

SOFTWARE ENGINEERING CAPSTONE

COMMERCE BANK

System Guide

Team VIT

Team Members:

Bollimuntha Jahnavi Sri Kavya

Jayadeep Reddy Mannengi

Akhil Palagati

Yeshwanth Varma

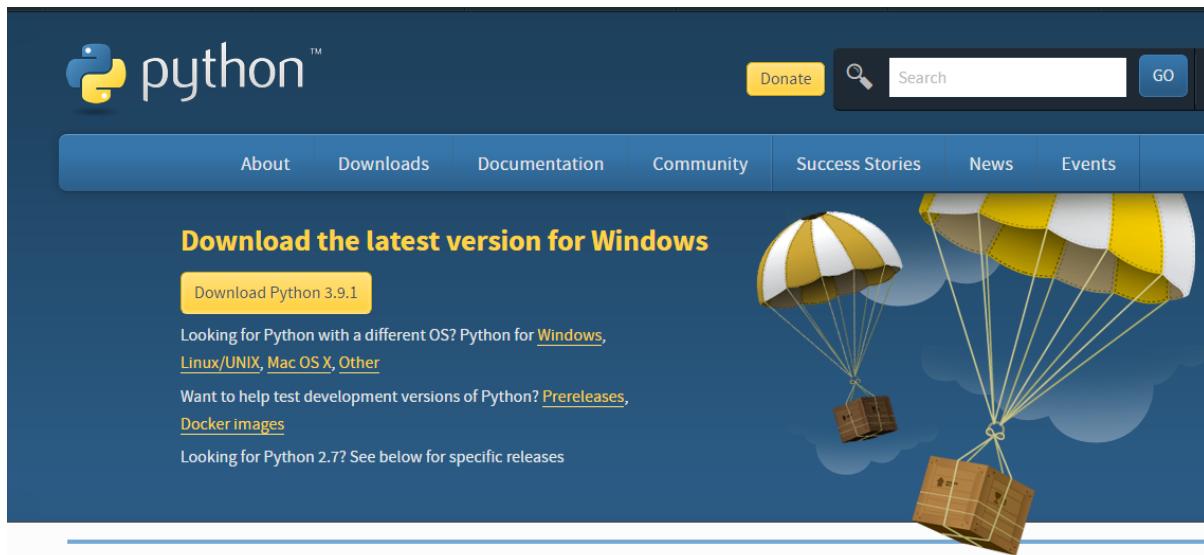
Contents

		1
1	System Installations	1
1.1	Installing Python:	1
1.2	Installing PyCharm:	1
1.3	Installing XAMPP:	5
1.4	Installing MySQL:	18
2	System Maintenance	29
3	Front-end GUI/Forms	30
4	Database and Back-end	32
5	Business Logic/General Classes	33
5.1	System	33
5.2	Customer	33

1 System Installations

1.1 Installing Python:

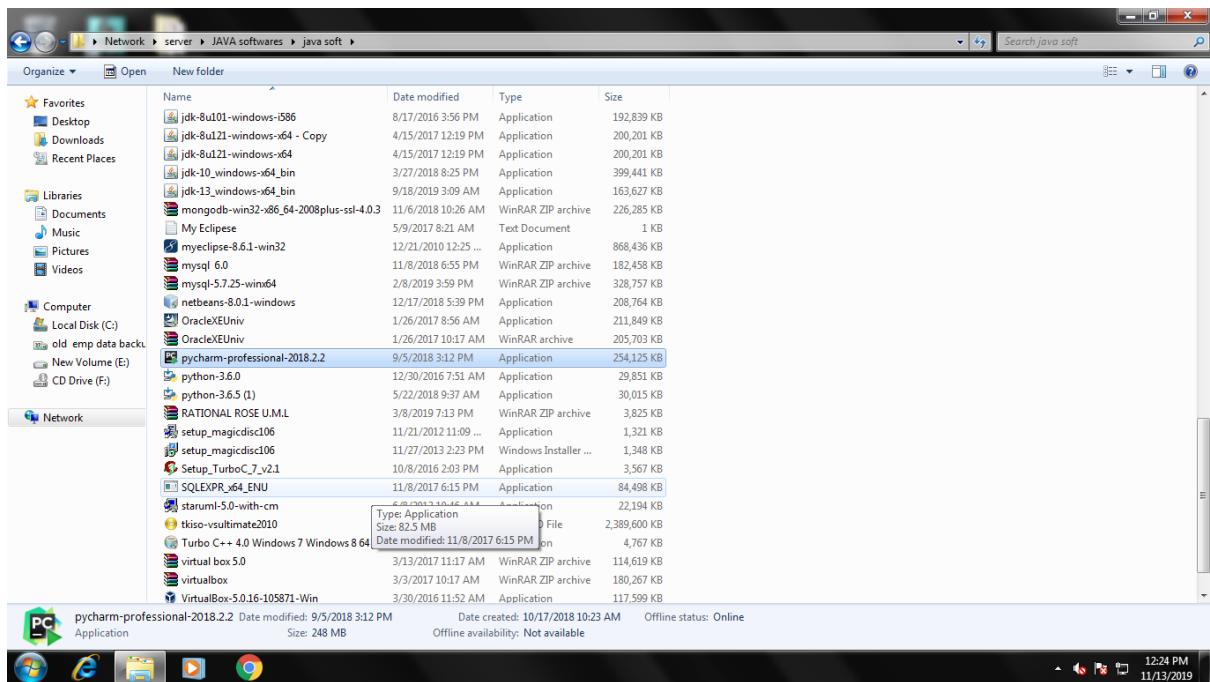
1. To download and install Python visit the official website of Python <https://www.python.org/downloads/> and choose your version.



