



# DGFP DIGITAL ARCHIVE

Instruction for DSpace 6.4 Installation  
on Windows Environment



Shukhi Jibon



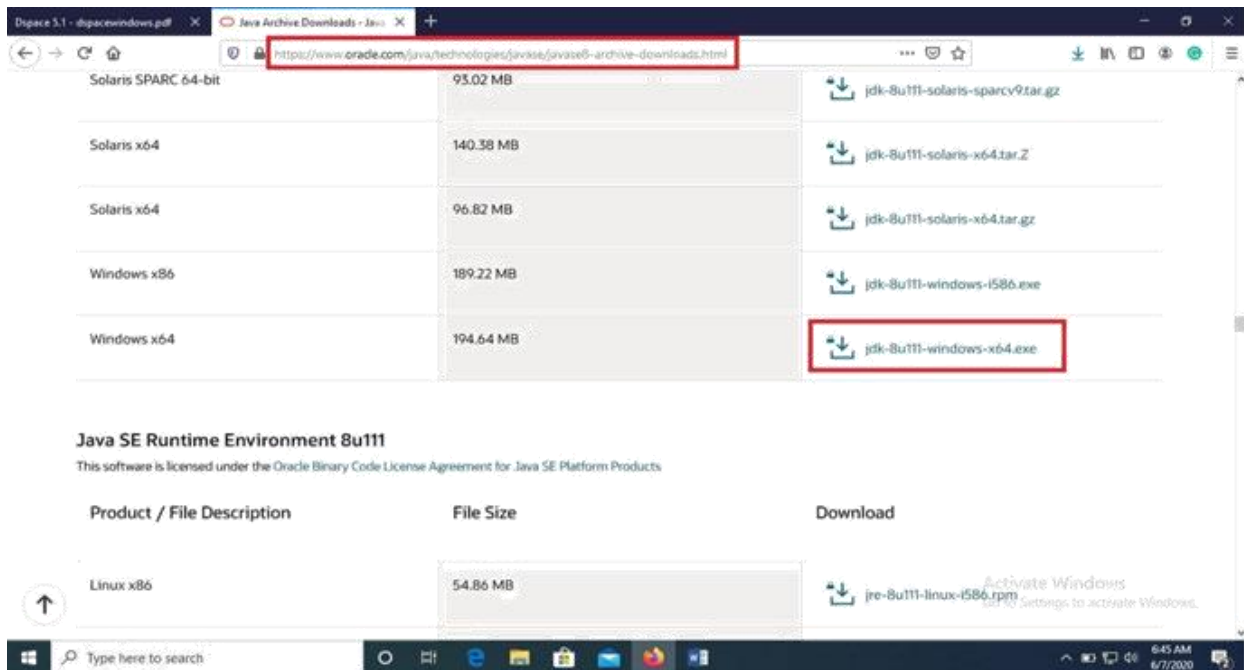
PATHFINDER

# Install DSpace v6.4 on Windows 10

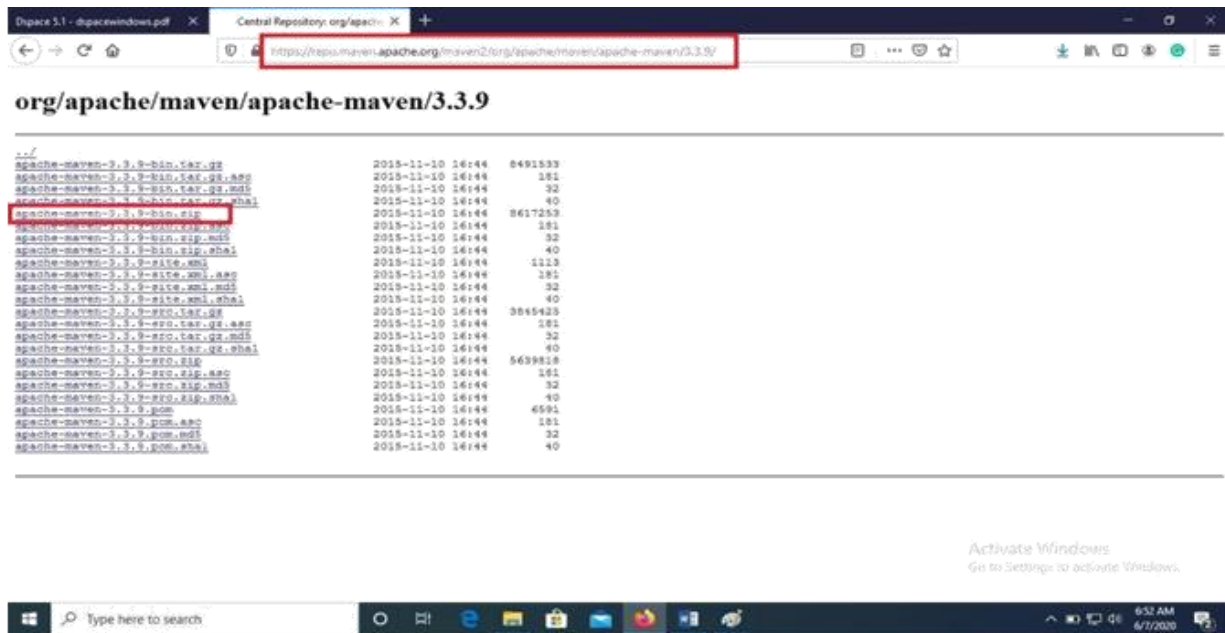
## Download Pre-requisite Software:

- Java JDK
- Apache Maven
- Apache Ant
- Apache Tomcat
- PostgreSQL
- Dspace

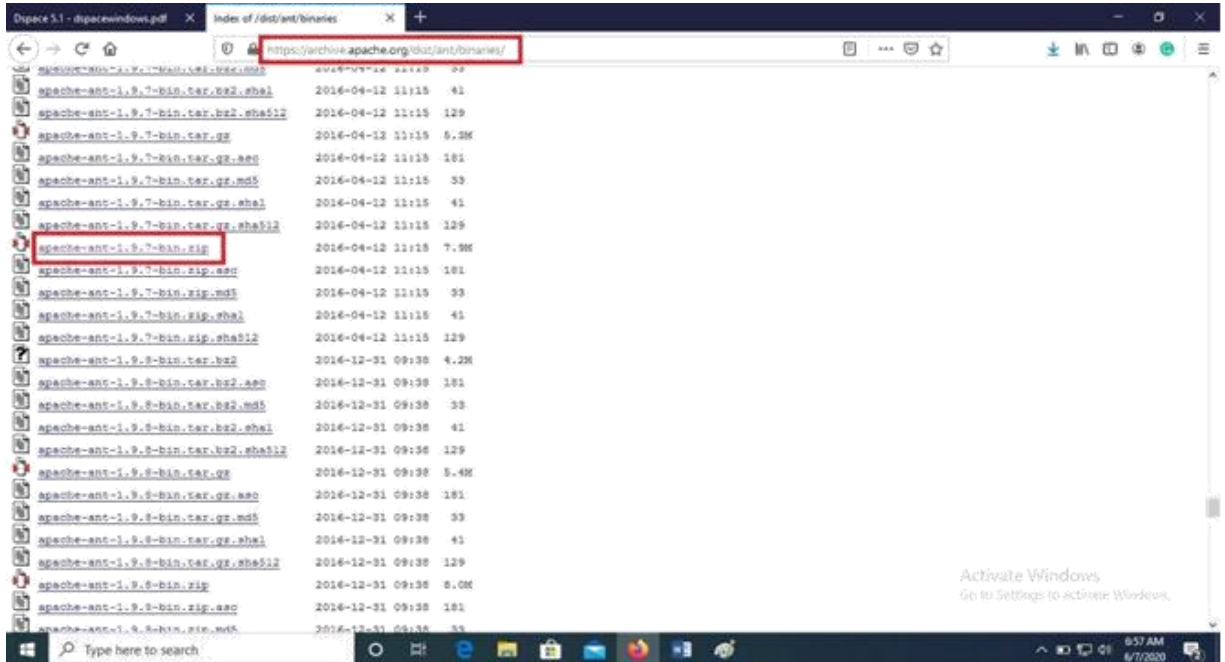
**Step-1:** Download **Java jdk v8** from below link (tested with v361). (Note: If you are new to Oracle, you need to create user account otherwise you can log in to download the software). (<https://www.java.com/en/download/>)



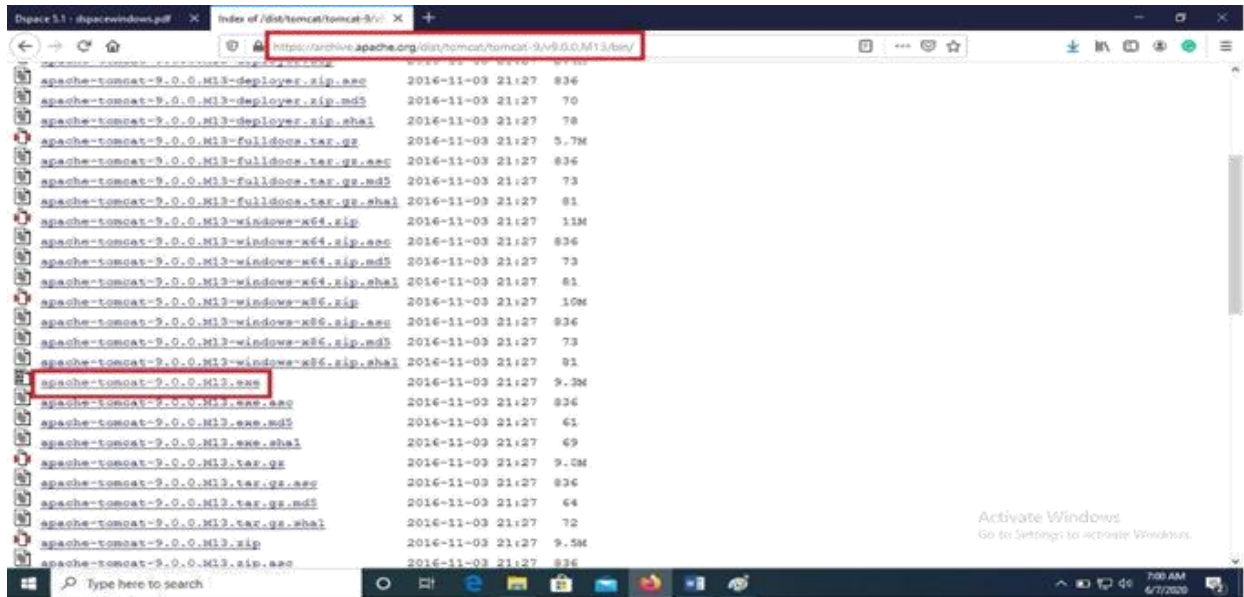
Step-2: Download **apache-maven-3.3.9-bin.zip** file from below link.  
(<https://repo.maven.apache.org/maven2/org/apache/maven/apache-maven/3.3.9/>)



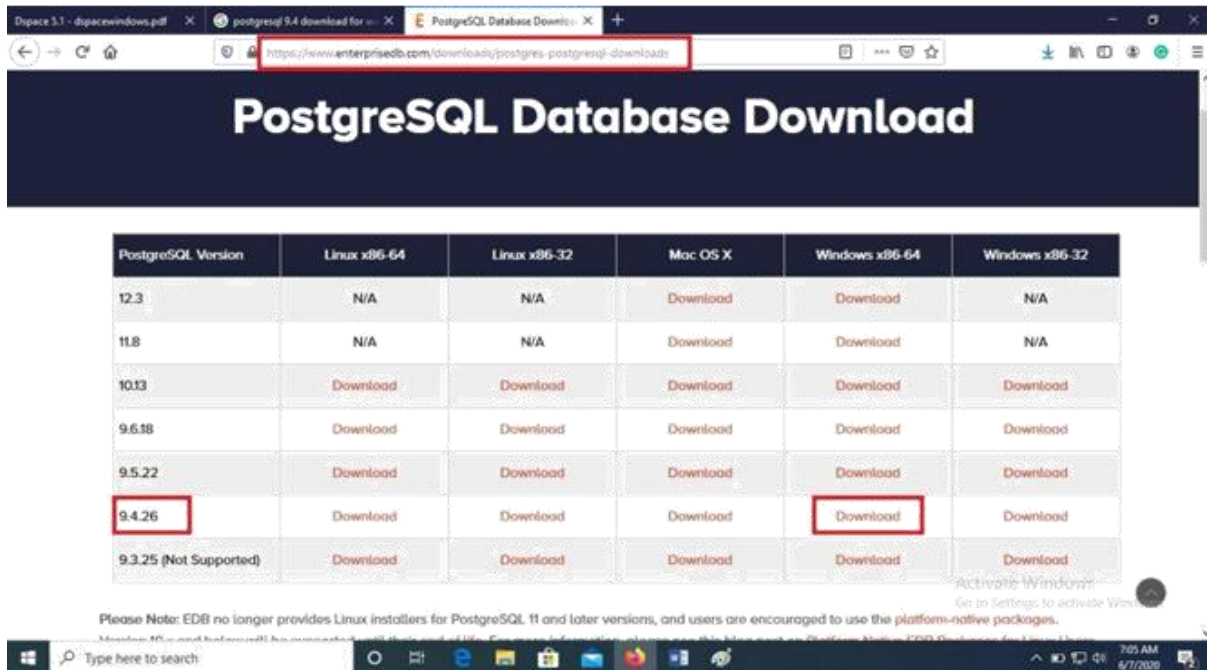
Step-3: Download **apache-ant-1.9.7-bin.zip** file from below link.  
(<https://archive.apache.org/dist/ant/binaries/>)



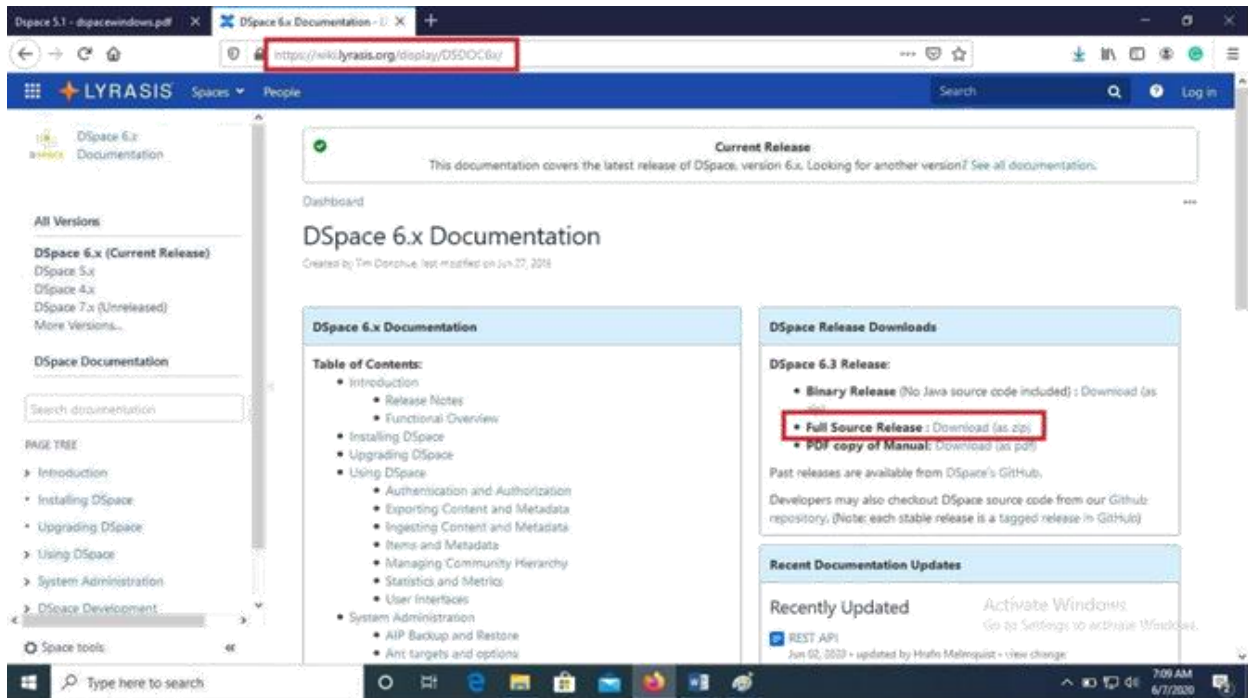
Step-4: Download **apache-tomcat-9** from below link.  
(<https://archive.apache.org/dist/tomcat/tomcat-9/v9.0.74/bin/apache-tomcat-9.0.74.exe>)



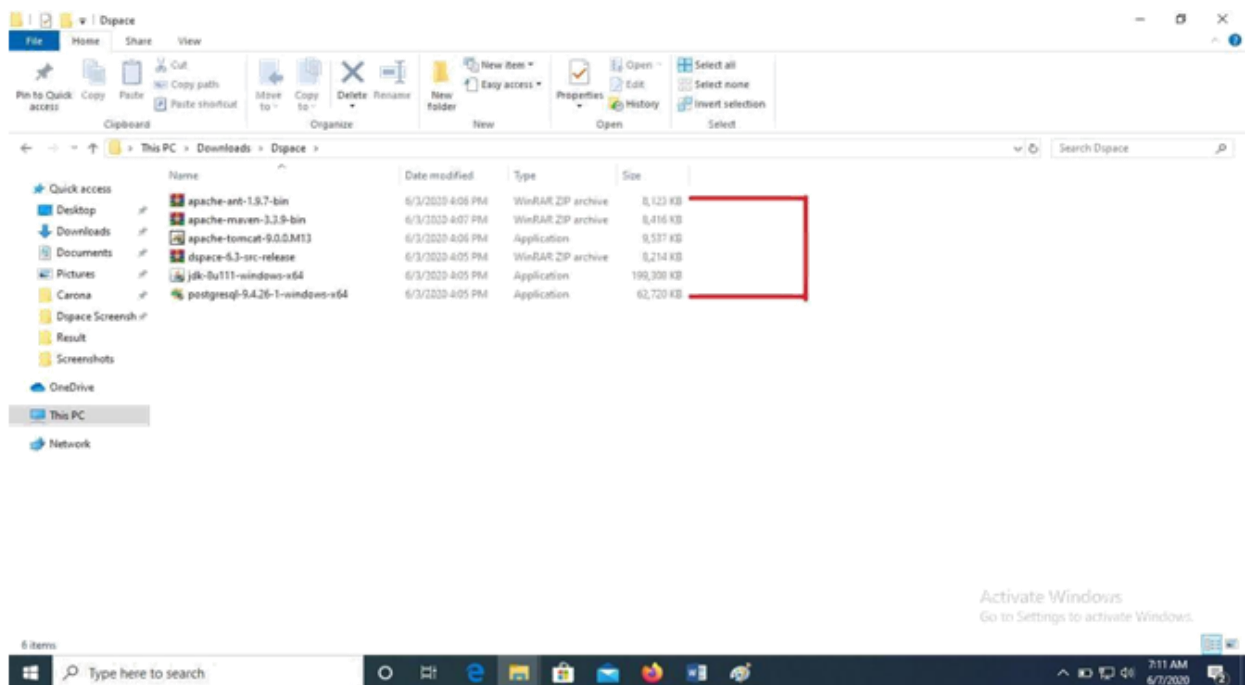
Step-5: Download **postgresql-9.4.26-1-windows-x64.exe** file from below link.  
(<https://www.enterprisedb.com/downloads/postgres-postgresql-downloads>)



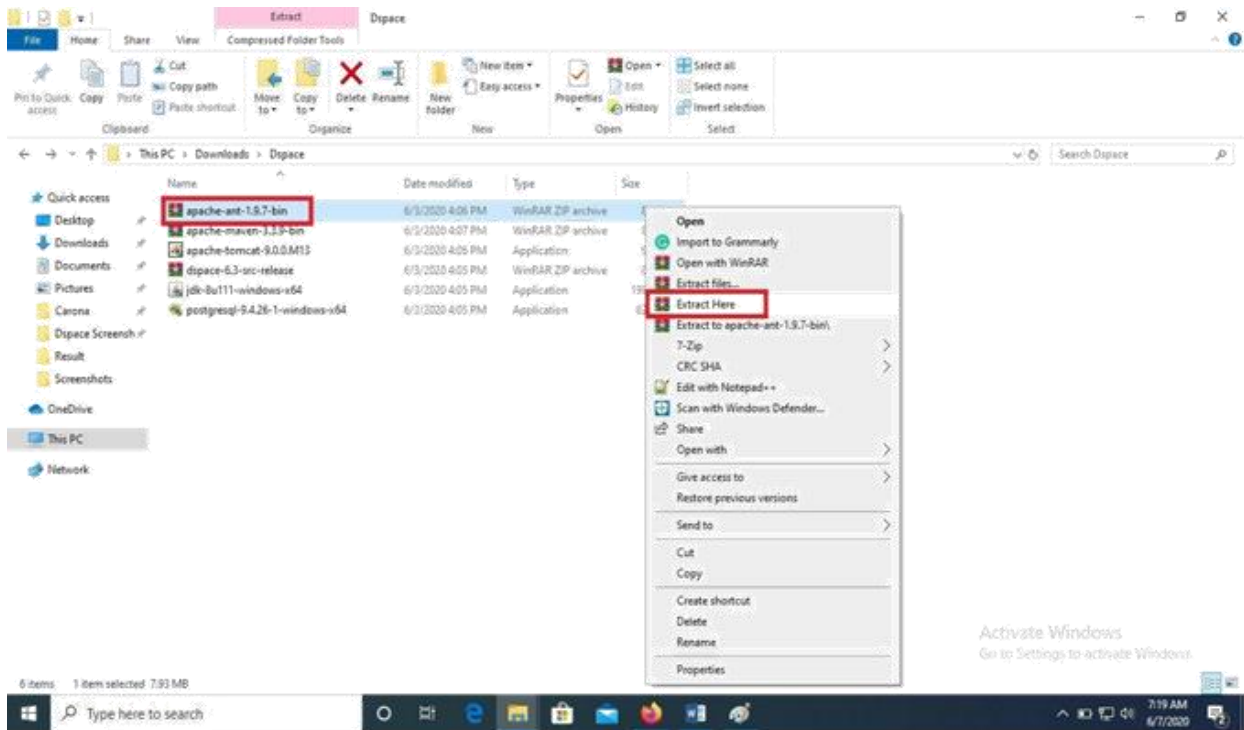
Step-6: Download **dspace-6.4-src-release.zip** file from below link.  
(<https://wiki.lyrasis.org/display/DSDOC6x/>)



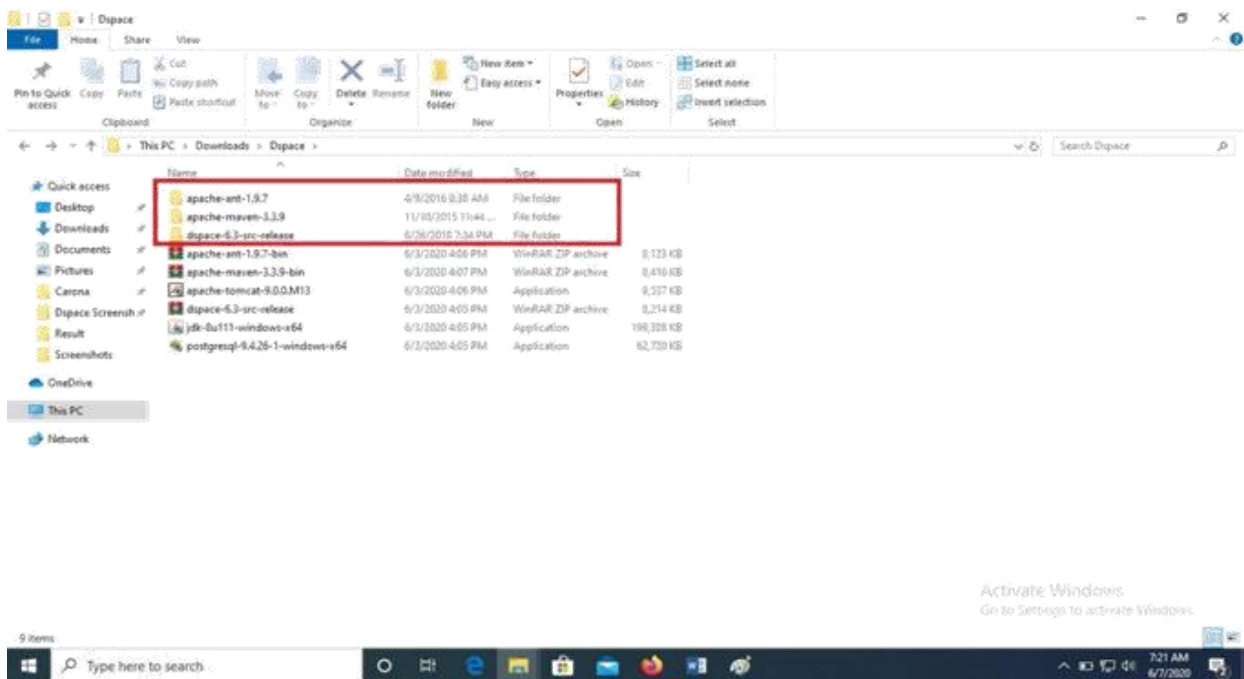
Step-7: Now we have downloaded all pre-requisite software.



Step-8: Now extract all the zipped files by right click on the file and then click extract here.

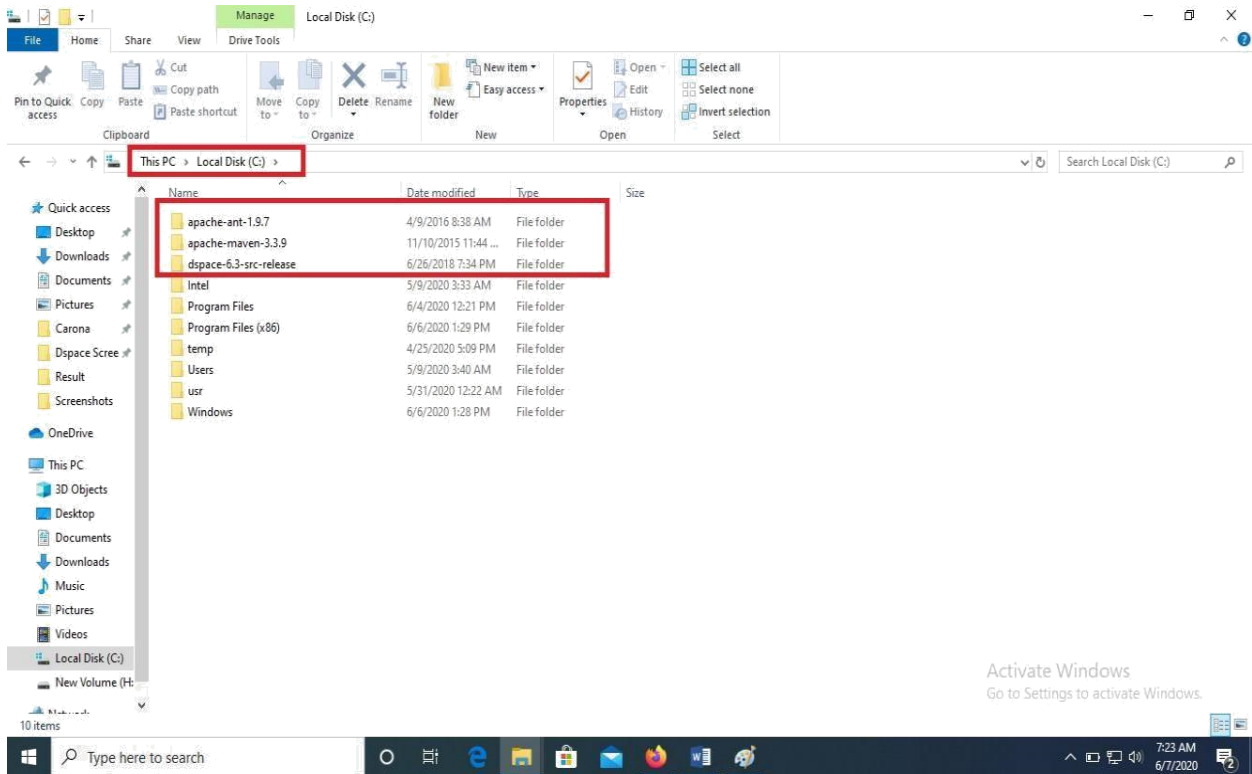


Step-9: Now all the zipped files have been extracted.

