
ory.support.DefaultListableBeanFactory.preInstantiateSingletons Pre-instantiatin
g singletons in org.springframework.beans.factory.support.DefaultListableBeanFac
tory@8d8afc: defining beans [authenticationManager]; root of factory hierarchy
11-Jan-2017 16:28:37.381 INFO [Finalizing set up] org.springframework.context.su
pport.AbstractApplicationContext.prepareRefresh Refreshing org.springframework.w
eb.context.support.StaticWebApplicationContext@1a2857c: display name [Root WebAp
plicationContext]; startup date [Wed Jan 11 16:28:37 IST 2017]; root of context
hierarchy
11-Jan-2017 16:28:37.381 INFO [Finalizing set up] org.springframework.context.su
pport.AbstractApplicationContext.obtainFreshBeanFactory Bean factory for applica
tion context [org.springframework.web.context.support.StaticWebApplicationContex
t@1a2857c]: org.springframework.beans.factory.support.DefaultListableBeanFactory
@2bca18
11-Jan-2017 16:28:37.381 INFO [Finalizing set up] org.springframework.beans.fact
ory.support.DefaultListableBeanFactory.preInstantiateSingletons Pre-instantiatin
g singletons in org.springframework.beans.factory.support.DefaultListableBeanFac
tory@2bca18: defining beans [filter,legacy]; root of factory hierarchy
11-Jan-2017 16:28:37.615 INFO [Jenkins initialization thread] hudson.WebAppMain$
3.run Jenkins is fully up and running
```

4).Above section show that Jenkins will be up and running on tomcat.

3. Jenkins – Maven Setup

Step 1: Downloading and Setting Up Maven

a) The official website for maven is https://maven.apache.org/download.cgi. If we click the given link, you can get the home page of the maven official website as shown below.



Downloading Apache Maven 3.3.9

Apache Maven 3.3.9 is the latest release and recommended version for all users.

