



E.C.I.NETWORKS

WIFI AUTOMATION – ROBOT AUTOMATION – INSTALLATION MANUAL

Bell Canada: ATL Lab

Bell

Contact:

Angelo Virgilio

Angelo.virgilio@ecin.ca

Mobile: 416.605.1296

Revisions

Version	Primary Author(s)	Description of Version	Date Completed
0.1	Arijit Saha	First Draft version	May 30, 2017
0.2	Angelo Virgilio	Added template, formatted and updated various sections	June 2, 2017
0.3	Angelo Virgilio	Added New Section - Next steps	June 7, 2017
1.0	Arijit Saha	User Manual – Complete description for MySQL Project	Aug 15, 2017
2.0	Arijit Saha	Final Version – Robot Automation Project (Integrated)	Oct 18, 2017

Review & Approval

Requirements Document Approval History

Approving Party	Version Approved	Signature	Date
Bell Canada: Bertrand Camus Intissar Harrabi	0.3		

Requirements Document Review History

Reviewer	Version Reviewed	Signature	Date
Angelo Virgilio	0.3		June 9, 2017

Table of Contents

1. Software To Be Installed	3
2. Installation Process – Postman and Newman	4
2.1 Install – Postman	4
2.2 Install – Newman	7
3. Installation Process – Python	8
3.1 Setting up Environmental Variables.....	10
3.2 Install – WxPython.....	13
3.3 Install – Setup Tools	16
3.4 Install – PIP	17
4. Installation Process – Robot Framework and RIDE	18
4.1 Install – Robot Framework.....	18
4.2 Install – RIDE.....	19
5. Installation – ELK	21
6. Installations – Jenkins	24
6.1 Creating New view	32
6.2 Creating New Job	34
7. Installation – Node.....	37
7.1 Setting Environmental Variable	40
7. Installation – Selenium	43
8. Installation – Chrome Driver.....	44

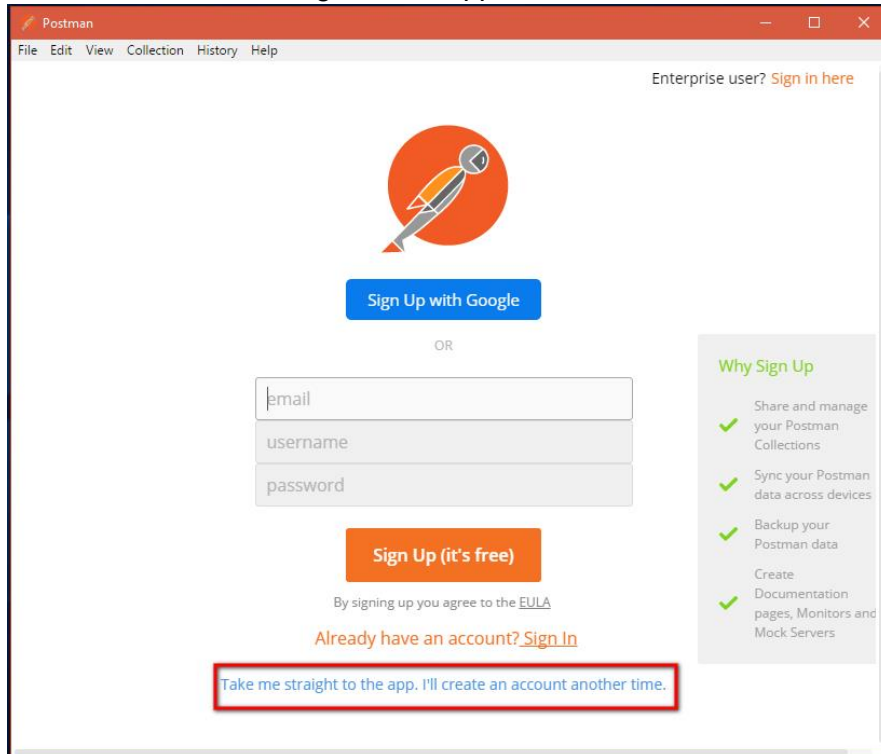
1. SOFTWARE TO BE INSTALLED

- The software to be installed are listed below. The process of installation is also explained further in the document.
 - » Postman
 - » Newman
 - » Python and PIP
 - » Robot Framework and RIDE
 - » ELK (Elastic Search, Logstash, Kibana)
 - » Jenkins
 - » Selenium
 - » Chrome driver
 - » Node

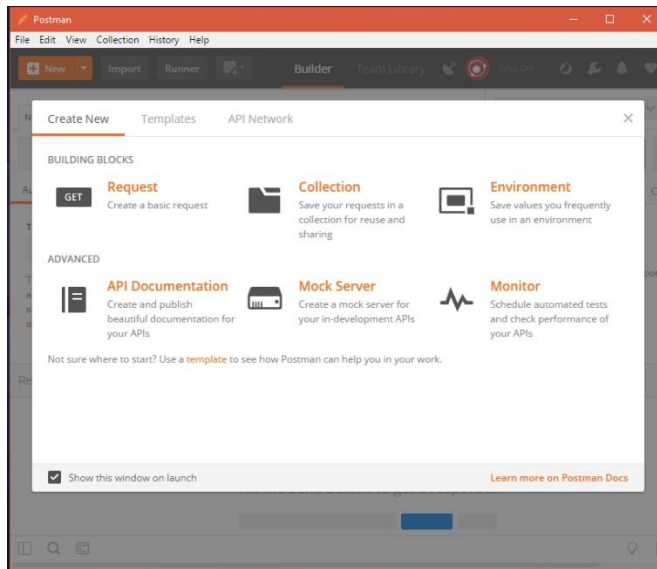
2. INSTALLATION PROCESS – POSTMAN AND NEWMAN

2.1 INSTALL – POSTMAN

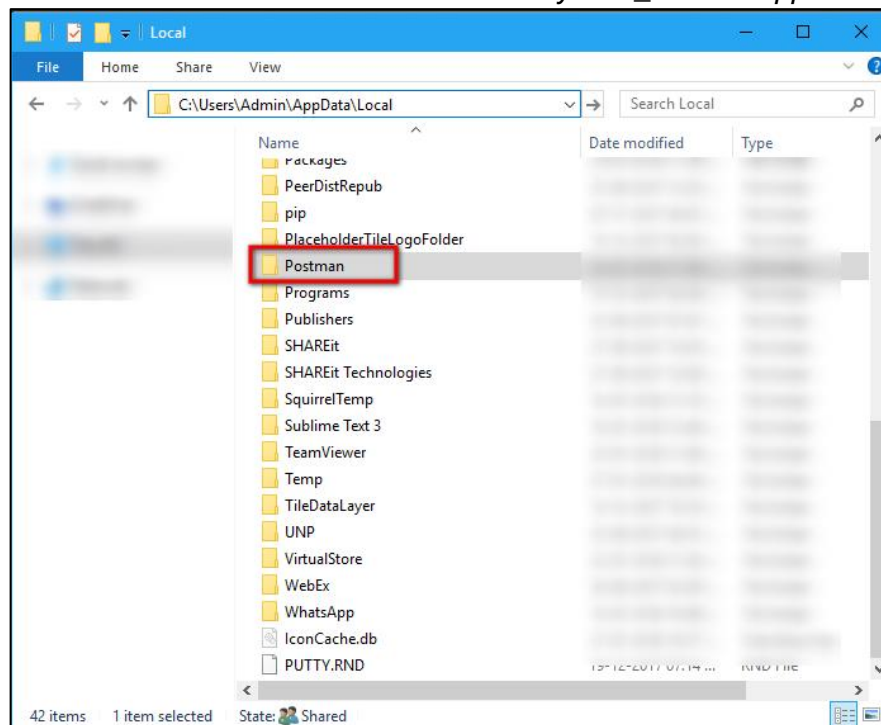
1. Click the link to download to the app for postman:
<https://www.getpostman.com/>
2. Select the version for the OS and click the download.
3. Run the installer
4. Click the “Take me straight to the app”.



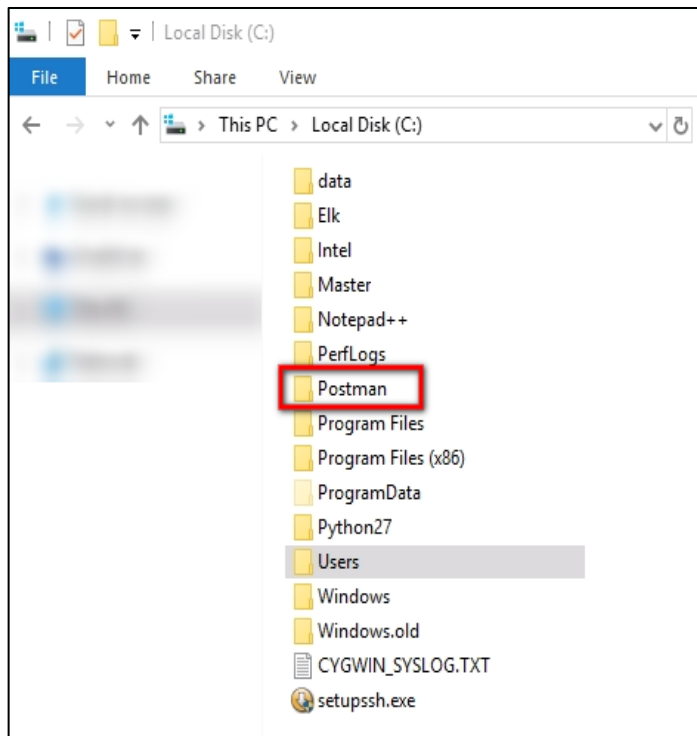
5. Once clicked, it will launch the app.



6. It will be default stored in the “C:\Users\<System_Name>\AppData\Local\Postman”.

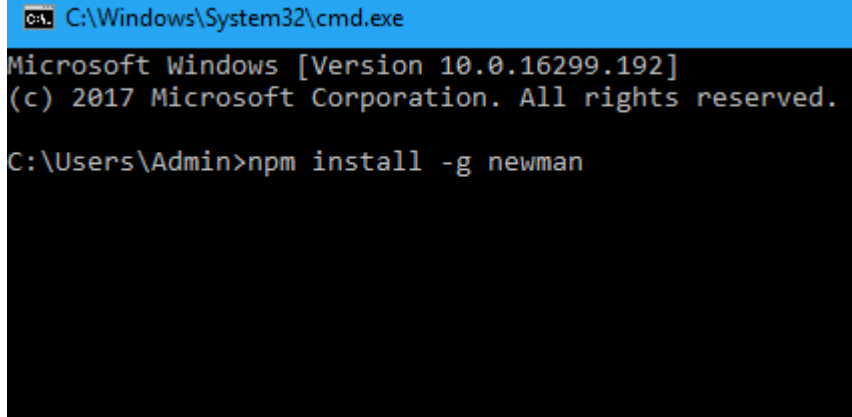


7. Change the folder location to “C:\Postman”



2.2 INSTALL – NEWMAN

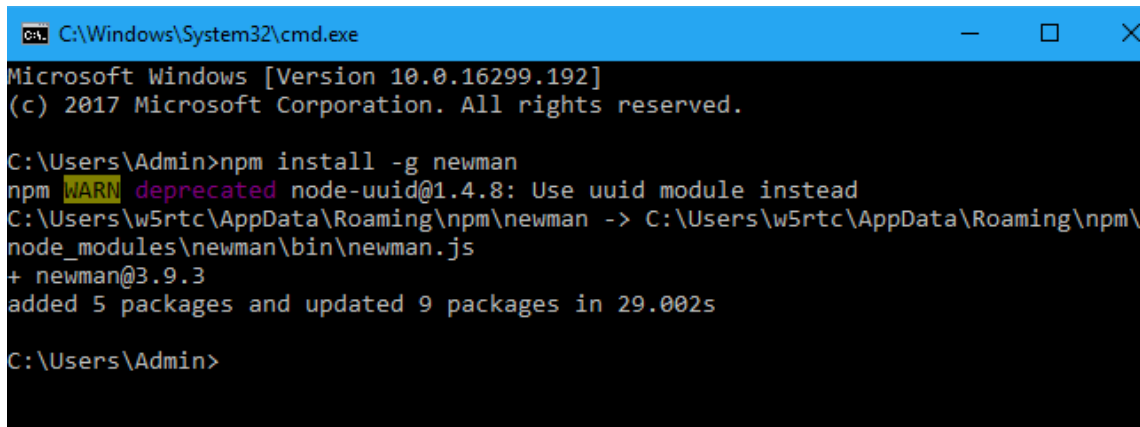
- a. The user has to install node first in order to install newman. (Please refer node installation - [Node](#)).
- b. Open command prompt and enter `npm install -g newman` and press enter.



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.16299.192]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\Admin>npm install -g newman
```

- c. It will start to install.

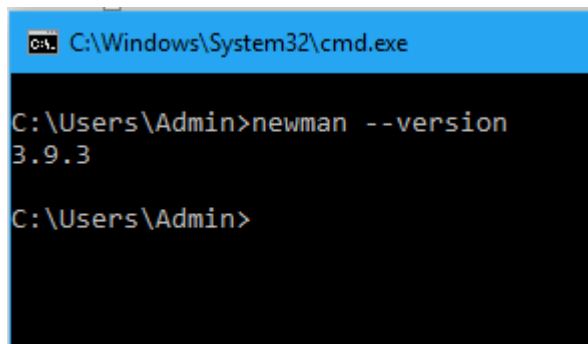


```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.16299.192]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\Admin>npm install -g newman
npm WARN deprecated node-uuid@1.4.8: Use uuid module instead
C:\Users\w5rtc\AppData\Roaming\npm\newman -> C:\Users\w5rtc\AppData\Roaming\npm\node_modules\newman\bin\newman.js
+ newman@3.9.3
added 5 packages and updated 9 packages in 29.002s

C:\Users\Admin>
```

- d. To check whether newman is installed, enter `newman --version`.