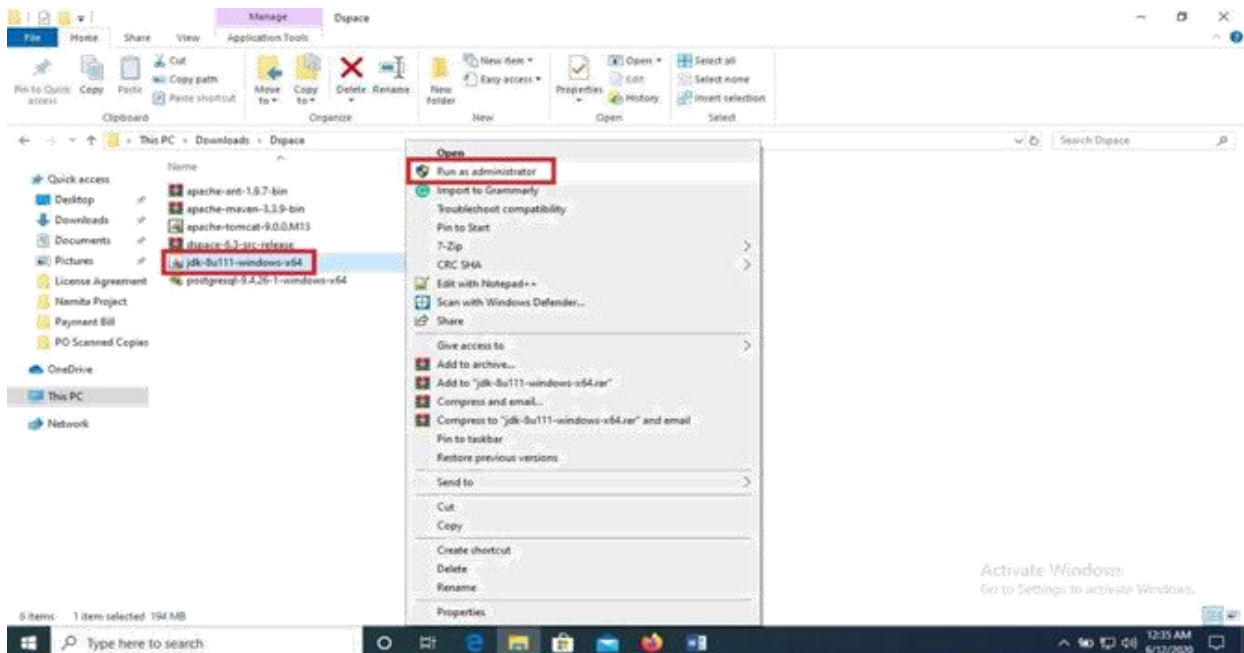


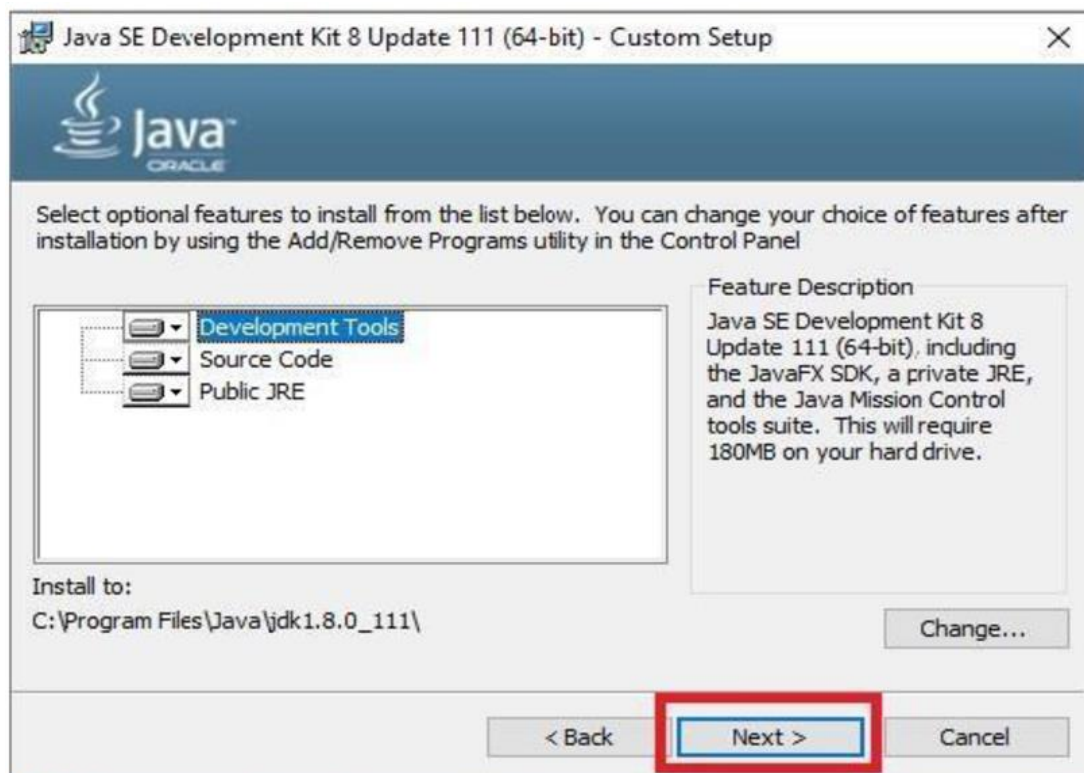
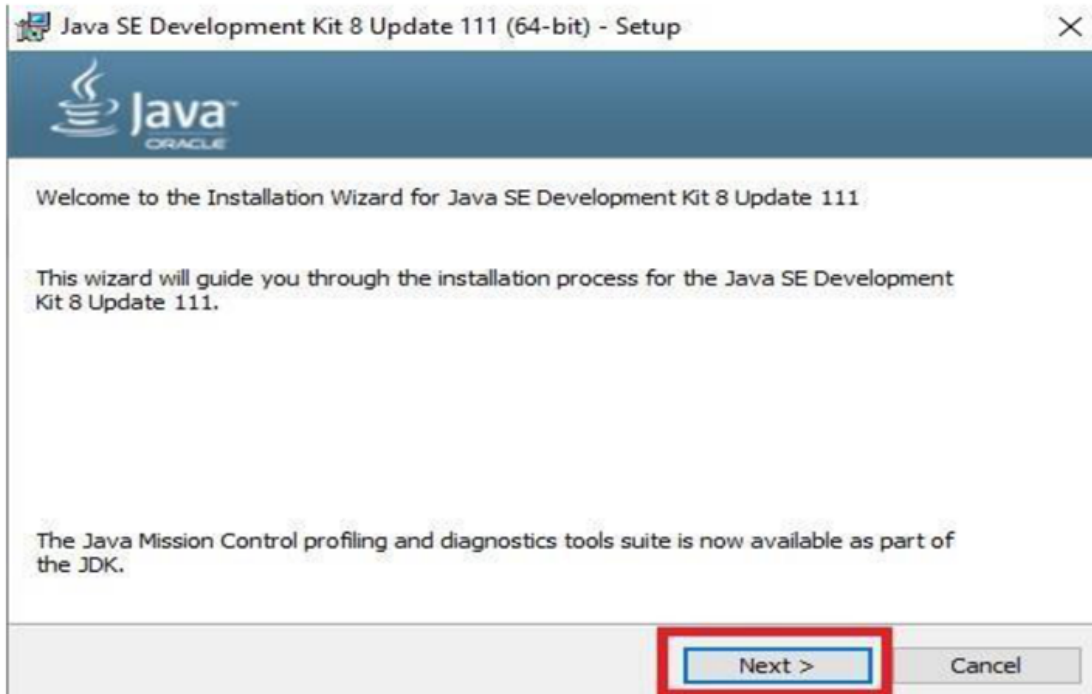


Step-10: Move the extracted files to your C:\ drive.

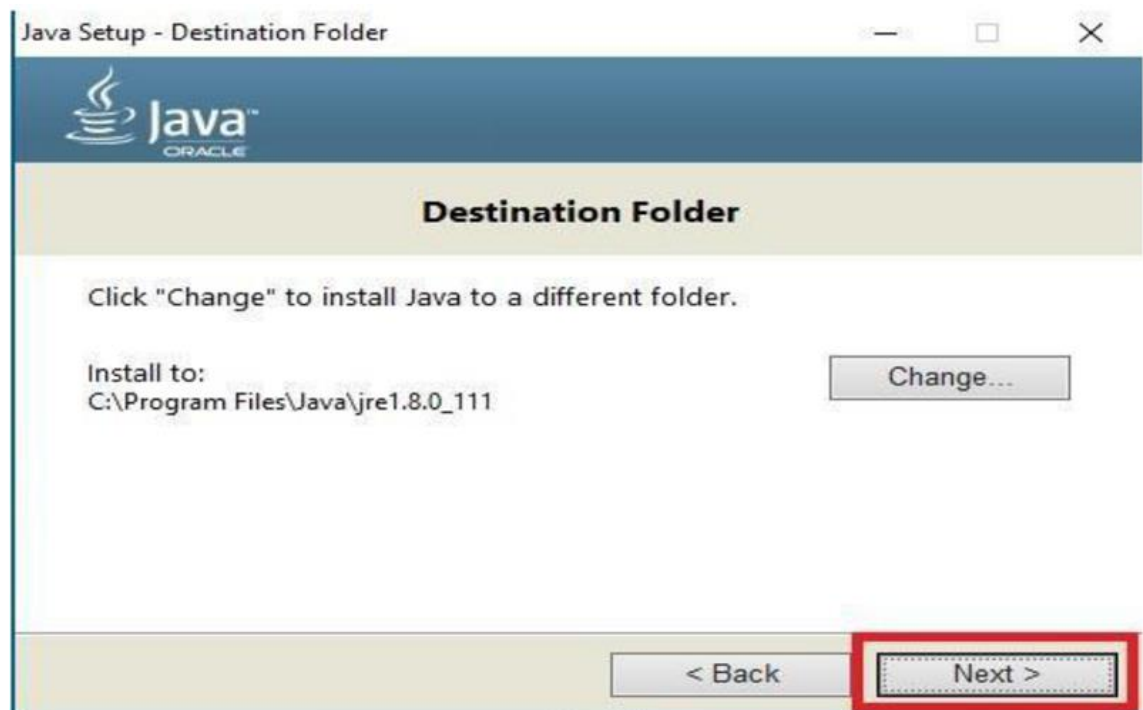
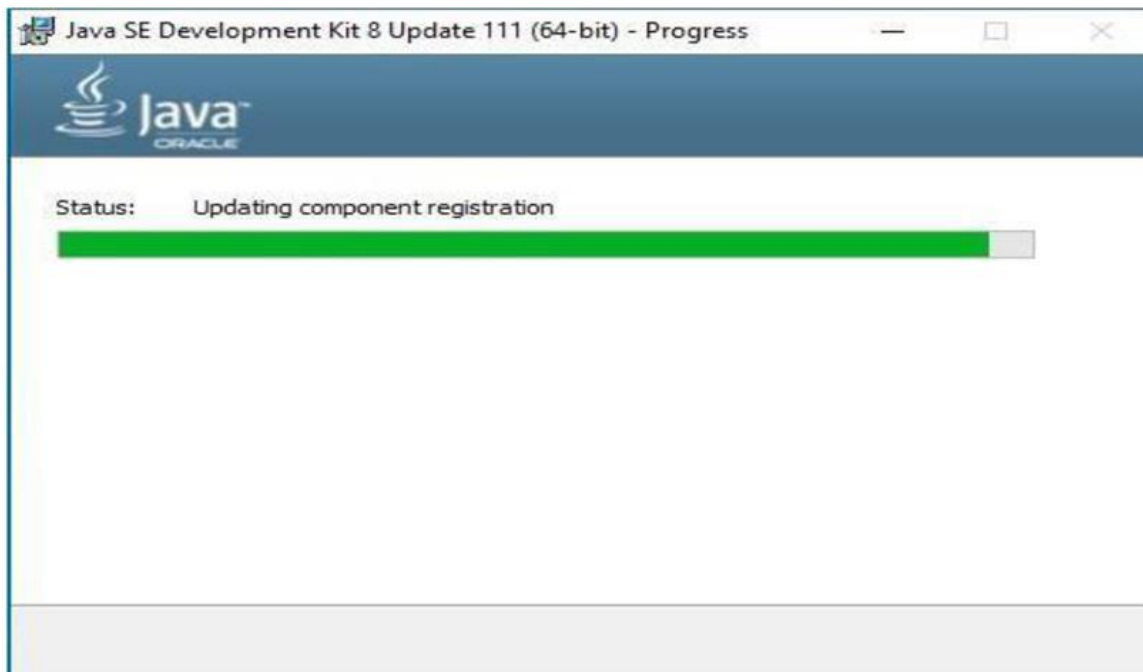


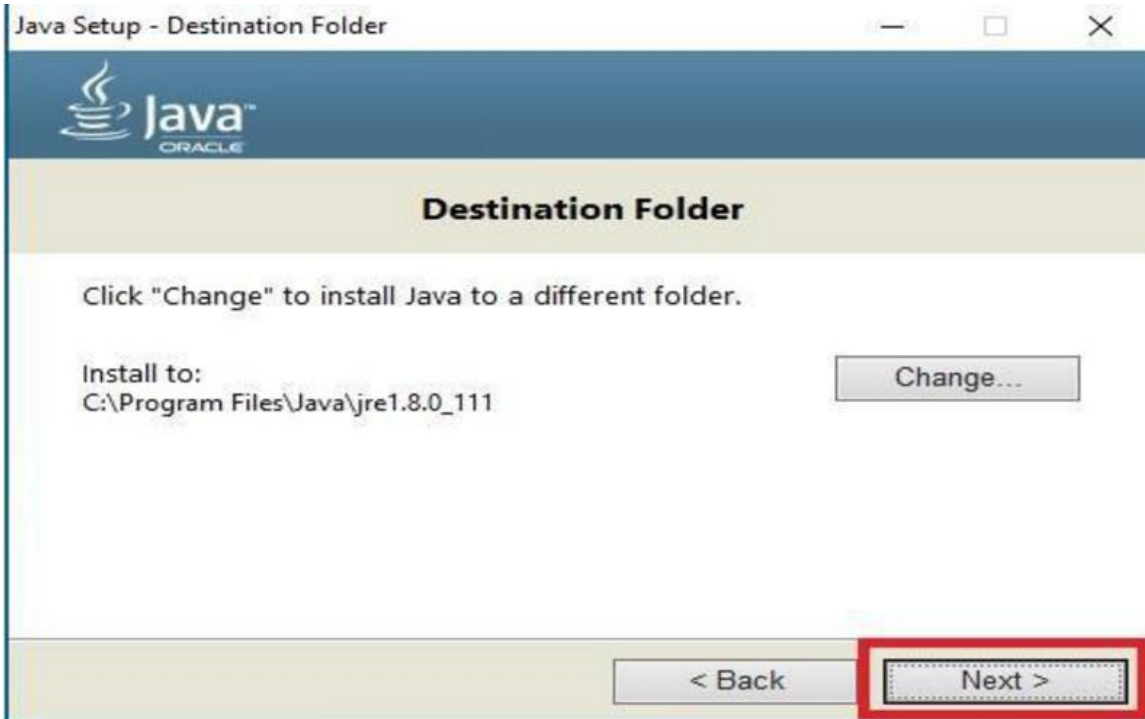
Step-11: Install **Java jdk-8u111-windows-x64.exe** by right click on the file and then click on run as administrator and then click yes if prompted.

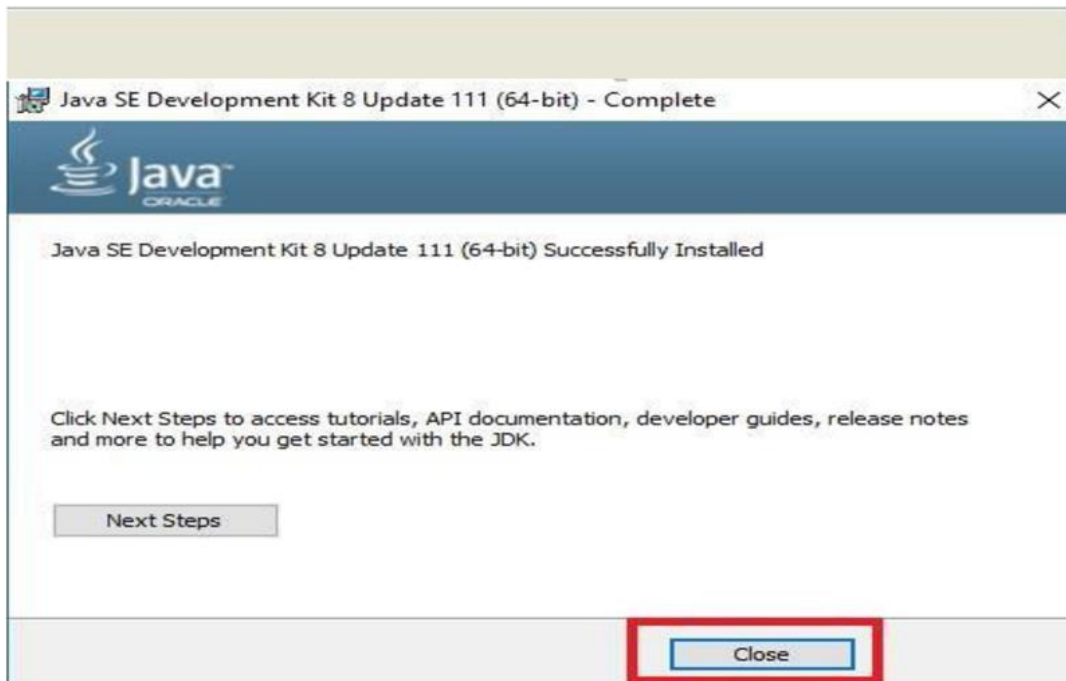




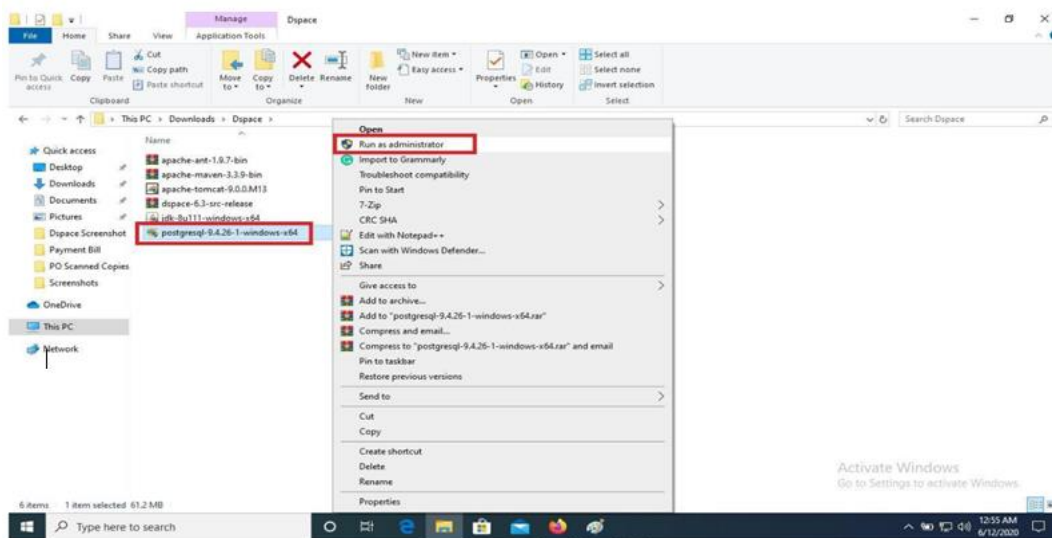


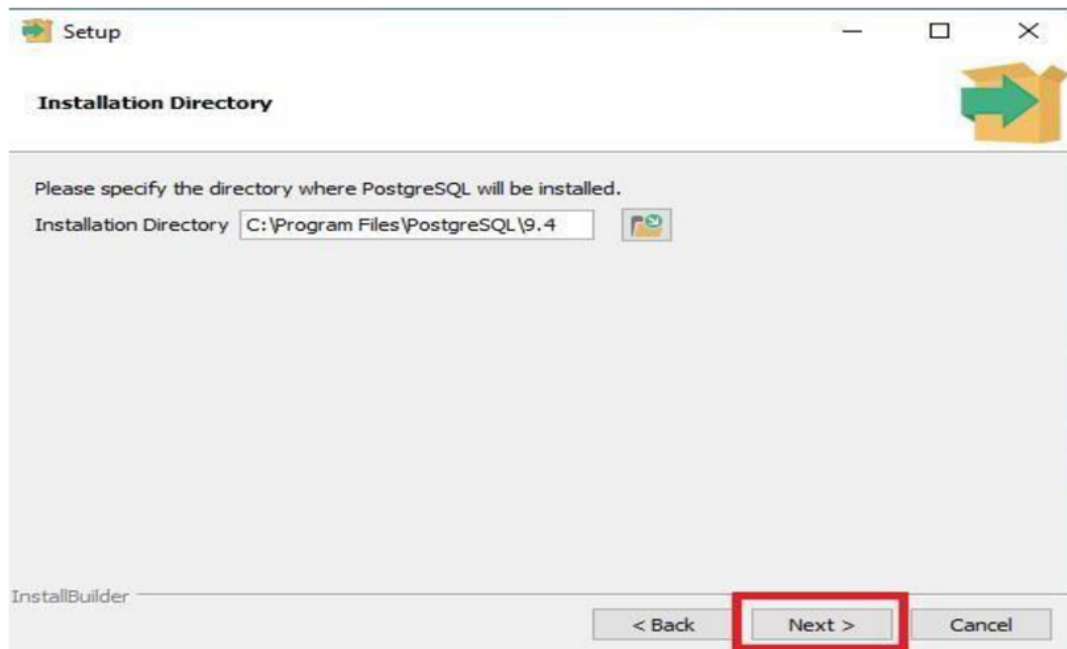


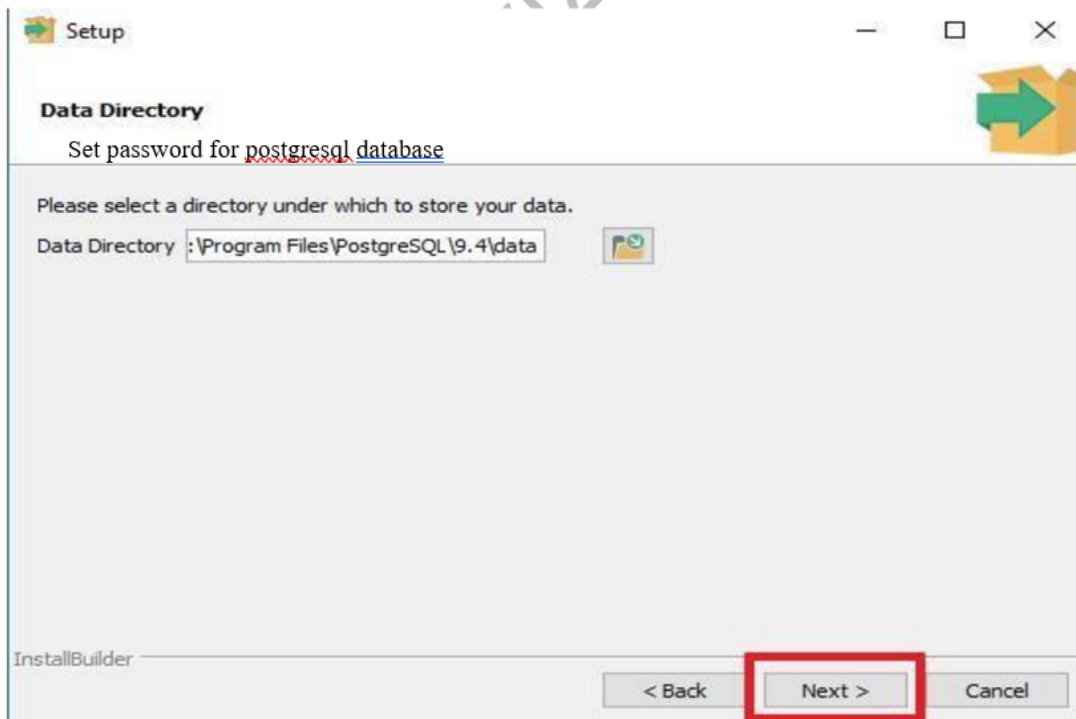




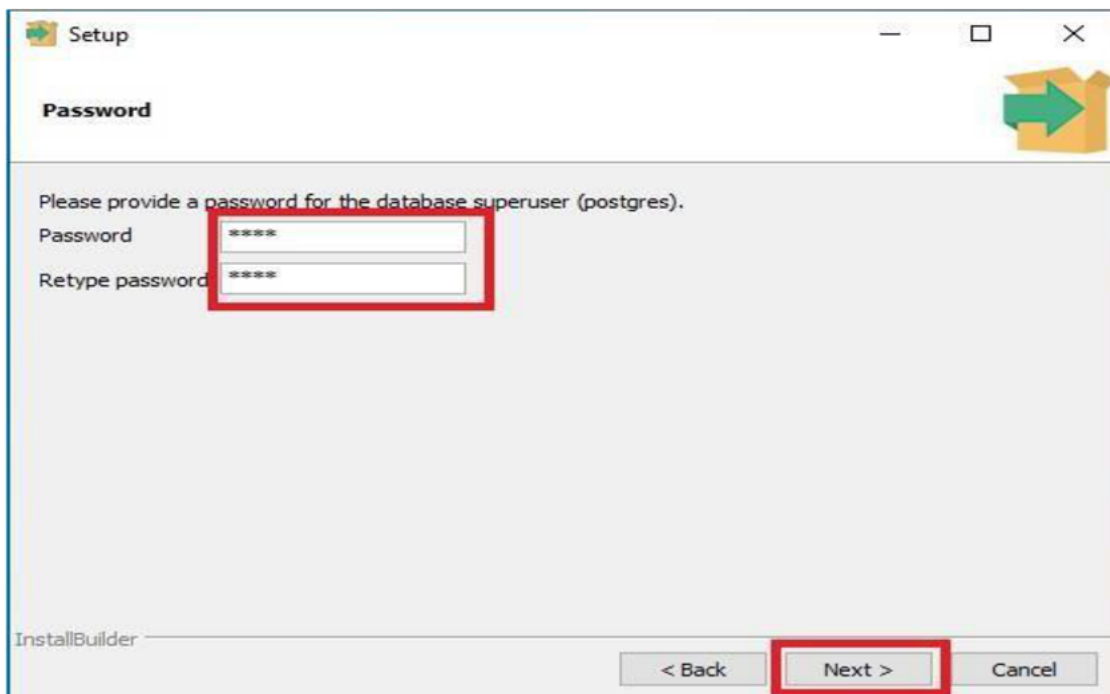
Step-12: Install **postgresql-9.4.26-1-windows-x64** by right click on the file and then click on run as administrator and then click yes if prompted.