The currently selected download mirror is **http://www-eu.apache.org/dist/**. If you encounter a problem with this mirror, please select another mirror. If all mirrors are failing, there are *backup* mirrors (at the end of the mirrors list) that should be available. You may also consult the complete list of mirrors.

Other mirrors: http://www-eu.apache.org/dis ▾ Change

System Requirements

Java Development Kit (JDK)	Maven 3.3 requires JDK 1.7 or above to execute - it still allows you to build against 1.3 and other JDK versions by Using Toolchains
Memory	No minimum requirement
Disk	Approximately 10MB is required for the Maven installation itself. In addition to that, additional disk space will be used for your local Maven repository. The size of your local repository will vary depending on usage but expect at least 500MB.
Operating System	No minimum requirement. Start up scripts are included as shell scripts and Windows batch files.

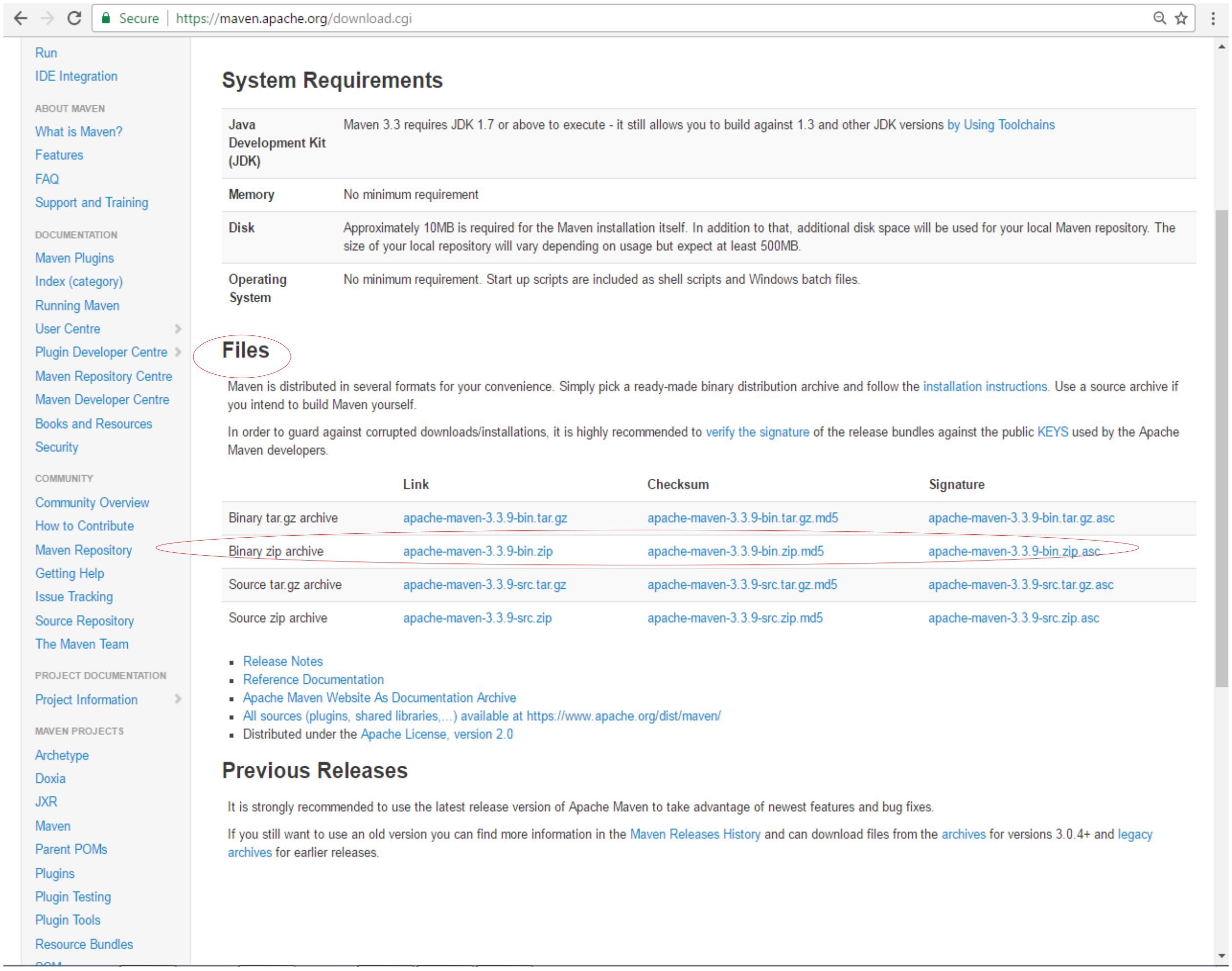
Files

Maven is distributed in several formats for your convenience. Simply pick a ready-made binary distribution archive and follow the installation instructions. Use a source archive if you intend to build Maven yourself.

In order to guard against corrupted downloads/installations, it is highly recommended to verify the signature of the release bundles against the public KEYS used by the Apache Maven developers.

	Link	Checksum	Signature
Binary tar.gz archive	apache-maven-3.3.9-bin.tar.gz	apache-maven-3.3.9-bin.tar.gz.md5	apache-maven-3.3.9-bin.tar.gz.asc
Binary zip archive	apache-maven-3.3.9-bin.zip	apache-maven-3.3.9-bin.zip.md5	apache-maven-3.3.9-bin.zip.asc
Source tar.gz archive	apache-maven-3.3.9-src.tar.gz	apache-maven-3.3.9-src.tar.gz.md5	apache-maven-3.3.9-src.tar.gz.asc
Source zip archive	apache-maven-3.3.9-src.zip	apache-maven-3.3.9-src.zip.md5	apache-maven-3.3.9-src.zip.asc

b) While browsing to the site, go to the **Files section** and download the link to the **Binary.zip** file.