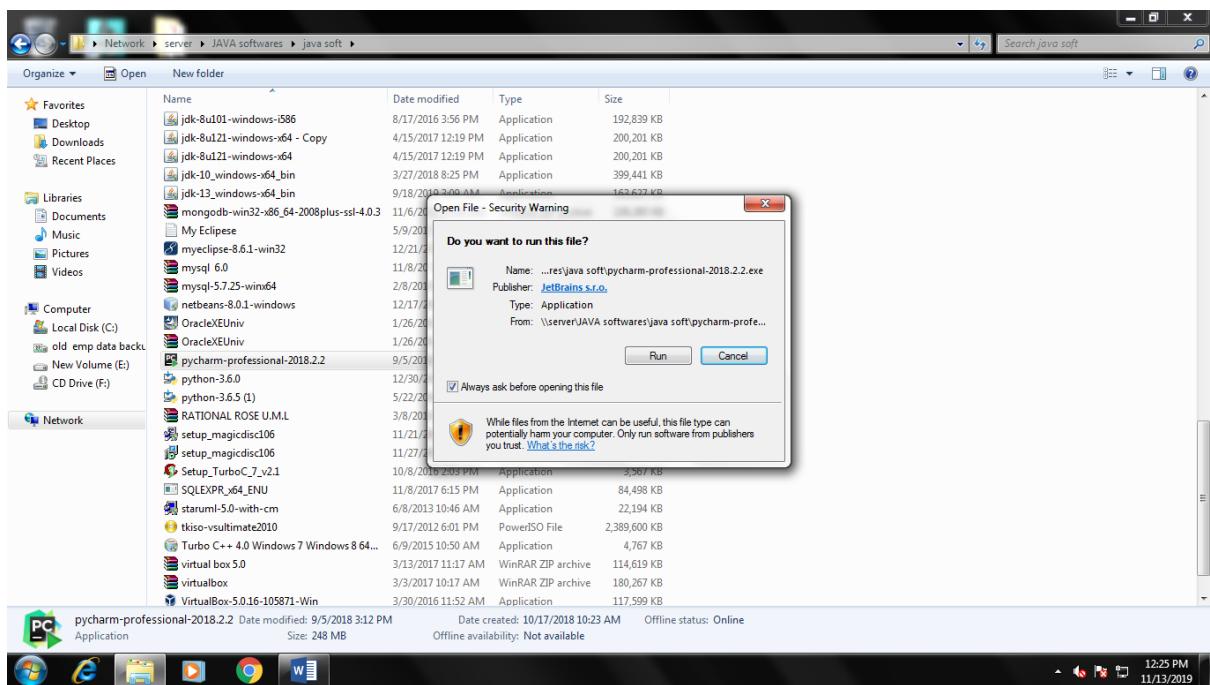
2. Once the download is complete, run the exe for install Python. Now click on Install Now.
3. You can see Python installing at this point.
4. When it finishes, you can see a screen that says the Setup was successful. Now click on "Close".

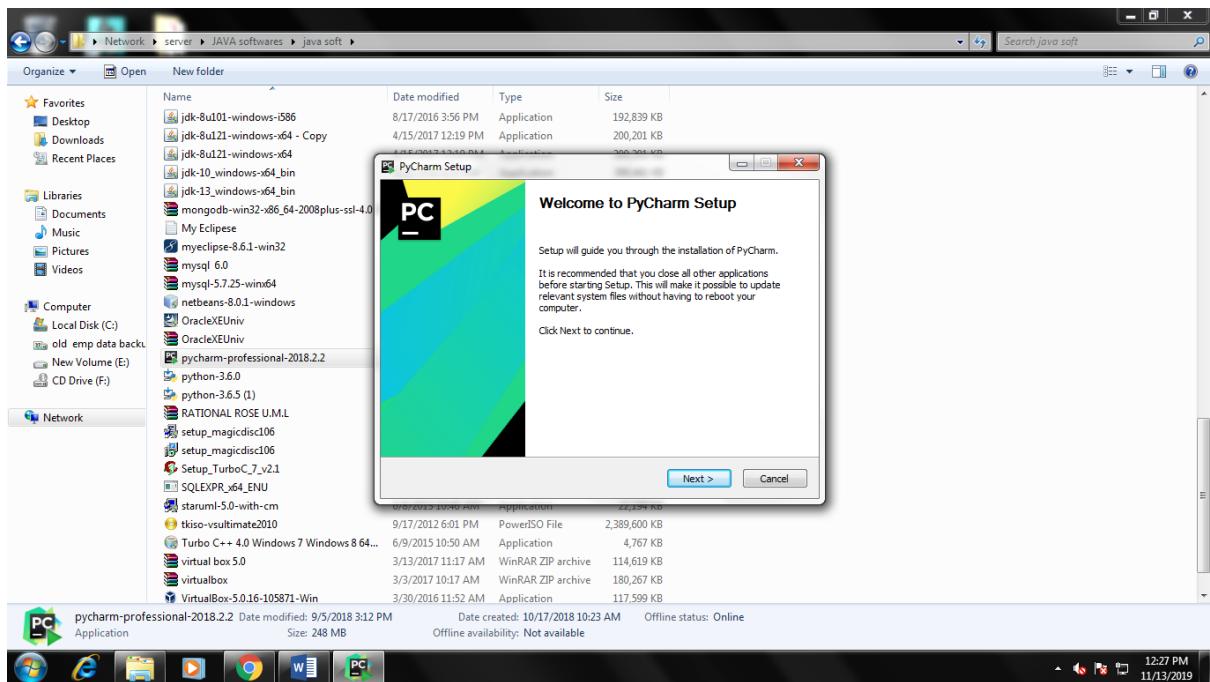
1.2 Installing PyCharm:

1. First copy application file on your pc.
2. Than double click on application file.

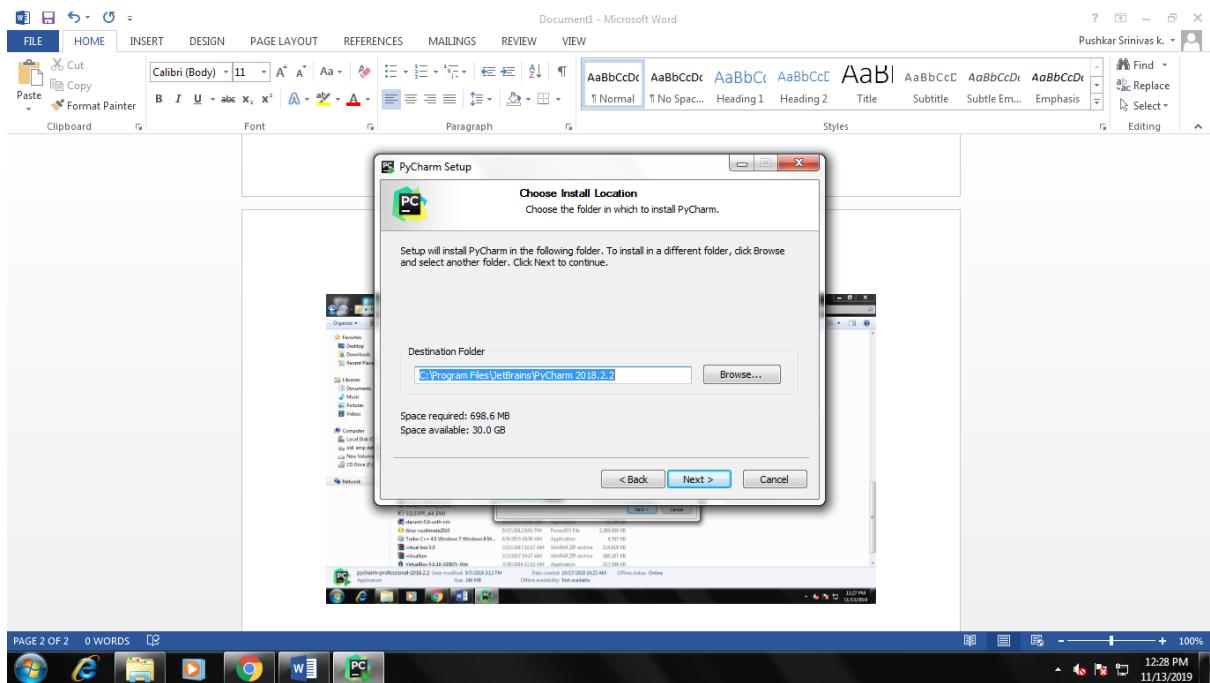


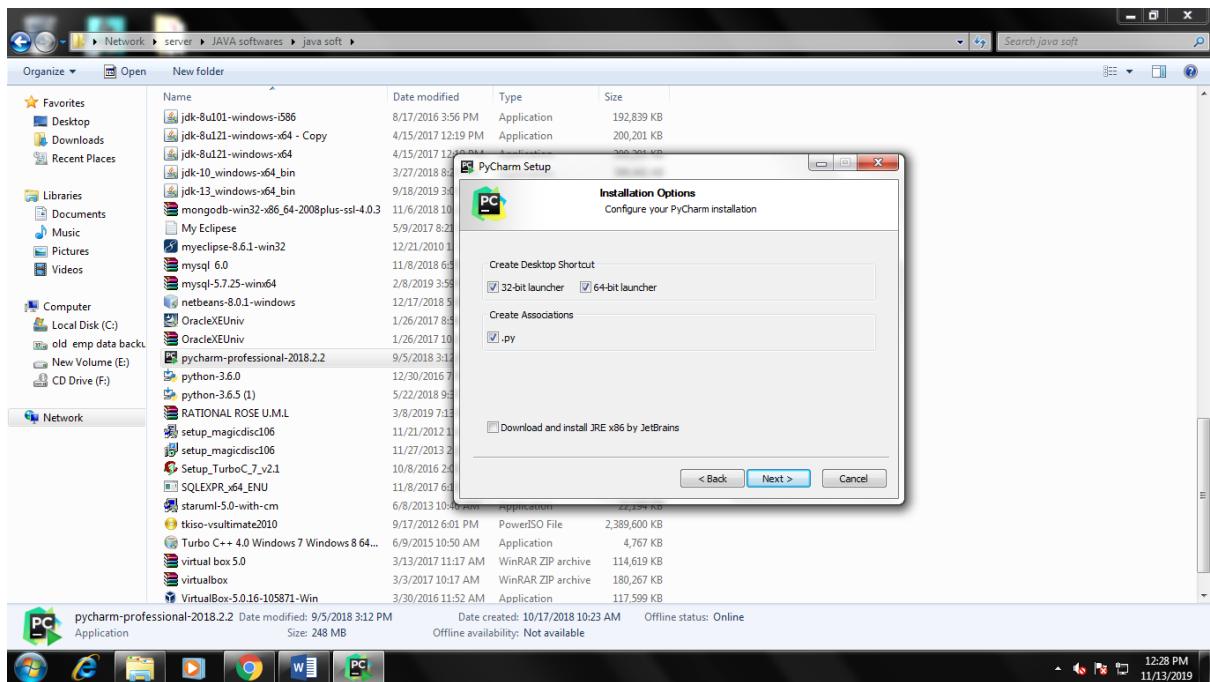
3. Click on run option and wait for next step.