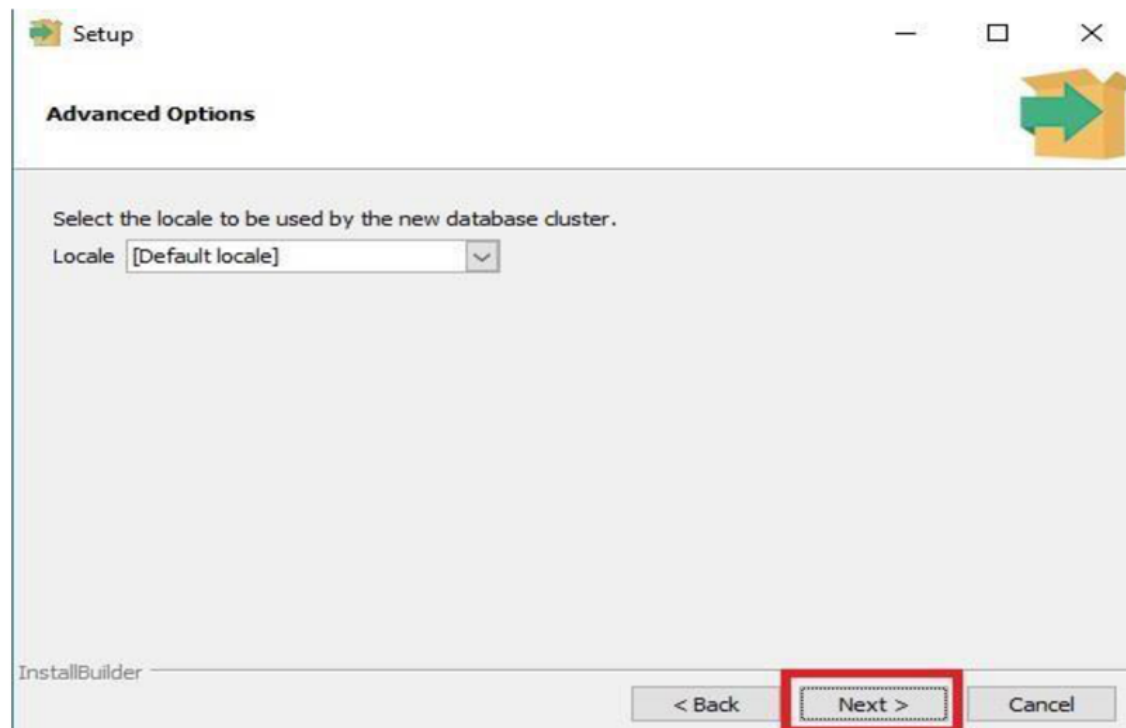
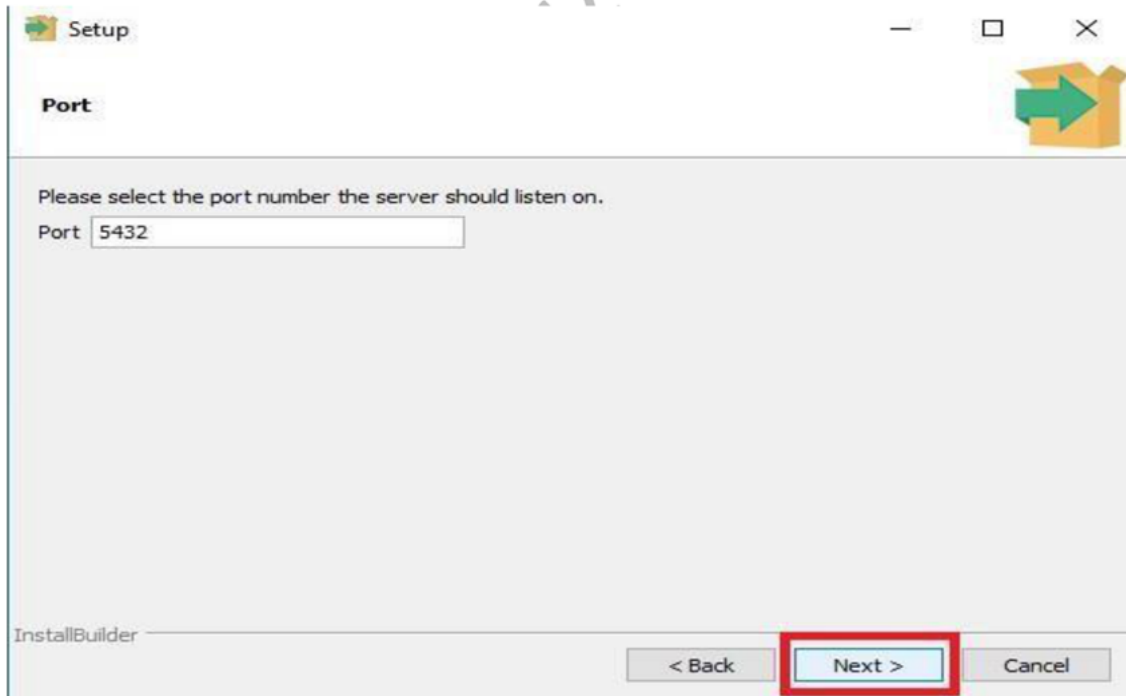




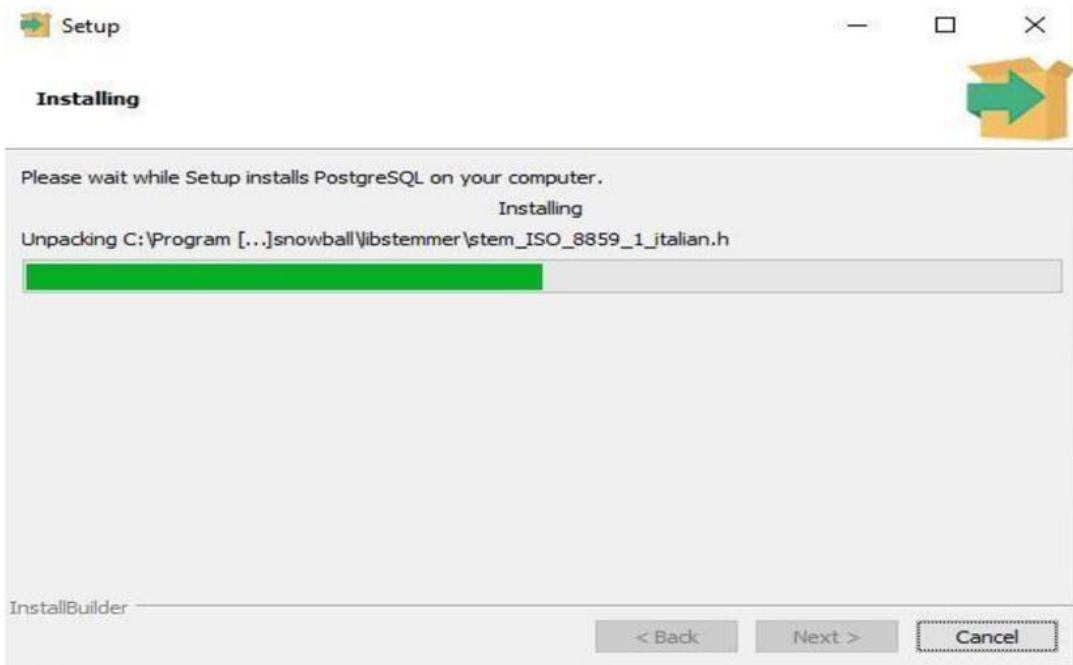
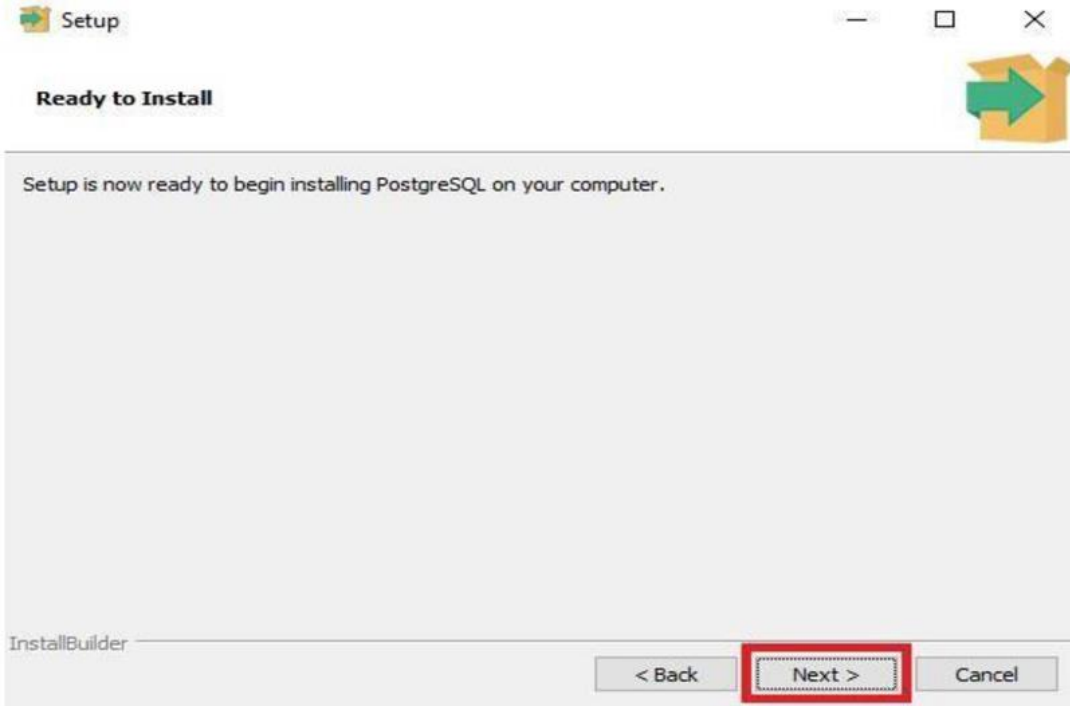


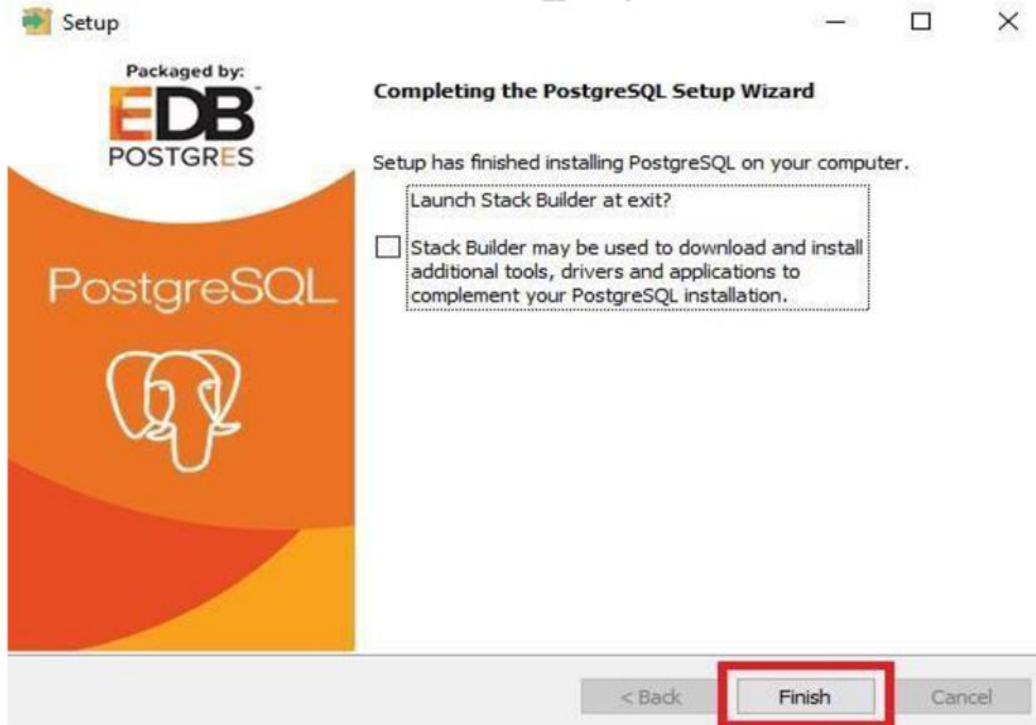
Step-12.1: Set password for postgresql database



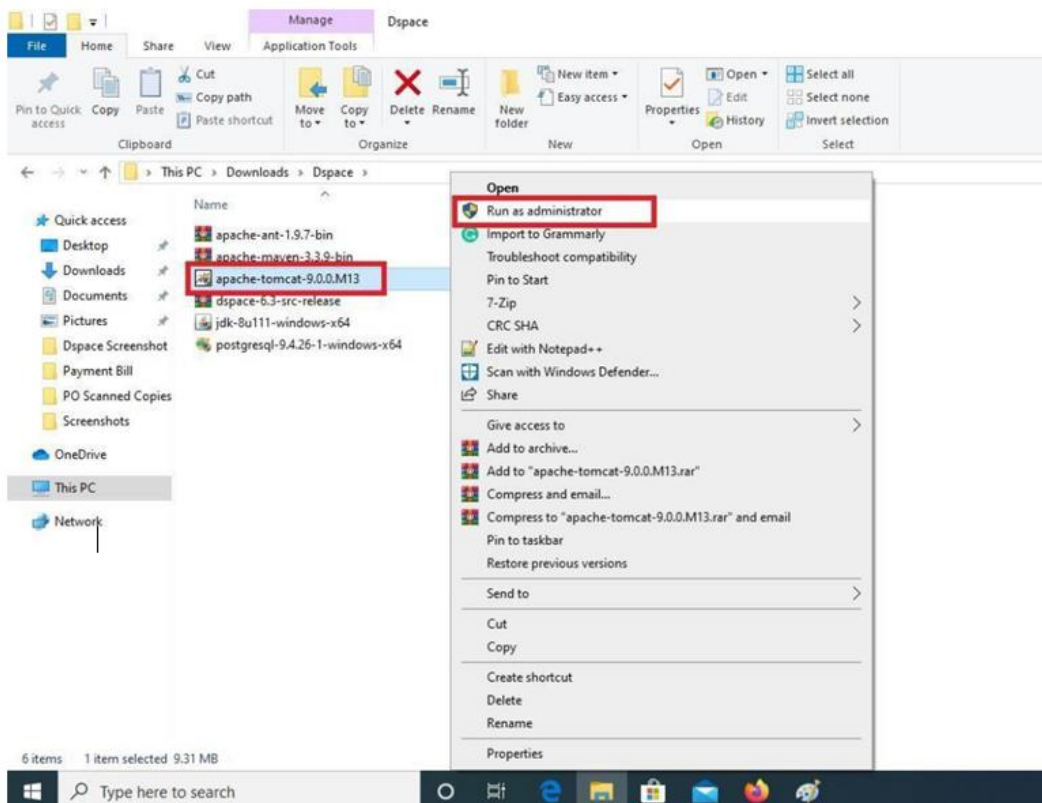


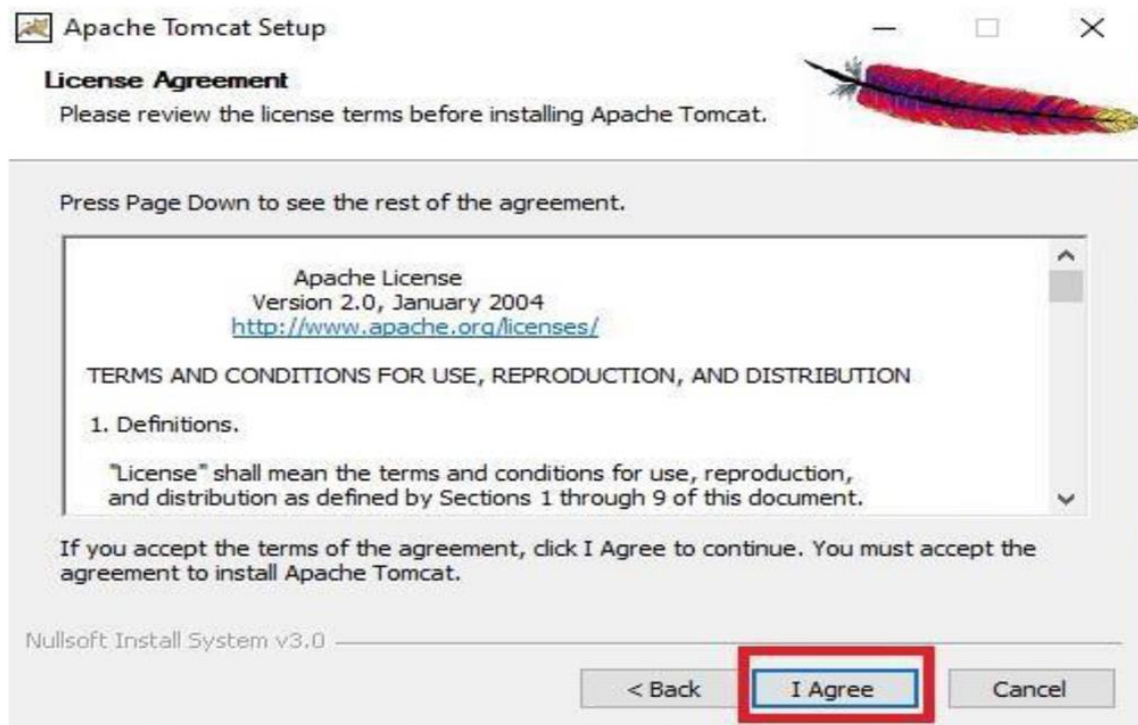


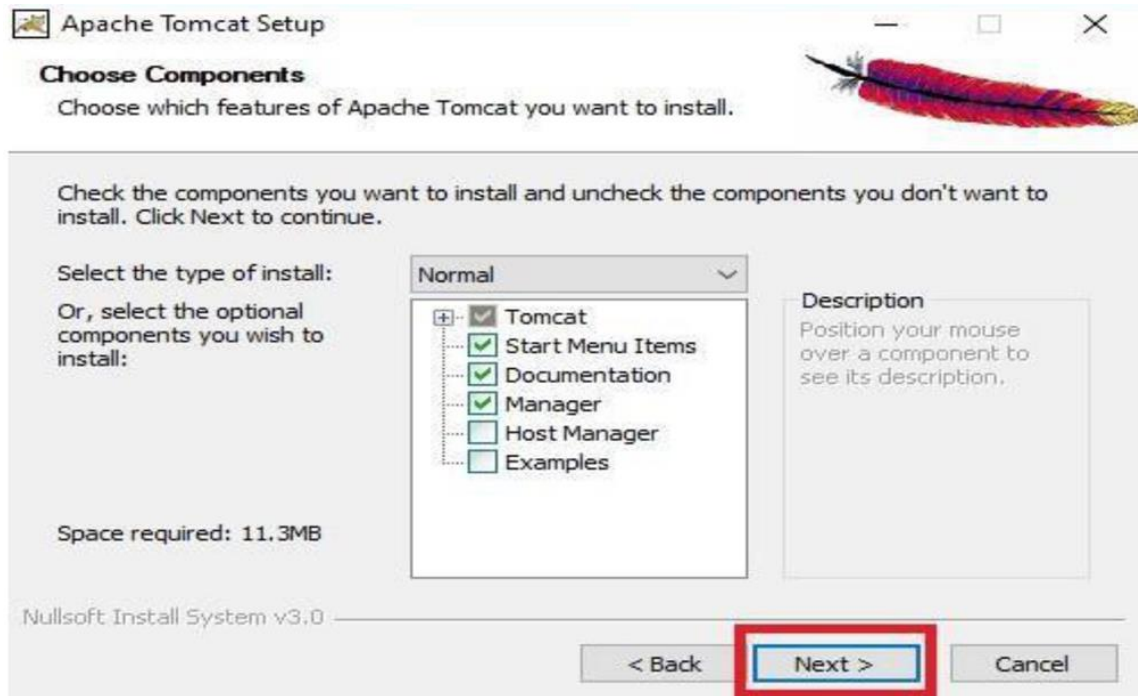




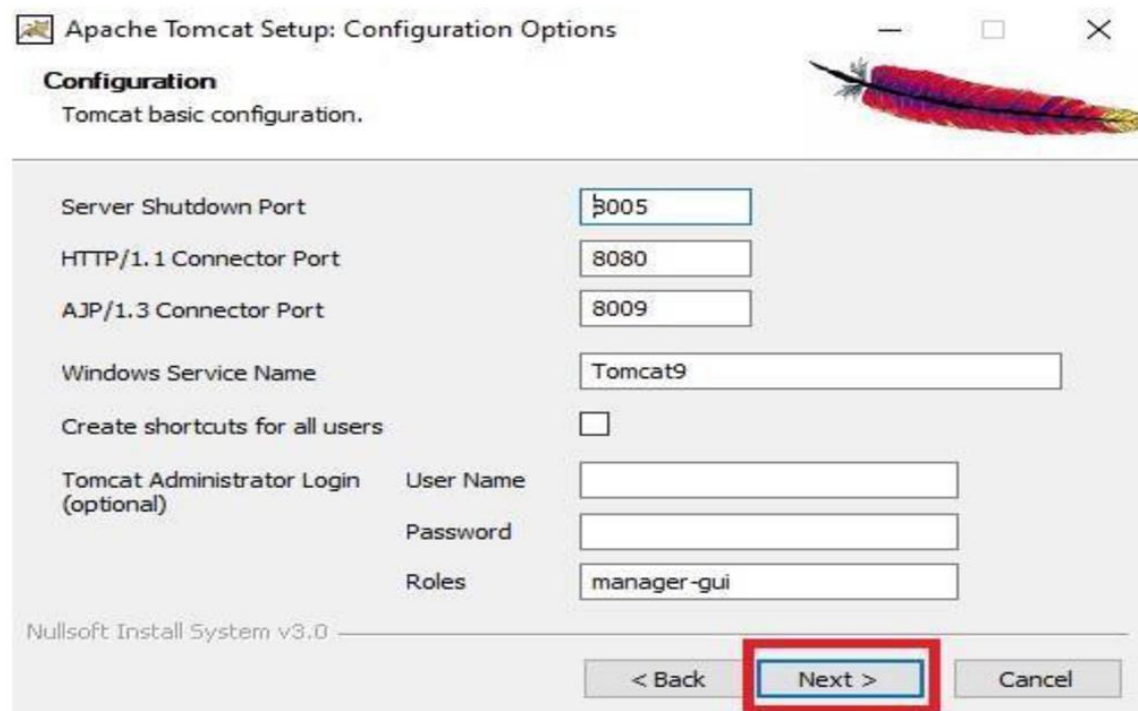
Step-13: Install **apache-tomcat-9.0.74.exe** by right click on the file and then click on run as administrator and then click yes if prompted.

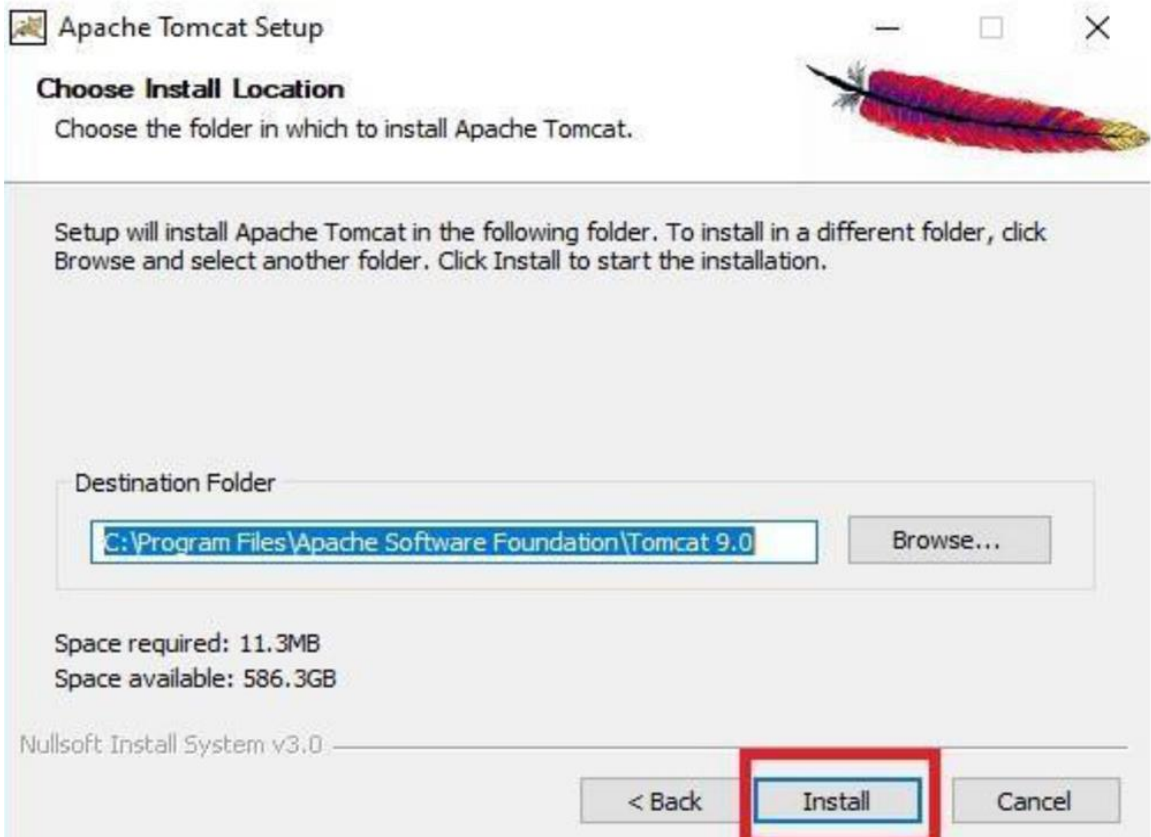
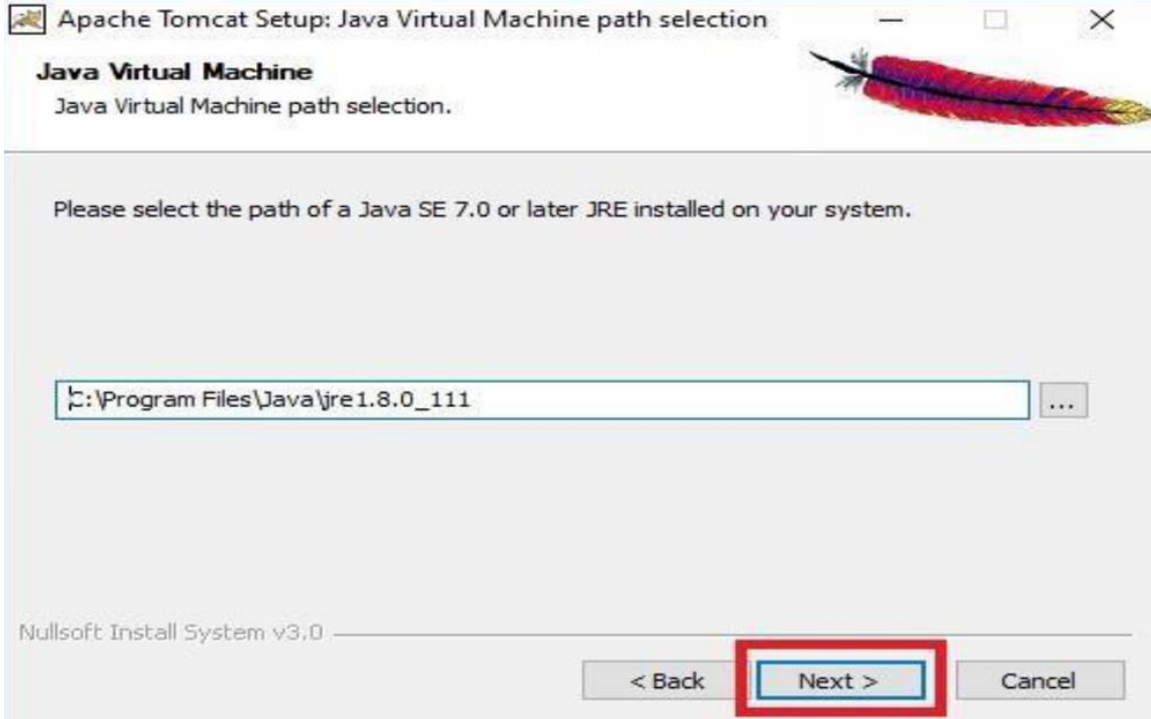