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Binary zip archive	apache-maven-3.3.9-bin.zip	apache-maven-3.3.9-bin.zip.md5	apache-maven-3.3.9-bin.zip.asc
Source tar.gz archive	apache-maven-3.3.9-src.tar.gz	apache-maven-3.3.9-src.tar.gz.md5	apache-maven-3.3.9-src.tar.gz.asc
Source zip archive	apache-maven-3.3.9-src.zip	apache-maven-3.3.9-src.zip.md5	apache-maven-3.3.9-src.zip.asc

- Release Notes
- Reference Documentation
- Apache Maven Website As Documentation Archive
- All sources (plugins, shared libraries,...) available at https://www.apache.org/dist/maven/
- Distributed under the Apache License, version 2.0

Previous Releases

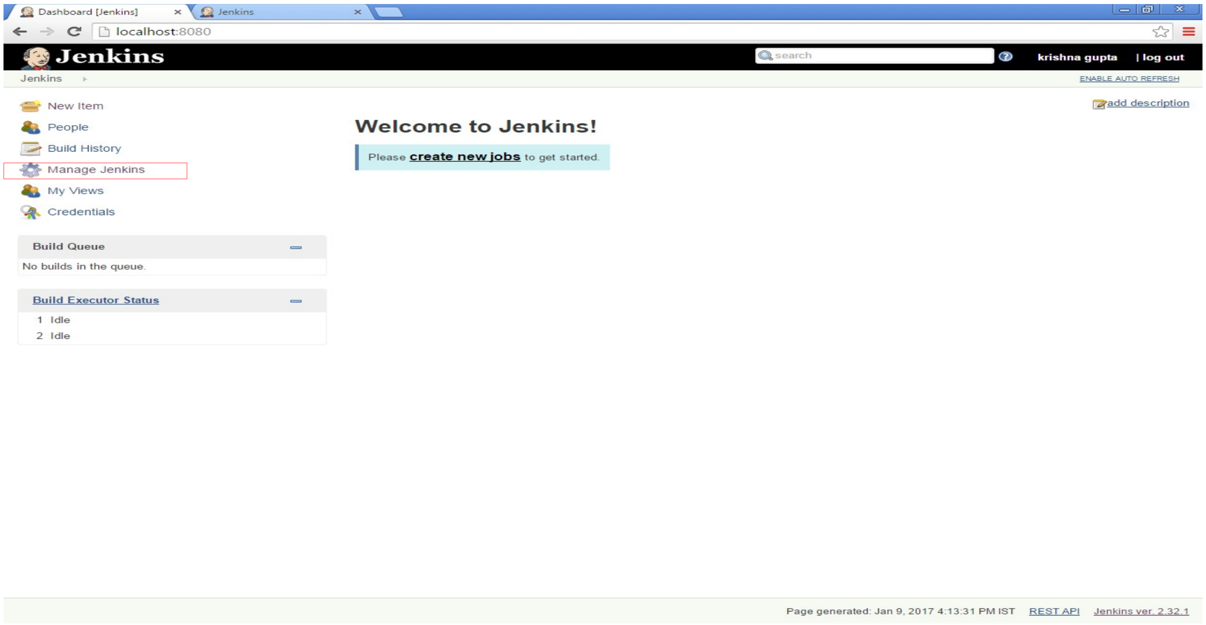
It is strongly recommended to use the latest release version of Apache Maven to take advantage of newest features and bug fixes.

If you still want to use an old version you can find more information in the Maven Releases History and can download files from the archives for versions 3.0.4+ and legacy archives for earlier releases.

c) Once the file is downloaded, extract the files to the relevant application folder. For this purpose, I placed the maven files in: **D:\jenkins\apache-maven-3.3.9-bin\apache-maven-3.3.9**

Step 2: Setting up Jenkins and Maven

(a) In the Jenkins dashboard (Home screen), click **Manage Jenkins** from the left-hand side menu.



No builds in the queue.