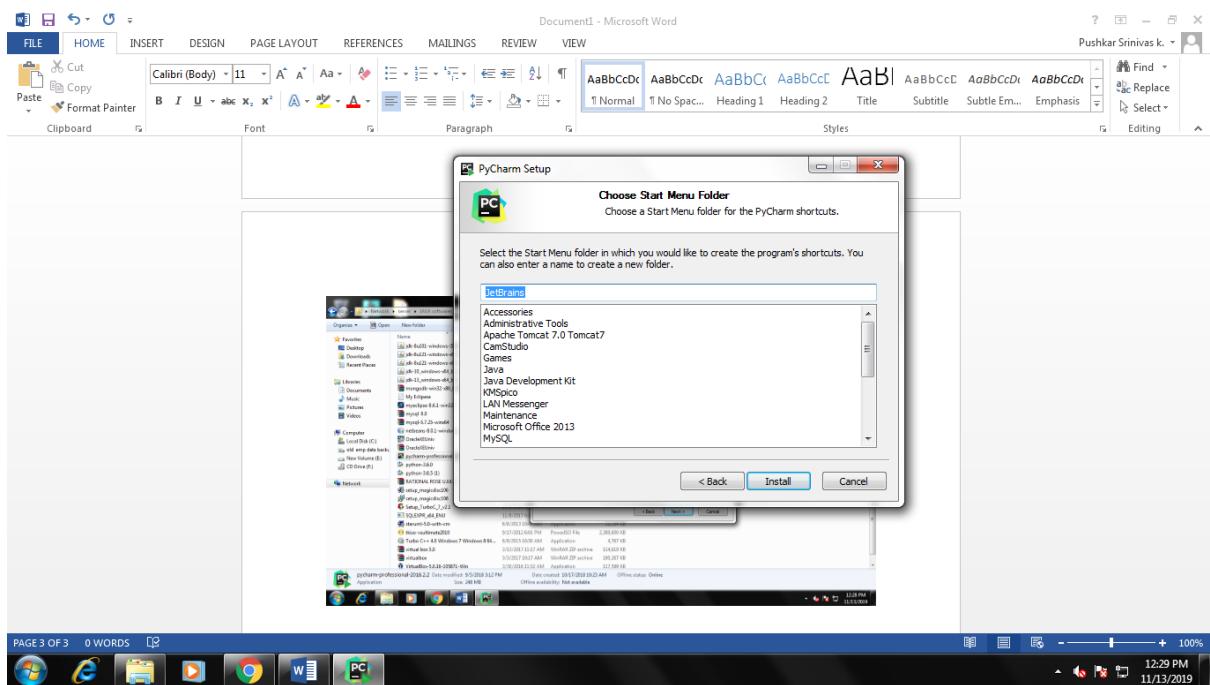


4. Click on next.

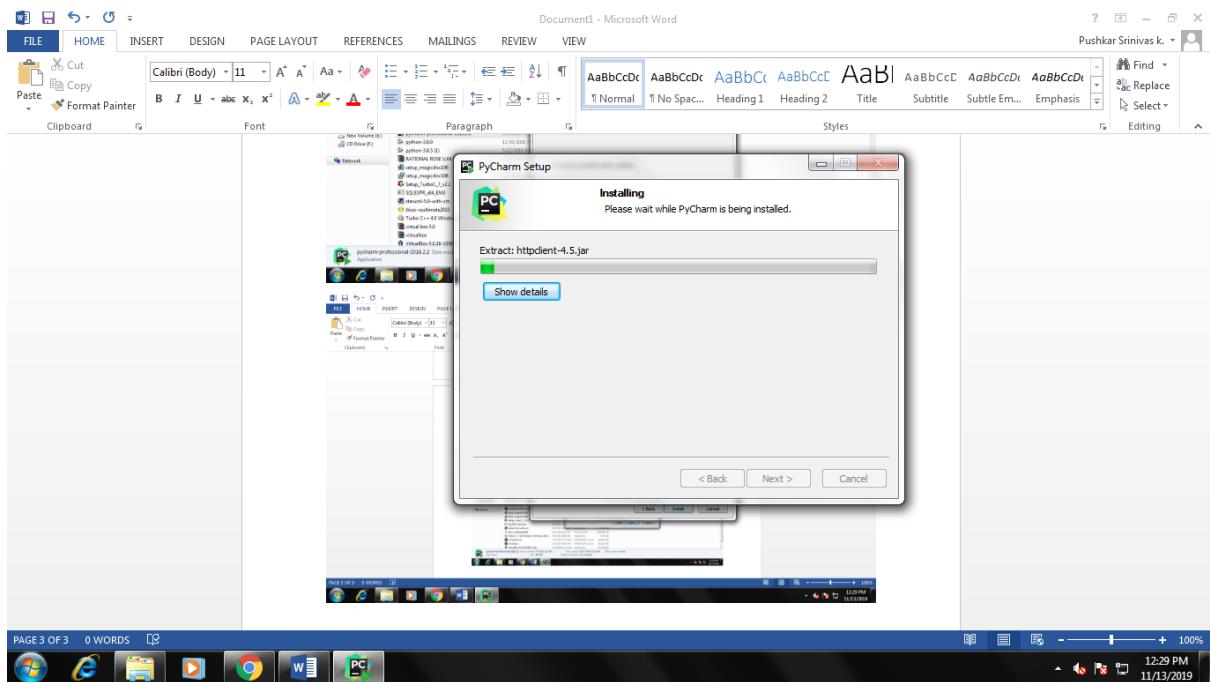




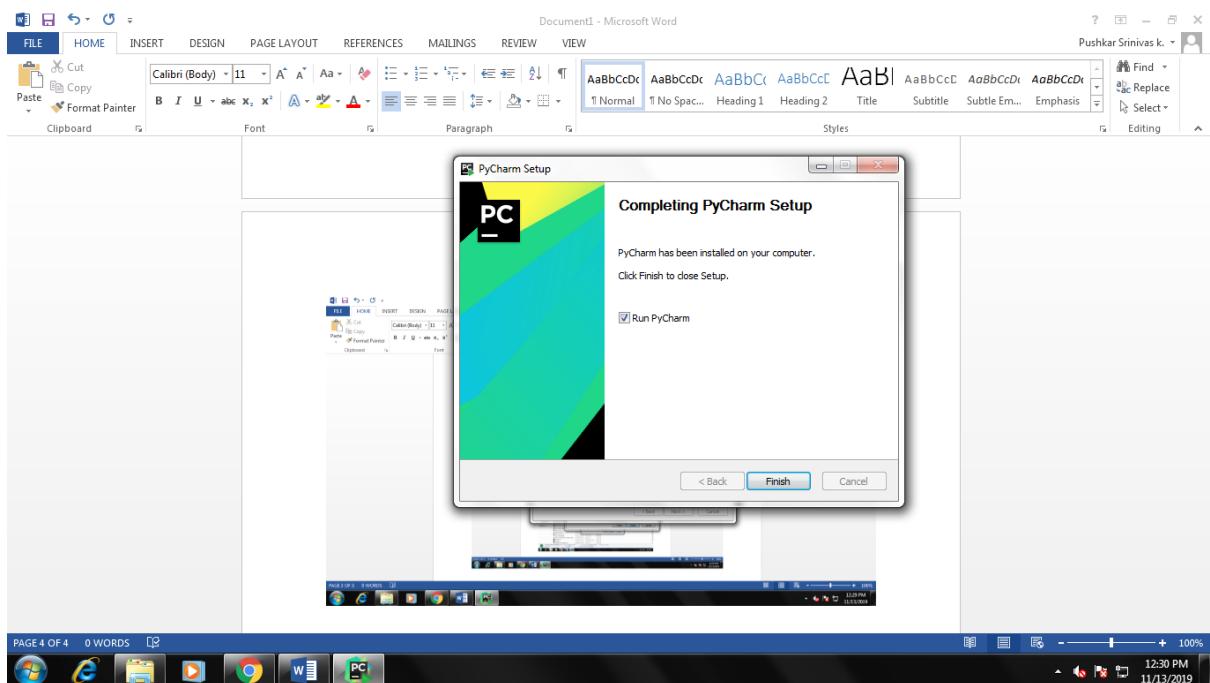
5. Select .py ,32 bit launcher and 64 bit launcher .
6. Click on next.