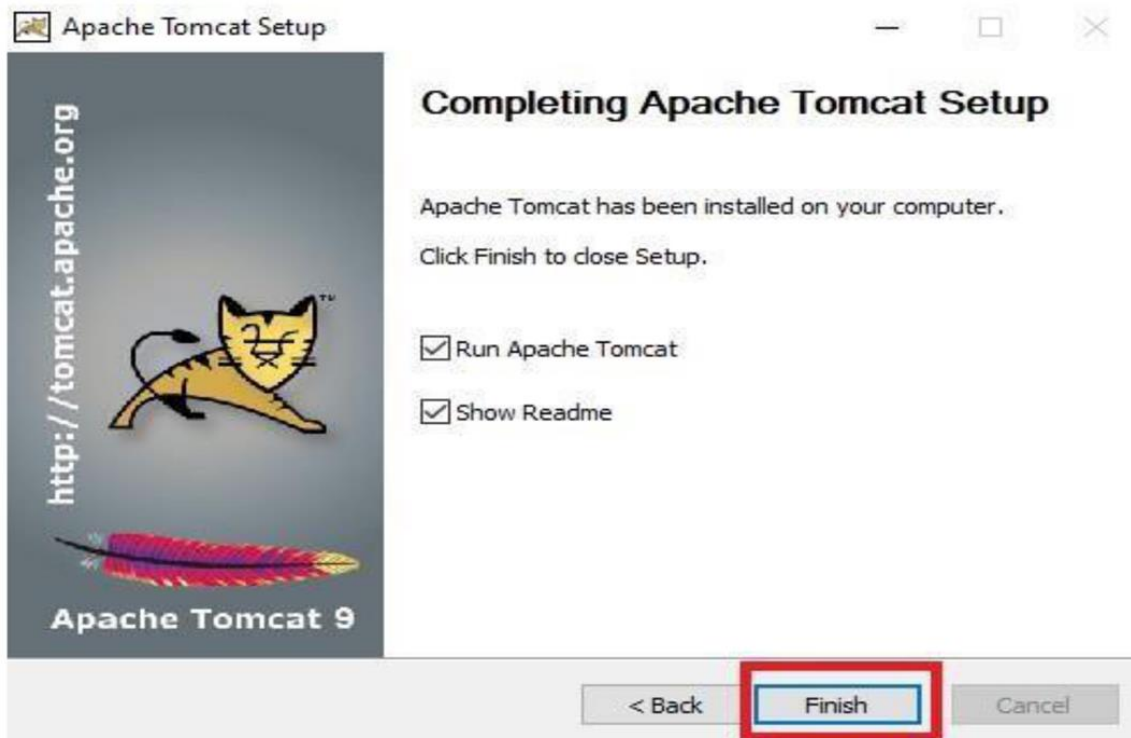
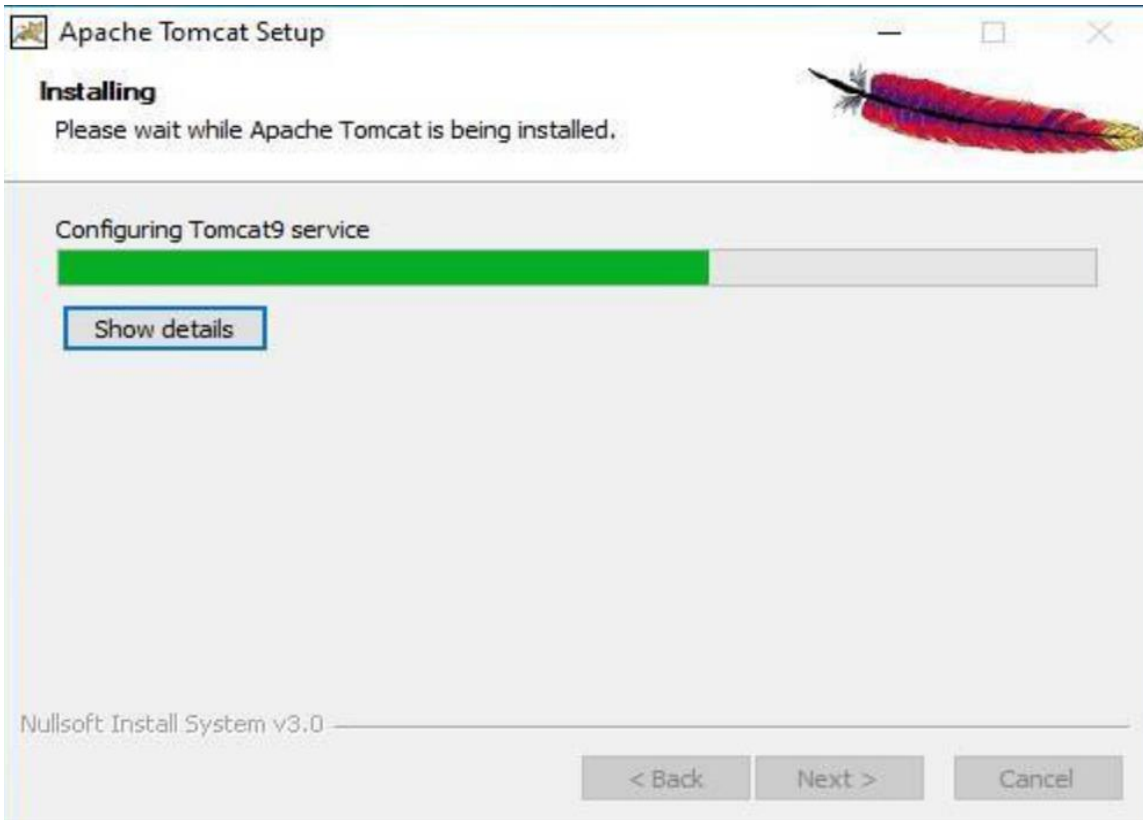




Step-13.1: You can set the password or leave it as per your own choice.

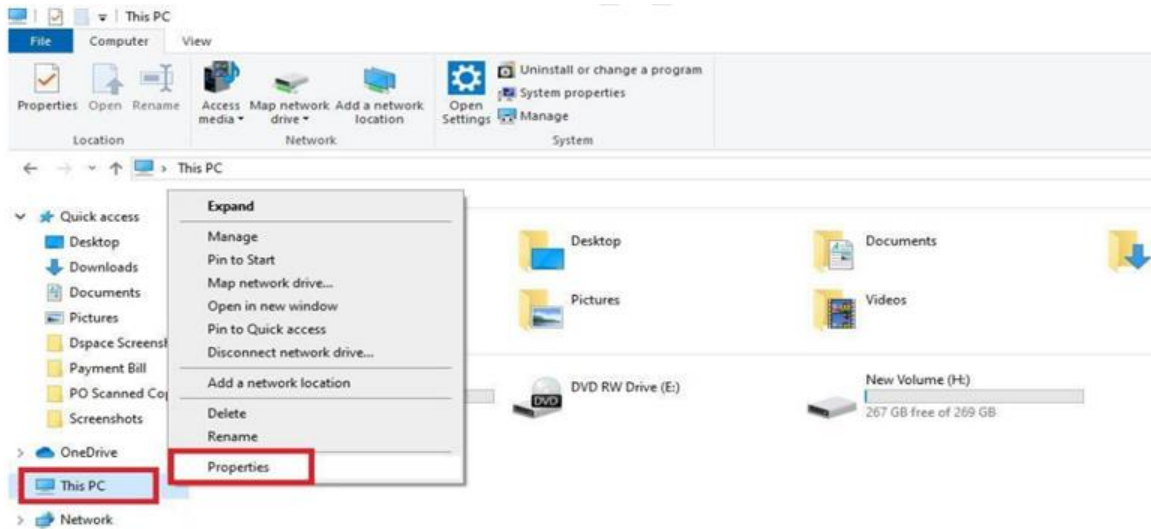




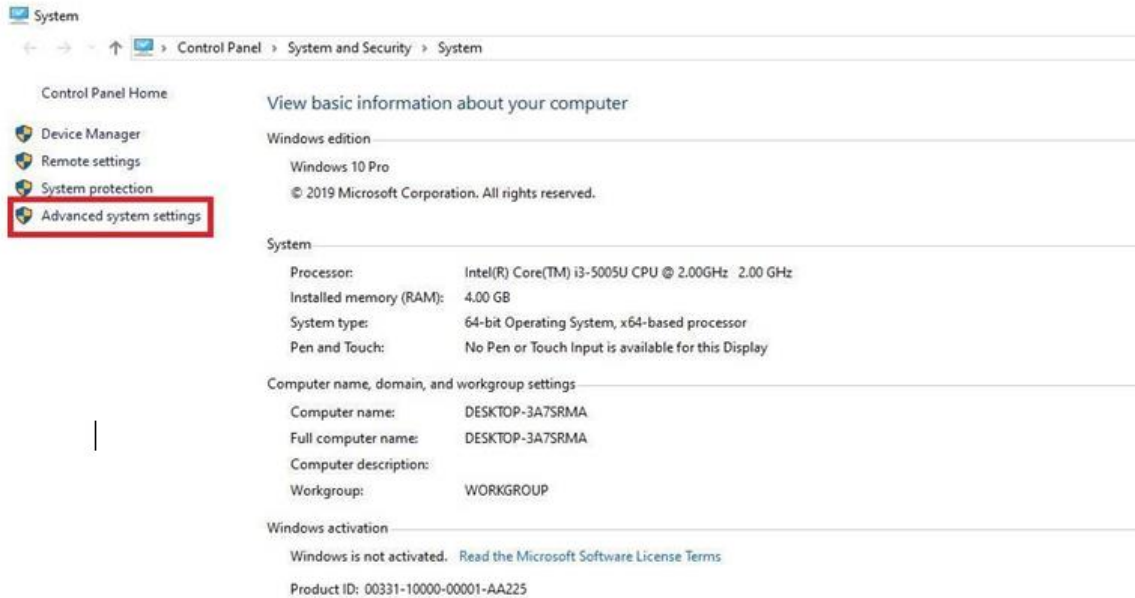




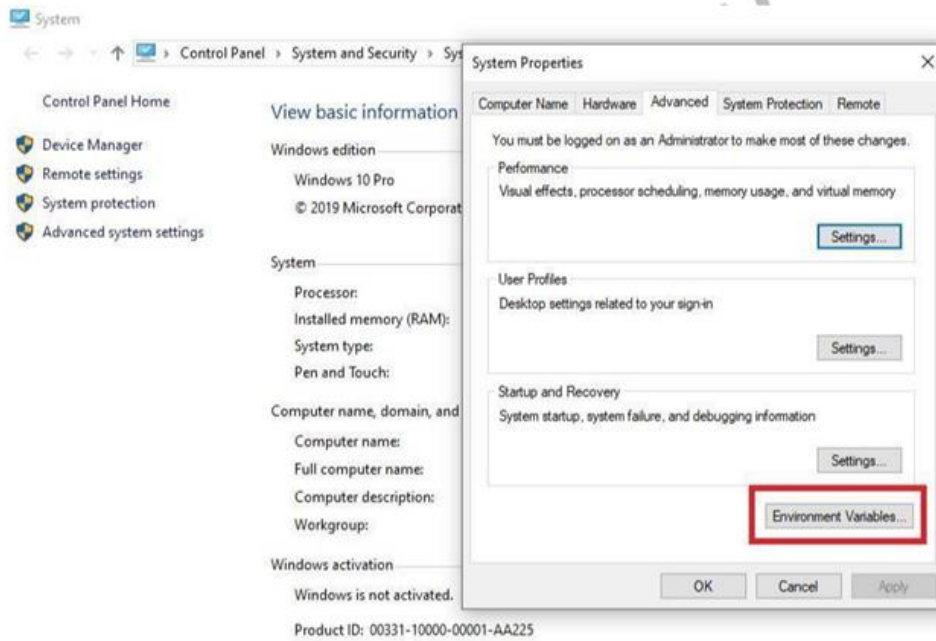
Step-14: Now we have to set the “**Environment Variables**”. First right click on my computer and then select properties.



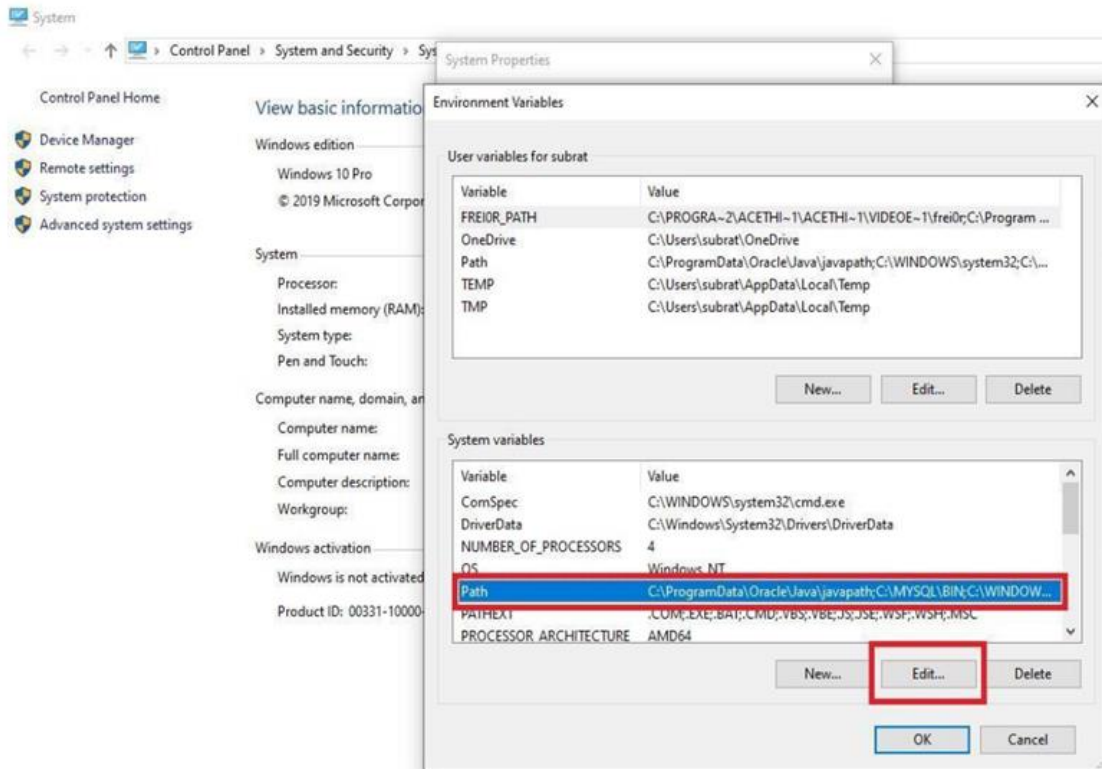
Then select “**Advanced System Settings**”



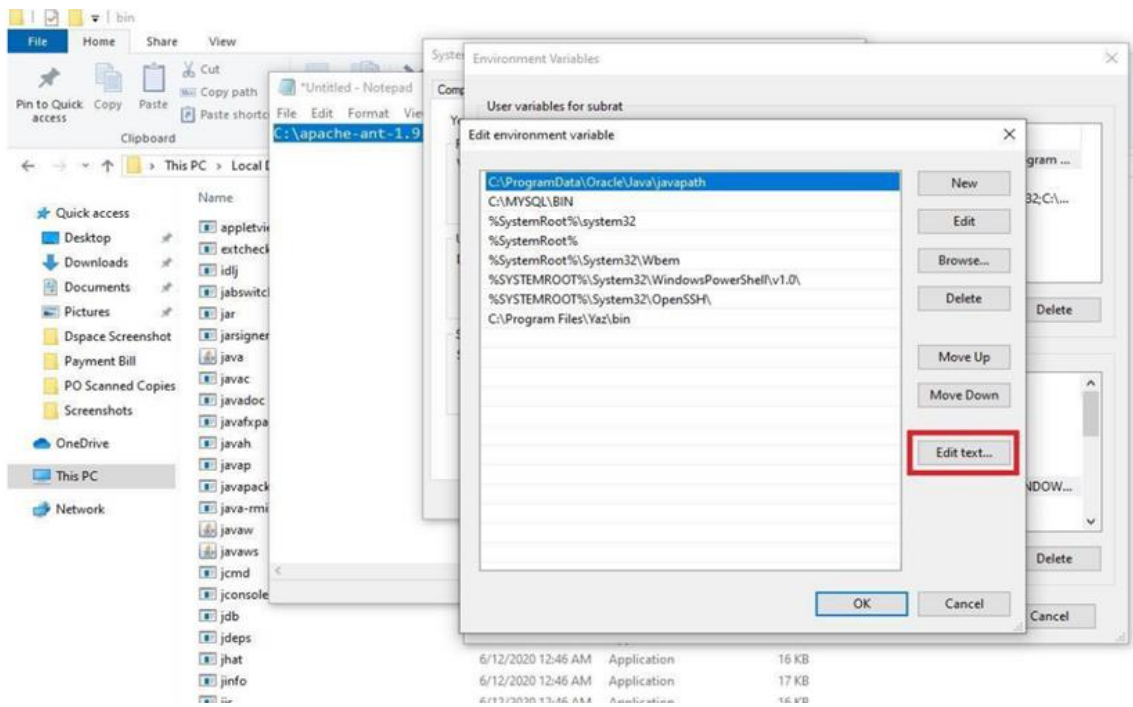
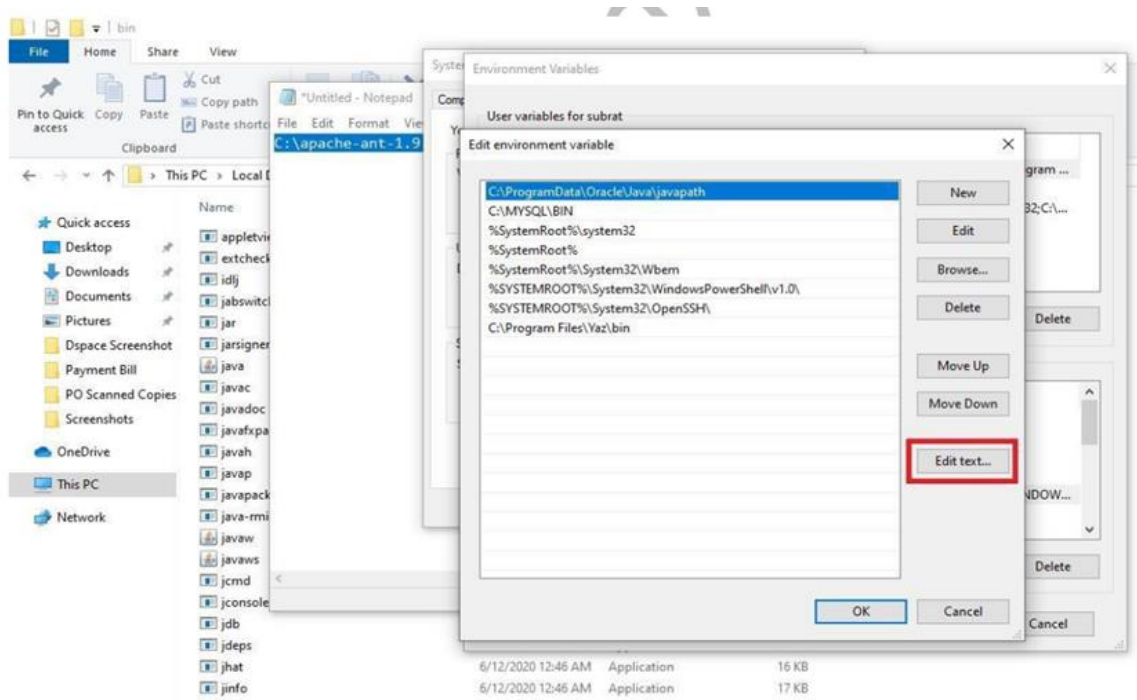
Select **“Environment Variables”** option.



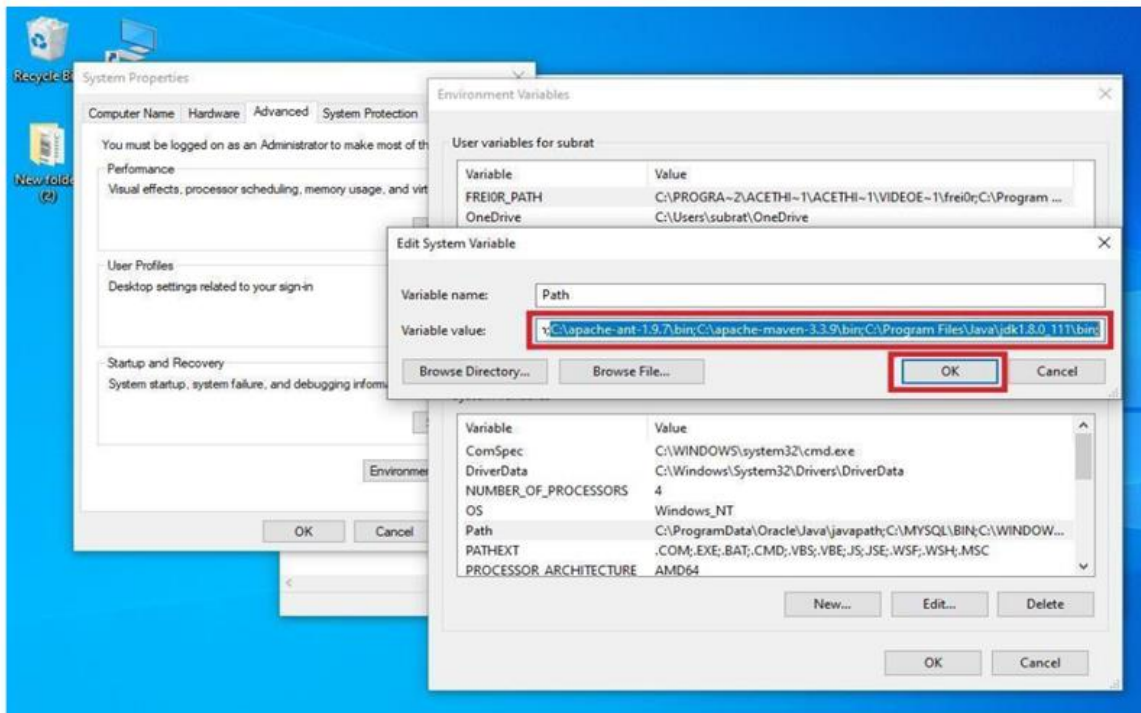
Select **“Path”** and click on Edit button in System variables.



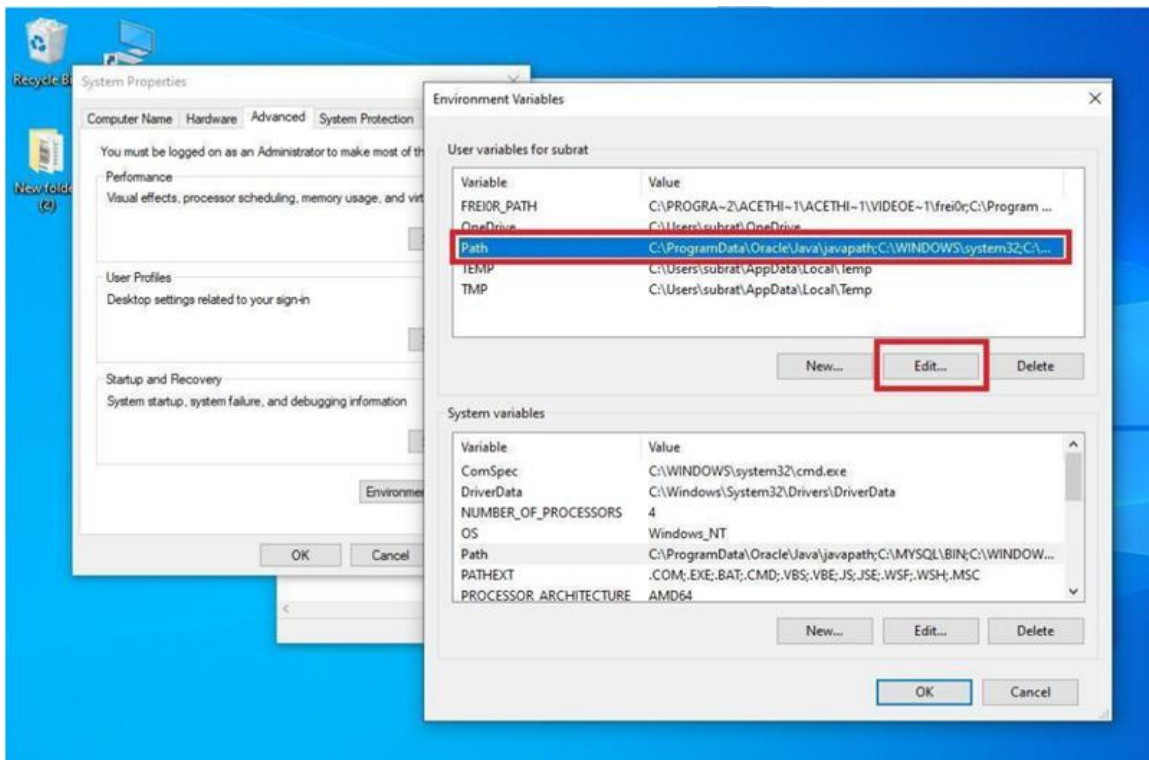
Then click on **“Edit text”** option.



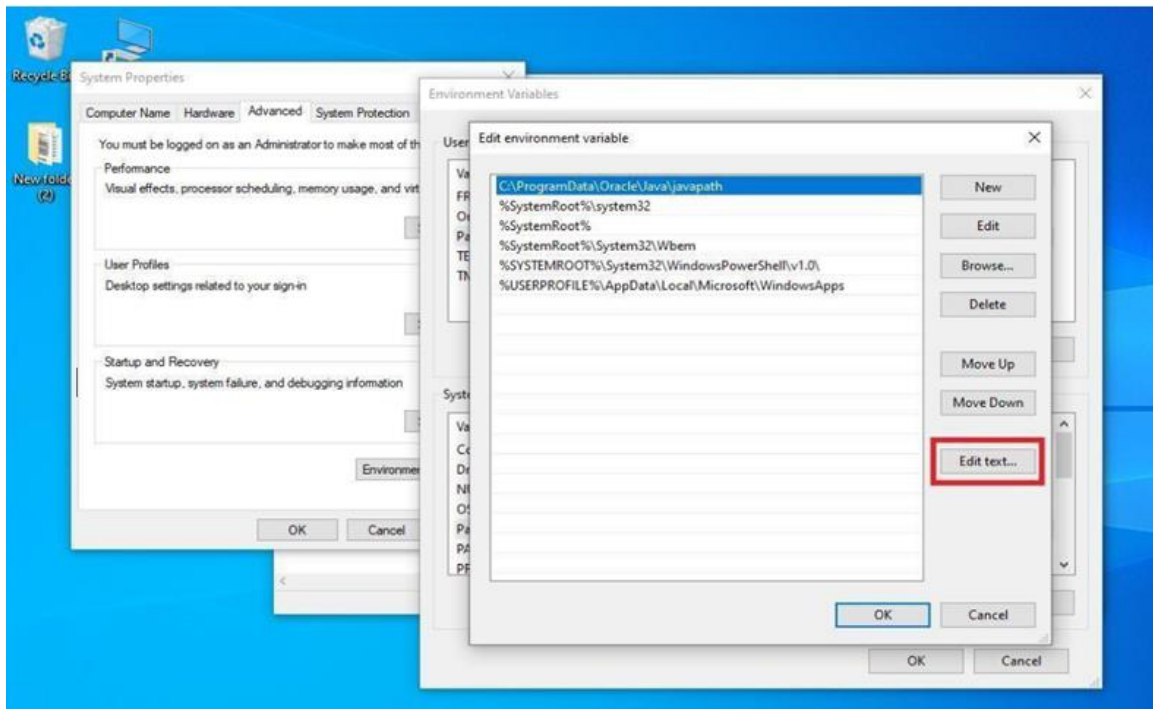
Add the paths in last line: **C:\apache-ant-1.9.7\bin;C:\apache-maven-3.3.9\bin;C:\Program Files\Java\jdk1.8.0\_361\bin;** and then click on ok.