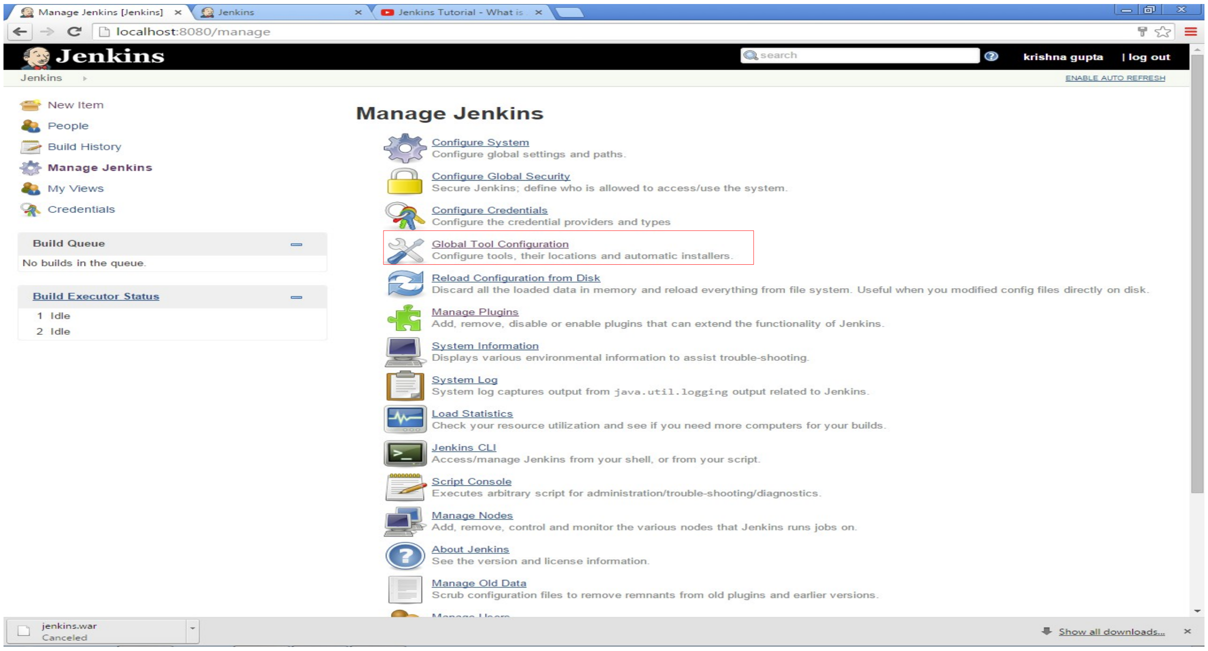
1 Idle
2 Idle

Welcome to Jenkins!

Please **create new jobs** to get started.

Page generated: Jan 9, 2017 4:13:31 PM IST REST API Jenkins ver. 2.32.1

(b) Then, click on **'Global Tool Configuration'** from the right hand side.



No builds in the queue.

1 Idle
2 Idle

Manage Jenkins

Configure System
Configure global settings and paths.

Configure Global Security
Secure Jenkins; define who is allowed to access/use the system.

Configure Credentials
Configure the credential providers and types

Global Tool Configuration
Configure tools, their locations and automatic installers.

Reload Configuration from Disk
Discard all the loaded data in memory and reload everything from file system. Useful when you modified config files directly on disk.

Manage Plugins
Add, remove, disable or enable plugins that can extend the functionality of Jenkins.

System Information
Displays various environmental information to assist trouble-shooting.

System Log
System log captures output from `java.util.logging` output related to Jenkins.

Load Statistics
Check your resource utilization and see if you need more computers for your builds.

Jenkins CLI
Access/manage Jenkins from your shell, or from your script.

Script Console
Executes arbitrary script for administration/trouble-shooting/diagnostics.