7. Then select install.



8. The installation processor is starts.
9. After that it will be shows like below.



1.3 Installing XAMPP:

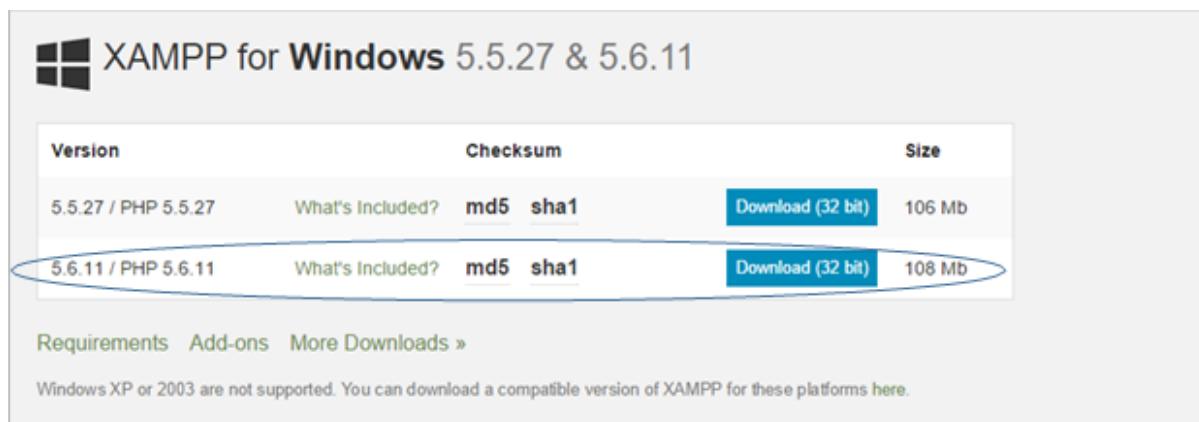
XAMPP is an Apache server distribution which has MySQL, PHP, PERL, and some other software like phpMyAdmin. It's an extremely useful software which can be used to

test a website locally on a personal computer. Generally, people who use content management systems based mainly on PHP and MySQL like WordPress, Drupal, Joomla, or ownCloud to run their blogs and websites find XAMPP to be very useful to comfortably run a local server. So, in this guide we will show you how to install XAMPP on Windows. From the term XAMPP, you can see that X denotes cross platform (Operating systems like Windows, Mac OS X, Linux, and Solaris), A denotes Apache server, M stands for MySQL, P stands for PHP, and the last P is for PERL.

1. To install XAMPP in Windows 7/8/10, first you need to download the XAMPP installer for windows. To download the XAMPP installer for windows, visit the <https://www.apachefriends.org/download.html>.

This page shows the latest version of XAMPP for windows. It also shows the versions of Apache, PHP, MySQL, and other softwares included in this version of XAMPP.

2. Now, go to the "Download" section in the page. Here, you will see XAMPP for Windows, Linux, and Mac OS X. We can easily download the XAMPP installer for Windows.
3. Click on the Download link to download XAMPP as shown below.



The screenshot shows the XAMPP for Windows download page. At the top, there's a Windows logo followed by the text "XAMPP for Windows 5.5.27 & 5.6.11". Below this is a table with two rows. The first row contains links for "5.5.27 / PHP 5.5.27" and "5.6.11 / PHP 5.6.11". Each row has columns for "Version", "Checksum" (with md5 and sha1 links), and "Size" (106 Mb and 108 Mb respectively). Each row also has a "Download (32 bit)" button. A blue oval highlights the "5.6.11 / PHP 5.6.11" row. At the bottom of the page, there are links for "Requirements", "Add-ons", and "More Downloads ». A note at the bottom states: "Windows XP or 2003 are not supported. You can download a compatible version of XAMPP for these platforms [here](#)".

4. After downloading the installer, double click on the executable (.exe) file to start the XAMPP installation process. Click yes, if User Account Control dialog box appears.
5. This dialog box below shows that you should avoid installing XAMPP to C:\Program Files. Click OK.