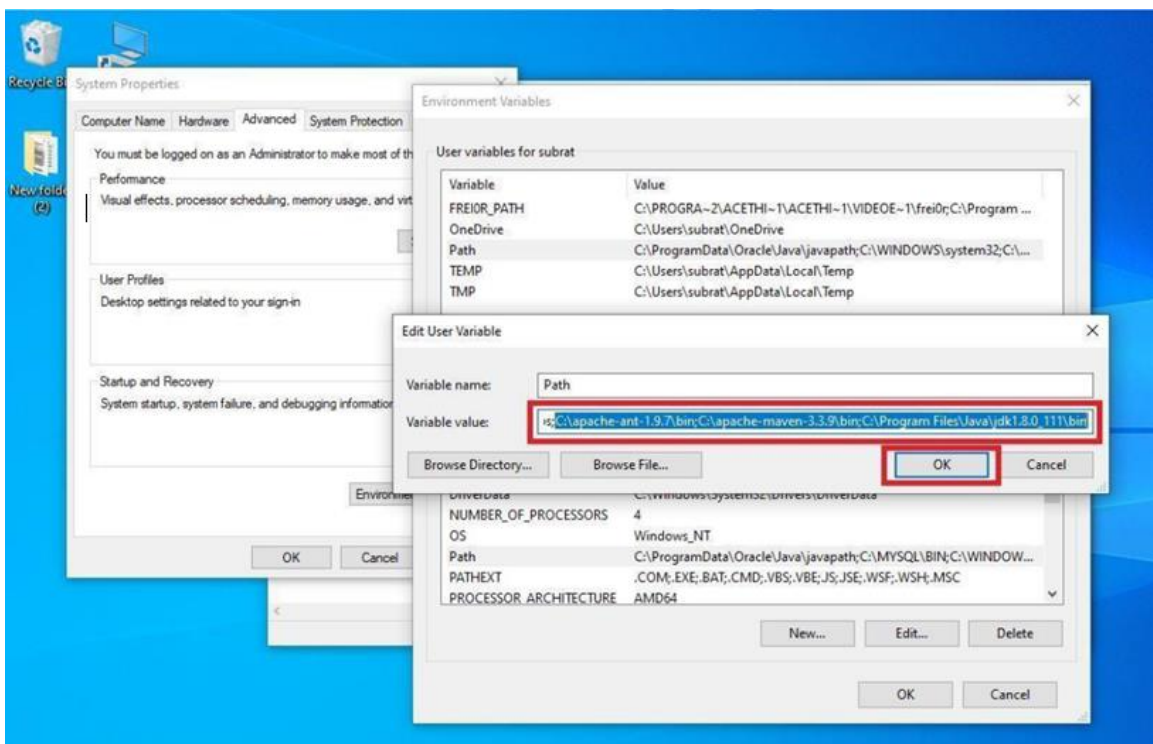
Select **“Path”** and click on Edit button in User variables.



Then click on **“Edit text”** option.

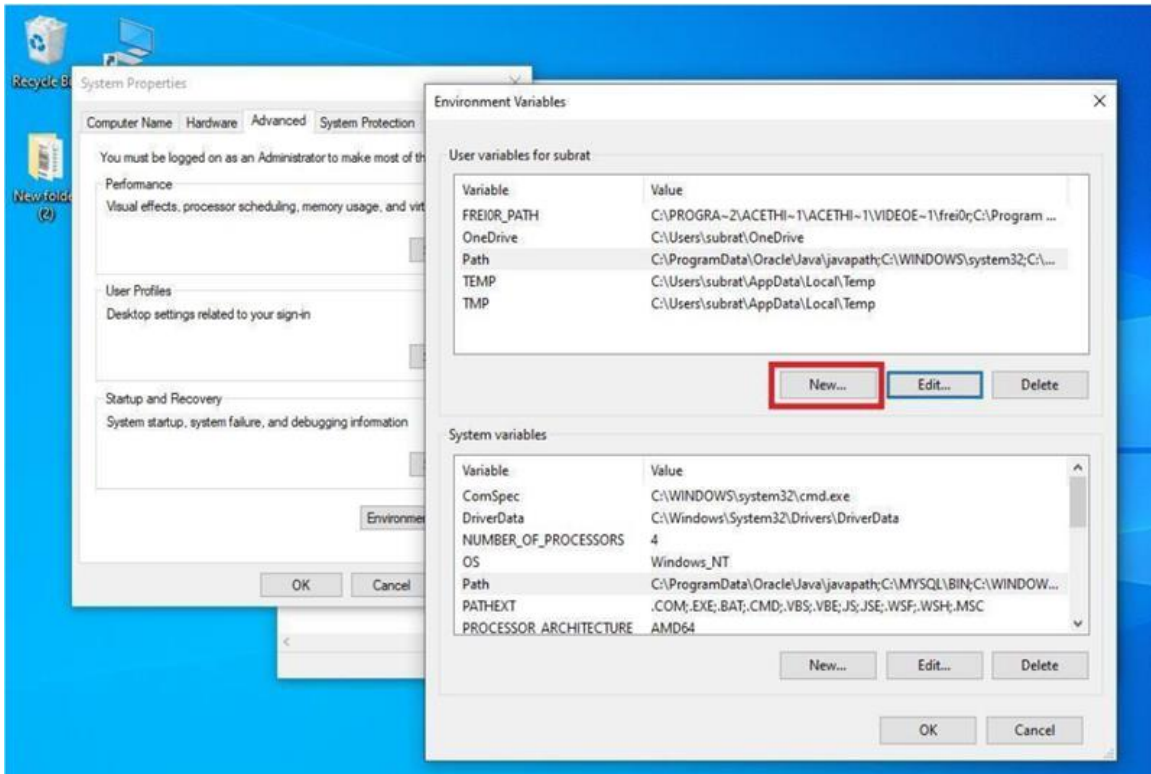


Add again the same paths in last line: **C:\apache-ant-1.9.7\bin;C:\apache-maven-3.3.9\bin;C:\Program Files\Java\jdk1.8.0\_111\bin**; and then click on ok.

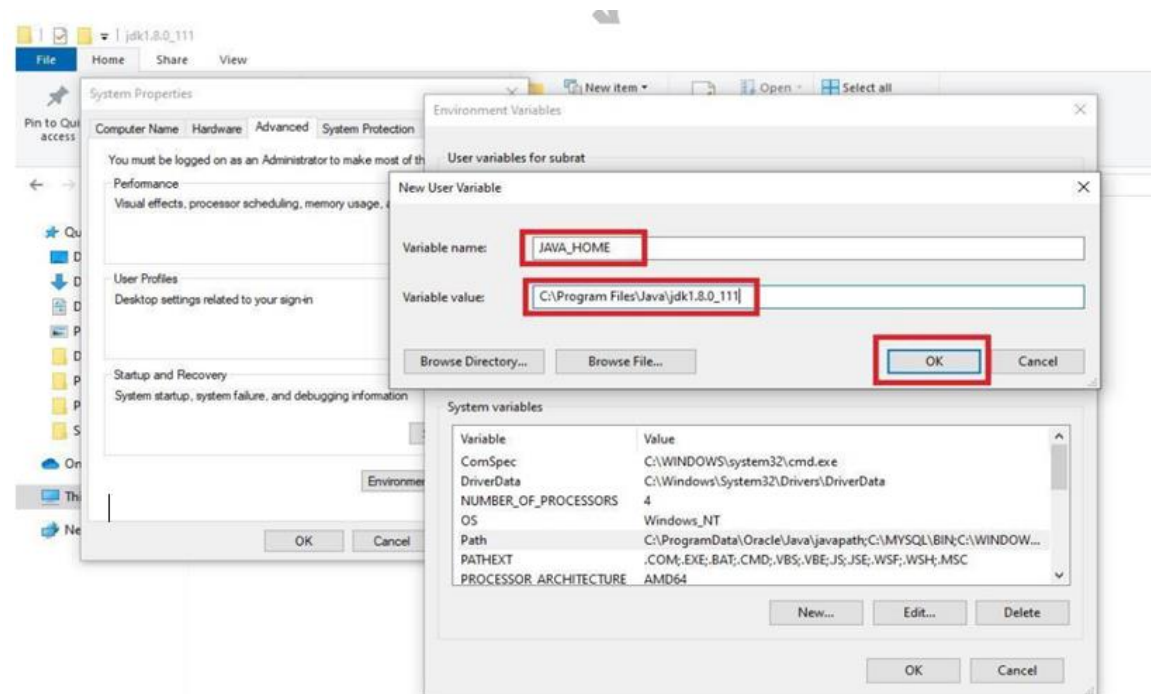




Click on “**New**” button in User variables.

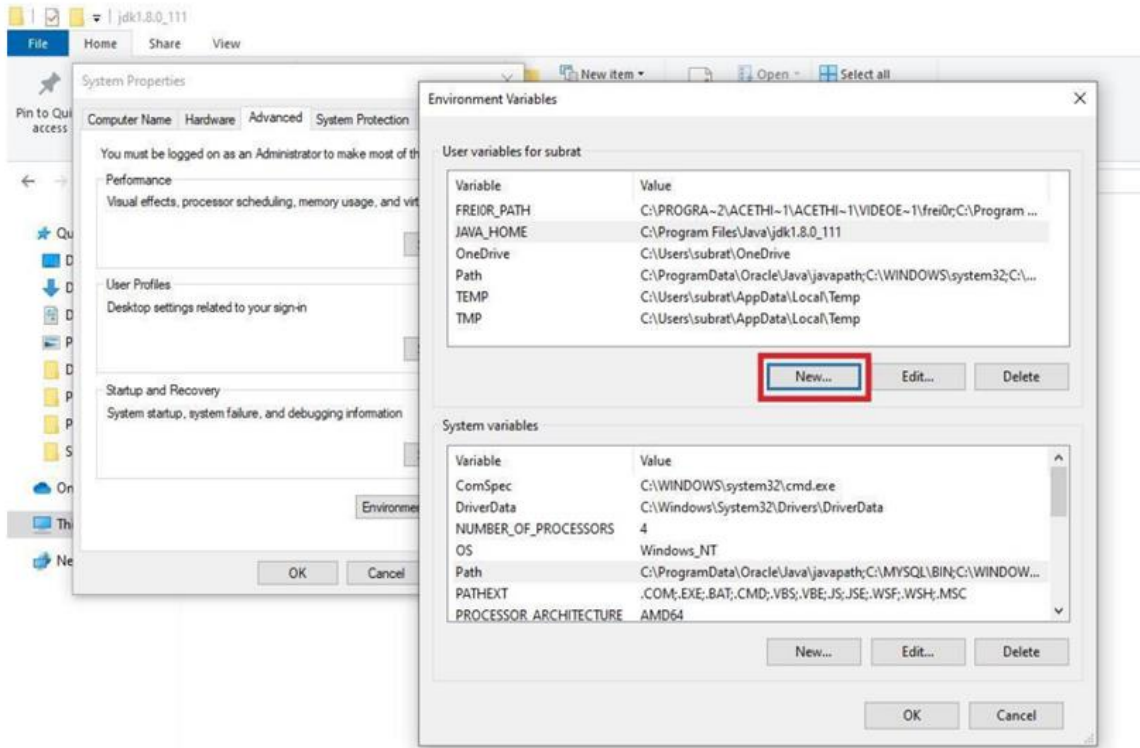


Type “**JAVA\_HOME**” in Variable name and give the path **C:\Program Files\Java\jdk1.8.0\_361** in Variable value and click on ok.

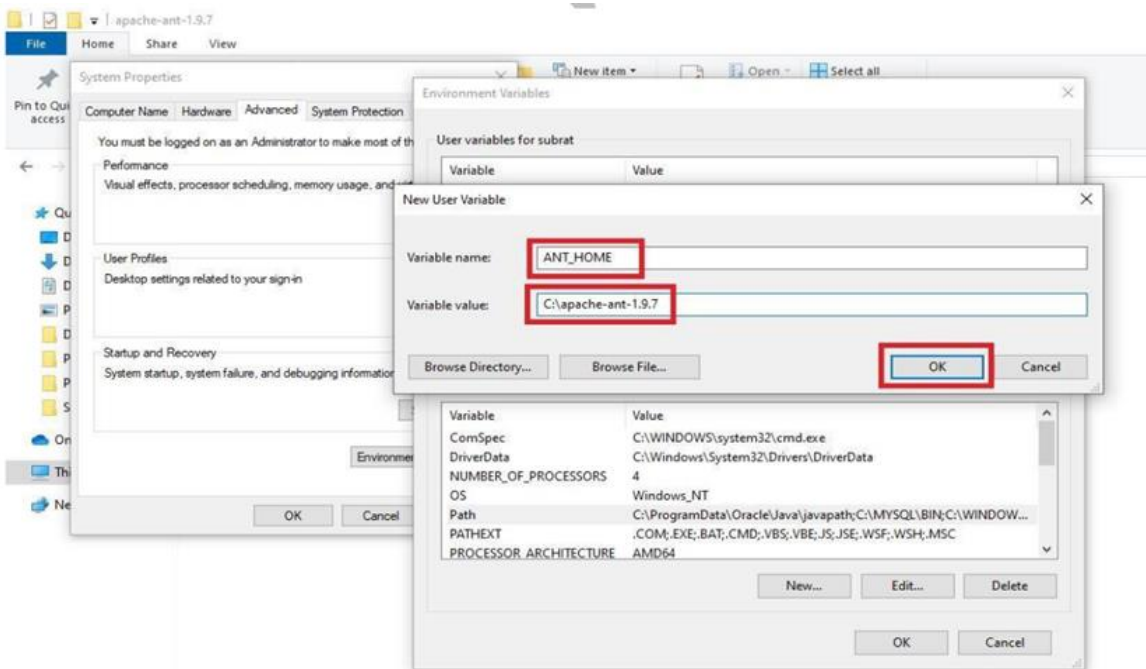




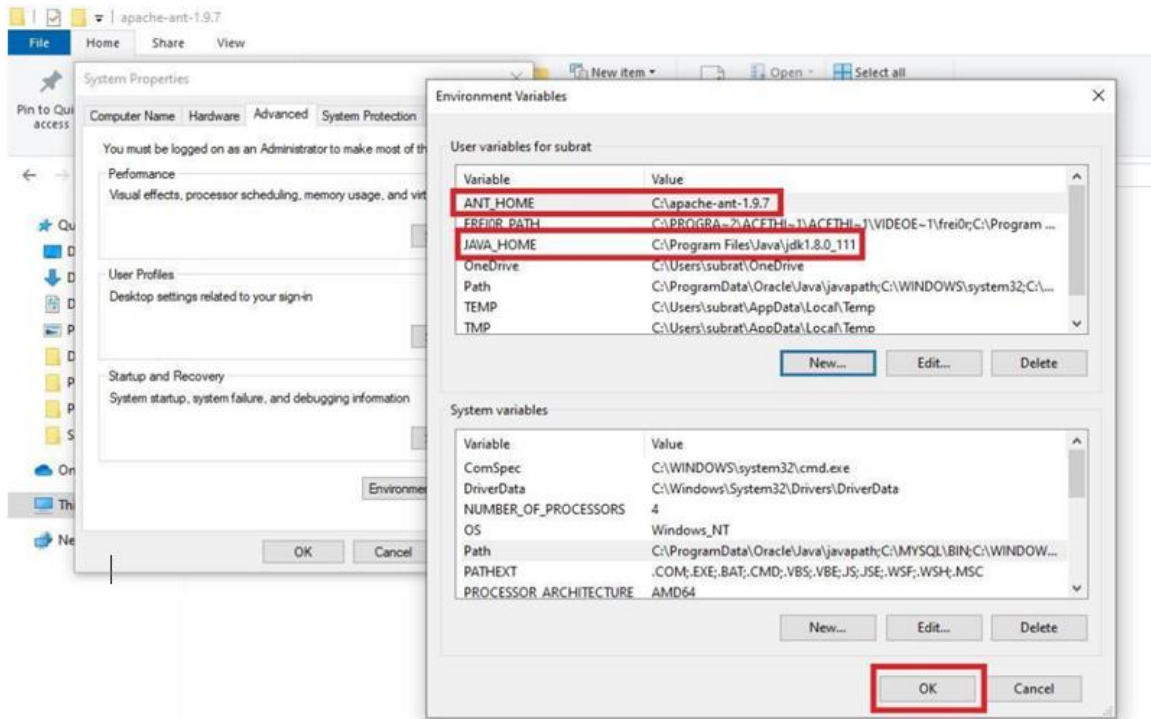
Again, click on “New” button in User variables.



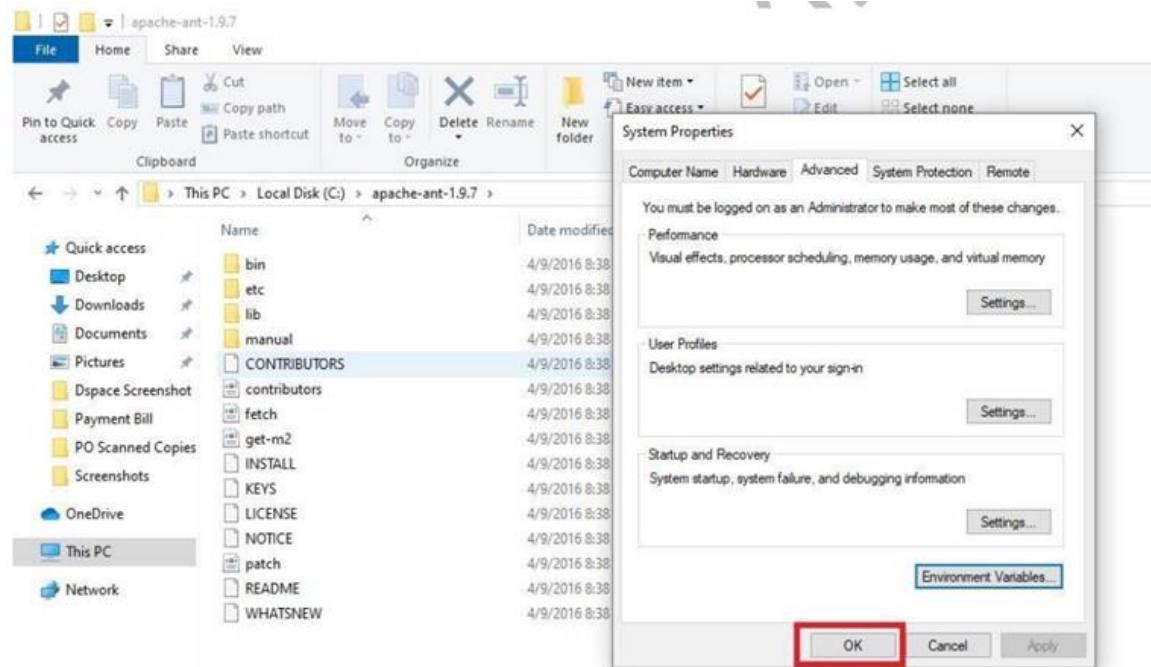
Type “ANT\_HOME” in Variable name and give the path **C:\apache-ant-1.9.7** in Variable value and click on ok.



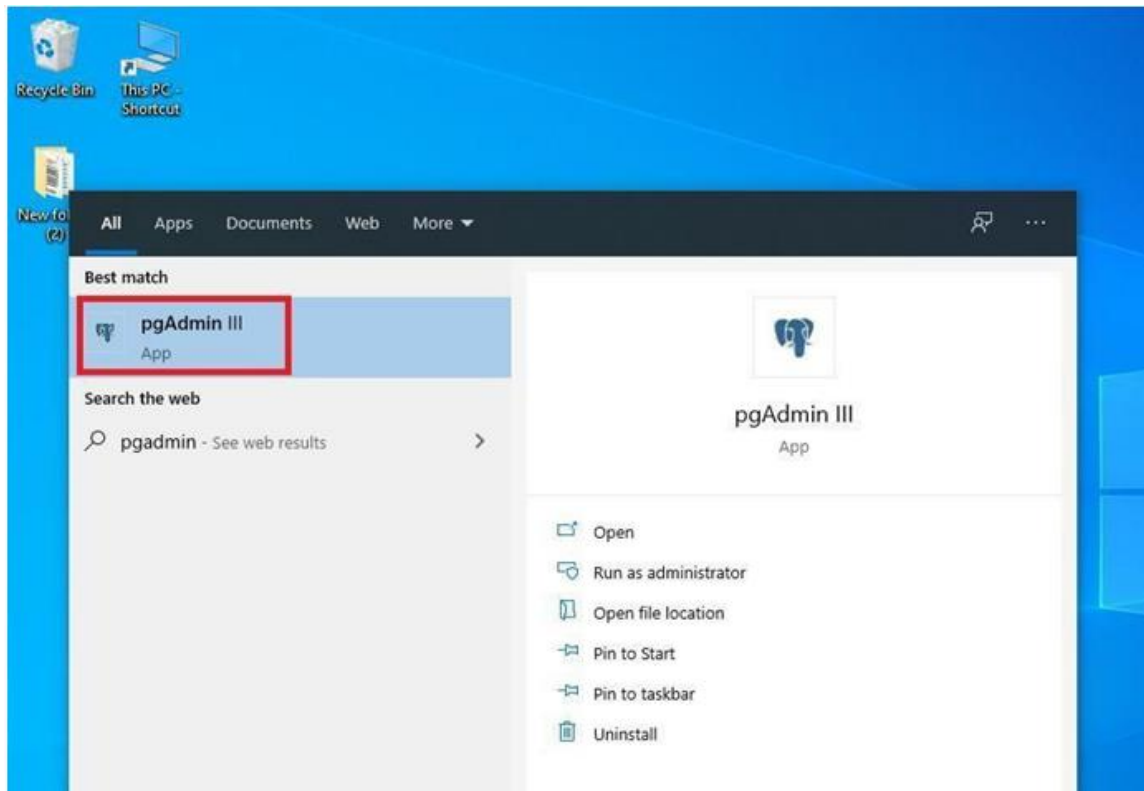
Now we have created both User variables and System variables, click on ok button.



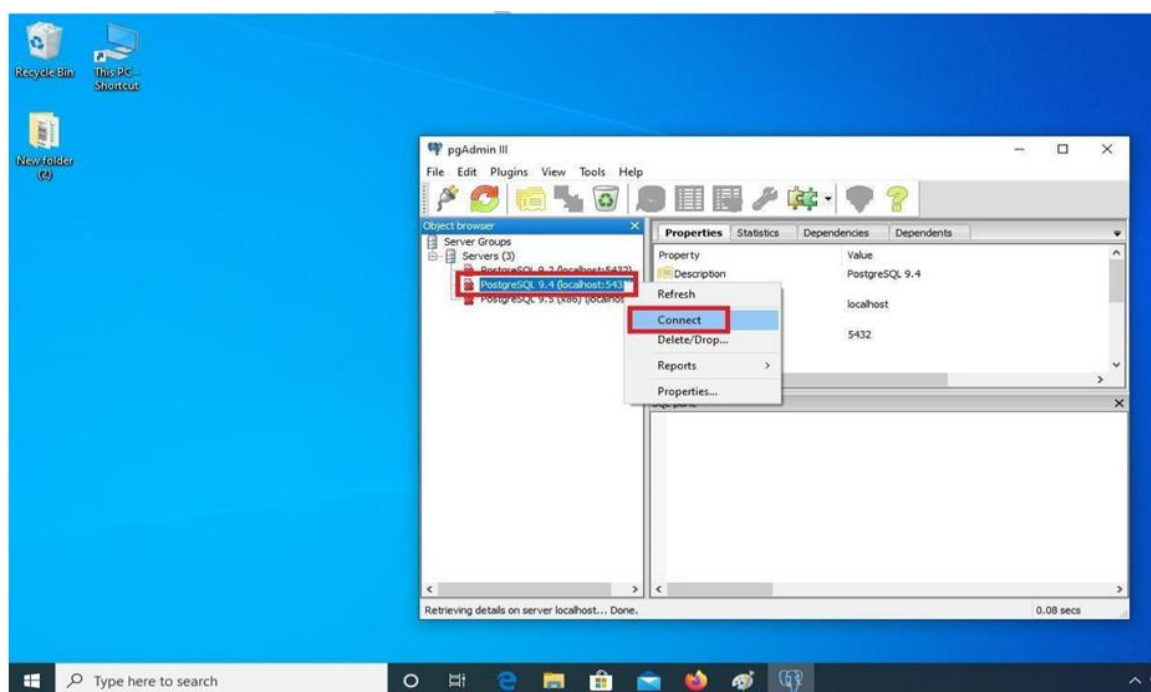
Click on ok button in System Properties.



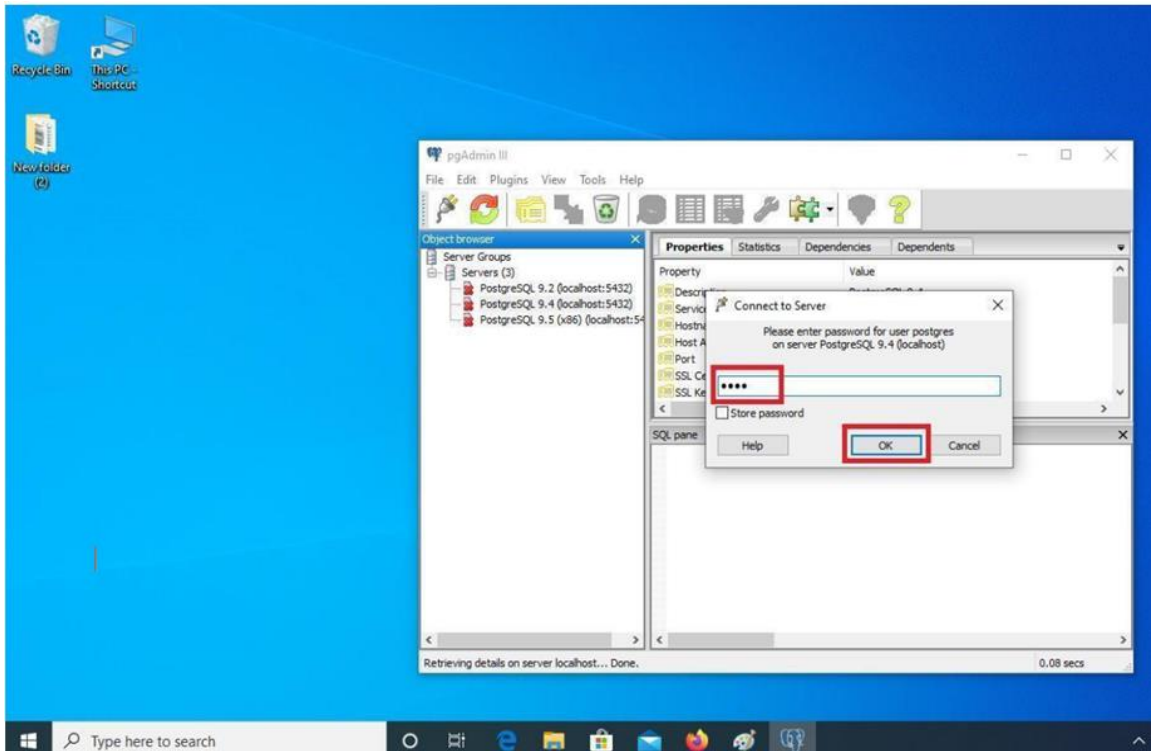
Then go to your windows search box and type “**pgadmin**”.