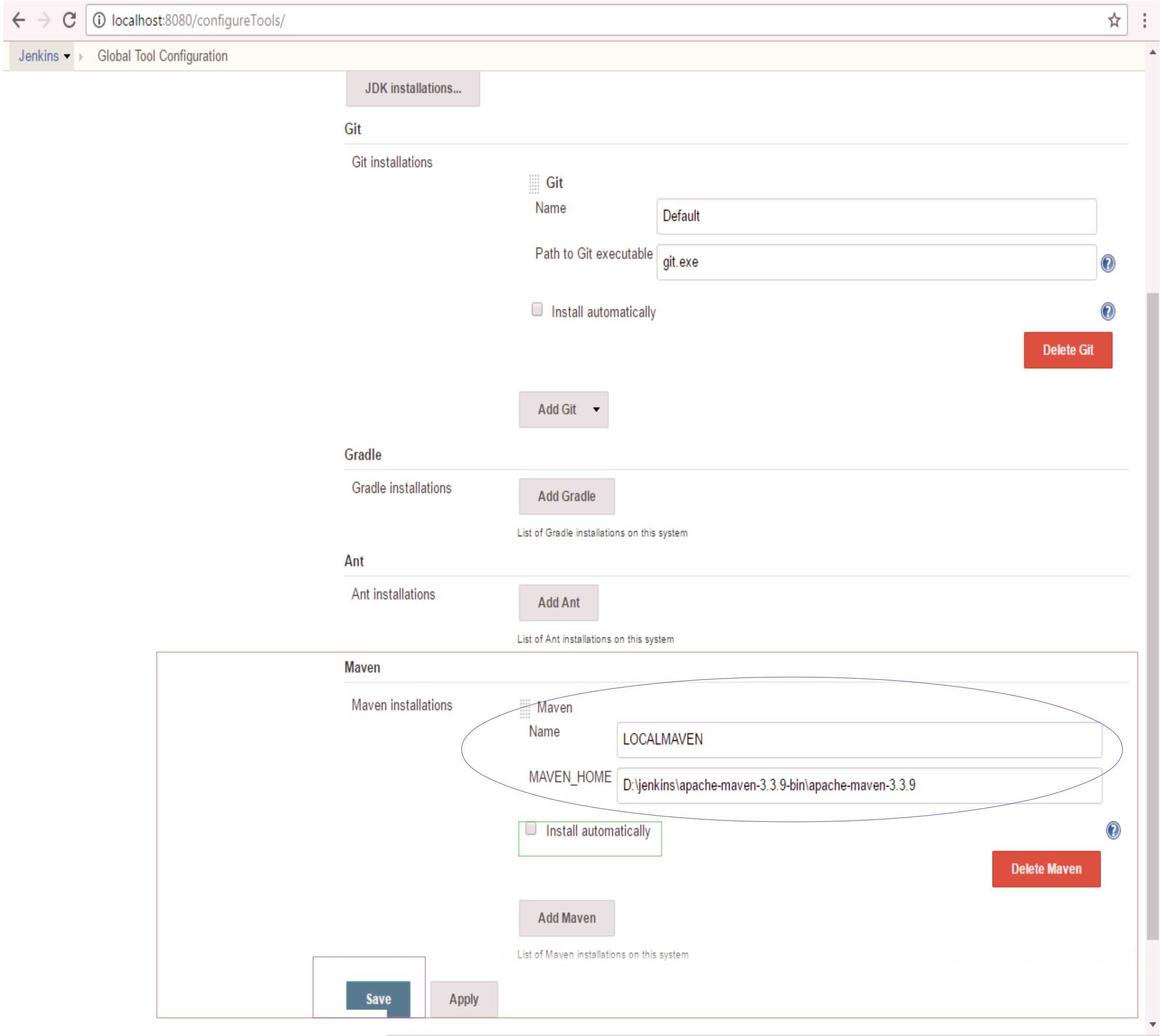
Manage Nodes
Add, remove, control and monitor the various nodes that Jenkins runs jobs on.