```
C:\Windows\System32\cmd.exe

C:\Users\Admin>newman --version
3.9.3

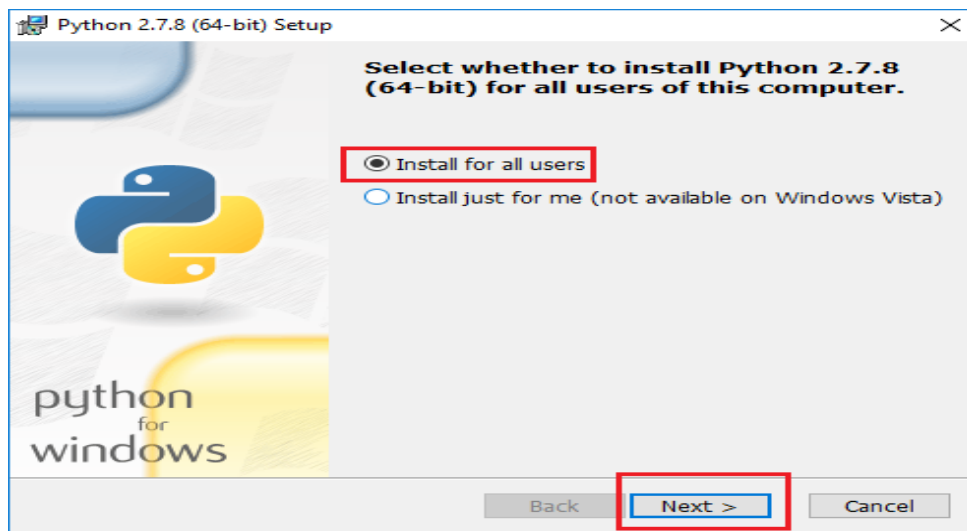
C:\Users\Admin>
```


3. INSTALLATION PROCESS – PYTHON

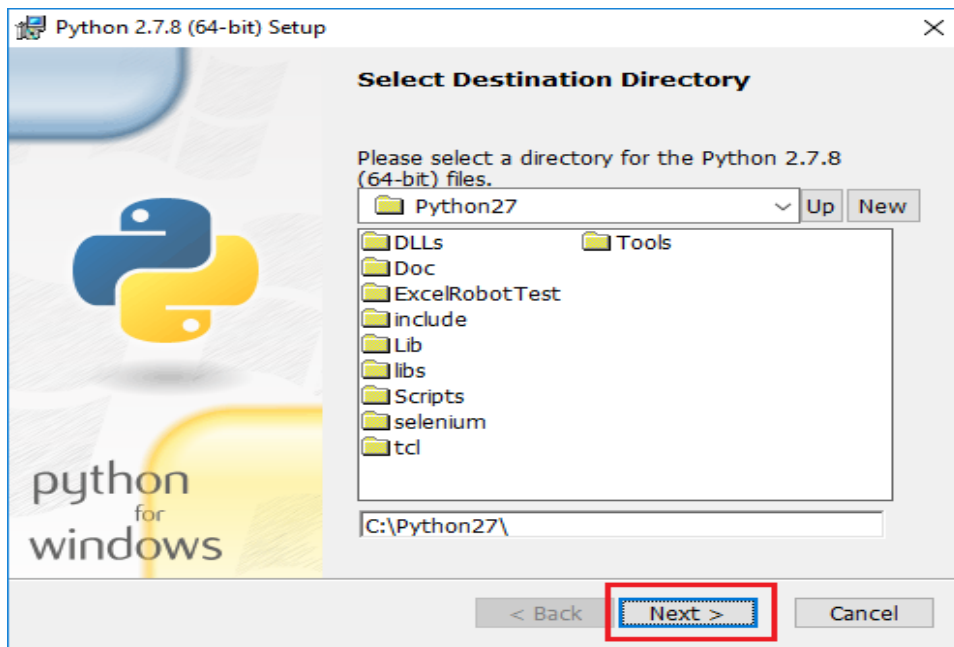
1. Download the Python 2.7.8 installer from
<https://www.python.org/download/releases/2.7.8/>



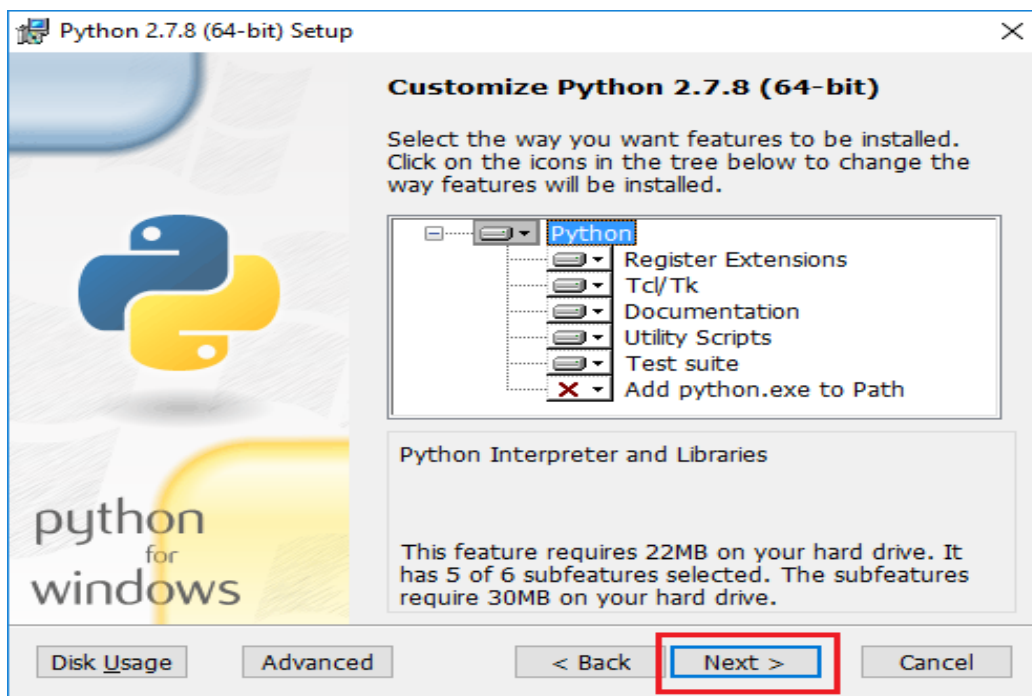
2. Run the installer, select “Install for all users,” and then click “**Next.**” The installer will even set the path variable.



3. On the directory selection screen, keep the installation directory as “**C:\Python27**” and click “**Next.**”



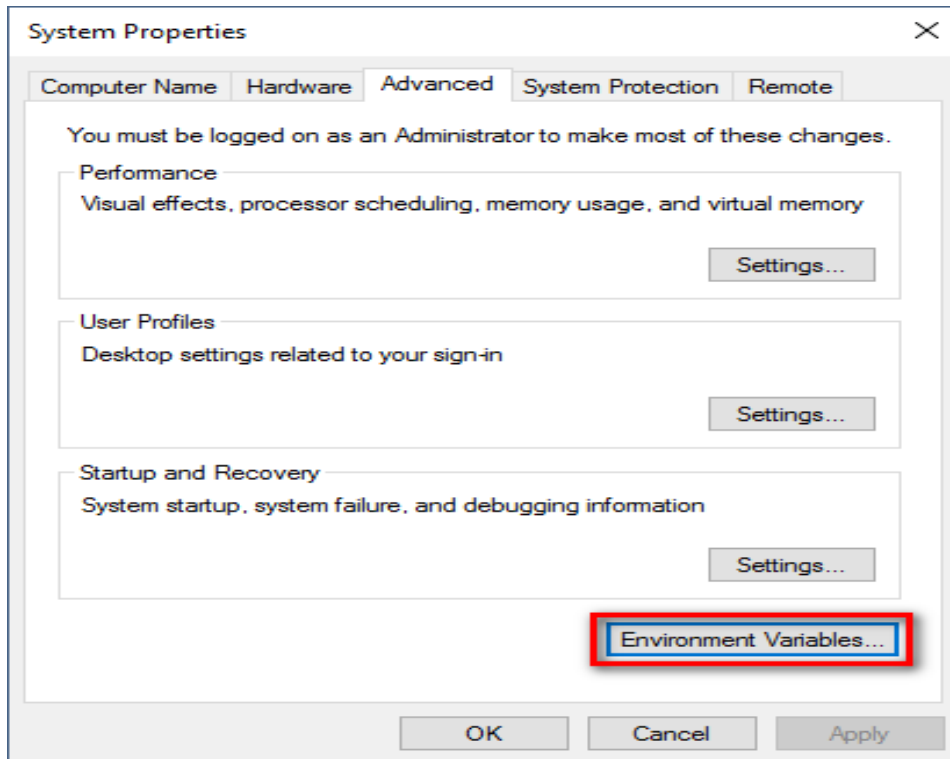
- On the customization screen, scroll down, to check the options for installing and then click **“Next”**.



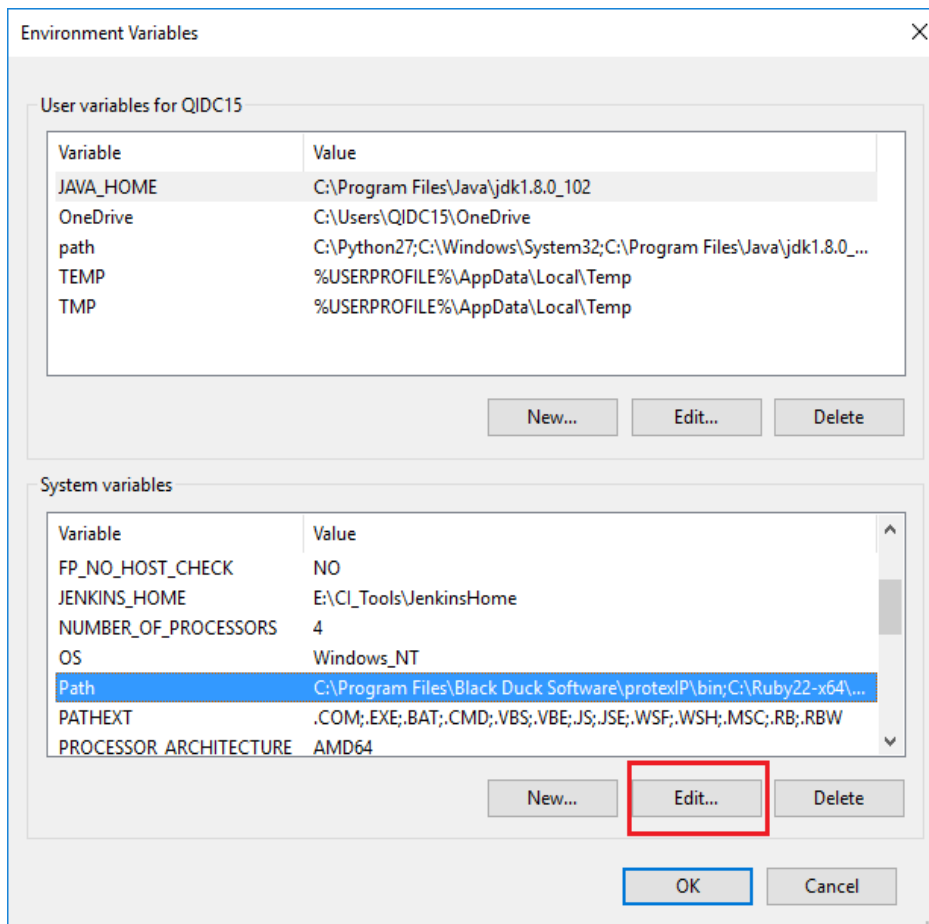
- Then click **“Finish”** once the installation is complete.

3.1 SETTING UP ENVIRONMENTAL VARIABLES

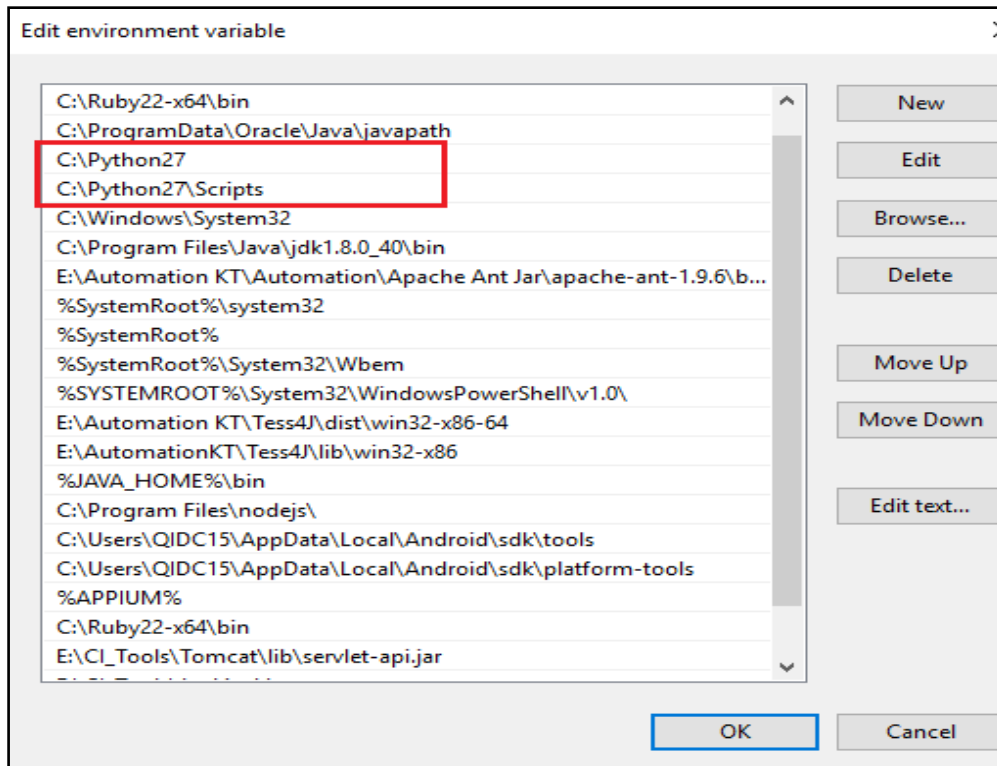
1. Hit Start, type “advanced system settings,” and then select the “View advanced system settings” option. In the “System Properties” window that opens, on the “Advanced” tab, click the “Environment Variables” button.
2. Open Start > Settings > Control Panel > System > Advanced > Environment Variables. There are User variables and System variables and the difference between them is that User variables affect only the current users, whereas System variables affect all users.



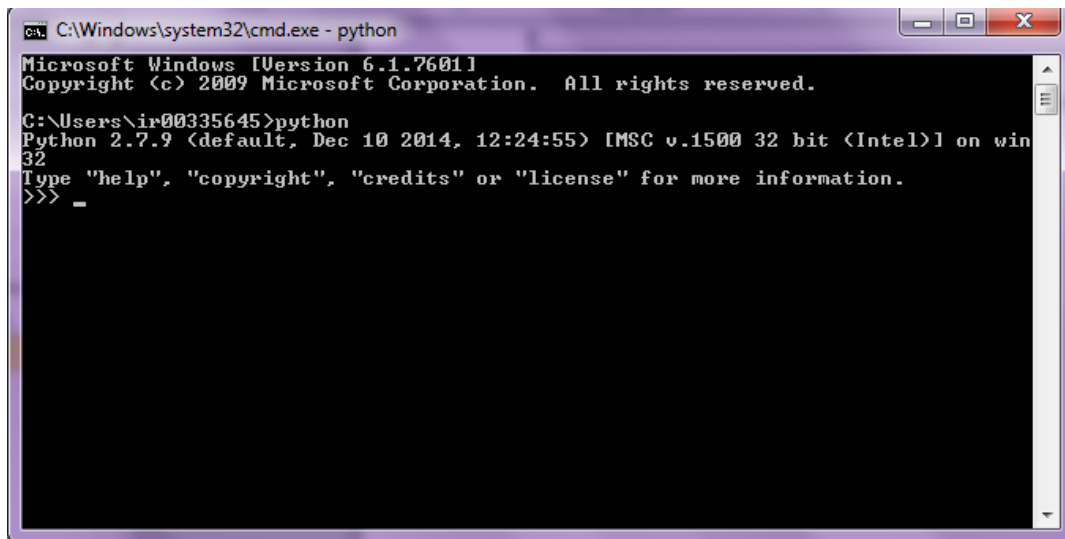
3. Find the “**Path**” variable under “**System Variables**” and select it.
4. After selection, click “**Edit**”. A window will open for where the path variables will be listed. Adding new path variable and editing existing variables can be done.



5. Click **"New"** button and enter data in the format
Enter **"C:\Python27"**.
Again click **"New"** and enter **"C:\Python27\Scripts"**.
Click **"Ok"**

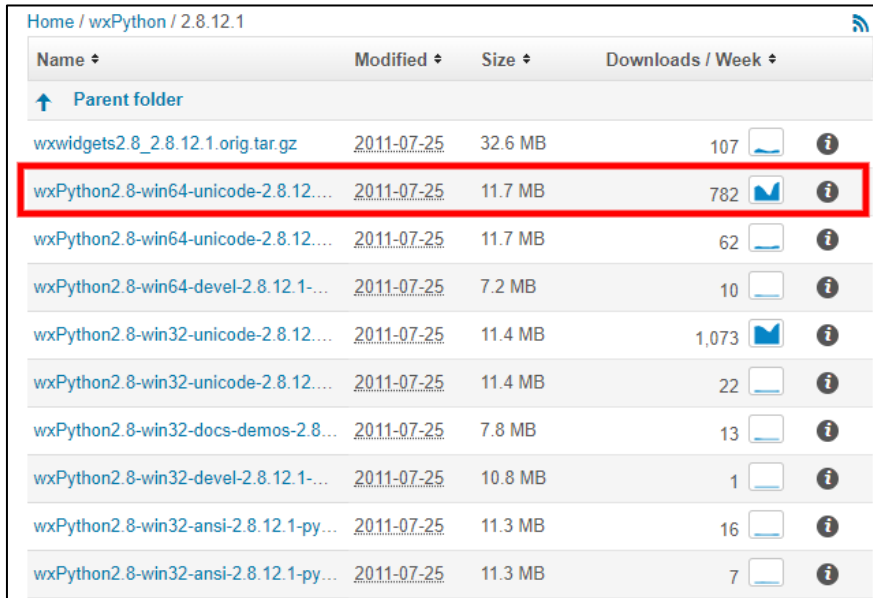


6. From command prompt, type **python -version** to make sure that Python has been installed properly.























3.2 INSTALL – WXPYTHON

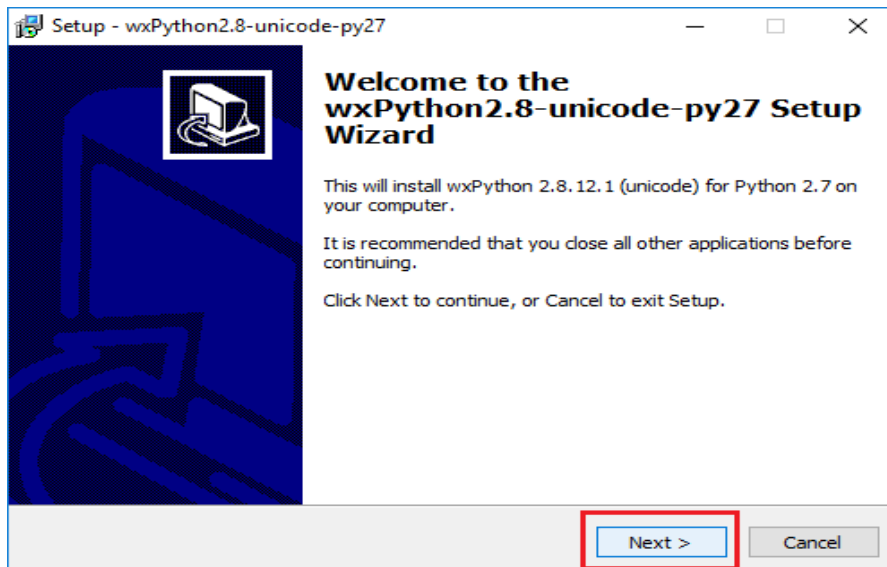
1. Download the wxPython installer from
<https://sourceforge.net/projects/wxpython/files/wxPython/2.8.12.1/>
2. Open the link and click on “wxPython2.8-win64-unicode-2.8.12.1-py27.exe”



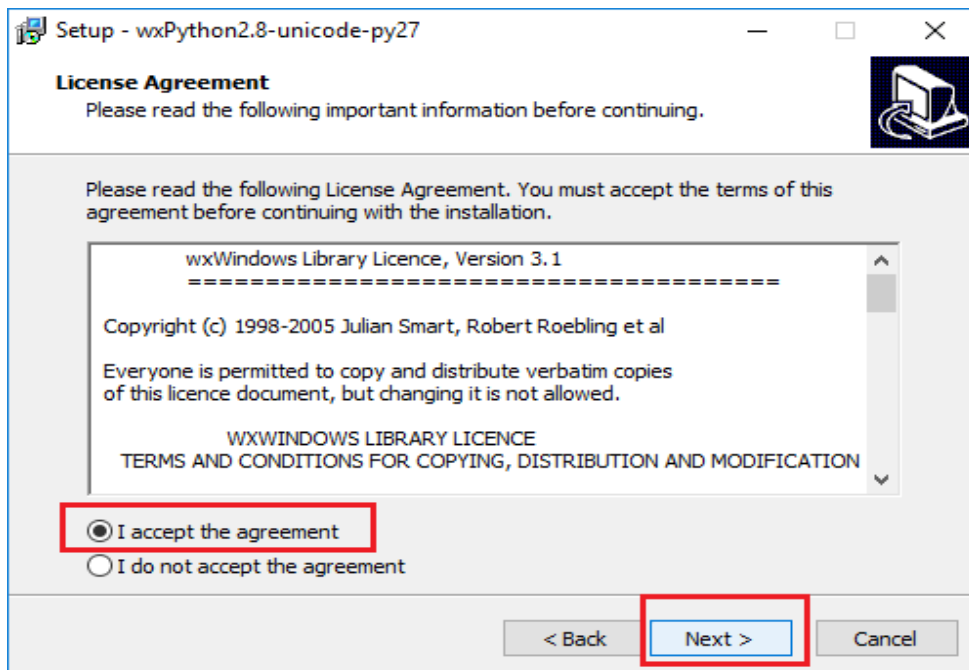
Home / wxPython / 2.8.12.1

Name ▾	Modified ▾	Size ▾	Downloads / Week ▾	
↑ Parent folder				
wxwidgets2.8_2.8.12.1.orig.tar.gz	2011-07-25	32.6 MB	107	 
wxPython2.8-win64-unicode-2.8.12....	2011-07-25	11.7 MB	782	 
wxPython2.8-win64-unicode-2.8.12....	2011-07-25	11.7 MB	62	 
wxPython2.8-win64-devel-2.8.12.1-...	2011-07-25	7.2 MB	10	 
wxPython2.8-win32-unicode-2.8.12....	2011-07-25	11.4 MB	1,073	 