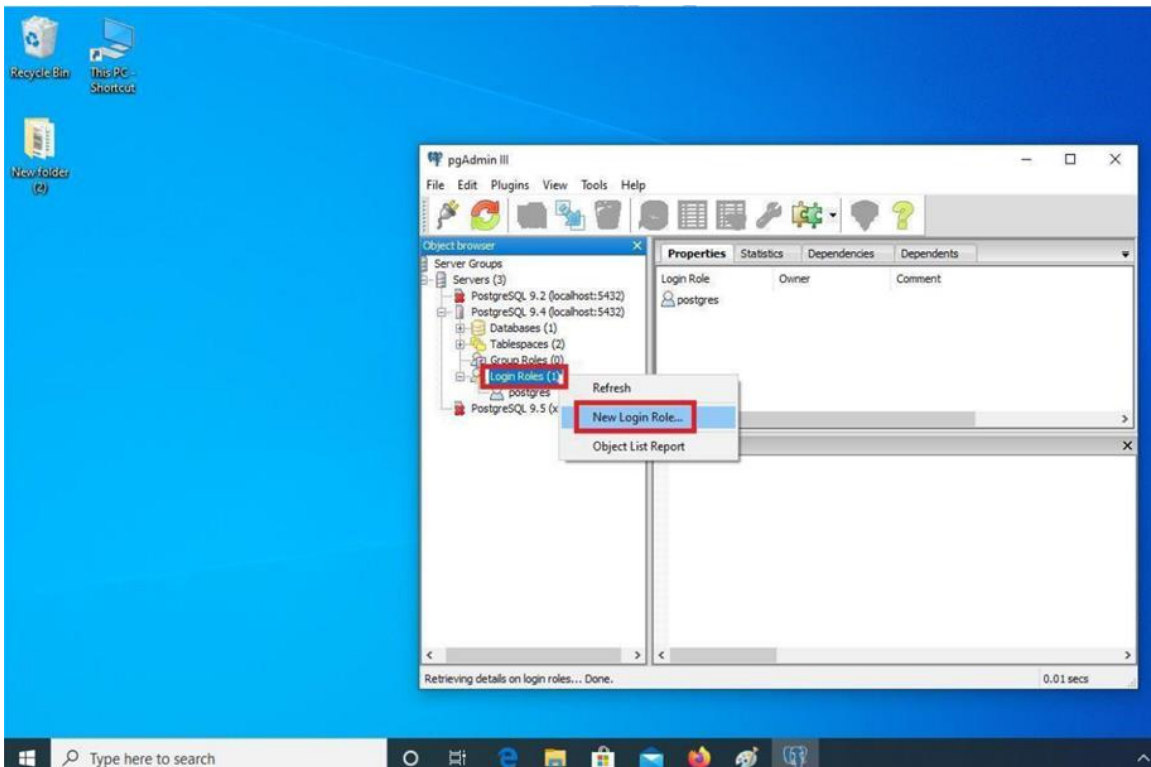
Check your postgresql version by going through the path: **C:\Program Files\PostgreSQL** in my case the version is 9.4, so right click on the option and select “Connect” or you can double click on the option.



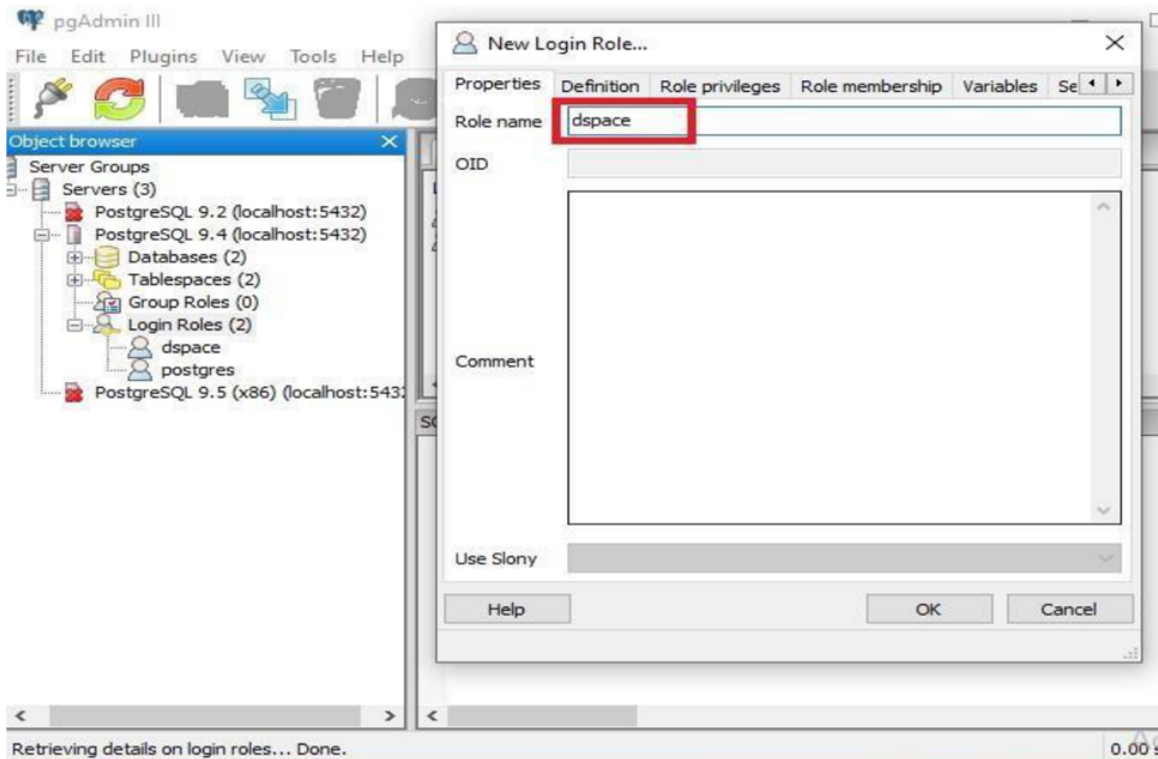
Give the password that was already set at the time of installation and click on ok button.



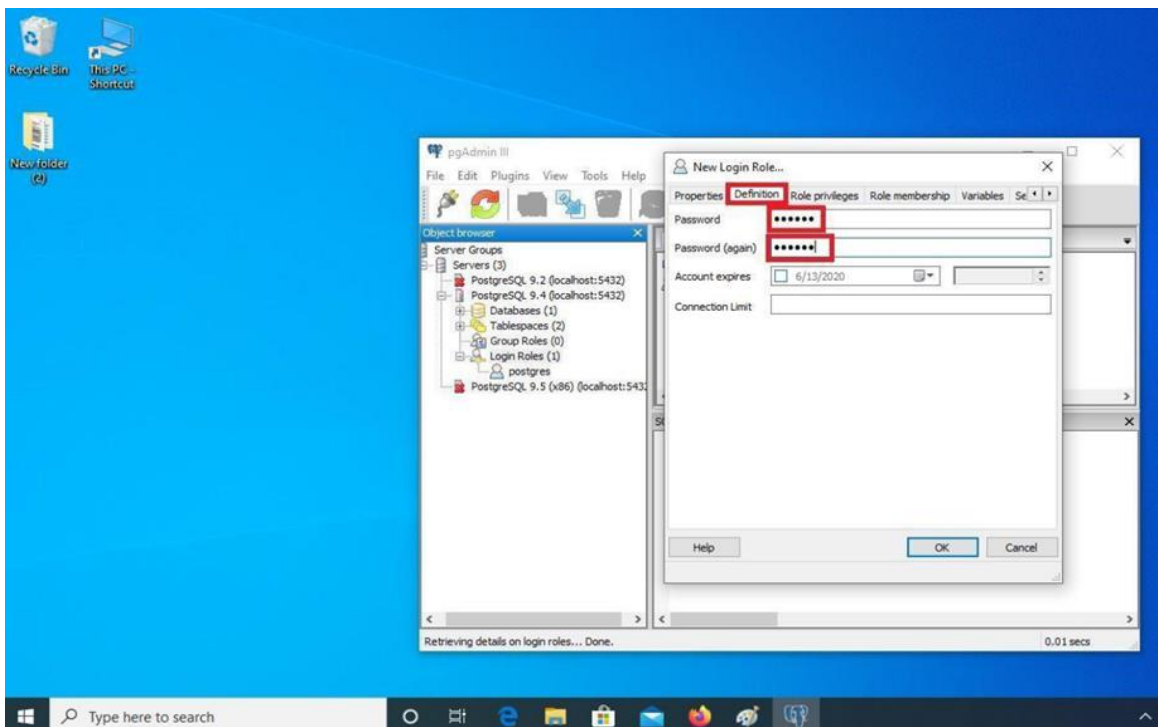
Right click on “Login Roles” and select “New Login Roles”.



Type “**dspace**” in Role name in properties option.

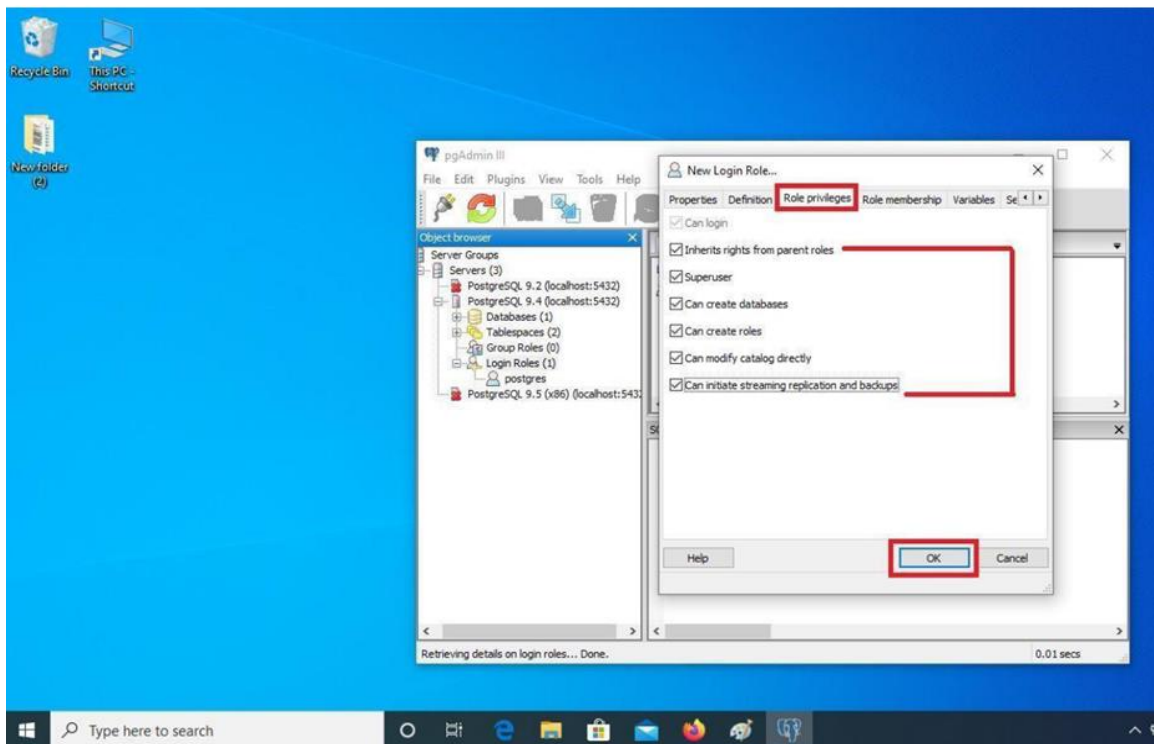


Set the password for ex: “**dspace**” in Definition option.

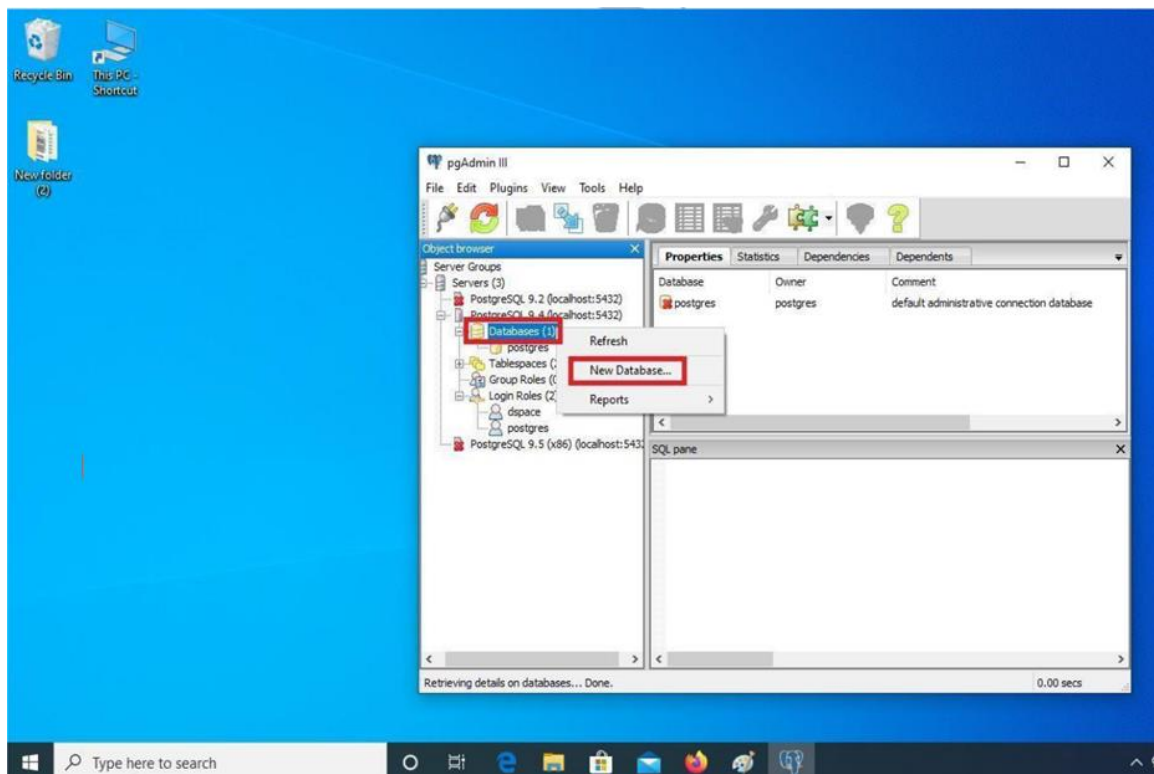




Select all the options in Role privileges and click on ok.

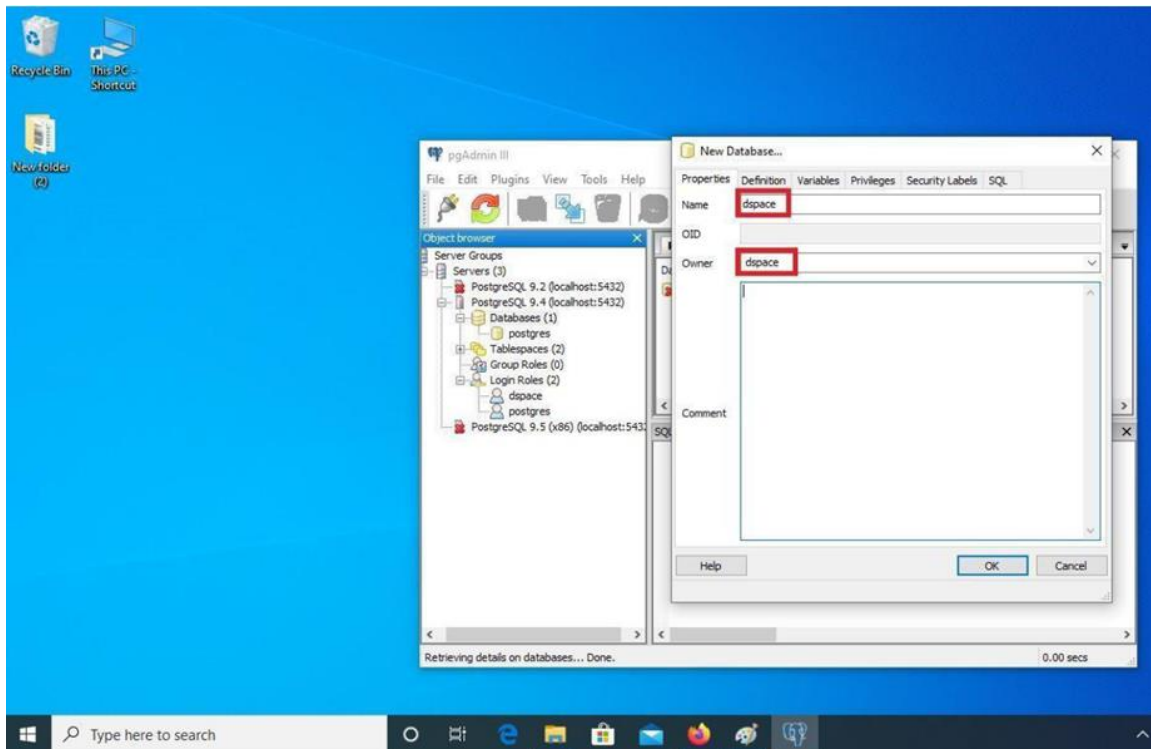


Then right click on **“Databases”** and select **“New Database”** option.

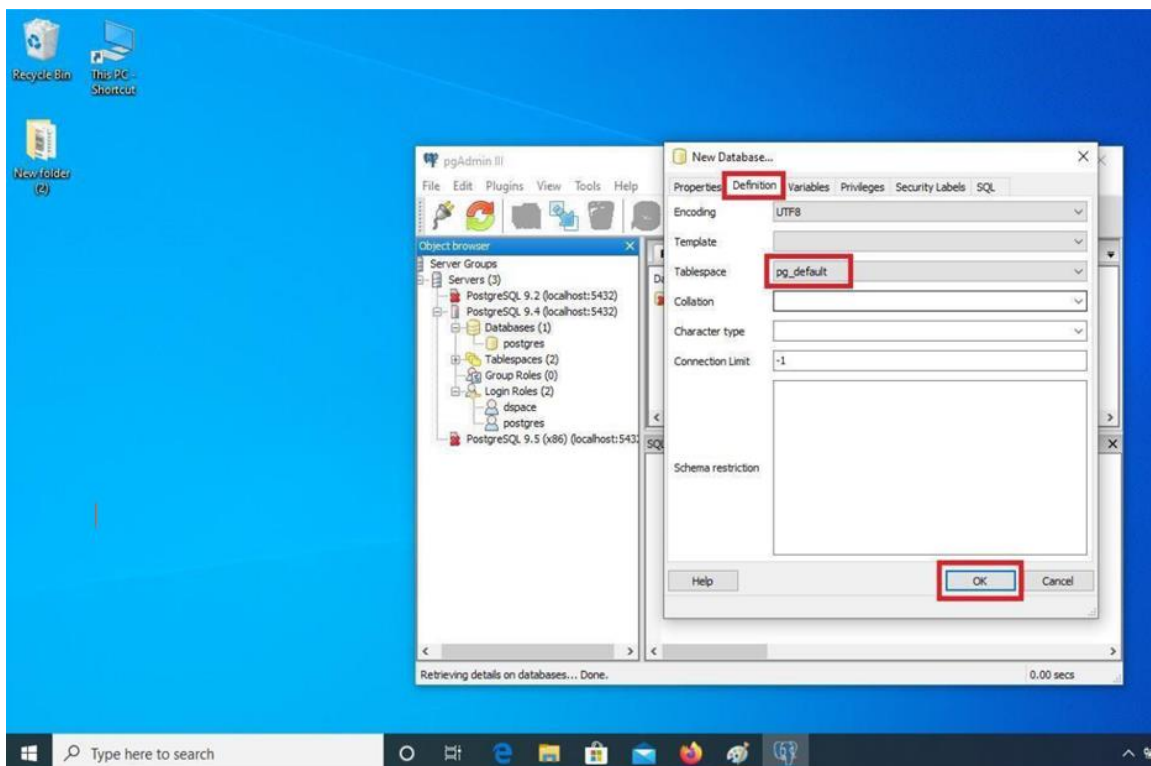




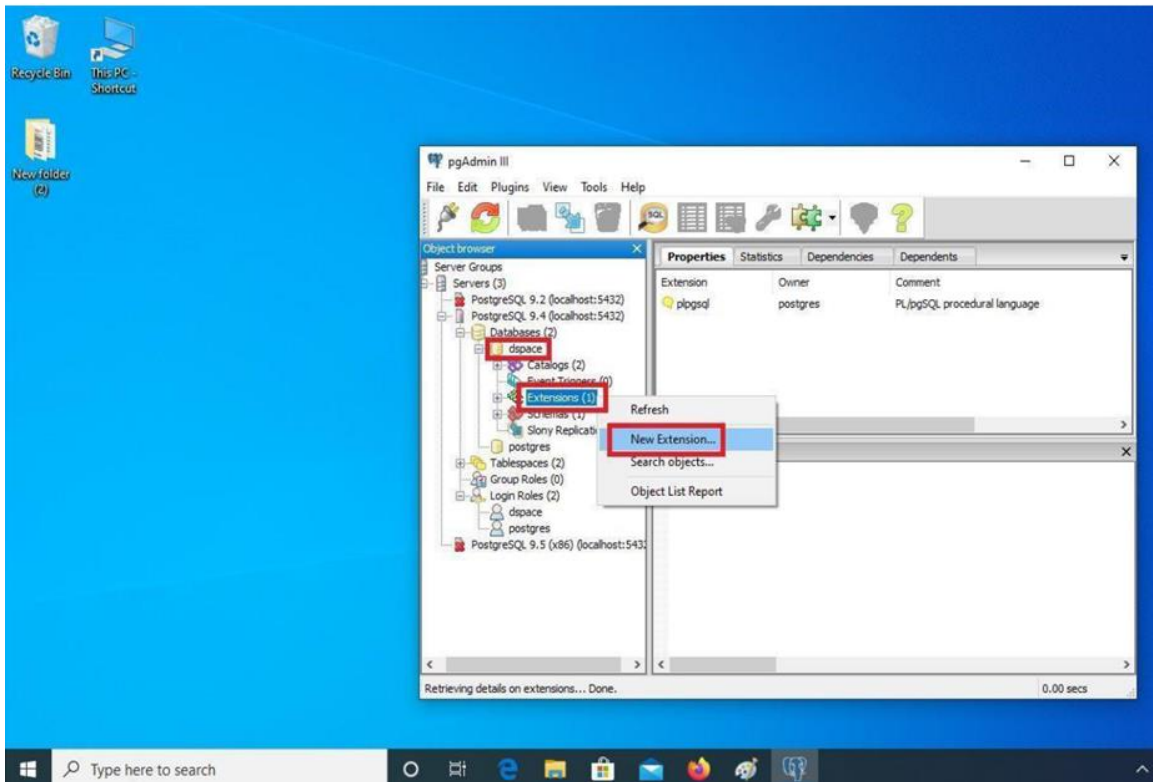
Type “**dspace**” in Name box and choose dspace in Owner drop down option.



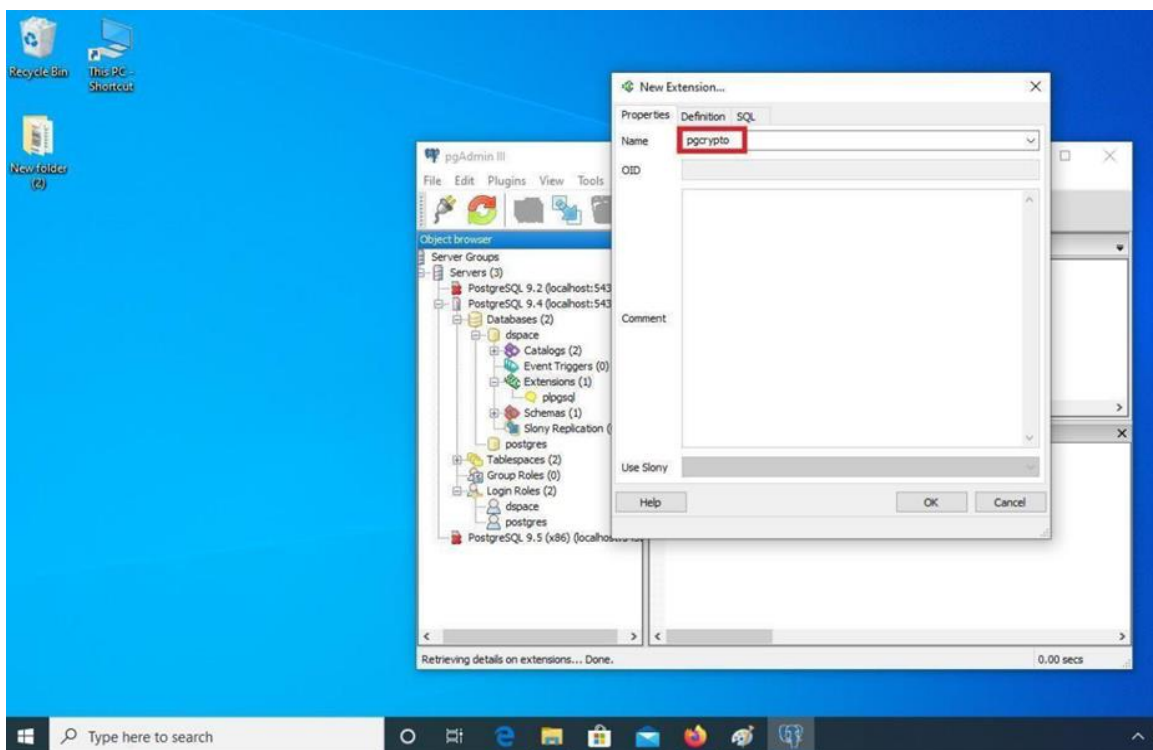
In Definition option choose “**pg\_default**” from Tablespace drop down option and click on ok button.



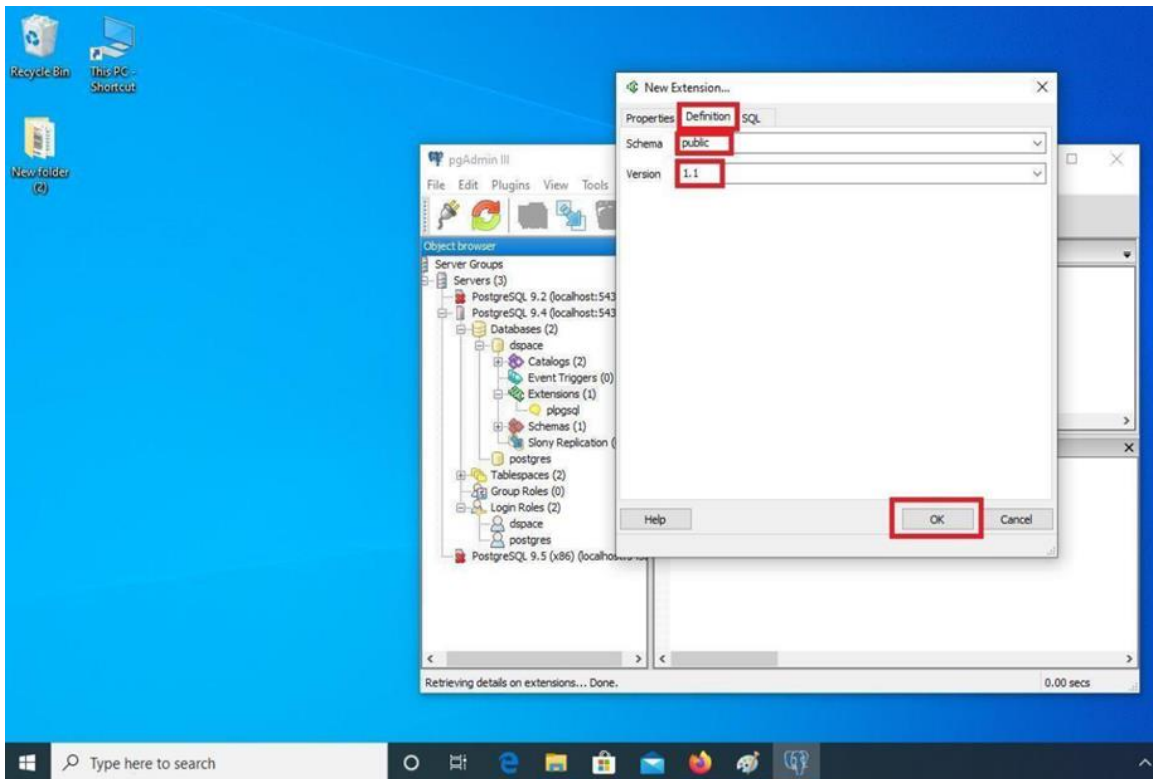
Then go to Database-dspace-Extensions. Right click on Extensions and select “**New Extension**”.