 Warning

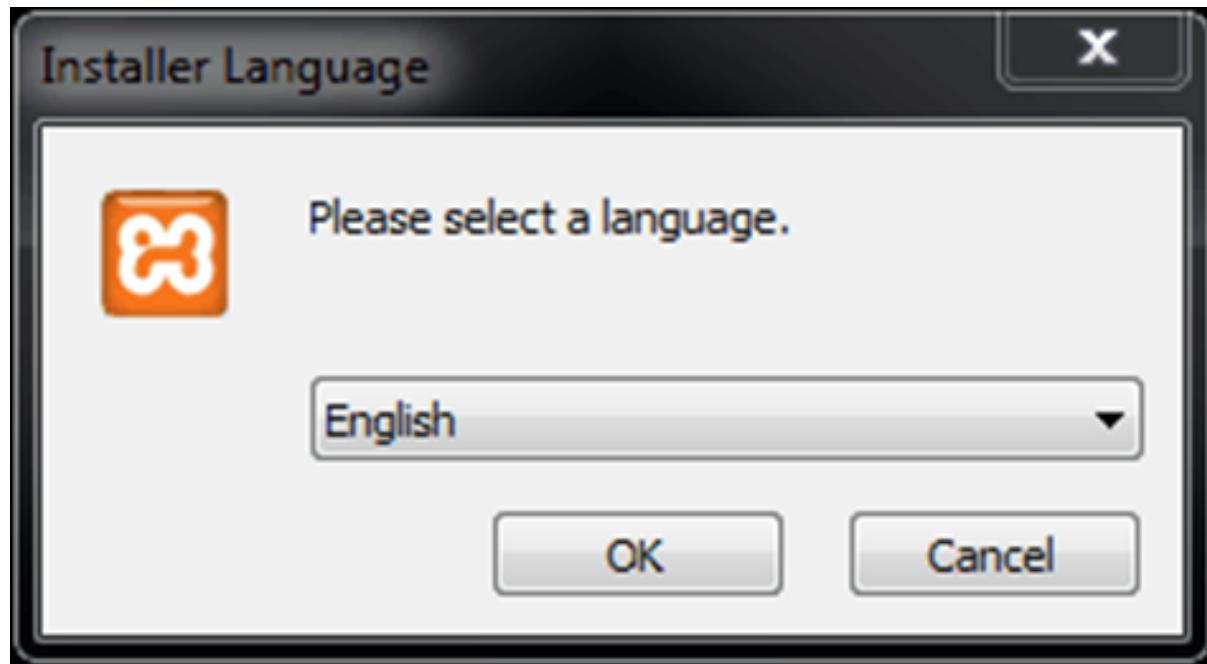
X

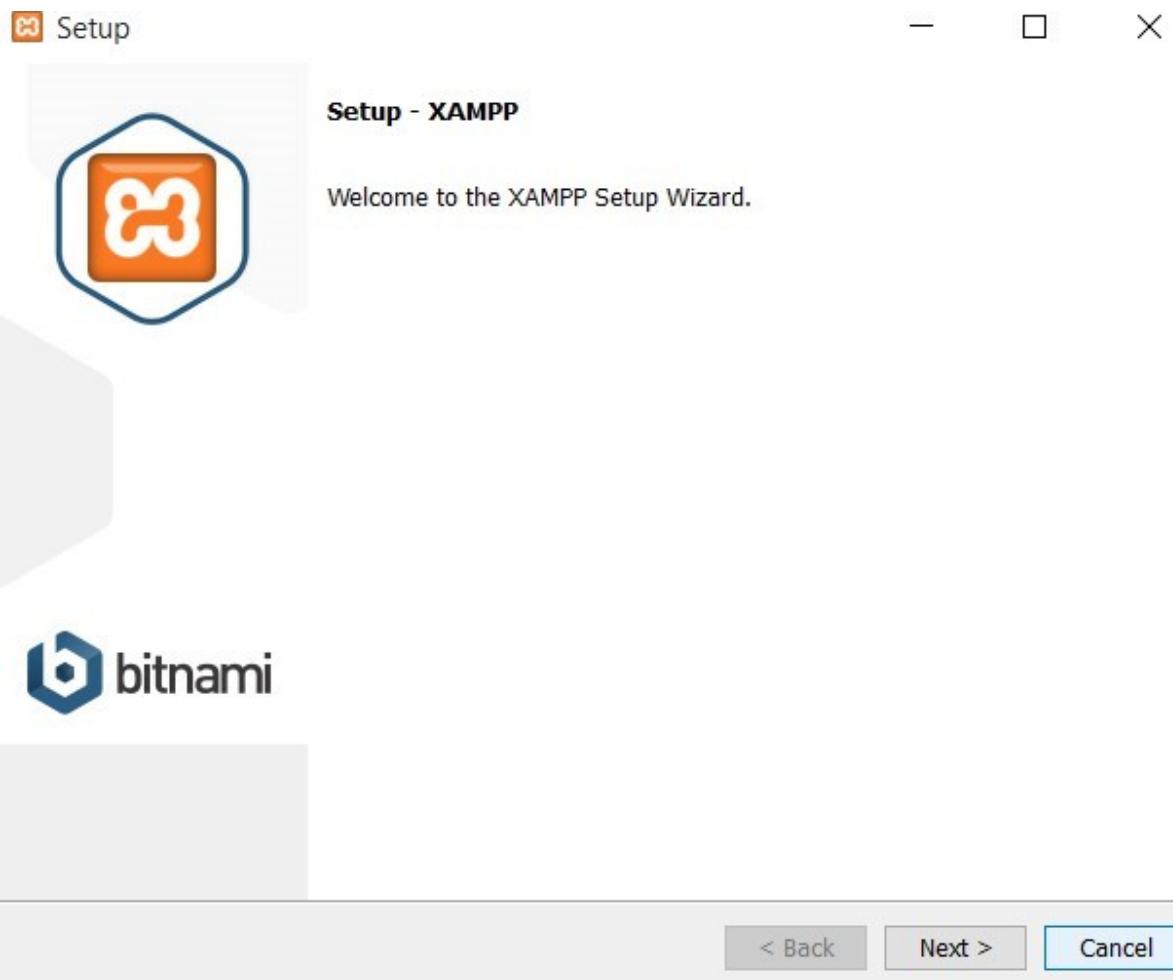


Important! Because an activated User Account Control (UAC) on your system some functions of XAMPP are possibly restricted. With UAC please avoid to install XAMPP to C:\Program Files (x86) (missing write permissions). Or deactivate UAC with msconfig after this setup.

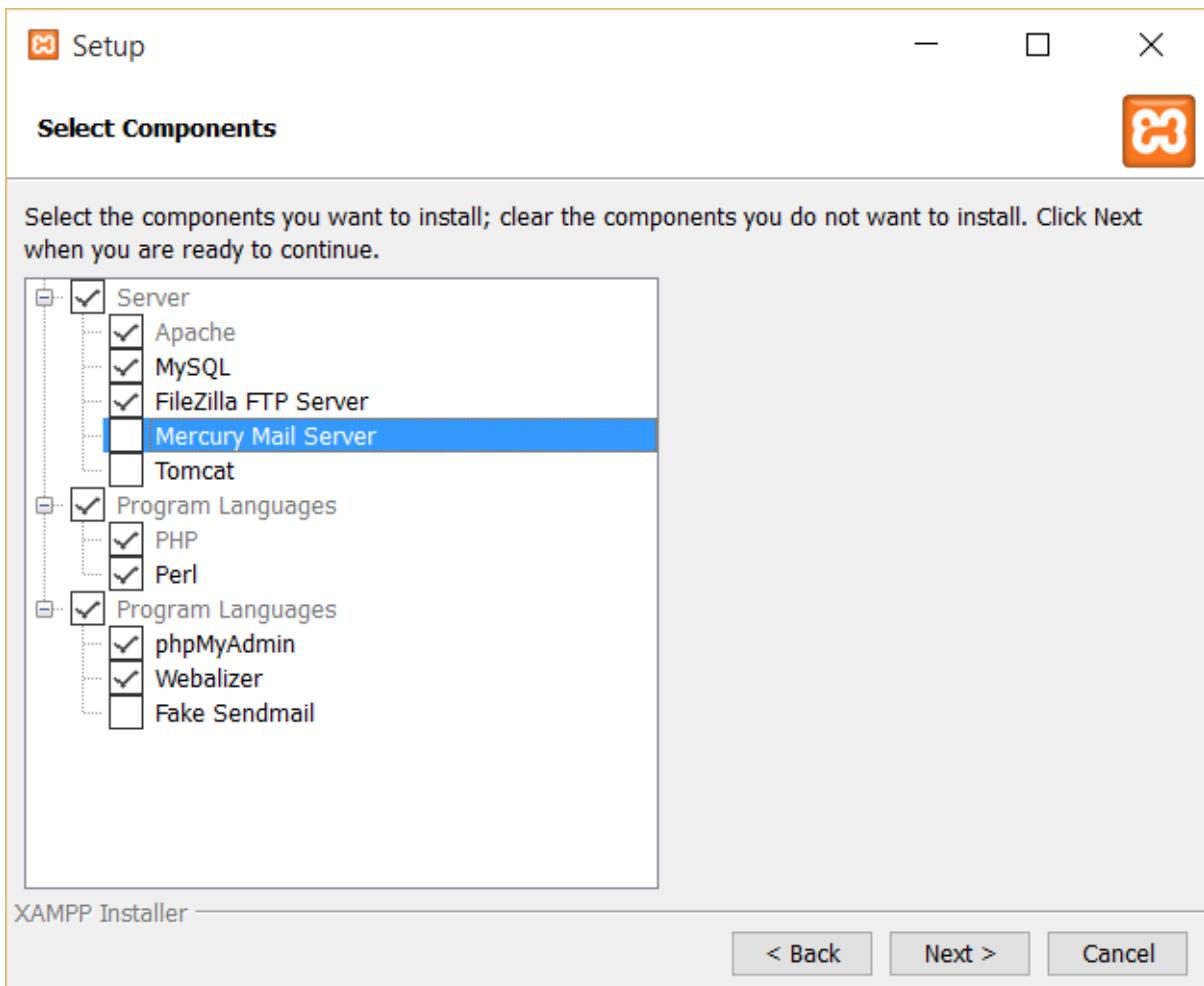
OK

-
6. Select your language in the dialog box then click OK.