About Jenkins
See the version and license information.

Manage Old Data
Scrub configuration files to remove remnants from old plugins and earlier versions.

(c)In the **Global Team Configuration**, scroll down till you see the Maven section and then

- Click on the **‘Add Maven’** button.
- Uncheck the **‘Install automatically’** option.
- Add any name for the setting and the location of the **MAVEN_HOME.**
- Then, click on the **‘Save’** button at the end of the screen.



localhost:8080/configureTools/

Jenkins ▸ Global Tool Configuration

Git

Git installations

Git

Name: Default

Path to Git executable: git.exe

□ Install automatically

Gradle

Gradle installations

List of Gradle installations on this system

Ant

Ant installations

List of Ant installations on this system

Maven

Maven installations

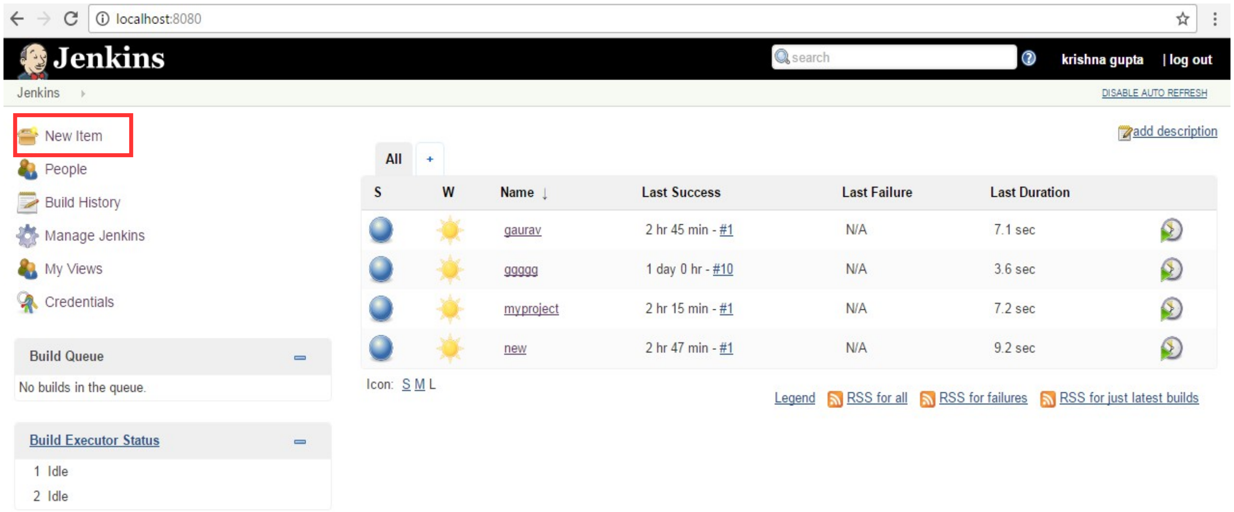
Maven

Name: LOCALMAVEN

MAVEN_HOME: D:\jenkins\apache-maven-3.3.9-bin\apache-maven-3.3.9

□ Install automatically

List of Maven installations on this system (d)We can now create a job with the **'Maven project'** option. In the Jenkins dashboard, click the New Item option.