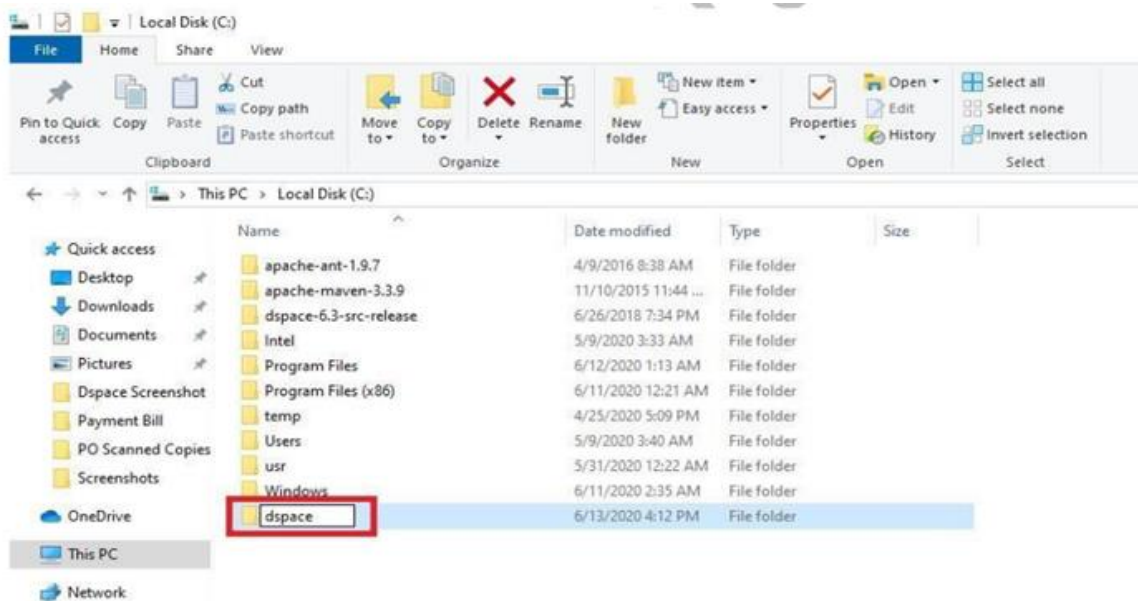
Select “**pgcrypto**” from the drop down option.



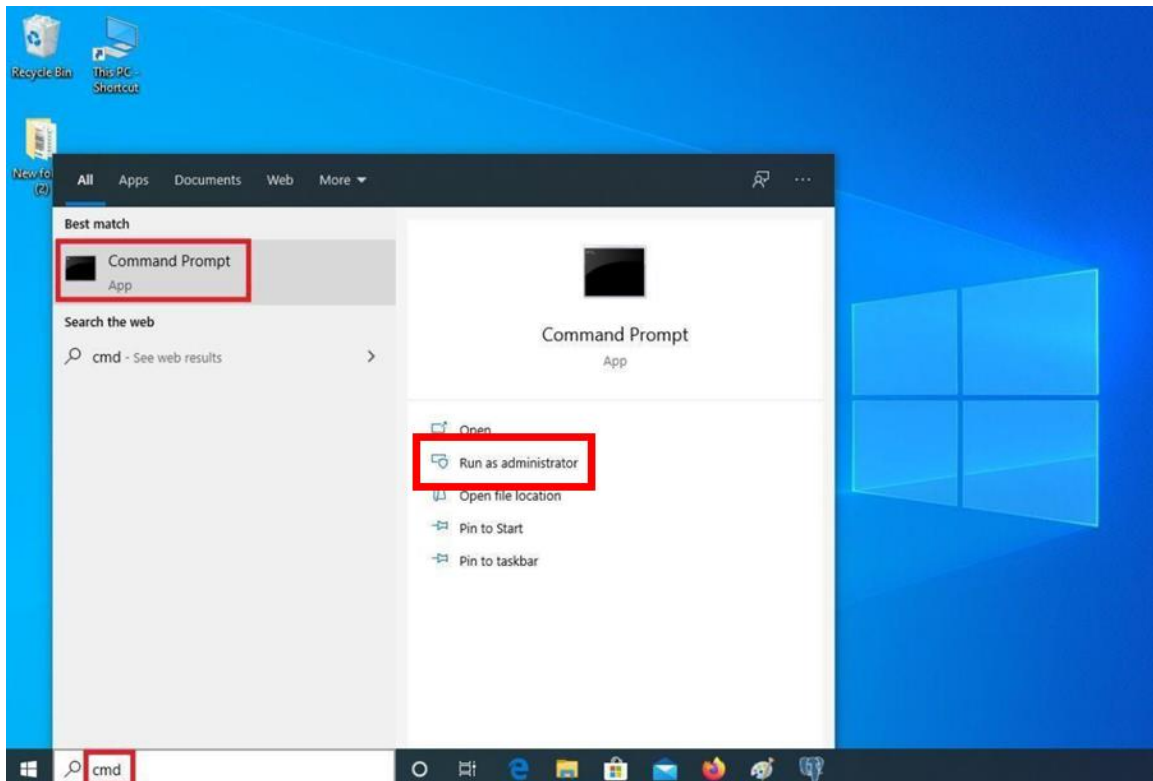
In Definition option choose “**public**” in schema drop down option and select the version and then click on ok.



Create a folder naming “**dspace**” in C:\ drive.



Go to your windows search box and type “**cmd**” for Command Prompt and select run as administrator to open command prompt with administrator privilege.



Type command “**java -version**” for checking the status of java version and then following by “**ant -version**”

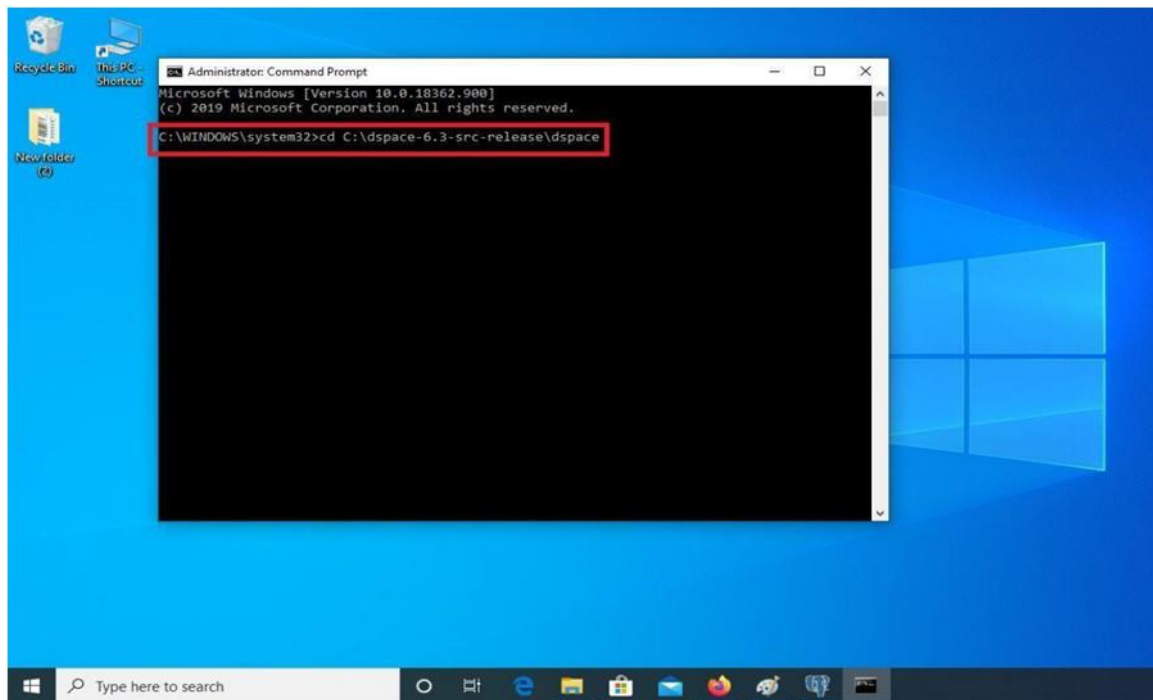
```
Command Prompt
Microsoft Windows [Version 10.0.18362.959]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\subrat>java -version
java version "1.8.0_111"
Java(TM) SE Runtime Environment (build 1.8.0_111-b14)
Java HotSpot(TM) 64-Bit Server VM (build 25.111-b14, mixed mode)

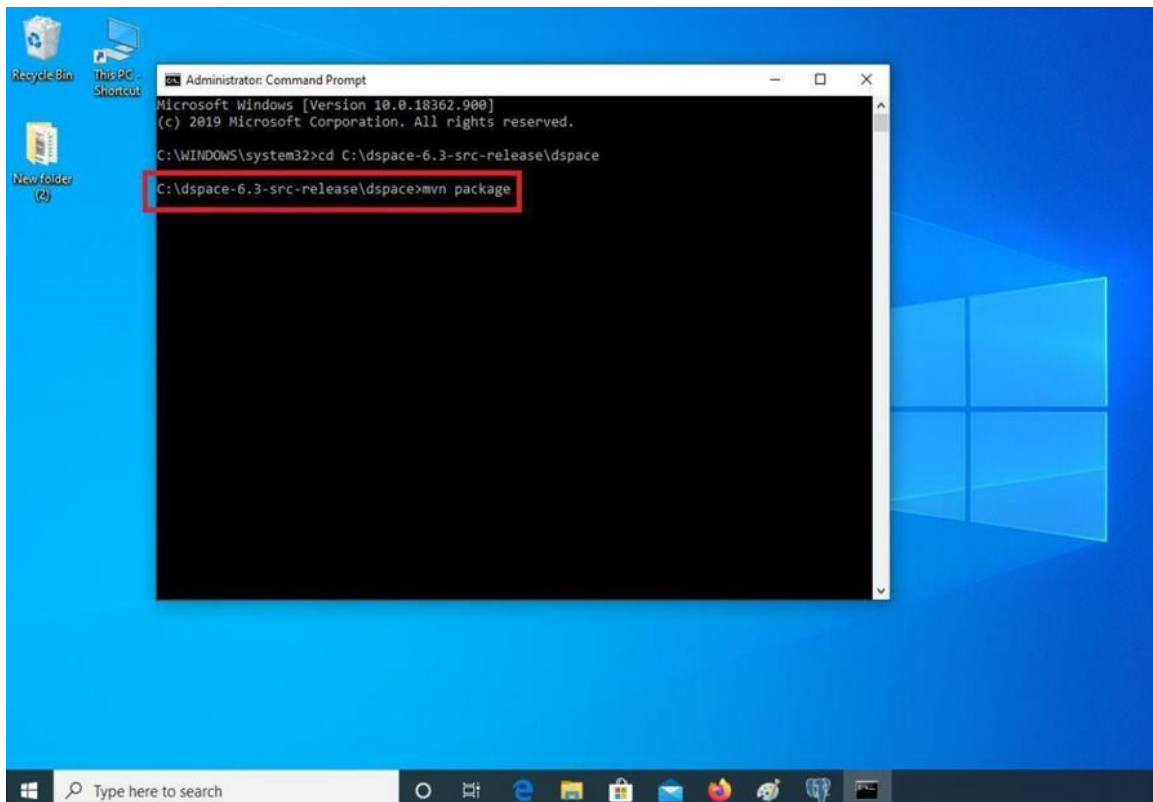
C:\Users\subrat>ant -version
Apache Ant(TM) version 1.9.7 compiled on April 9 2016

C:\Users\subrat>
```

Type `cd C:\dspace-6.4-src-release\dspace` to change the directory.

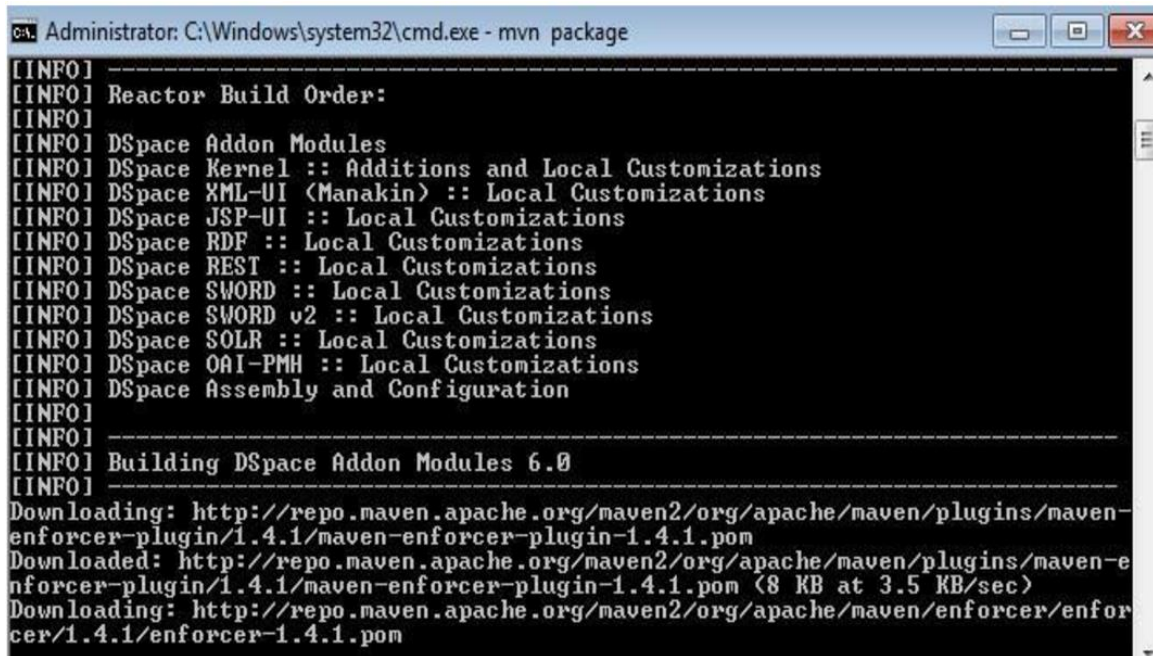


Now we must install maven package for dspace. To do that type `mvn package` and press enter key.



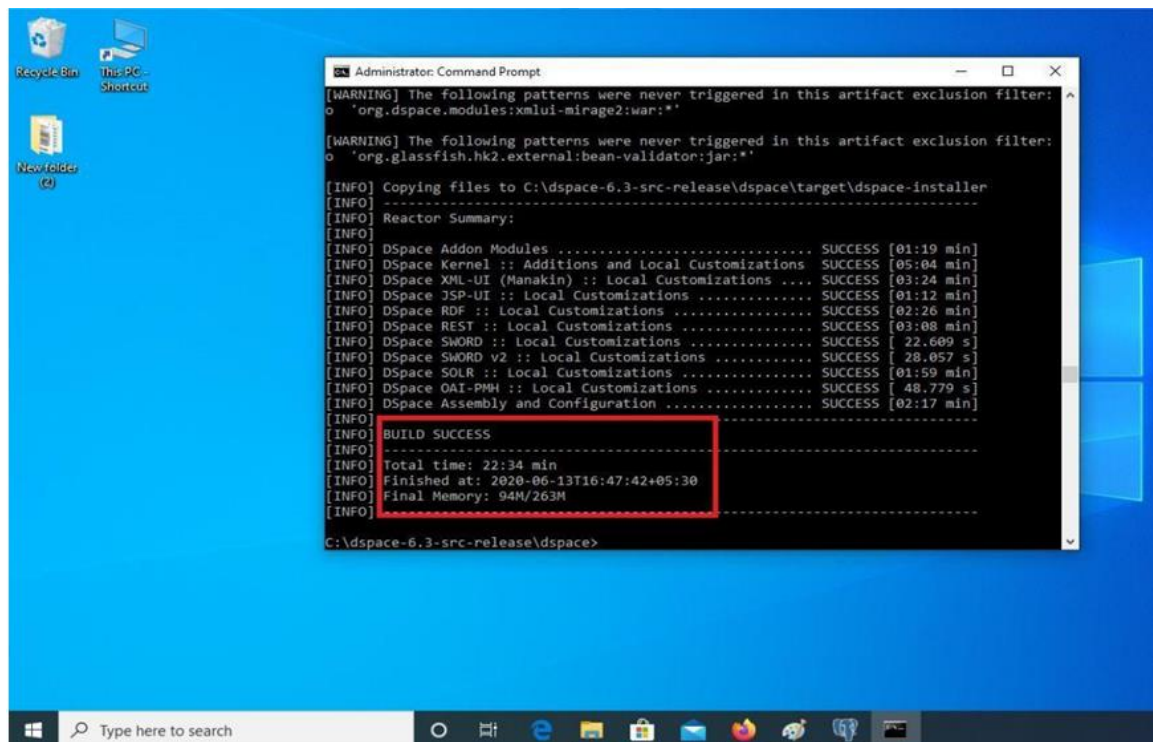


It may take long time depending upon your internet speed.



```
Administrator: C:\Windows\system32\cmd.exe - mvn package
[INFO] -----
[INFO] Reactor Build Order:
[INFO]
[INFO] DSpace Addon Modules
[INFO] DSpace Kernel :: Additions and Local Customizations
[INFO] DSpace XML-UI (Manakin) :: Local Customizations
[INFO] DSpace JSP-UI :: Local Customizations
[INFO] DSpace RDF :: Local Customizations
[INFO] DSpace REST :: Local Customizations
[INFO] DSpace SWORD :: Local Customizations
[INFO] DSpace SWORD v2 :: Local Customizations
[INFO] DSpace SOLR :: Local Customizations
[INFO] DSpace OAI-PMH :: Local Customizations
[INFO] DSpace Assembly and Configuration
[INFO] -----
[INFO] Building DSpace Addon Modules 6.0
[INFO] -----
Downloading: http://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-enforcer-plugin/1.4.1/maven-enforcer-plugin-1.4.1.pom
Downloaded: http://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-enforcer-plugin/1.4.1/maven-enforcer-plugin-1.4.1.pom (8 KB at 3.5 KB/sec)
Downloading: http://repo.maven.apache.org/maven2/org/apache/maven/enforcer/enforcer/1.4.1/enforcer-1.4.1.pom
```

Now the build process is successful.



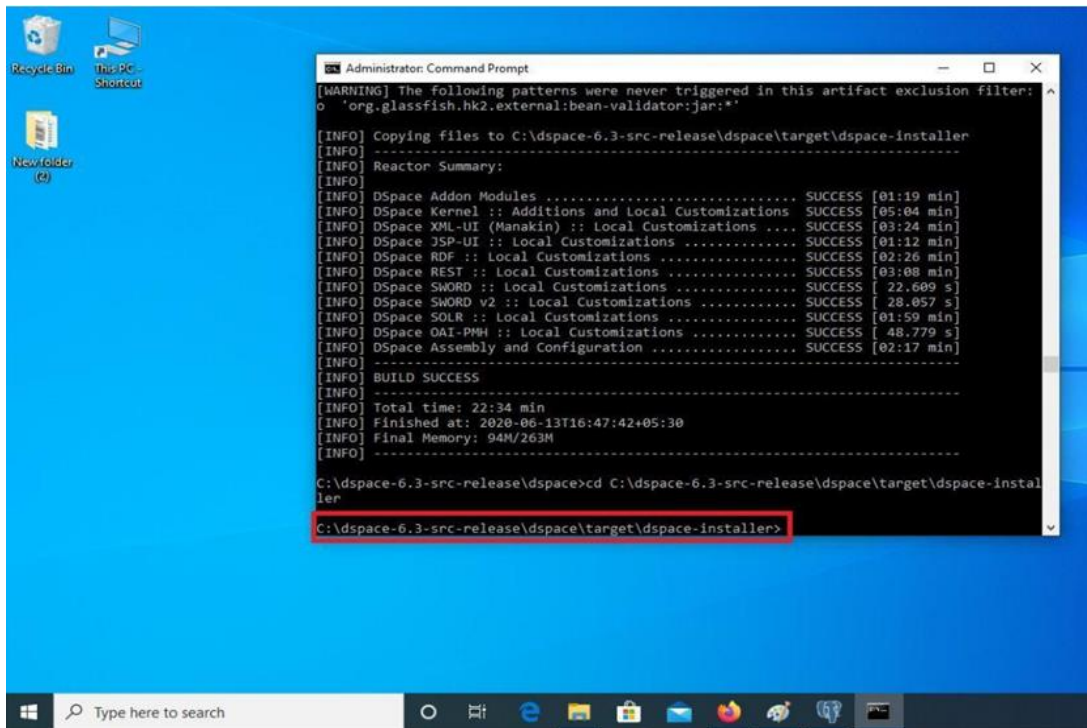
```
Administrator: Command Prompt
[WARNING] The following patterns were never triggered in this artifact exclusion filter:
o 'org.dspace.modules:xmlui-mirage2:war:*'

[WARNING] The following patterns were never triggered in this artifact exclusion filter:
o 'org.glassfish.hk2.external:bean-validator:jar:*'

[INFO] Copying files to C:\dSPACE-6.3-src-release\dSPACE\target\dSPACE-installer
[INFO] -----
[INFO] Reactor Summary:
[INFO]
[INFO] DSpace Addon Modules ..... SUCCESS [01:19 min]
[INFO] DSpace Kernel :: Additions and Local Customizations ..... SUCCESS [05:04 min]
[INFO] DSpace XML-UI (Manakin) :: Local Customizations .... SUCCESS [03:24 min]
[INFO] DSpace JSP-UI :: Local Customizations ..... SUCCESS [01:12 min]
[INFO] DSpace RDF :: Local Customizations ..... SUCCESS [02:26 min]
[INFO] DSpace REST :: Local Customizations ..... SUCCESS [03:00 min]
[INFO] DSpace SWORD :: Local Customizations ..... SUCCESS [ 22.609 s]
[INFO] DSpace SWORD v2 :: Local Customizations ..... SUCCESS [ 28.057 s]
[INFO] DSpace SOLR :: Local Customizations ..... SUCCESS [01:59 min]
[INFO] DSpace OAI-PMH :: Local Customizations ..... SUCCESS [ 48.779 s]
[INFO] DSpace Assembly and Configuration ..... SUCCESS [02:17 min]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 22:34 min
[INFO] Finished at: 2020-06-13T16:47:42+05:30
[INFO] Final Memory: 94M/263M
[INFO] -----
C:\dSPACE-6.3-src-release\dSPACE>
```



Then we need to install ant package for dspace. To do that first change the directory from **cd C:\dspace6.4src-release\dspace** to **cd C:\dspace-6.4-src-release\dspace\target\dspace-installer** and press enter key.

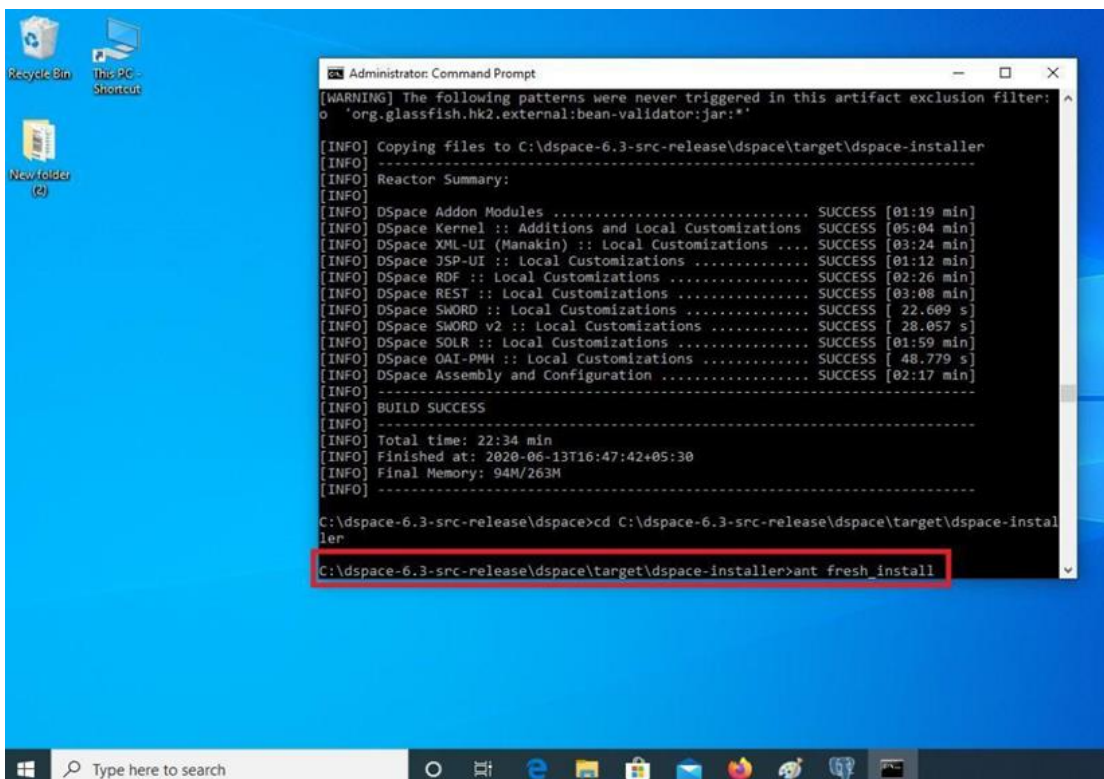


```
Administrator: Command Prompt
[WARNING] The following patterns were never triggered in this artifact exclusion filter:
o 'org.glassfish.hk2.external:bean-validator:jar:*'

[INFO] Copying files to C:\dspace-6.3-src-release\dspace\target\dspace-installer
[INFO] -----
[INFO] Reactor Summary:
[INFO]
[INFO] DSpace Addon Modules ..... SUCCESS [01:19 min]
[INFO] DSpace Kernel :: Additions and Local Customizations SUCCESS [05:04 min]
[INFO] DSpace XML-UI (Manakin) :: Local Customizations ... SUCCESS [03:24 min]
[INFO] DSpace JSP-UI :: Local Customizations ..... SUCCESS [01:12 min]
[INFO] DSpace RDF :: Local Customizations ..... SUCCESS [02:26 min]
[INFO] DSpace REST :: Local Customizations ..... SUCCESS [03:08 min]
[INFO] DSpace SWORD :: Local Customizations ..... SUCCESS [ 22.609 s]
[INFO] DSpace SWORD v2 :: Local Customizations ..... SUCCESS [ 28.057 s]
[INFO] DSpace SOLR :: Local Customizations ..... SUCCESS [01:59 min]
[INFO] DSpace OAI-PMH :: Local Customizations ..... SUCCESS [ 48.779 s]
[INFO] DSpace Assembly and Configuration ..... SUCCESS [02:17 min]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 22:34 min
[INFO] Finished at: 2020-06-13T16:47:42+05:30
[INFO] Final Memory: 94M/263M
[INFO] -----

C:\dspace-6.3-src-release\dspace>cd C:\dspace-6.3-src-release\dspace\target\dspace-installer
C:\dspace-6.3-src-release\dspace\target\dspace-installer>
```

Type **ant fresh\_install** and press enter key.