7. The XAMPP welcome wizard will appear. Click Next to continue.
8. Verify that the checkboxes are checked the same as the image below, then click Next. It's ok to install everything but not required.



9. Verify that the Destination Folder is set to C:\xampp, then click Install.

Installation folder



Please, choose a folder to install XAMPP

Select a folder



XAMPP Installer

< Back

Next >

Cancel

Bitnami for XAMPP



Bitnami for XAMPP provides free installers that can install Drupal, Joomla!, WordPress and many other popular open source apps on top of your existing XAMPP installation.

<https://bitnami.com/xampp>

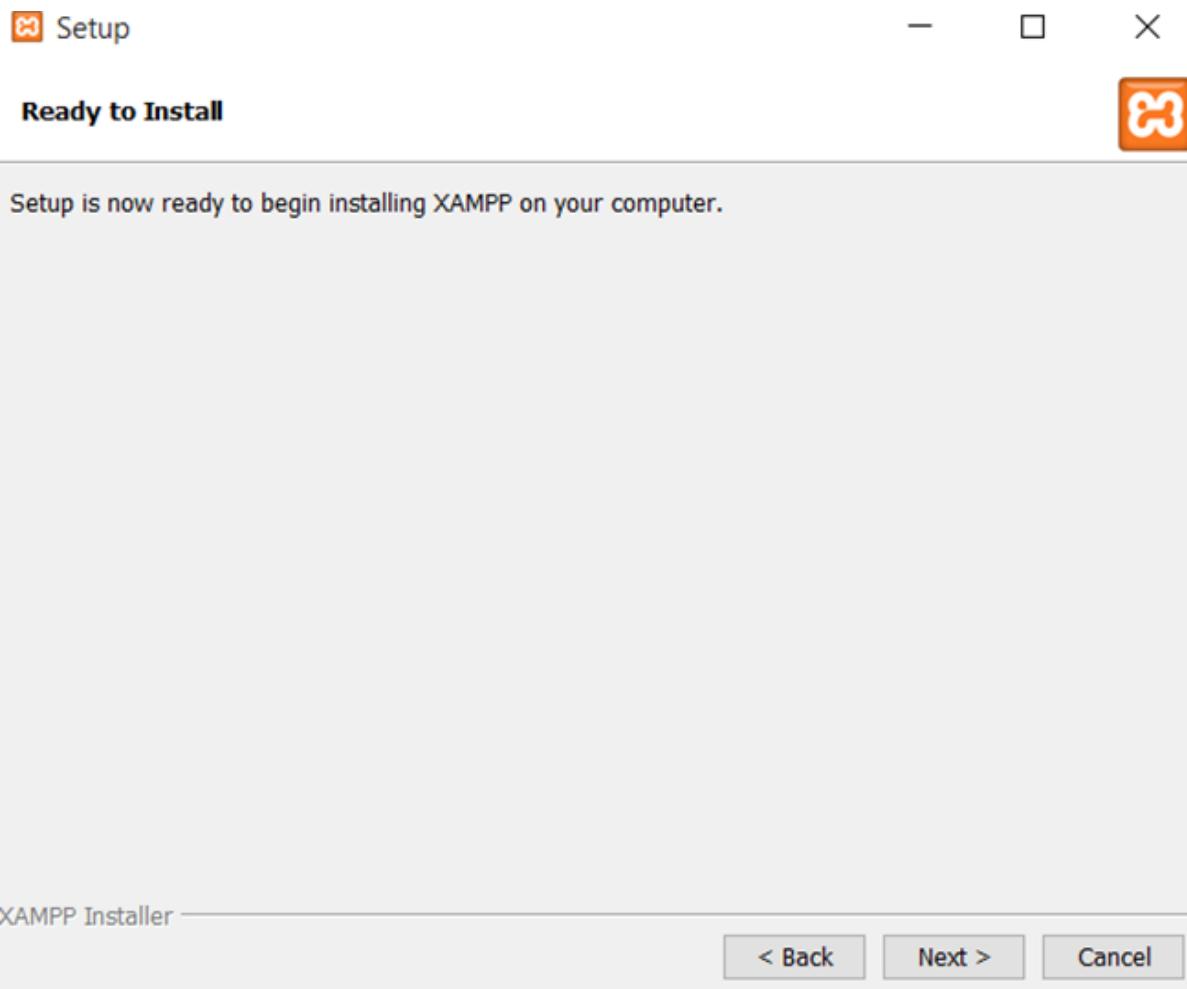
Learn more about Bitnami for XAMPP

XAMPP Installer

< Back

Next >

Cancel



10. You will see the installation progresses. Wait for the process to complete.

bitnami for XAMPP

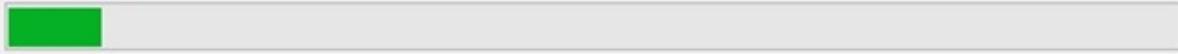
Bitnami for XAMPP provides free installers that can install Drupal, Joomla!, WordPress and many other popular open source apps on top of your existing XAMPP installation.

Learn More



Installing

Unpacking files



XAMPP Installer

< Back

Next >

Cancel



Windows Security Alert

X



Windows Firewall has blocked some features of this app

Windows Firewall has blocked some features of Apache HTTP Server on all public and private networks.