wxPython2.8-win32-unicode-2.8.12....	2011-07-25	11.4 MB	22	 
wxPython2.8-win32-docs-demos-2.8...	2011-07-25	7.8 MB	13	 
wxPython2.8-win32-devel-2.8.12.1-...	2011-07-25	10.8 MB	1	 
wxPython2.8-win32-ansi-2.8.12.1-py...	2011-07-25	11.3 MB	16	 
wxPython2.8-win32-ansi-2.8.12.1-py...	2011-07-25	11.3 MB	7	 

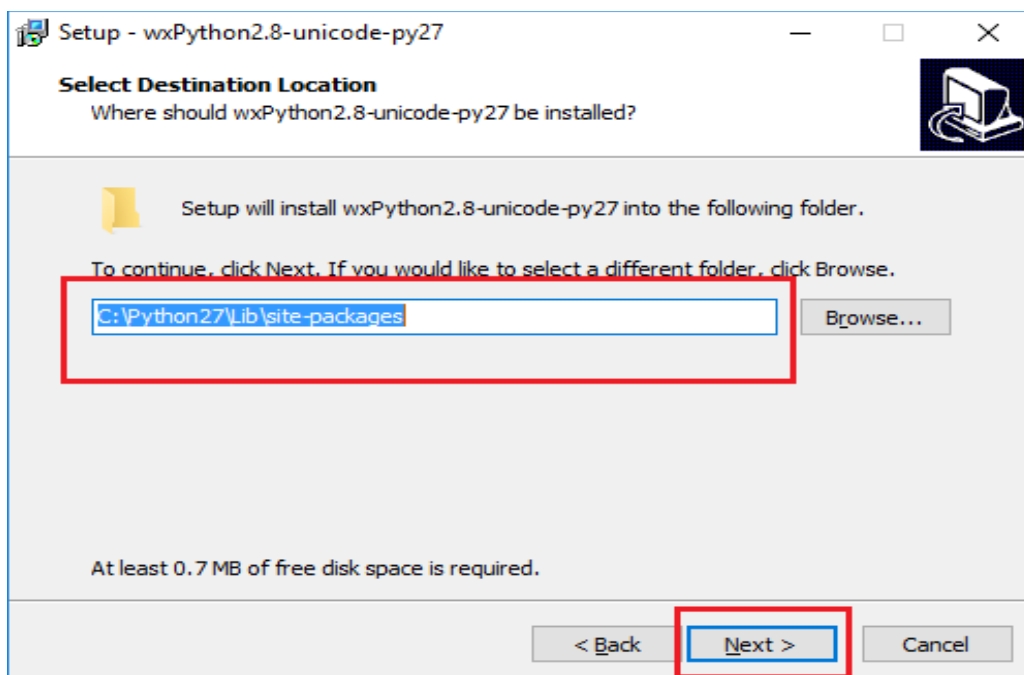
3. Run the installer and click “Next” to continue the setup.



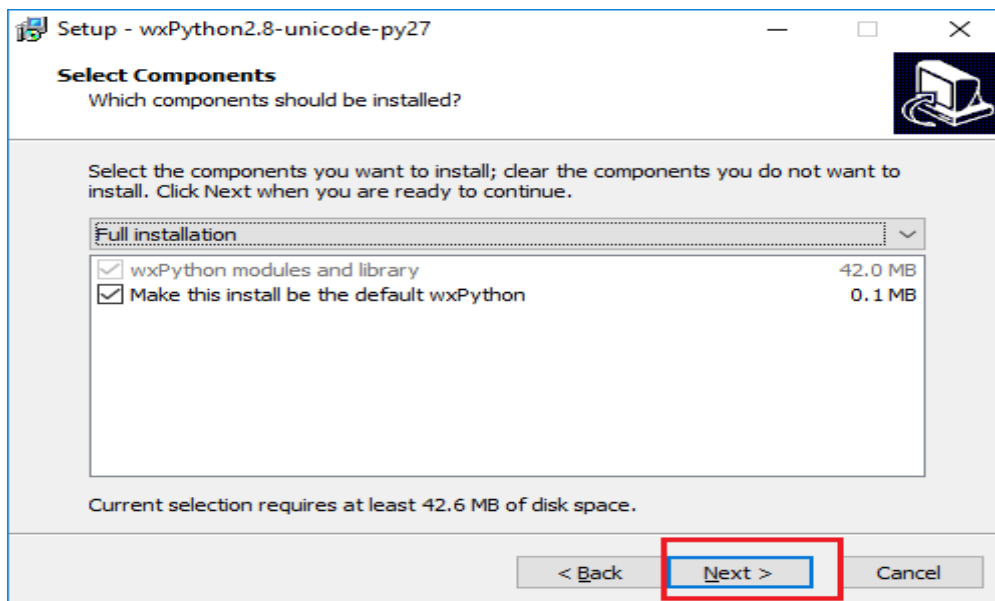
4. In the window, click on radio button to accept the terms of agreement.



5. Click “**Next**” after keeping the default directory “**C:\Python27\Lib\site-packages**” chosen for the installation for this program.



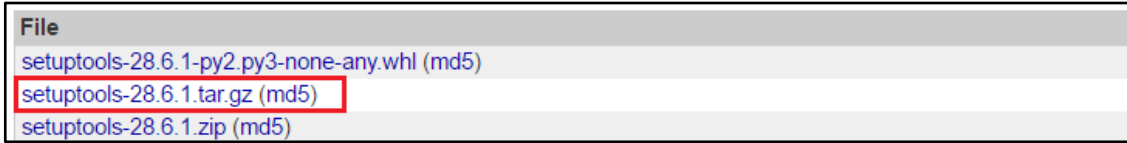
6. Click on “Next” after selecting “**Full Installation**” from the drop down and selecting the checkbox for “**Make this install be the default wxPython**”.



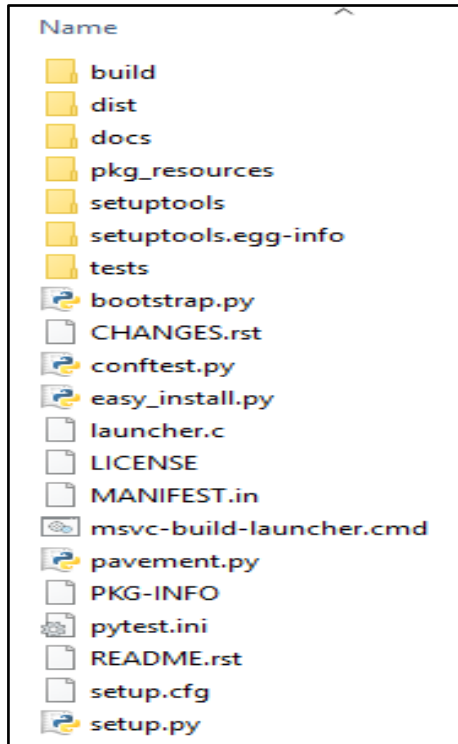
- The installation process will follow and complete after this.
A command line interface will open and the installation will continue.
If the “**ReadMe.txt**” file is open, then close it.

3.3 INSTALL – SETUP TOOLS

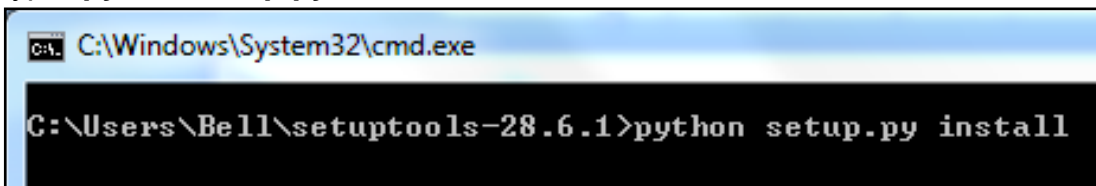
- a. Download setuptools from <https://pypi.python.org/pypi/setuptools/28.6.1>.
- b. Scroll down and click the link to download the setuptools zipped folder.



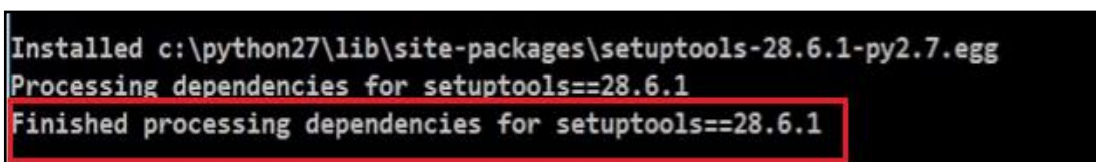
- c. Unzip the download folder in “In\Desired\Location” and the extracted folder “In\Desired\Location \setuptools-28.6.1” should have the contents as follows:



- d. Open the command line and browse by changing directory to the extracted folder and type “**python setup.py install**”



- e. The entire setup will run and the message will appear which will show the successful installation of setuptools.

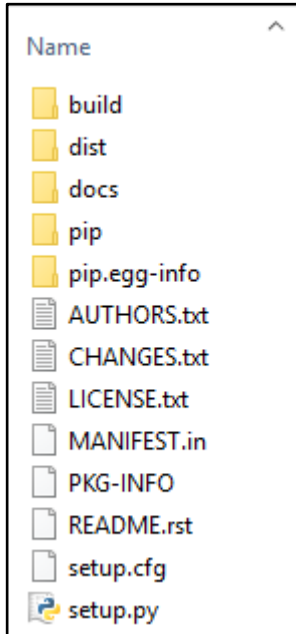


3.4 INSTALL – PIP

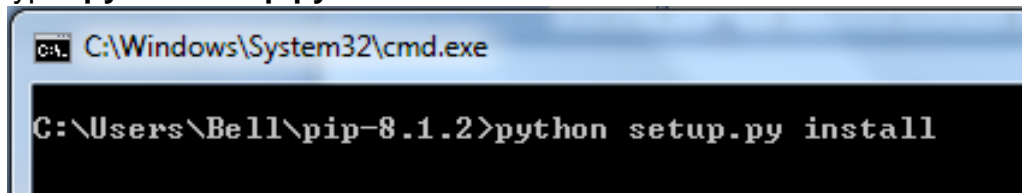
- a. Download pip from <https://pypi.python.org/pypi/pip?>
- b. Scroll down and click the link to download the pip zipped folder.



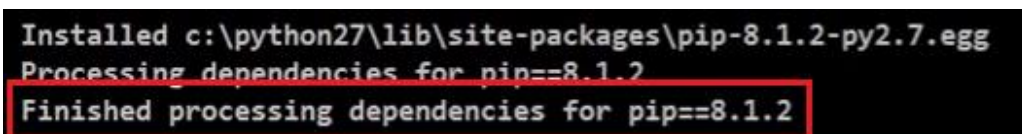
- c. Unzip the download folder in “In\Desired\Location” and the extracted folder “In\Desired\Location \pip-8.1.2” should have the contents as follows:



- d. Open the command line and browse by changing directory to the extracted folder and type “python setup.py install”.



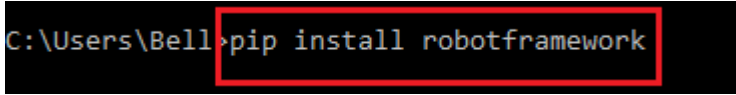
- e. The entire setup will run and the message will appear which will show the successful installation of pip.



4. INSTALLATION PROCESS – ROBOT FRAMEWORK AND RIDE

4.1 INSTALL – ROBOT FRAMEWORK

1. Open the command prompt and browse to “C:\Users\<System_Name>” and type in “**pip install robotframework**”