S	W	Name ↓	Last Success	Last Failure	Last Duration
●	☀	gaurav	2 hr 45 min - #1	N/A	7.1 sec
●	☀	ggggg	1 day 0 hr - #10	N/A	3.6 sec
●	☀	myproject	2 hr 15 min - #1	N/A	7.2 sec
●	☀	new	2 hr 47 min - #1	N/A	9.2 sec

Build Queue

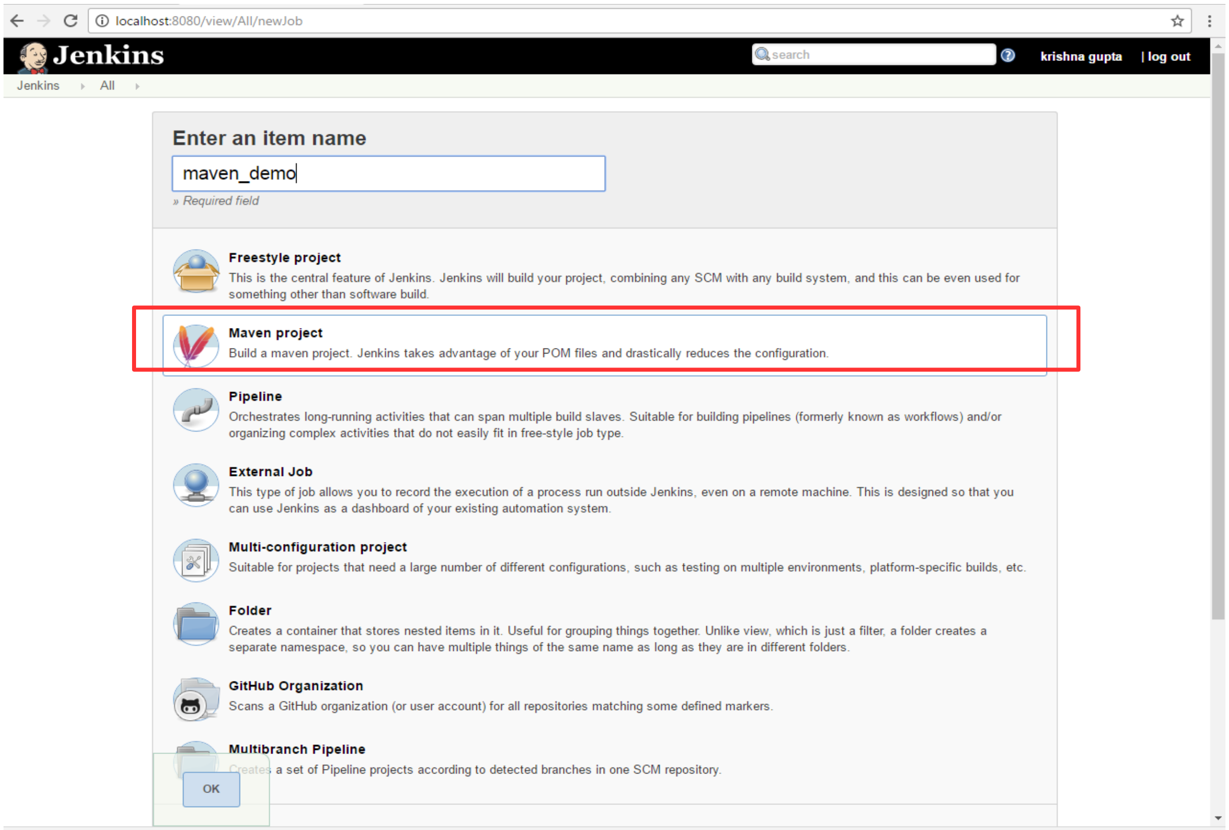
No builds in the queue.

Build Executor Status

1 Idle

2 Idle

(e) **'Maven project'** is available in the list of type of Project/New Item.



Enter an item name

maven_demo

» Required field

Freestyle project
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.

Maven project
Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.

Pipeline
Orchestrates long-running activities that can span multiple build slaves. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.

External Job
This type of job allows you to record the execution of a process run outside Jenkins, even on a remote machine. This is designed so that you can use Jenkins as a dashboard of your existing automation system.

Multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

Folder
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.

GitHub Organization
Scans a GitHub organization (or user account) for all repositories matching some defined markers.

Multibranch Pipeline
Creates a set of Pipeline projects according to detected branches in one SCM repository.