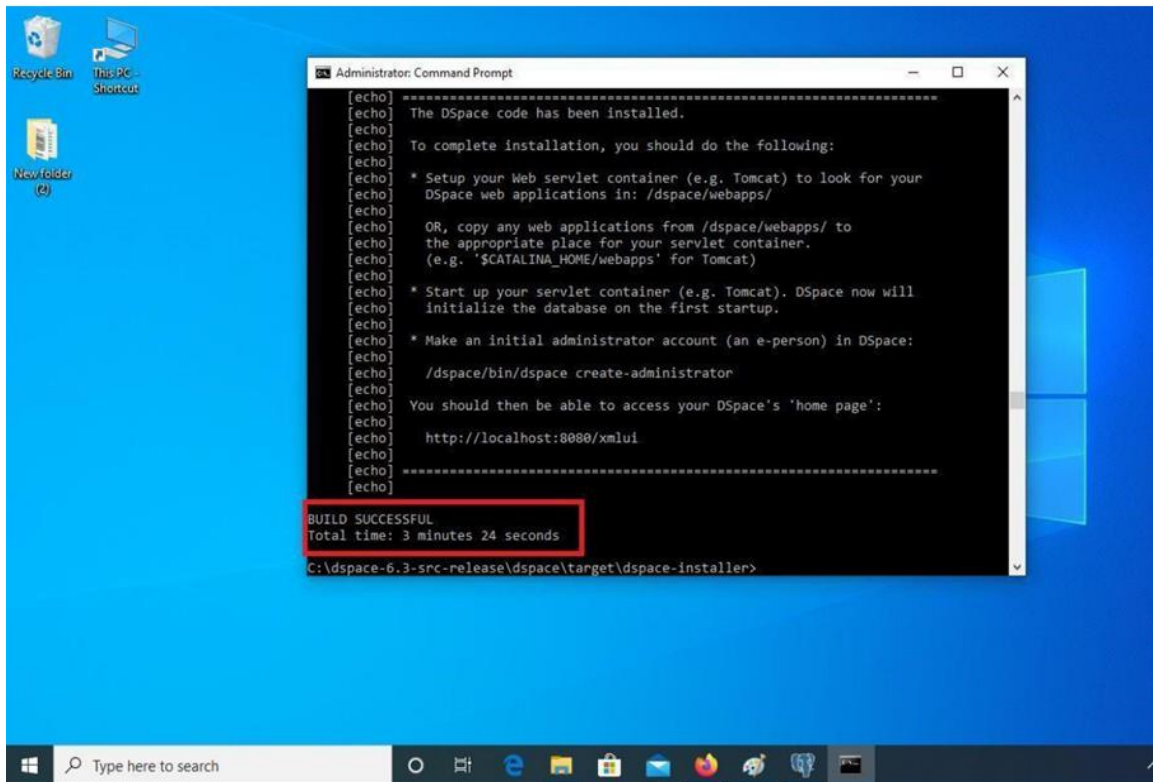


```
Administrator: Command Prompt
[WARNING] The following patterns were never triggered in this artifact exclusion filter:
o 'org.glassfish.hk2.external:bean-validator:jar:*'

[INFO] Copying files to C:\dspace-6.3-src-release\dspace\target\dspace-installer
[INFO] -----
[INFO] Reactor Summary:
[INFO]
[INFO] DSpace Addon Modules ..... SUCCESS [01:19 min]
[INFO] DSpace Kernel :: Additions and Local Customizations SUCCESS [05:04 min]
[INFO] DSpace XML-UI (Manakin) :: Local Customizations ... SUCCESS [03:24 min]
[INFO] DSpace JSP-UI :: Local Customizations ..... SUCCESS [01:12 min]
[INFO] DSpace RDF :: Local Customizations ..... SUCCESS [02:26 min]
[INFO] DSpace REST :: Local Customizations ..... SUCCESS [03:08 min]
[INFO] DSpace SWORD :: Local Customizations ..... SUCCESS [ 22.609 s]
[INFO] DSpace SWORD v2 :: Local Customizations ..... SUCCESS [ 28.057 s]
[INFO] DSpace SOLR :: Local Customizations ..... SUCCESS [01:59 min]
[INFO] DSpace OAI-PMH :: Local Customizations ..... SUCCESS [ 48.779 s]
[INFO] DSpace Assembly and Configuration ..... SUCCESS [02:17 min]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 22:34 min
[INFO] Finished at: 2020-06-13T16:47:42+05:30
[INFO] Final Memory: 94M/263M
[INFO] -----

C:\dspace-6.3-src-release\dspace>cd C:\dspace-6.3-src-release\dspace\target\dspace-installer
C:\dspace-6.3-src-release\dspace\target\dspace-installer>ant fresh_install
```

Now the build process is successful.

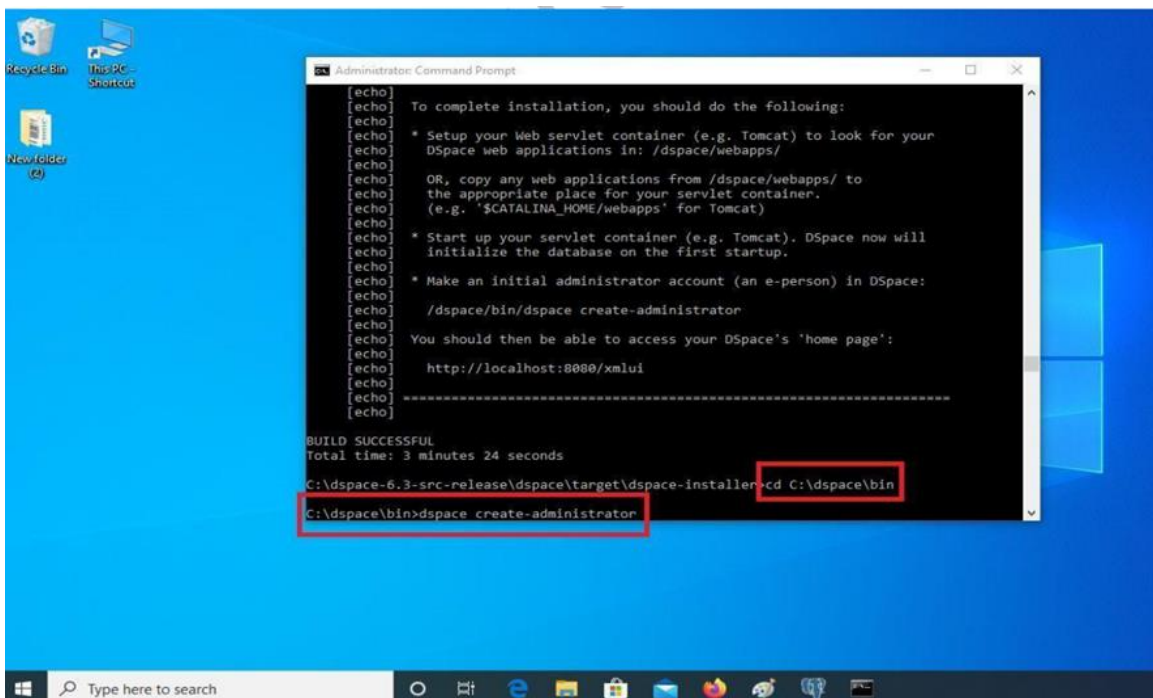


The screenshot shows a Windows desktop with a blue background. In the center, an Administrator Command Prompt window is open. The window displays the following text:

```
[echo] =====  
[echo] The DSpace code has been installed.  
[echo] =====  
[echo] To complete installation, you should do the following:  
[echo] * Setup your Web servlet container (e.g. Tomcat) to look for your  
[echo] DSpace web applications in: /dSPACE/webapps/  
[echo] OR, copy any web applications from /dSPACE/webapps/ to  
[echo] the appropriate place for your servlet container.  
[echo] (e.g. '%CATALINA_HOME%/webapps' for Tomcat)  
[echo] * Start up your servlet container (e.g. Tomcat). DSpace now will  
[echo] initialize the database on the first startup.  
[echo] * Make an initial administrator account (an e-person) in DSpace:  
[echo] /dSPACE/bin/dSPACE create-administrator  
[echo] You should then be able to access your DSpace's 'home page':  
[echo] http://localhost:8080/xmlui  
[echo] =====  
[echo]  
BUILD SUCCESSFUL  
Total time: 3 minutes 24 seconds  
C:\dSPACE-6.3-src-release\dSPACE\target\dSPACE-installer>
```

The text "BUILD SUCCESSFUL" and "Total time: 3 minutes 24 seconds" is highlighted with a red box. The taskbar at the bottom shows the search bar and several application icons.

Now change the directory from **cd C:\dSPACE-6.4-src-release\dSPACE\target\dSPACE-installer** to **cd c:\dSPACE\bin** to create administrator in DSpace and then press enter key.

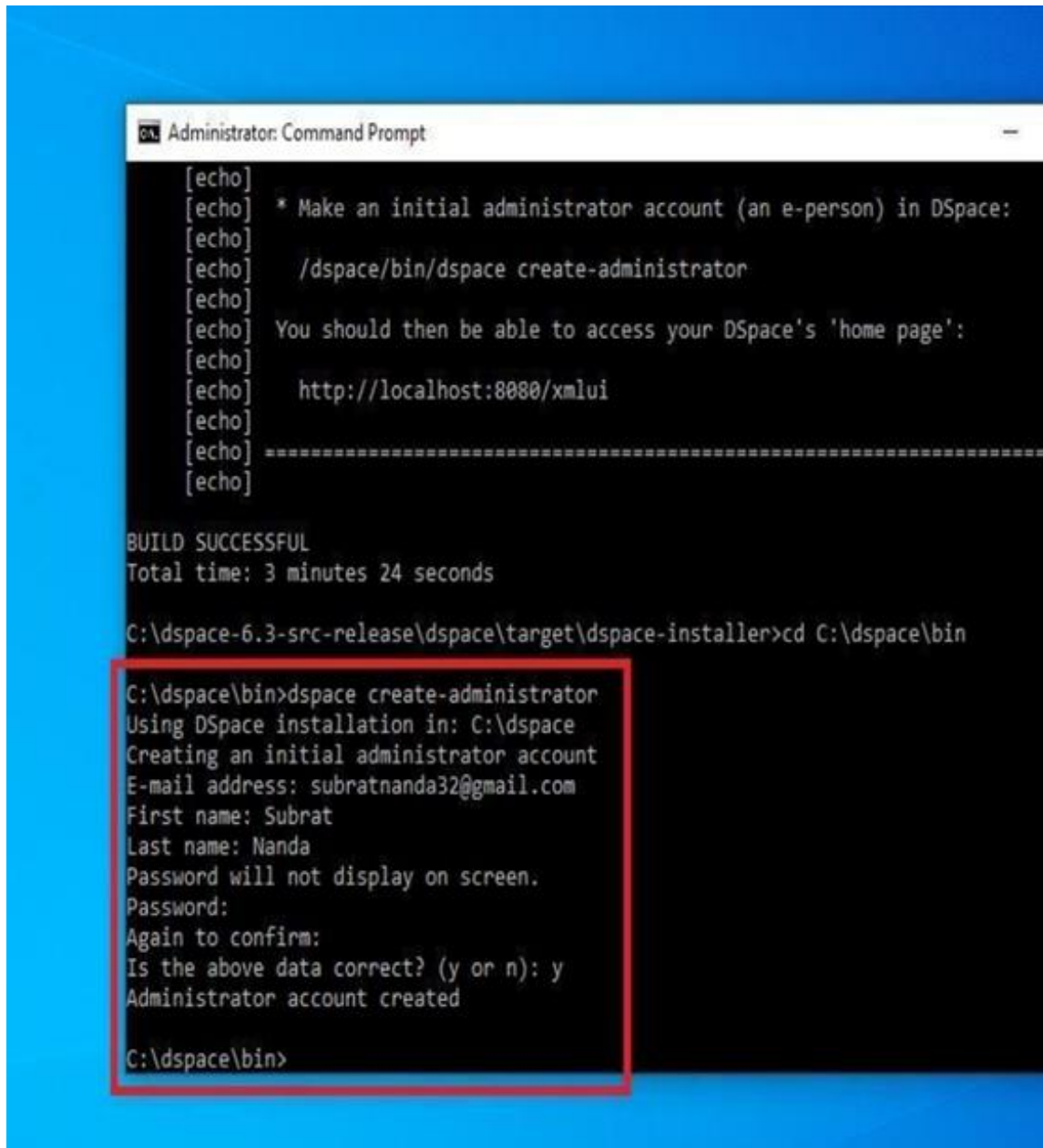


The screenshot shows the same Windows desktop as the previous image. The Administrator Command Prompt window is open and displays the same installation instructions as before. The text is as follows:

```
[echo] =====  
[echo] To complete installation, you should do the following:  
[echo] * Setup your Web servlet container (e.g. Tomcat) to look for your  
[echo] DSpace web applications in: /dSPACE/webapps/  
[echo] OR, copy any web applications from /dSPACE/webapps/ to  
[echo] the appropriate place for your servlet container.  
[echo] (e.g. '%CATALINA_HOME%/webapps' for Tomcat)  
[echo] * Start up your servlet container (e.g. Tomcat). DSpace now will  
[echo] initialize the database on the first startup.  
[echo] * Make an initial administrator account (an e-person) in DSpace:  
[echo] /dSPACE/bin/dSPACE create-administrator  
[echo] You should then be able to access your DSpace's 'home page':  
[echo] http://localhost:8080/xmlui  
[echo] =====  
[echo]  
BUILD SUCCESSFUL  
Total time: 3 minutes 24 seconds  
C:\dSPACE-6.3-src-release\dSPACE\target\dSPACE-installer>cd C:\dSPACE\bin  
C:\dSPACE\bin>dSPACE create-administrator
```

The command "cd C:\dSPACE\bin" and the subsequent prompt "C:\dSPACE\bin>dSPACE create-administrator" are highlighted with red boxes. The taskbar at the bottom is visible.

Type **dspace create-administrator** and press enter key. Give the details: E-mail address / First name / Last name / Password / and after finished type y and press enter key.



```
Administrator: Command Prompt

[echo]
[echo] * Make an initial administrator account (an e-person) in DSpace:
[echo]
[echo] /dspace/bin/dspace create-administrator
[echo]
[echo] You should then be able to access your DSpace's 'home page':
[echo]
[echo] http://localhost:8080/xmlui
[echo]
[echo] =====
[echo]

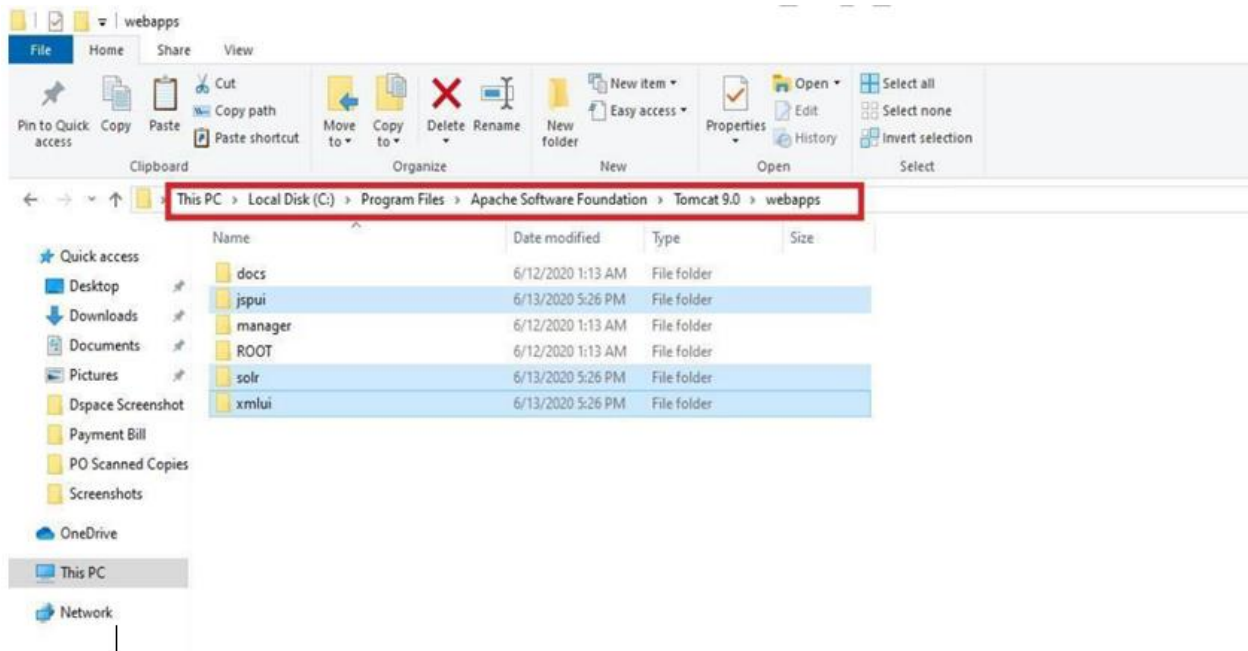
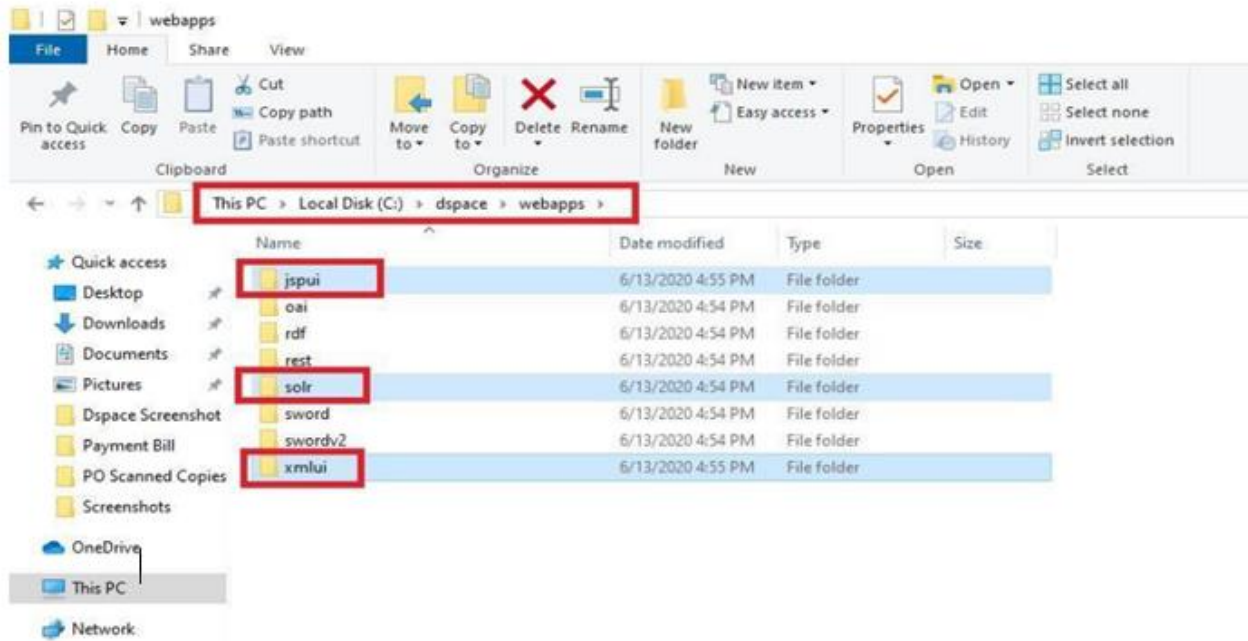
BUILD SUCCESSFUL
Total time: 3 minutes 24 seconds

C:\dspace-6.3-src-release\dspace\target\dspace-installer>cd C:\dspace\bin

C:\dspace\bin>dspace create-administrator
Using DSpace installation in: C:\dspace
Creating an initial administrator account
E-mail address: subratnanda32@gmail.com
First name: Subrat
Last name: Nanda
Password will not display on screen.
Password:
Again to confirm:
Is the above data correct? (y or n): y
Administrator account created

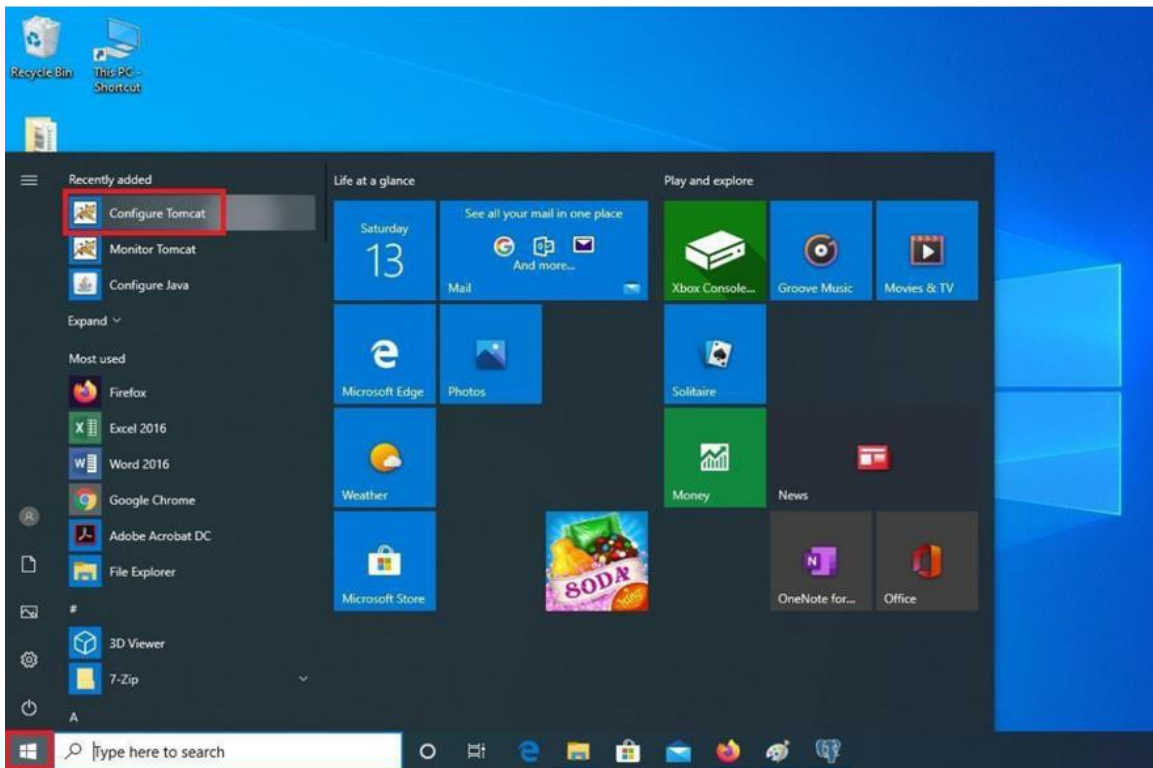
C:\dspace\bin>
```

Then copy jspui, xmlui and solr folders from **C:\dspace\webapps** to **C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps**

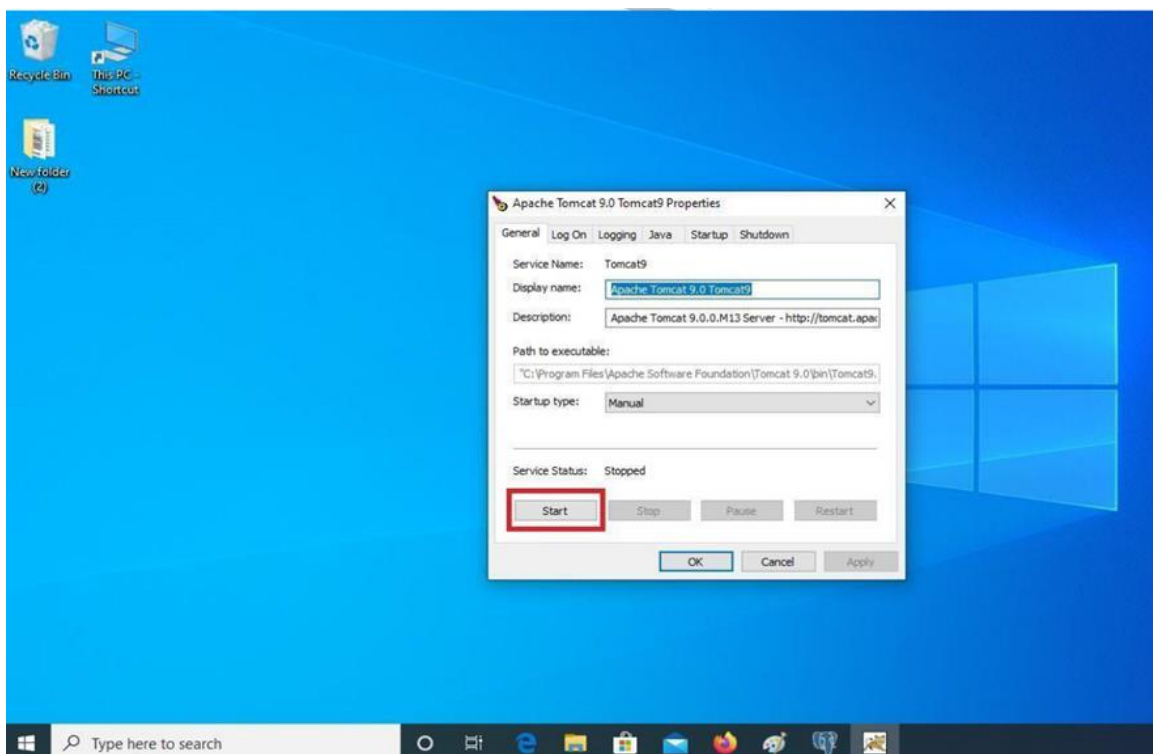




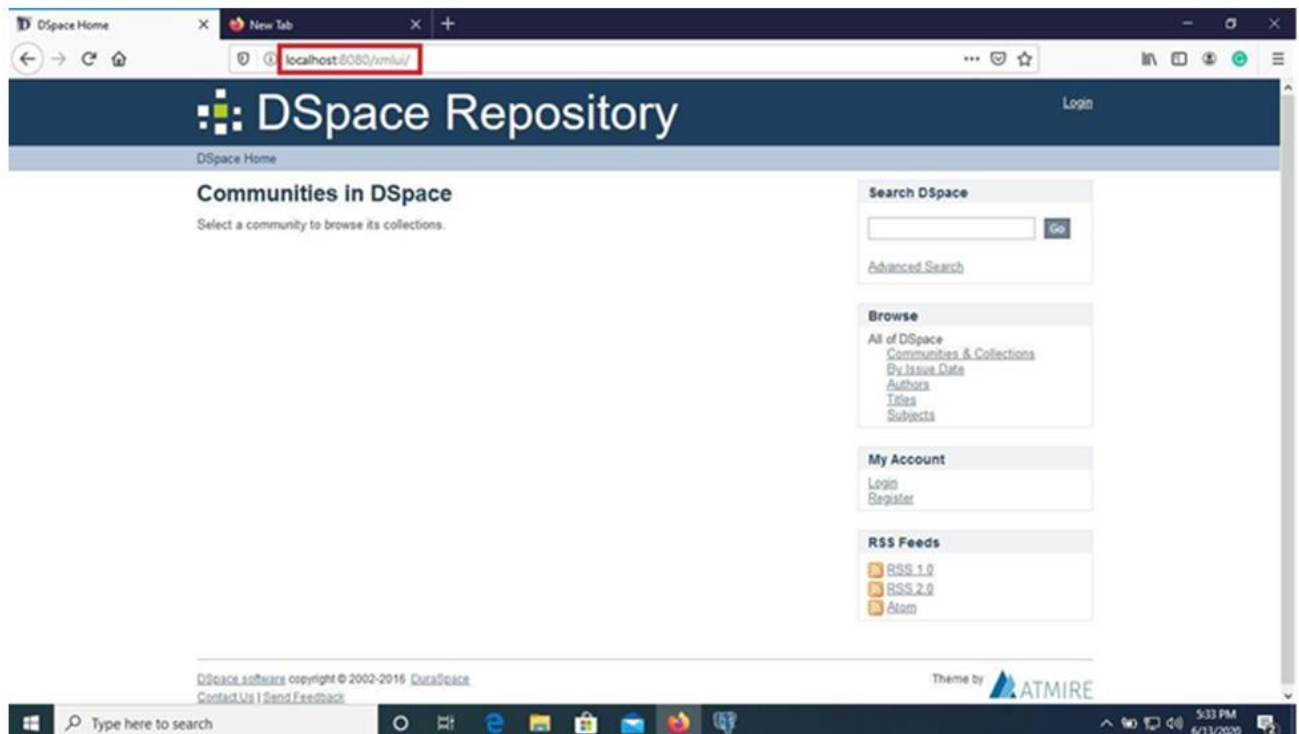
Now run the tomcat server. Go to windows search box, type tomcat and select “**Configure Tomcat**”.



Click on start button.



Now type the **http://localhost:8080/xmlui** on the address bar of your web browser for xmlui interface and login with your credential



Shukhi Jibon



PATHFINDER

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