```
C:\Users\Bell>pip install robotframework
```

2. The successful message will be shown after installation.

4.2 INSTALL – RIDE

- Open the command prompt and browse to “C:\Users\<System_Name>” and type in “**pip install robotframework-ride**”

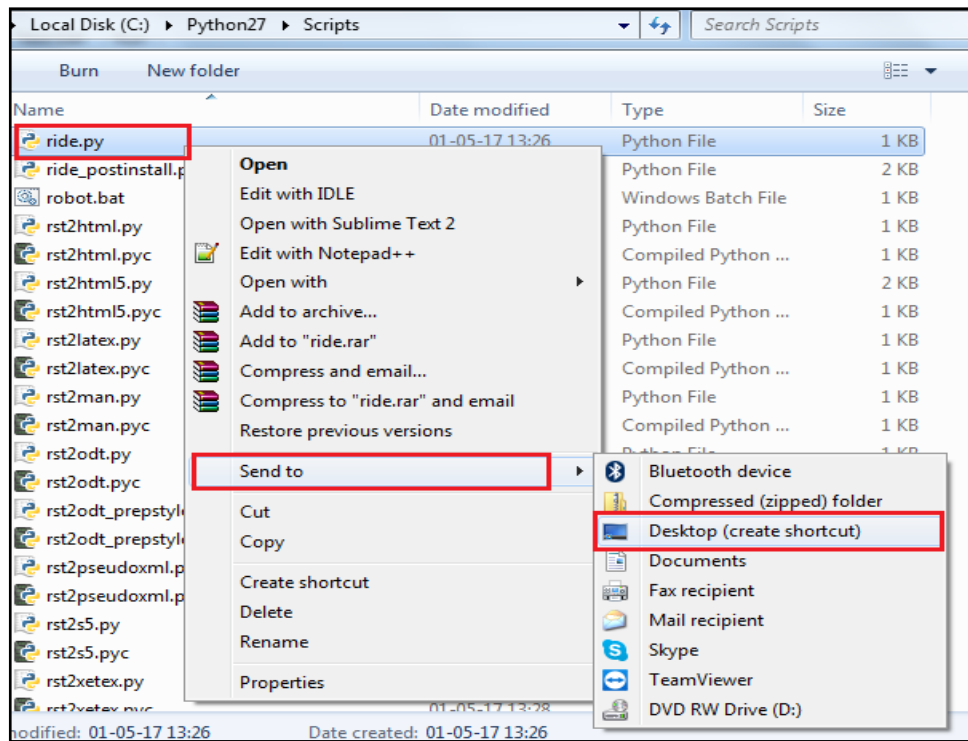
```
C:\Users\Bell>pip install robotframework-ride
```

- The successful message will be shown after installation.

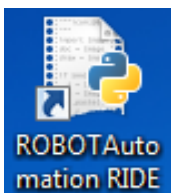
```
Installing collected packages: robotframework-ride
  Running setup.py install for robotframework-ride ... done
Successfully installed robotframework-ride-1.5.2.1
```

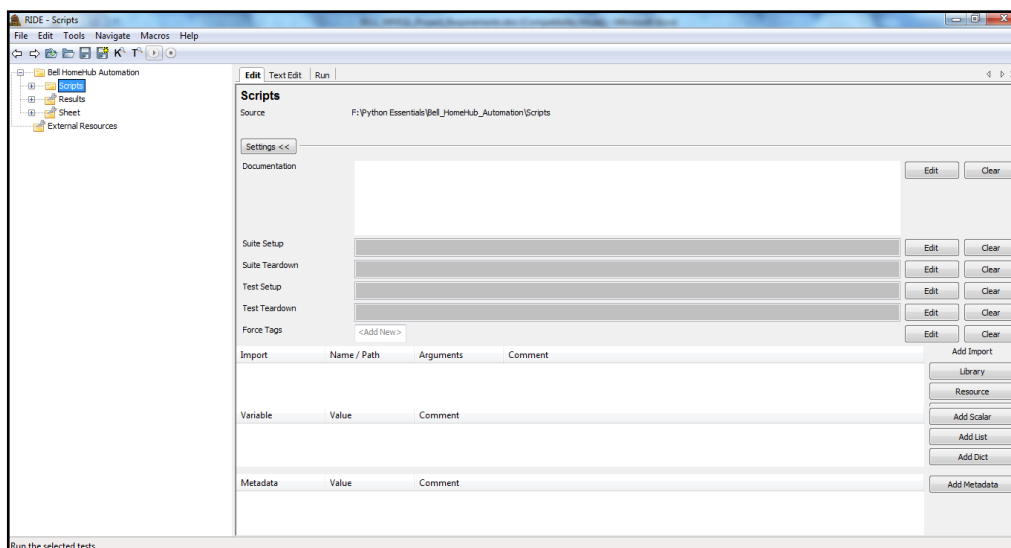
- Create a shortcut of RIDE on the desktop by opening the folder “C:\Python27\Scripts” and right-click on “**ride.py**”.

After the popup menu appears, select “**Send to**” and select “**Desktop (create shortcut)**”



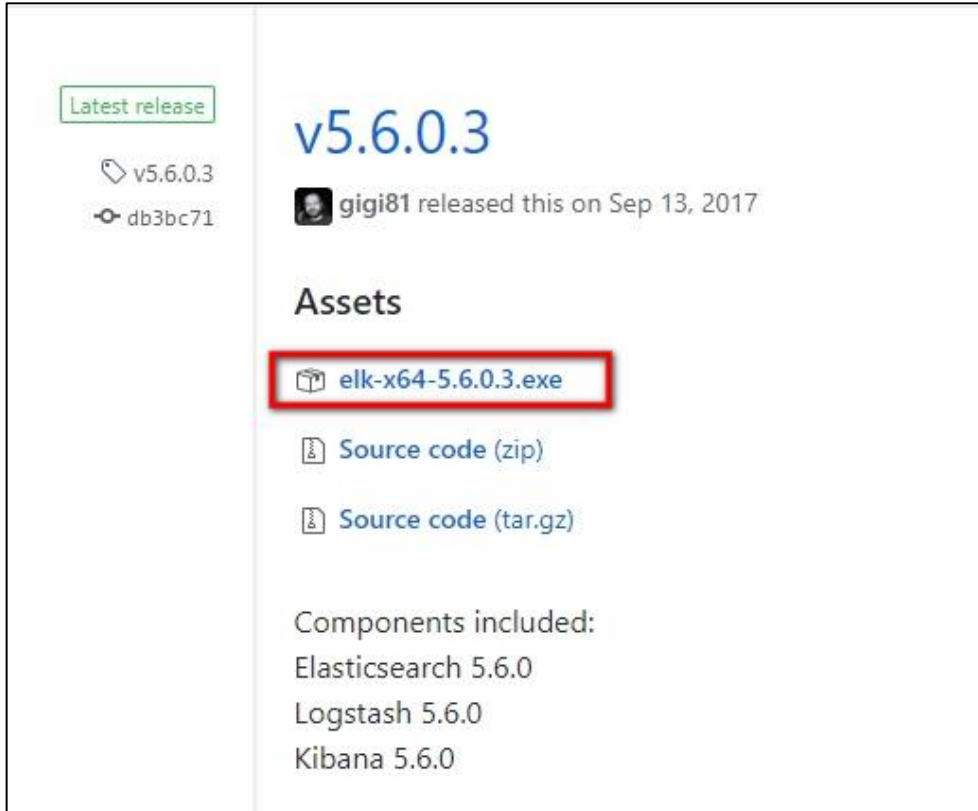
- Rename the created shortcut to “**ROBOTAutomation RIDE.**”
- Double click on shortcut icon to open the RIDE window.



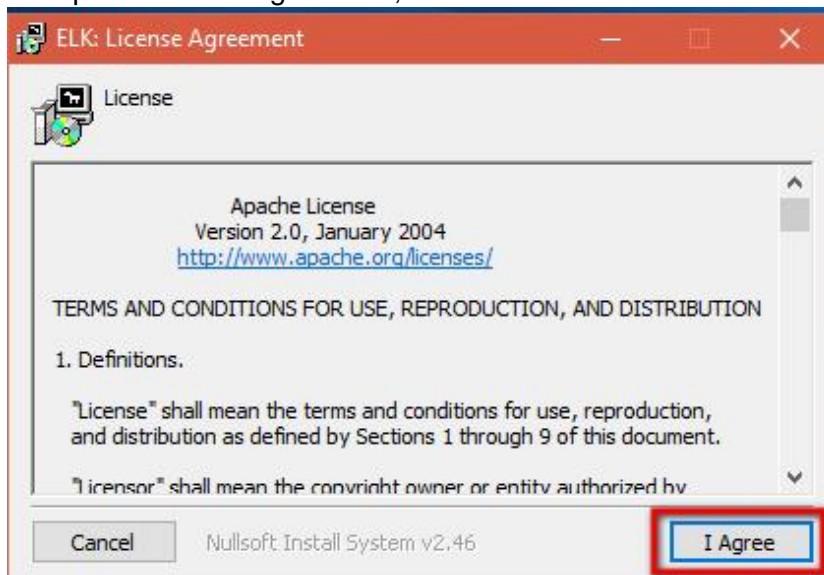


5. INSTALLATION – ELK

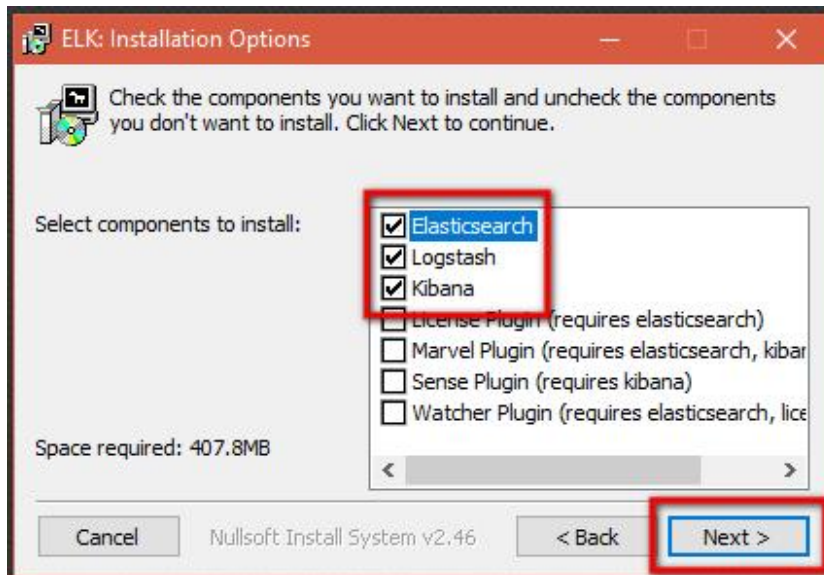
- a. Click the link below to download the ELK (Elastic Search, Kibana and Logstash) installer:
<https://www.codeproject.com/Tips/1083311/ELK-Stack-Install-on-Windows>
- b. In your browser, link the installer to start the download.



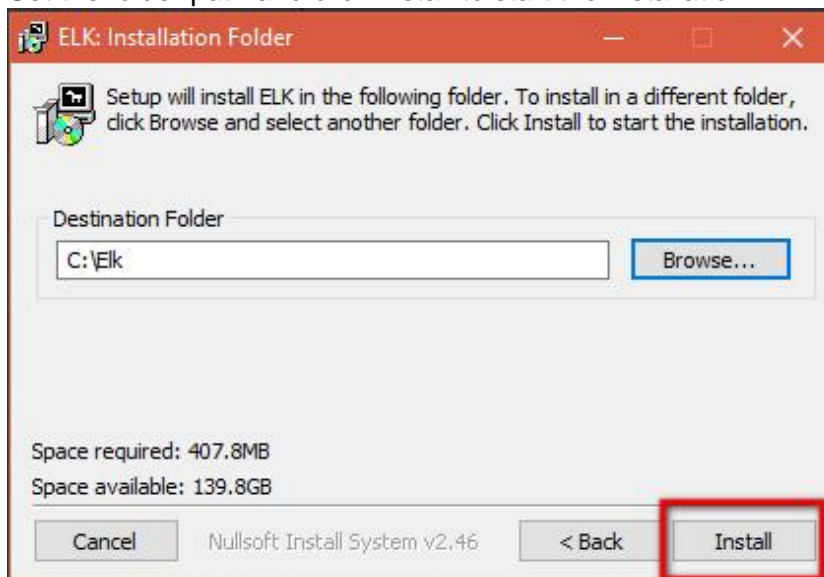
- c. Run the installer from the downloads.
- d. Accept the license agreement, and click continue to install.



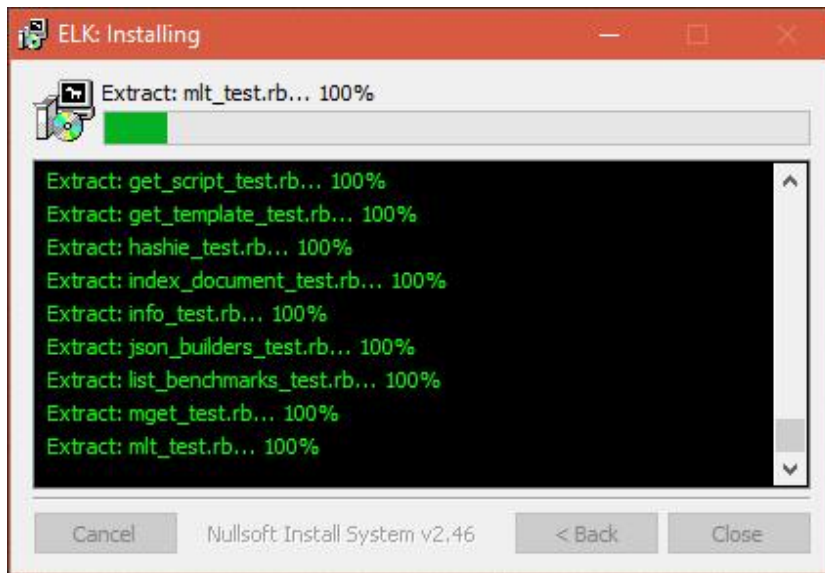
- e. Select Elasticsearch, Logstash and Kibana and click Next button.



- f. Set the folder path and click install to start the installation.



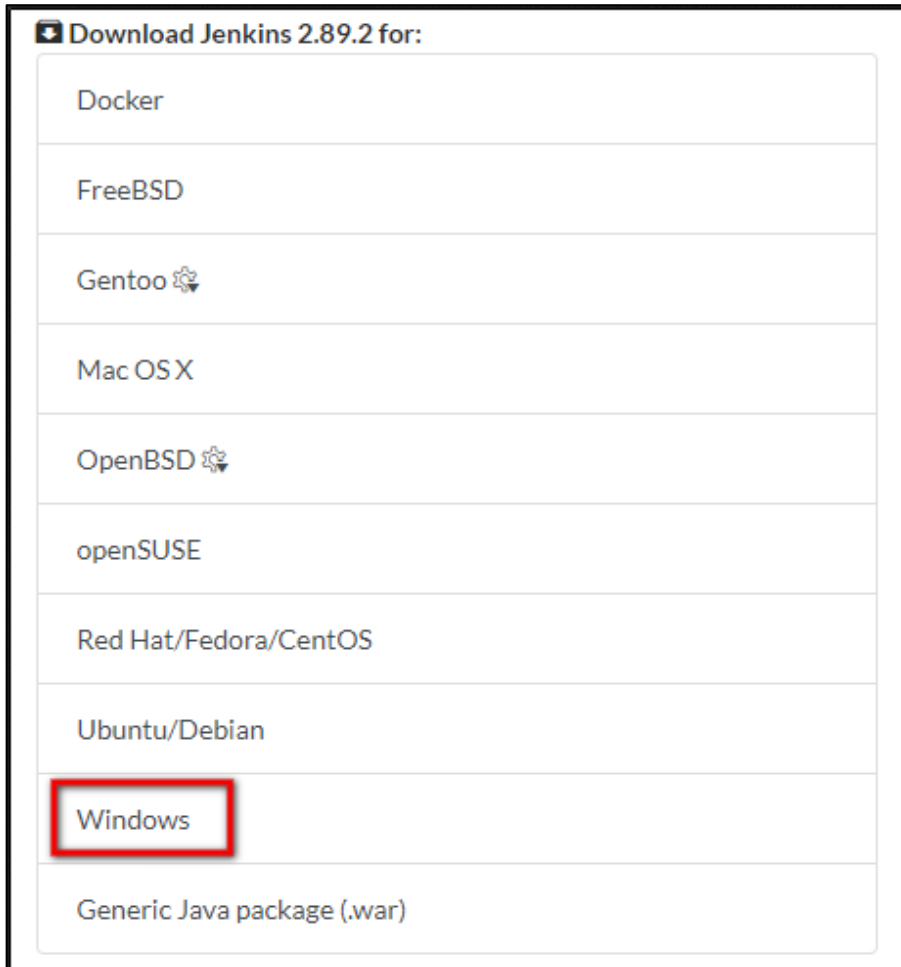
- g. It will start the installation.



h. Once the installation is complete, click Finish to end the setup.

6. INSTALLATIONS – JENKINS

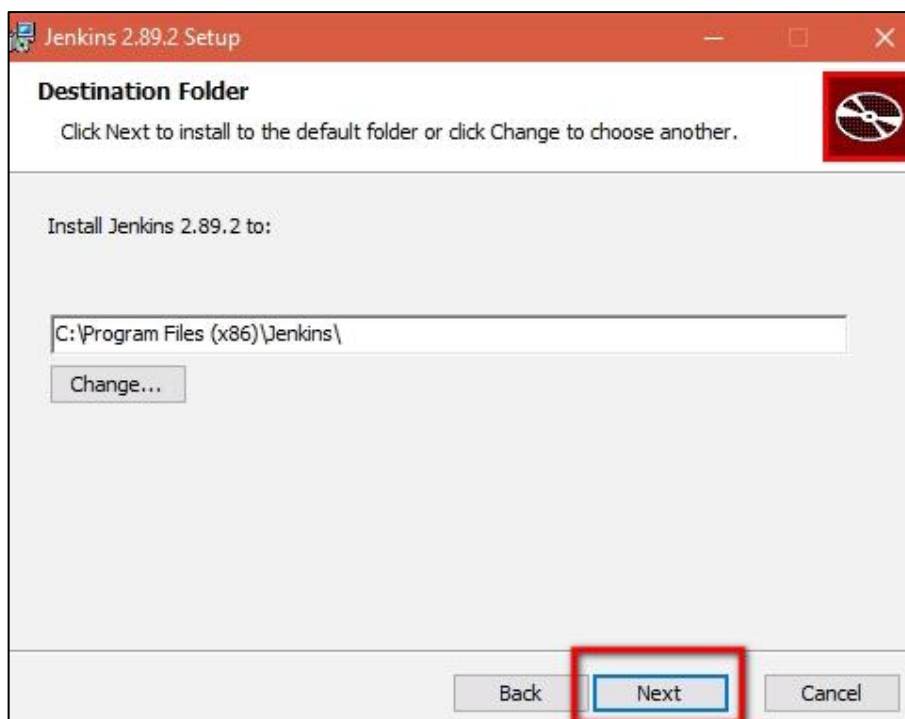
1. Click on the link below to download Jenkins:
<https://jenkins.io/download/>
2. Scroll down and select to download based on the OS requirement. In the below example, it is shown for windows.



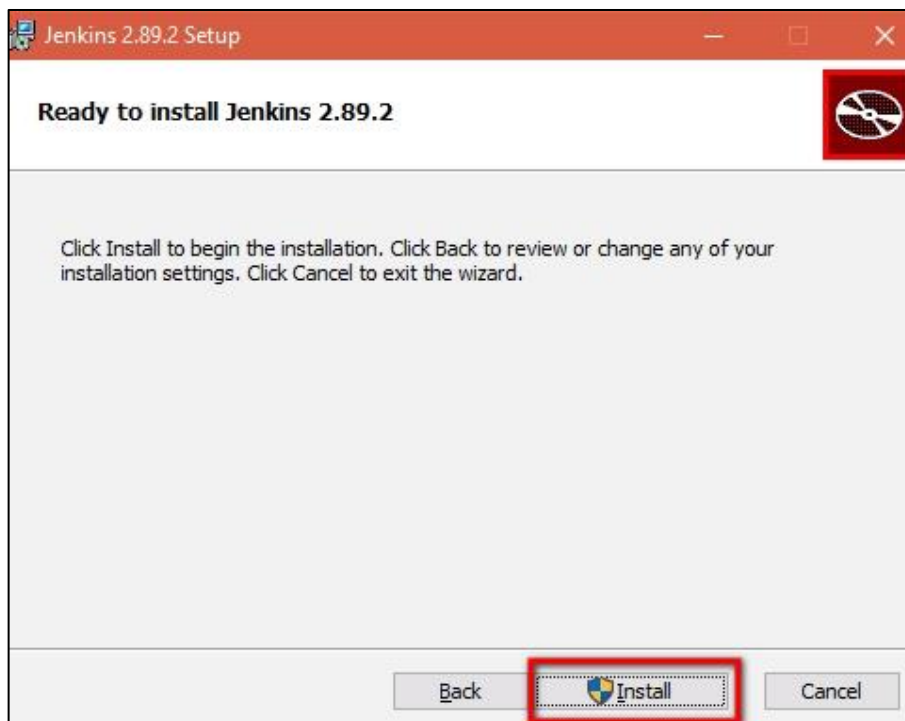
3. Run the installer.
4. Click **Next** button to accept the license agreement.



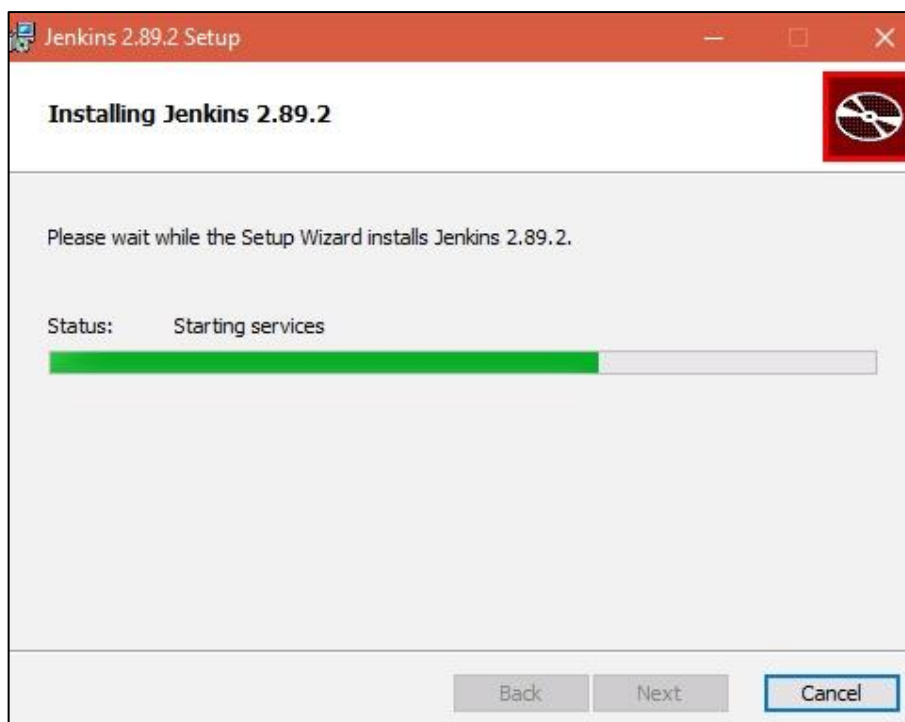
5. click **Next** button to set the folder location.



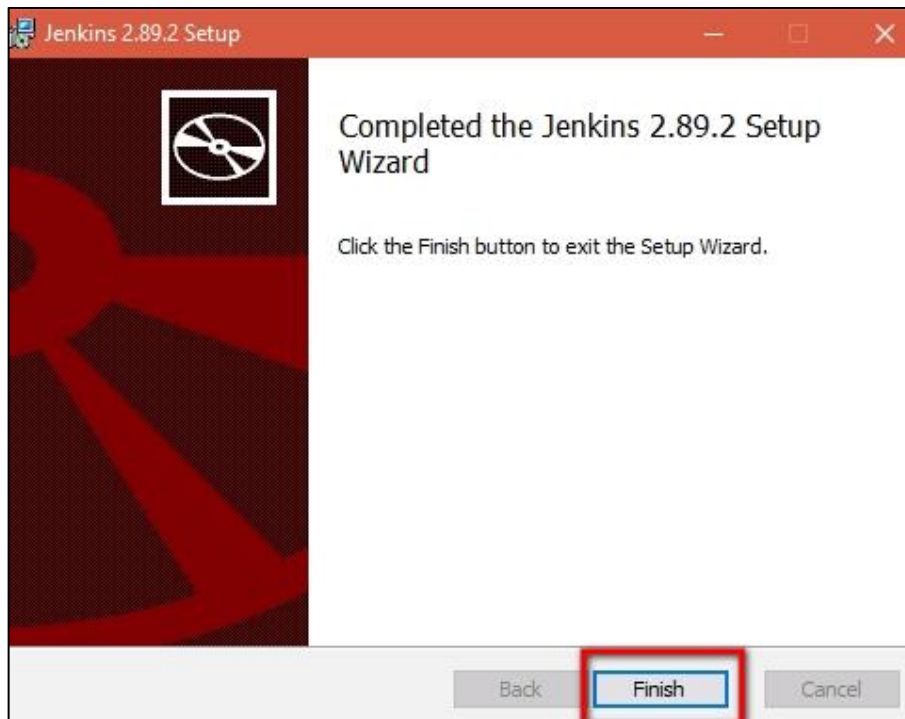
6. Click Install to start the installation.



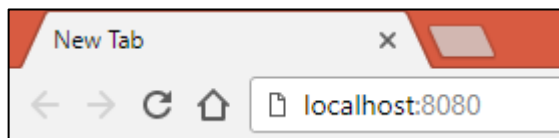
7. Then it will start to install.



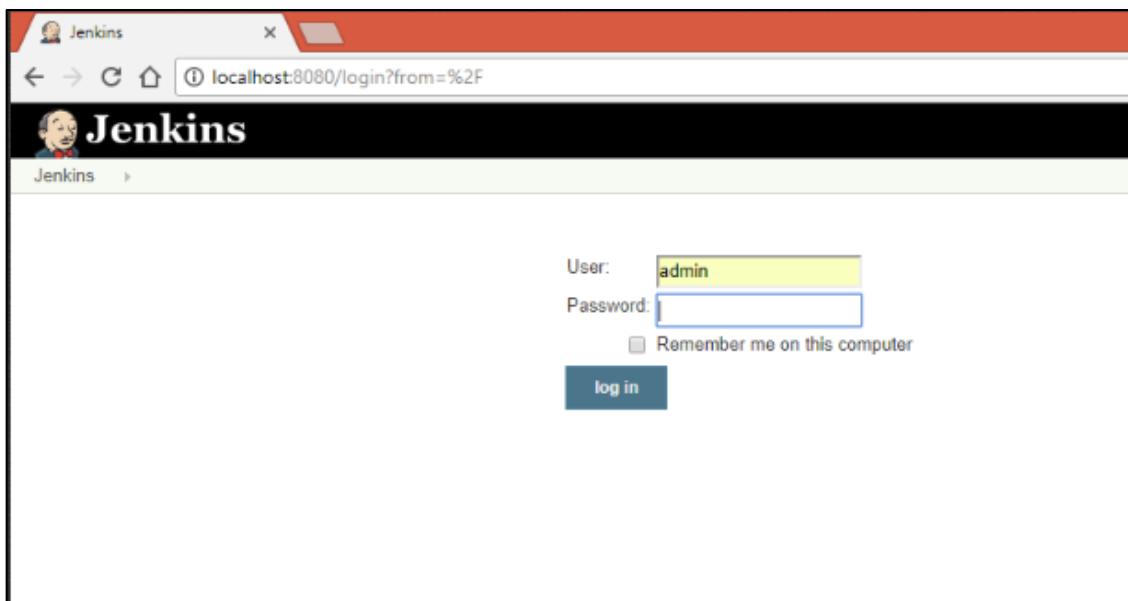
8. Once complete, click Finish to end the installation.



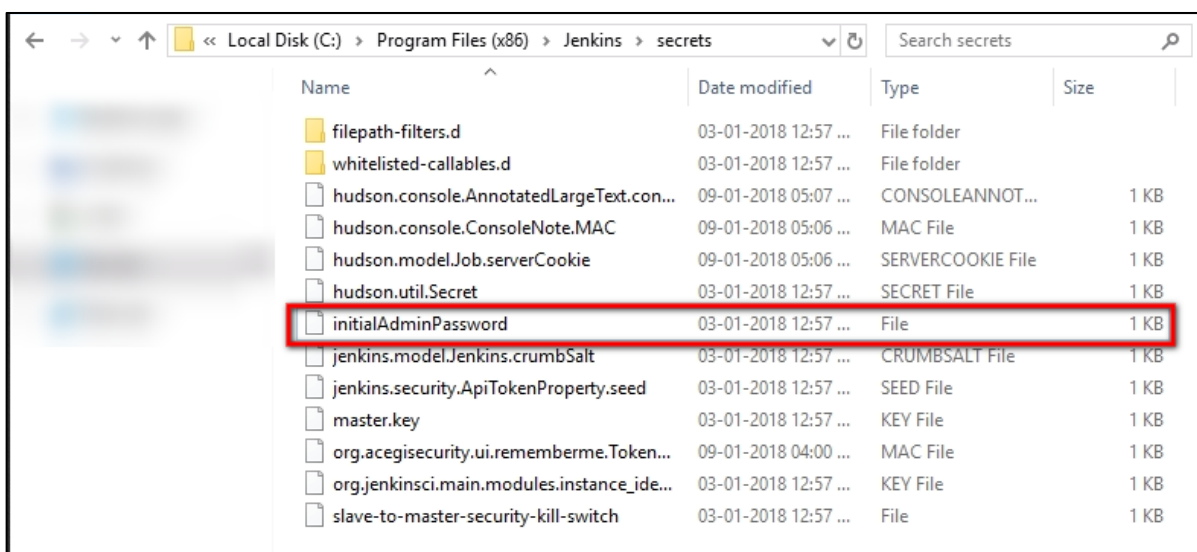
9. Open chrome
10. In the URL bar, enter "localhost:8080" and press enter



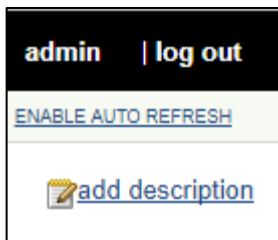
11. It will open Jenkins login page.



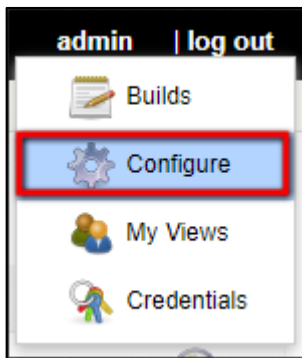
12. For the first to login, the password will be given in the following folder location:
C:\Program Files (x86)\Jenkins\secrets
13. In the above folder, find a file called **initialAdminPassword**.



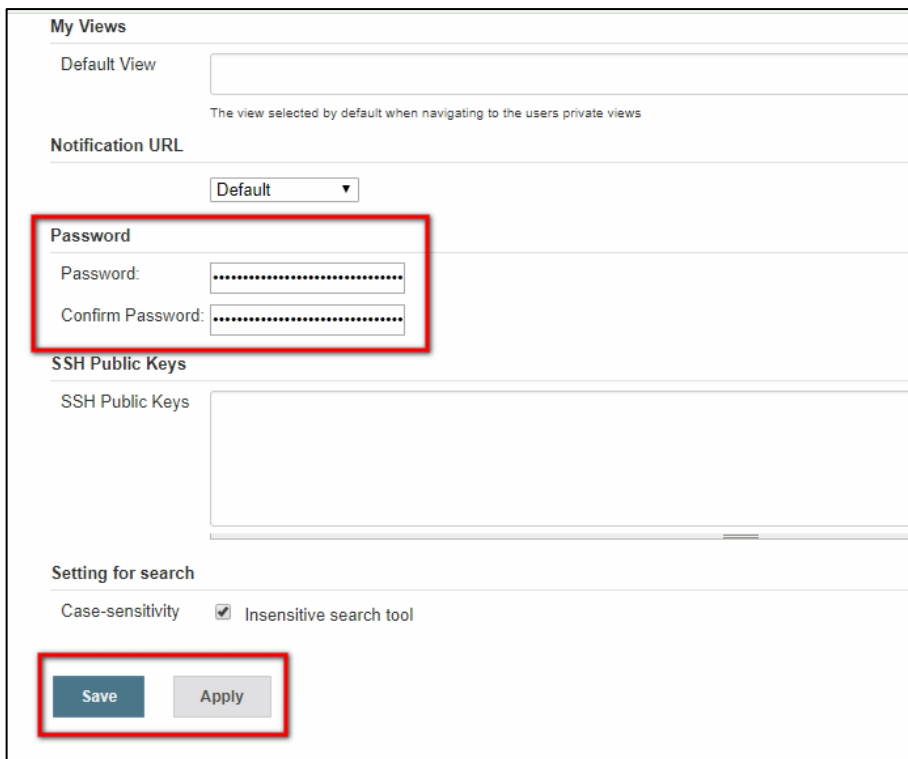
14. Open that file and copy the contents inside and paste the same in password text box.
15. After logging in, on the right top, find the user name that was given during logging in.



16. Under that click Configure.



17. Scroll down and find the Password and Confirm Password.



My Views

Default View

The view selected by default when navigating to the users private views

Notification URL

Default ▼

Password

Password:

Confirm Password:

SSH Public Keys

SSH Public Keys

Setting for search


Case-sensitivity ☒ Insensitive search tool

Save **Apply**


18. Now here change to your desired password. Click Apply and Save to save the changes.
19. To create a new job, click **New Item**.
20. Give the test case name to create a new job.

Enter an item name


» This field cannot be empty, please enter a valid name


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.


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.


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.


OK

21. Then select the type of the job that is to be created.
22. Click Ok to save the job.


Enter an item name

BL_BELL_Login


» 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.


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.


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

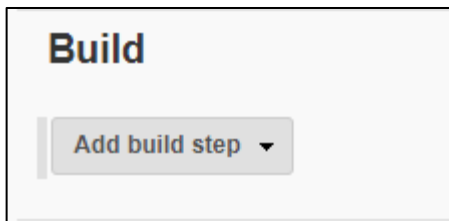
Scans a GitHub organization (or user account) for all repositories matching some defined markers.


Multibranch Pipeline

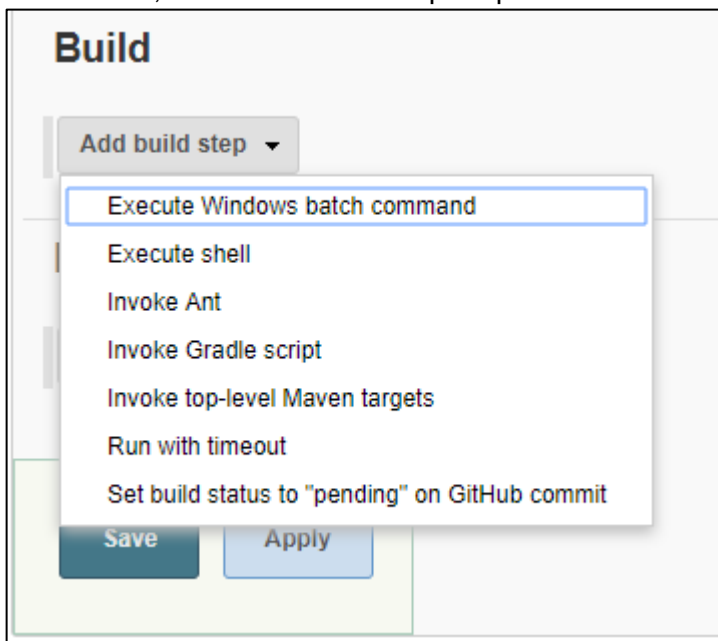
Creates a set of Pipeline projects according to detected branches in one SCM repository.

OK

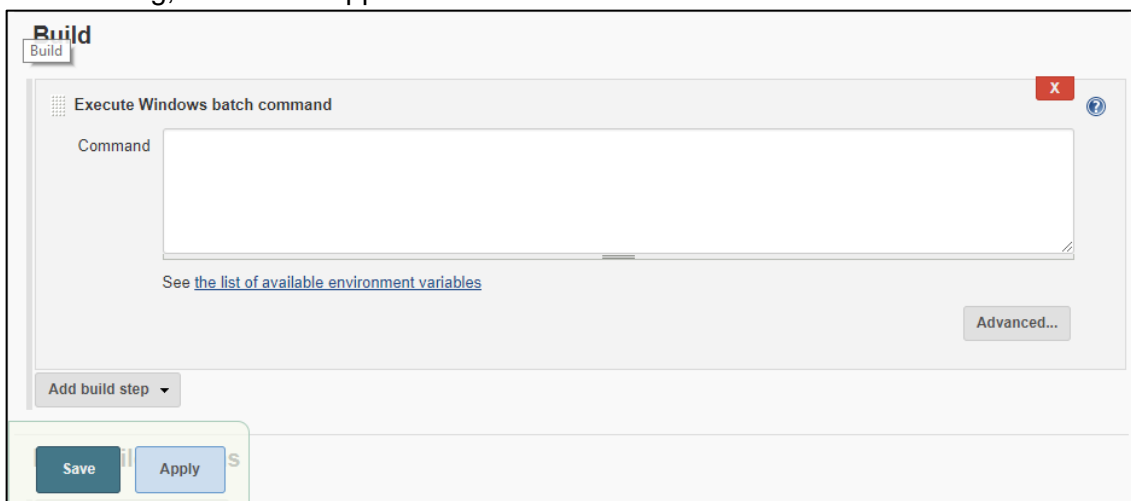
23. On click of Ok button, job configuration page will appear.
24. Scroll down and look for Build.



25. Under build, click Add Build Setup drop down.



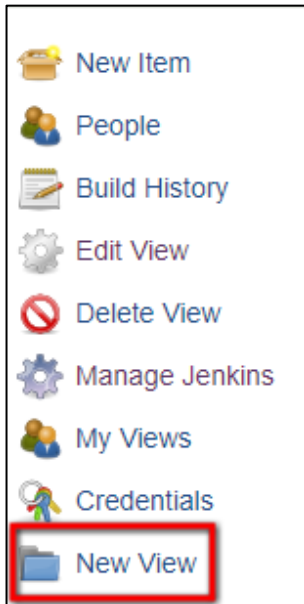
26. From the drop down, select **Execute Windows Batch Command**.
27. On selecting, a text area appears.



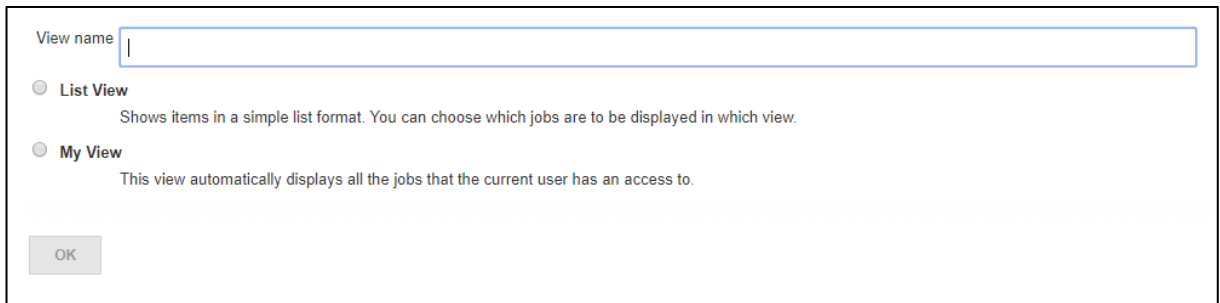
28. In the text area, write the following command.

6.1 CREATING NEW VIEW

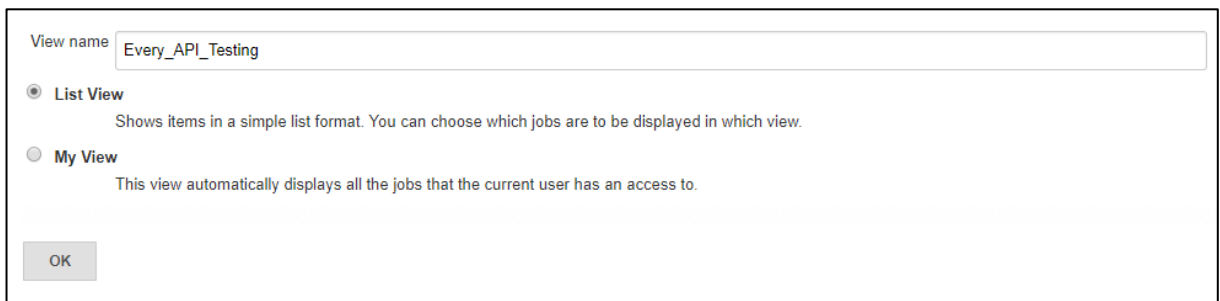
1. To create a new view, on the left panel, click **New View**.



2. On clicking, give the name of the tab as **Every_Mobile_Testing** and select the type of view.

A screenshot of the 'New View' dialog box. It has a 'View name' text field at the top, which is currently empty. Below it are two radio button options: 'List View' and 'My View'. The 'List View' option is selected. Below each option is a descriptive text: 'Shows items in a simple list format. You can choose which jobs are to be displayed in which view.' for 'List View', and 'This view automatically displays all the jobs that the current user has an access to.' for 'My View'. At the bottom left is an 'OK' button.

3. On entering the name and selecting the view type, the OK button becomes active. Click Ok.

A screenshot of the 'New View' dialog box. The 'View name' text field now contains the text 'Every_API_Testing'. The 'List View' radio button remains selected. The 'OK' button at the bottom left is now active (highlighted in grey).

4. In the next page, select the jobs that are to be added to this tab.

View name

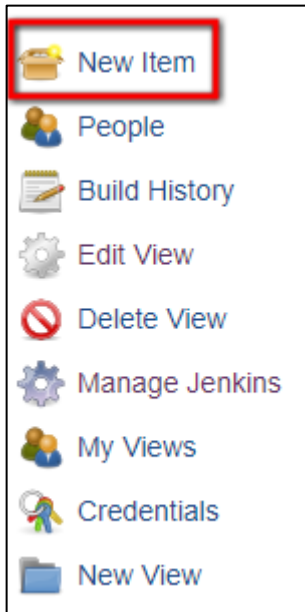
☒ **List View**
Shows items in a simple list format. You can choose which jobs are to be displayed in which view.

☐ **My View**
This view automatically displays all the jobs that the current user has an access to.

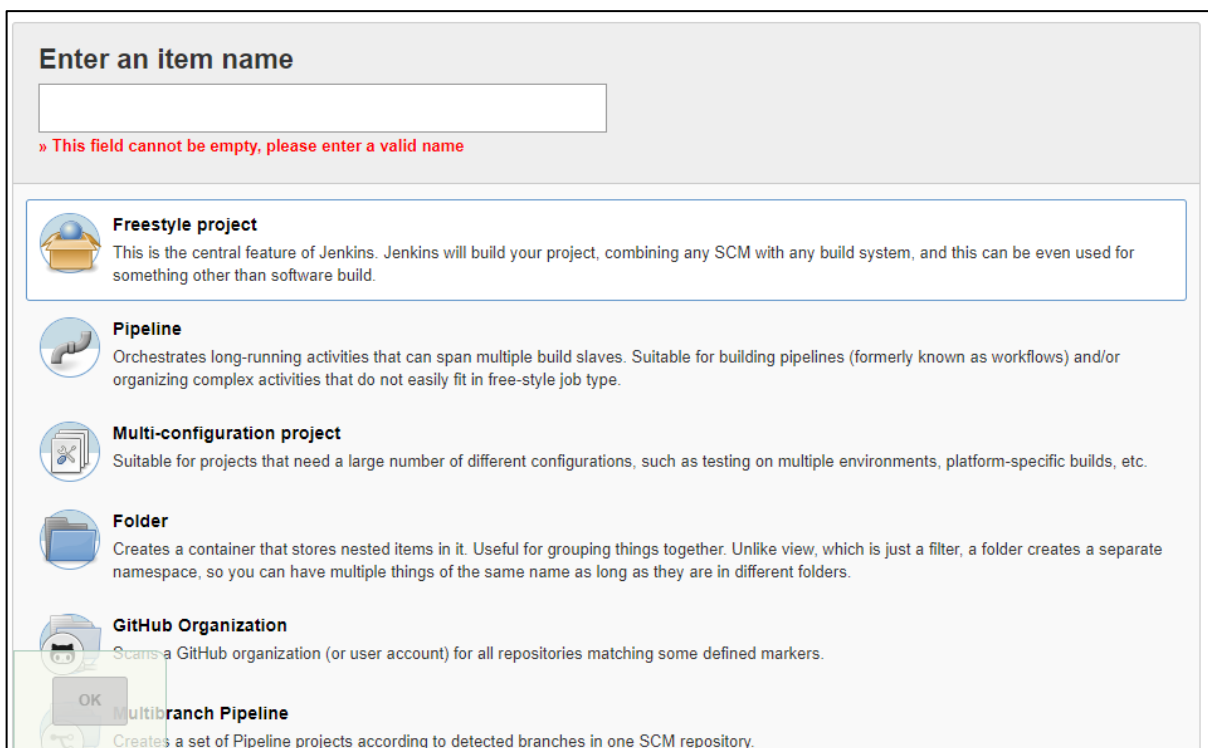
5. Once done, click Apply and Ok to save and Close the creation.

6.2 CREATING NEW JOB

- 1 To create a new job, on the left panel, click **New Item**.



- 2 Give a name for the new job that is going to be created and select the tab in which it is to be stored.

A screenshot of a dialog box titled 'Enter an item name'. It features a text input field. Below the field, a red error message reads: '» This field cannot be empty, please enter a valid name'. Below the error message, there is a list of job types with icons and descriptions:

- 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.
- 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.
- 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.


At the bottom left of the dialog, there is an 'OK' button.


- 3 Then select the type of the job that is to be created.
- 4 Click Ok to save the job.


Enter an item name


MF_Calc_001


» 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.

**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.

**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.

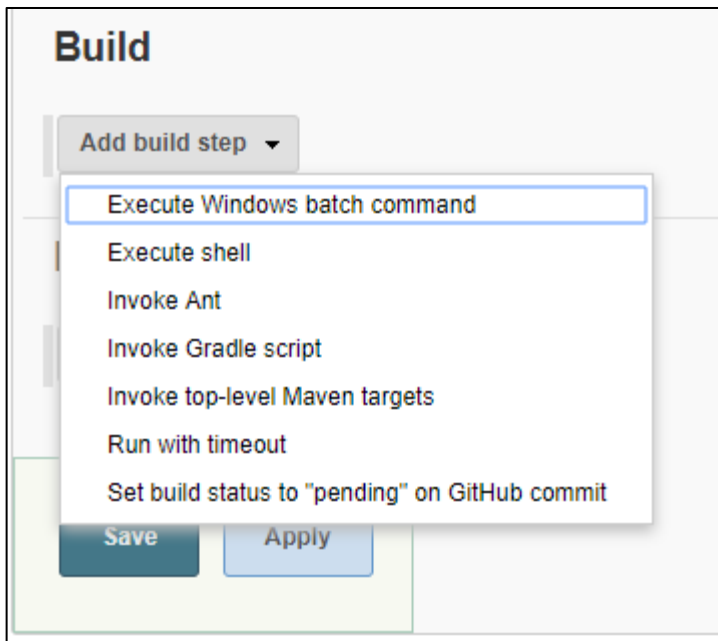
OK

- 5 On click of Ok button, job configuration page will appear.
- 6 Scroll down and look for Build.

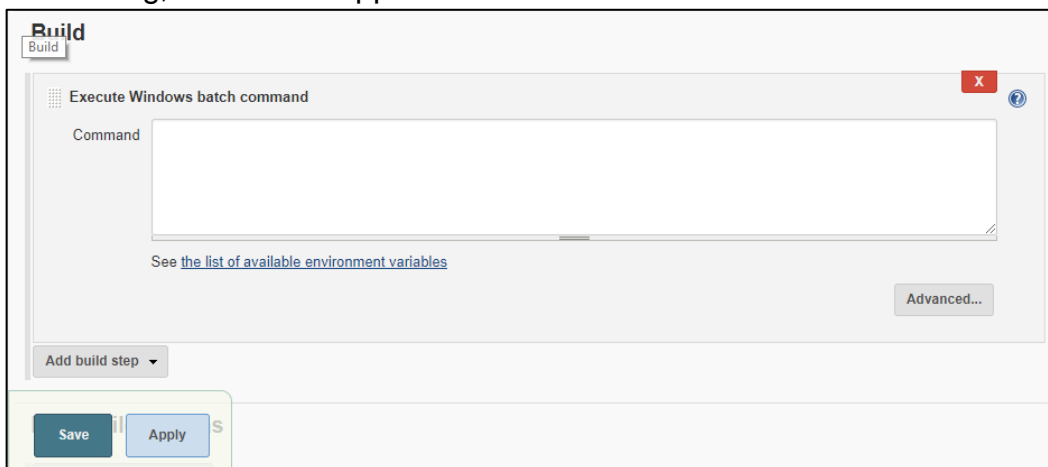
Build

Add build step ▼

- 7 Under build, click Add Build Setup drop down.



- 8 From the drop down, select **Execute Windows Batch Command**.
- 9 On selecting, a text area appears.



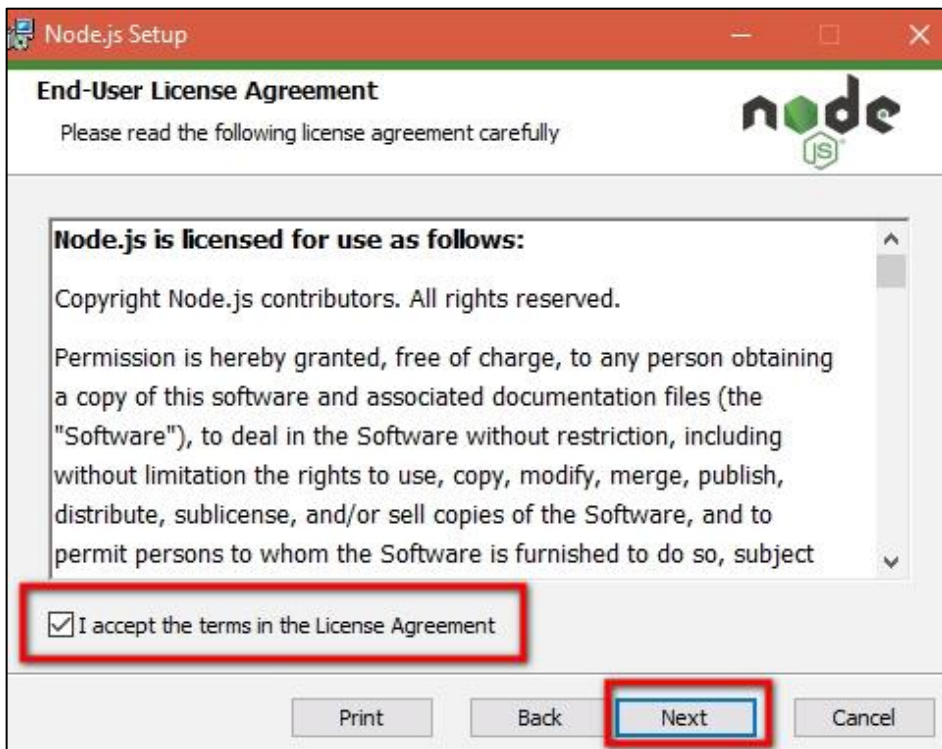
- 10 In the text area, write the following command.

7. INSTALLATION – NODE

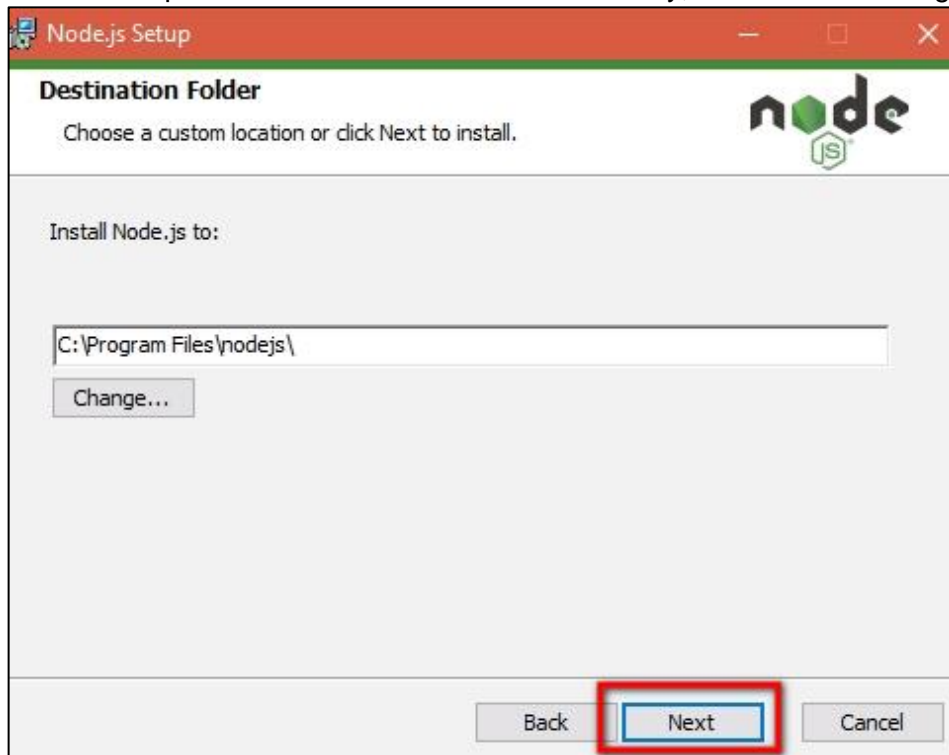
1. Click the link to download the node server
<https://nodejs.org/en/download/>
2. Look for the version of that support your OS like below: (Example shows for Windows)

LTS Recommended For Most Users		Current Latest Features
 Windows Installer <small>node-v8.9.3-x86.msi</small>		 Macintosh Installer <small>node-v8.9.3.pkg</small>
		 Source Code <small>node-v8.9.3.tar.gz</small>
Windows Installer (.msi)	32-bit	64-bit
Windows Binary (.zip)	32-bit	64-bit
macOS Installer (.pkg)	64-bit	
macOS Binaries (.tar.gz)	64-bit	
Linux Binaries (x86/x64)	32-bit	64-bit
Linux Binaries (ARM)	ARMv6	ARMv7
Source Code	node-v8.9.3.tar.gz	

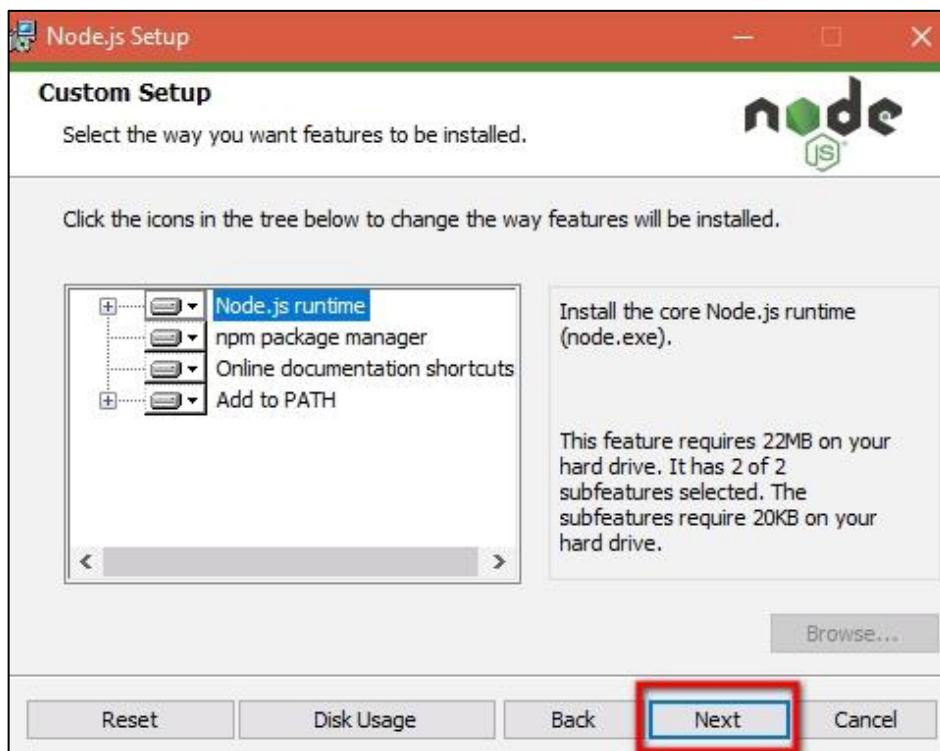
3. On clicking the link, it will automatically start downloading.
4. From the downloads click and run the installer.
5. Accept the license agreement and click next



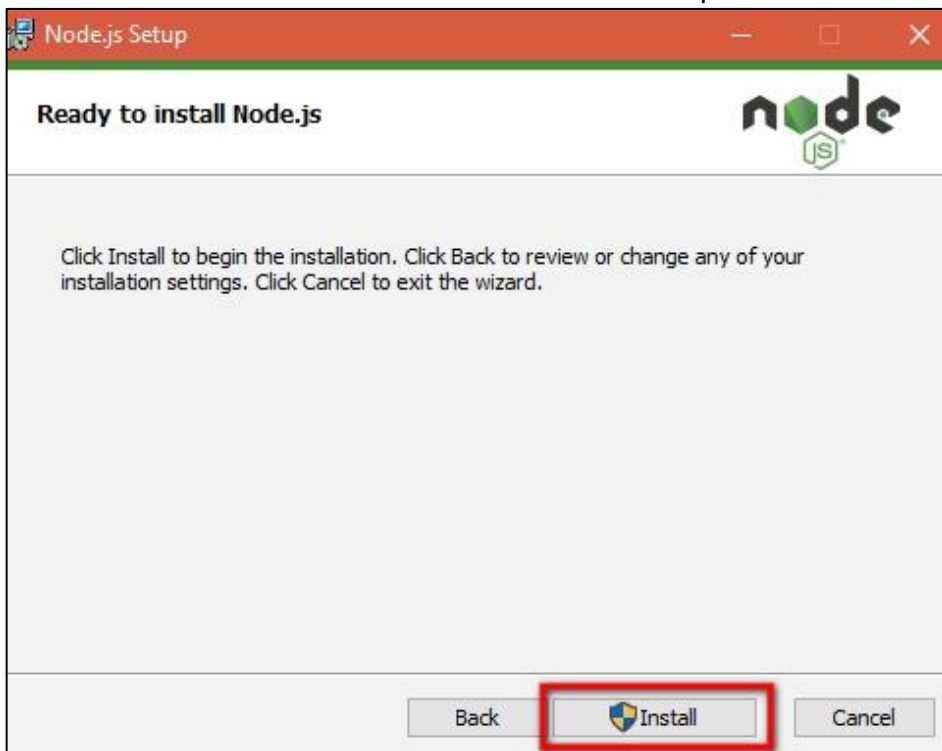
6. Select the path to store the home folder. Generally, it will be in “C:\Program Files\nodejs\”.



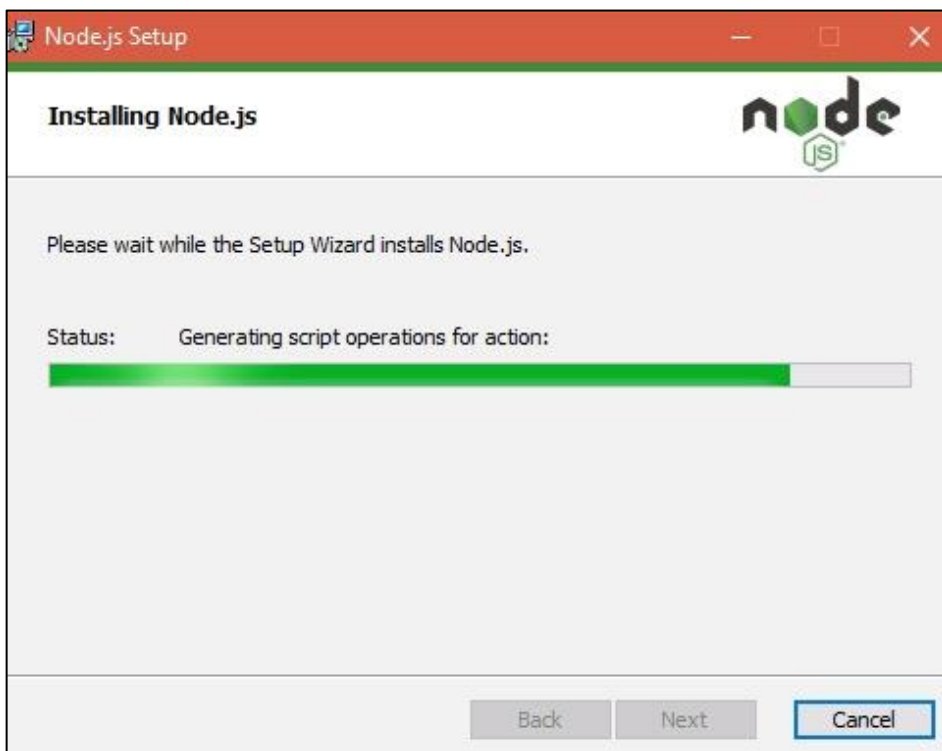
7. In the Custom Setup page, just click the next button.



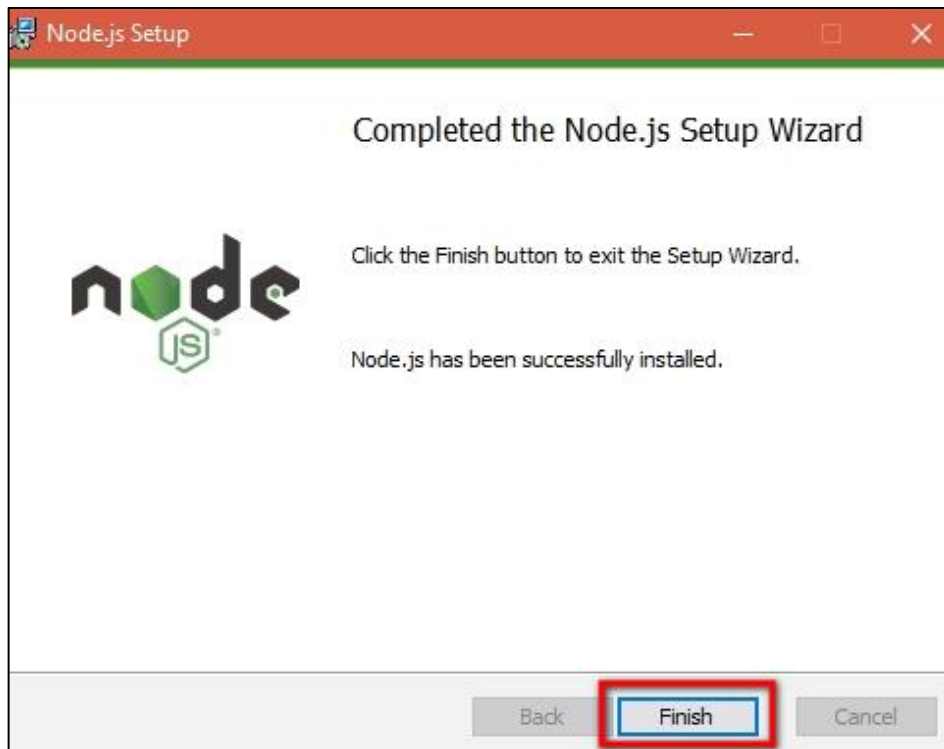
8. Just click the “**Install**” button to start the installation process.



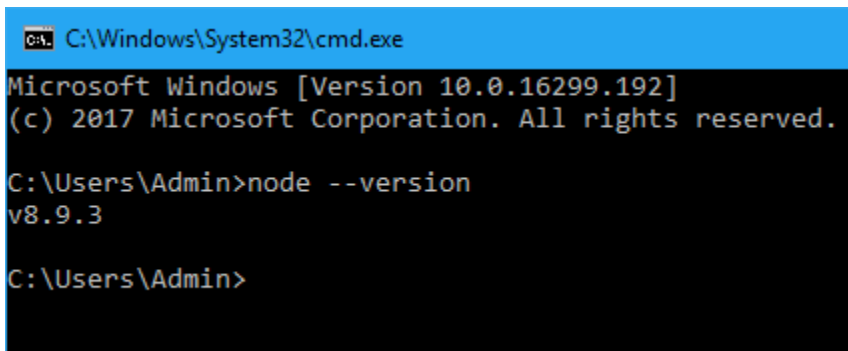
9. Then it will start the installation.



10. Once the installation is done, click finish to complete.



11. Open the command prompt, and type "node --version" to check whether the node is installed correctly or not. If it gives the version then it is installed perfectly.

A screenshot of a Windows Command Prompt window. The title bar shows "C:\Windows\System32\cmd.exe". The text inside the window reads: "Microsoft Windows [Version 10.0.16299.192] (c) 2017 Microsoft Corporation. All rights reserved. C:\Users\Admin>node --version v8.9.3 C:\Users\Admin>".

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.16299.192]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\Admin>node --version
v8.9.3

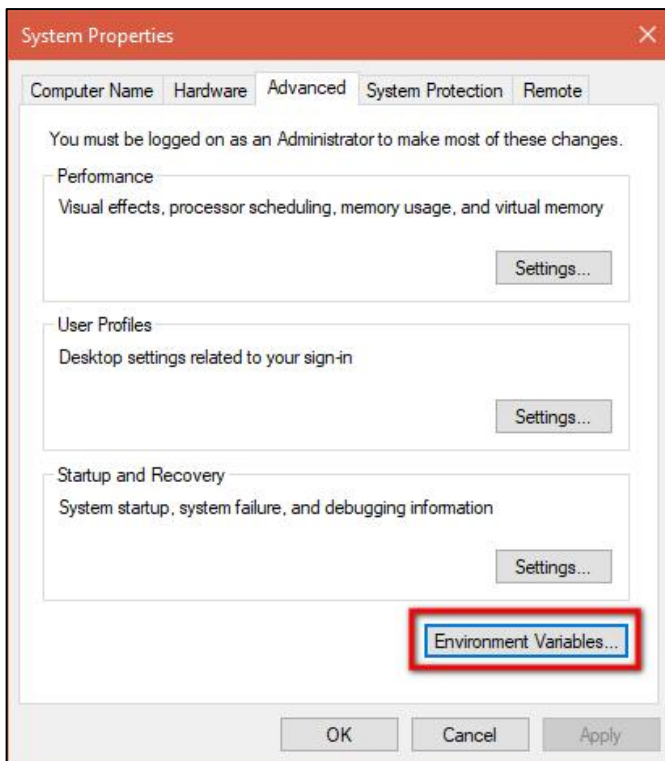
C:\Users\Admin>
```

7.1 SETTING ENVIRONMENTAL VARIABLE

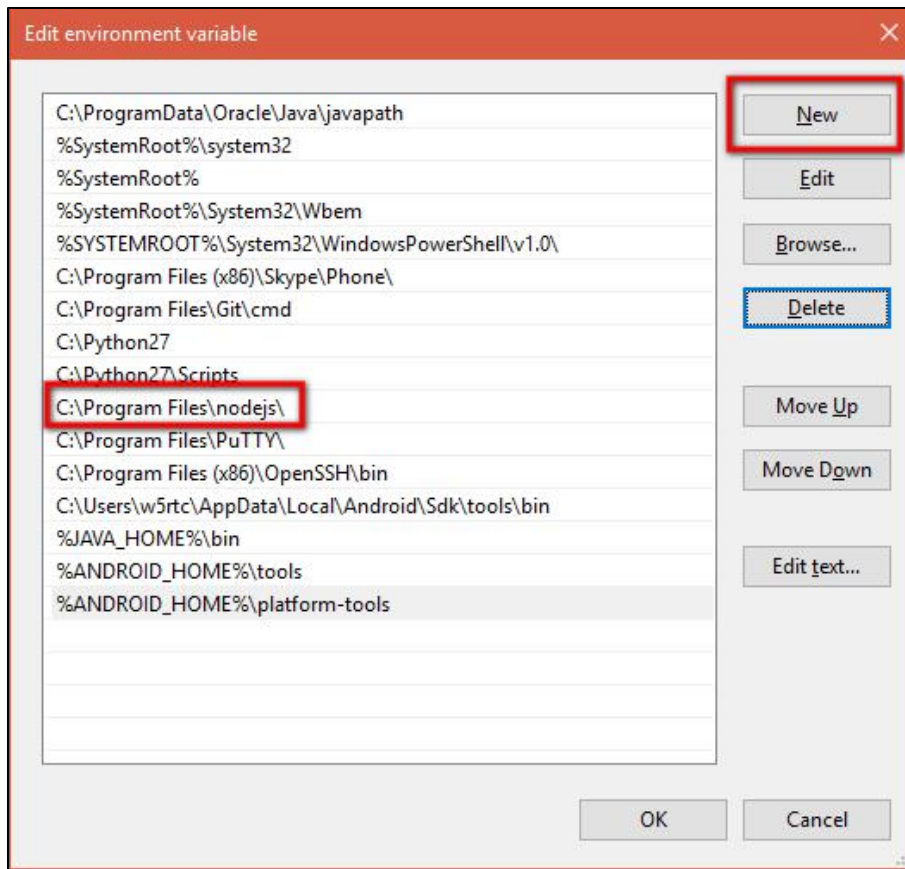
1. To set environmental variable and path, right click on My Computer > Properties > Advanced System Settings.



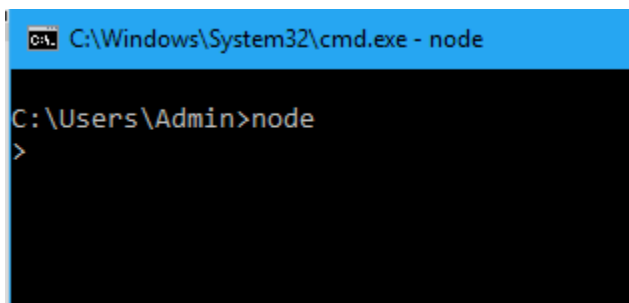
2. Click on the Environment Variables.



3. In the system variables section, click path and click new and enter the path as C:\Program Files\nodejs\

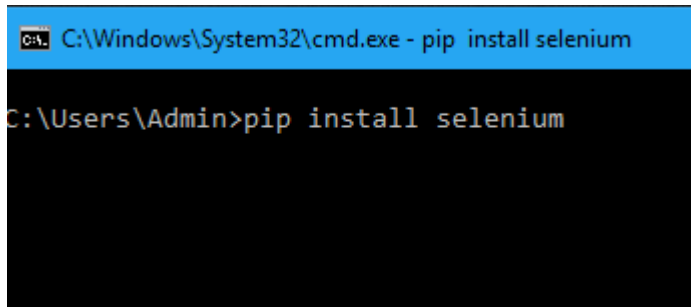


4. In order to check, open command prompt and type node and press enter. It should the node environment. Then press the Ctrl + C to exit.



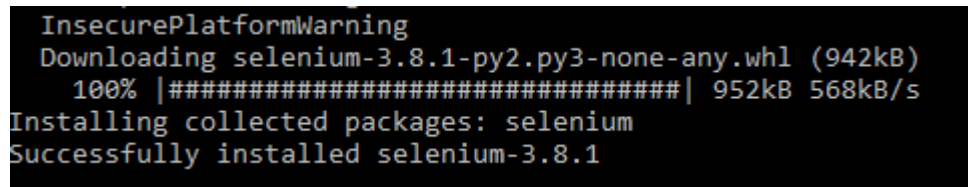
7. INSTALLATION – SELENIUM

1. Open command prompt.
2. In the command prompt, type “*pip install selenium*”. And press enter.



```
C:\Windows\System32\cmd.exe - pip install selenium  
  
C:\Users\Admin>pip install selenium
```

3. It will start to install.
4. After installation, it will show a success message.








```
InsecurePlatformWarning  
Downloading selenium-3.8.1-py2.py3-none-any.whl (942kB)  
100% |#####| 952kB 568kB/s  
Installing collected packages: selenium  
Successfully installed selenium-3.8.1
```

8. INSTALLATION – CHROME DRIVER

- a. Click the link below to download the driver for chrome browser:
- b. <https://chromedriver.storage.googleapis.com/index.html?path=2.34/>
- c. Select the installer based on the OS in the system. (Example shows for Windows).

Index of /2.35/

	<u>Name</u>	Last modified	Size	ETag
	Parent Directory	-	-	-
	chromedriver_linux64.zip	2018-01-10 02:35:57	3.55MB	e6d0298d3e1ed23f6639805d13ac2ae4
	chromedriver_mac64.zip	2018-01-10 04:06:12	5.25MB	720f6f8ab16dd3fcc0d5928402ac9f92
	chromedriver_win32.zip	2018-01-10 21:19:40	3.18MB	de52d0a610fb97fadc02301bc705c12b
	notes.txt	2018-01-10 22:44:12	0.01MB	d3bb3cea8e65d290aab9ed3d60a25d7b

- d. It will be downloaded as a zip file. Unzipping the file, you will get the .exe file
- e. Run the file.