Name: Apache HTTP Server
Publisher: Apache Software Foundation
Path: C:\xampp\apache\bin\httpd.exe

Allow Apache HTTP Server to communicate on these networks:

Private networks, such as my home or work network

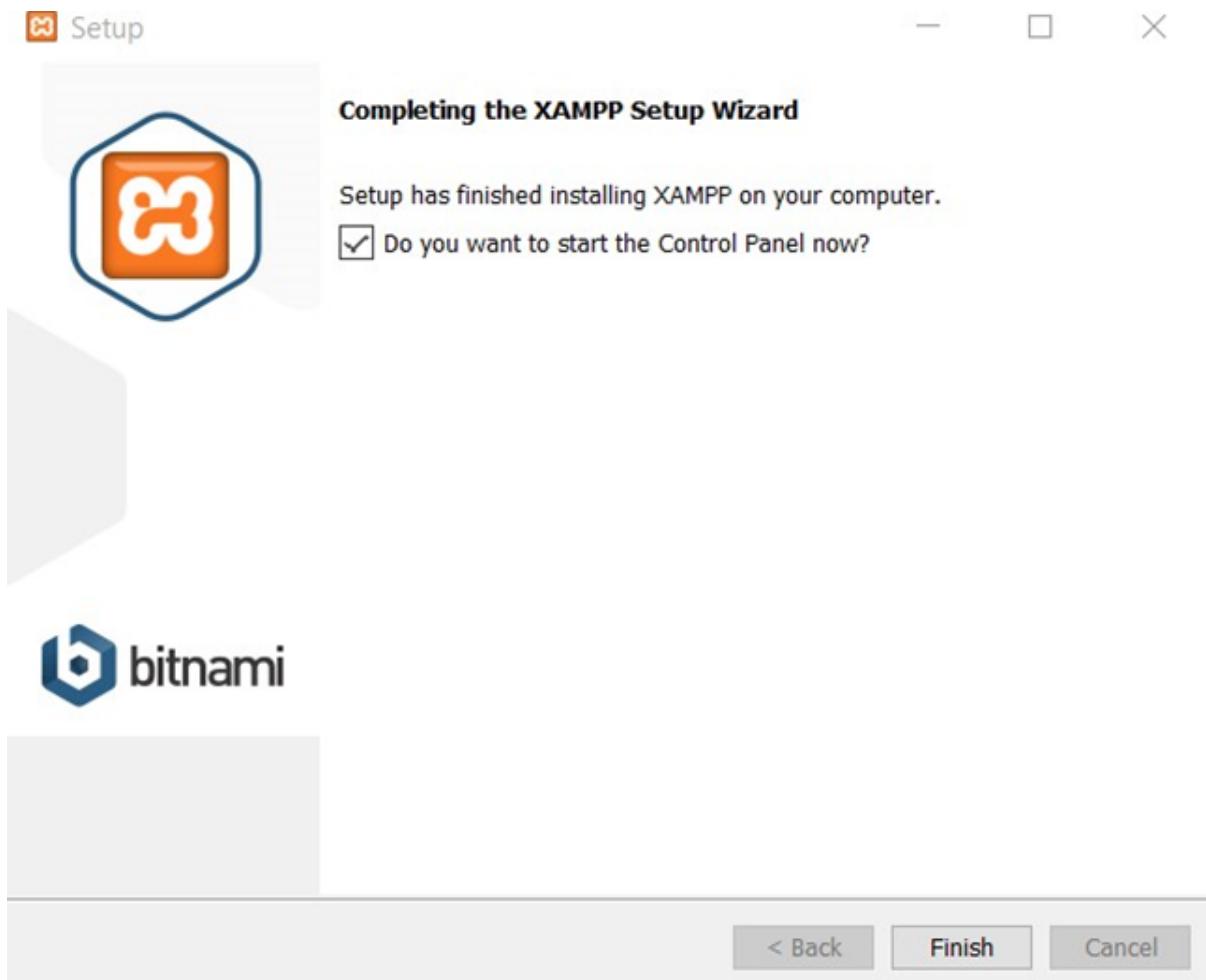
Public networks, such as those in airports and coffee shops (not recommended because these networks often have little or no security)

[What are the risks of allowing an app through a firewall?](#)

Allow access

Cancel

11. Click Finish to finish the installation process.

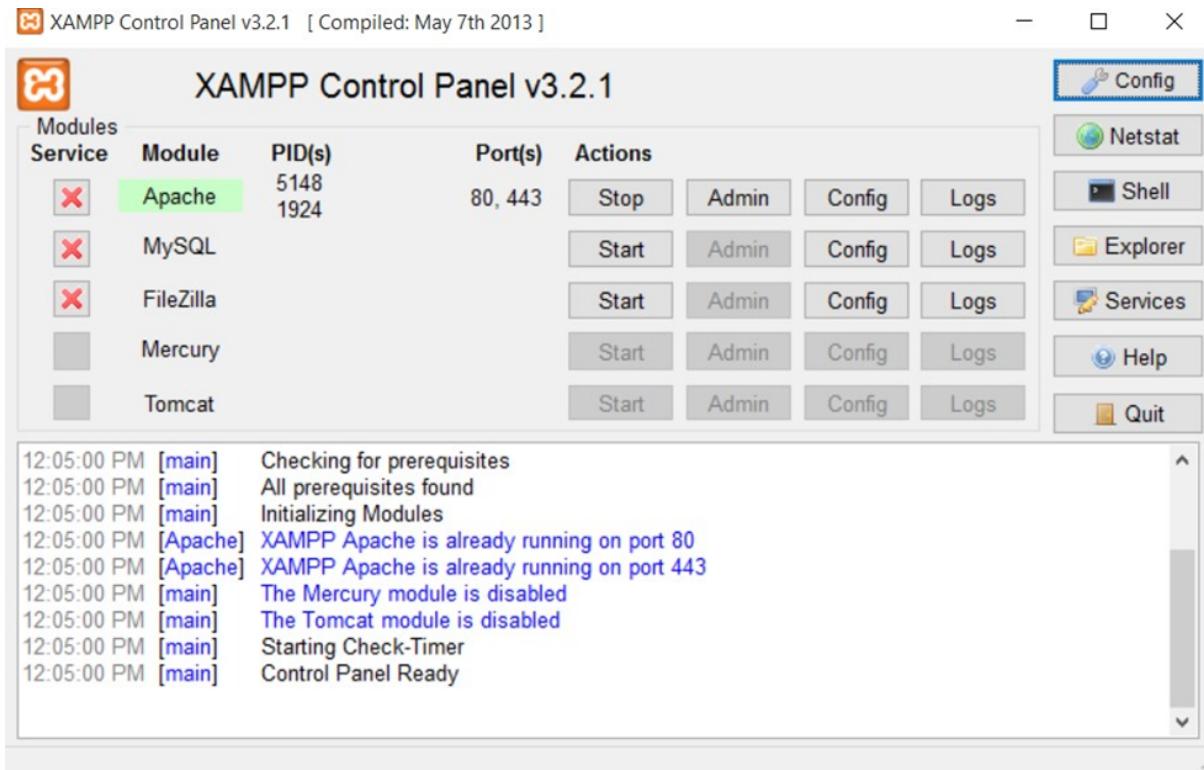


12. The dialog box asks: Do you want to start the Control Panel now? You can choose to start the Control Panel now. Checking the check box will directly open the XAMPP control panel. Please see the Note below to know how to start XAMPP Control Panel.

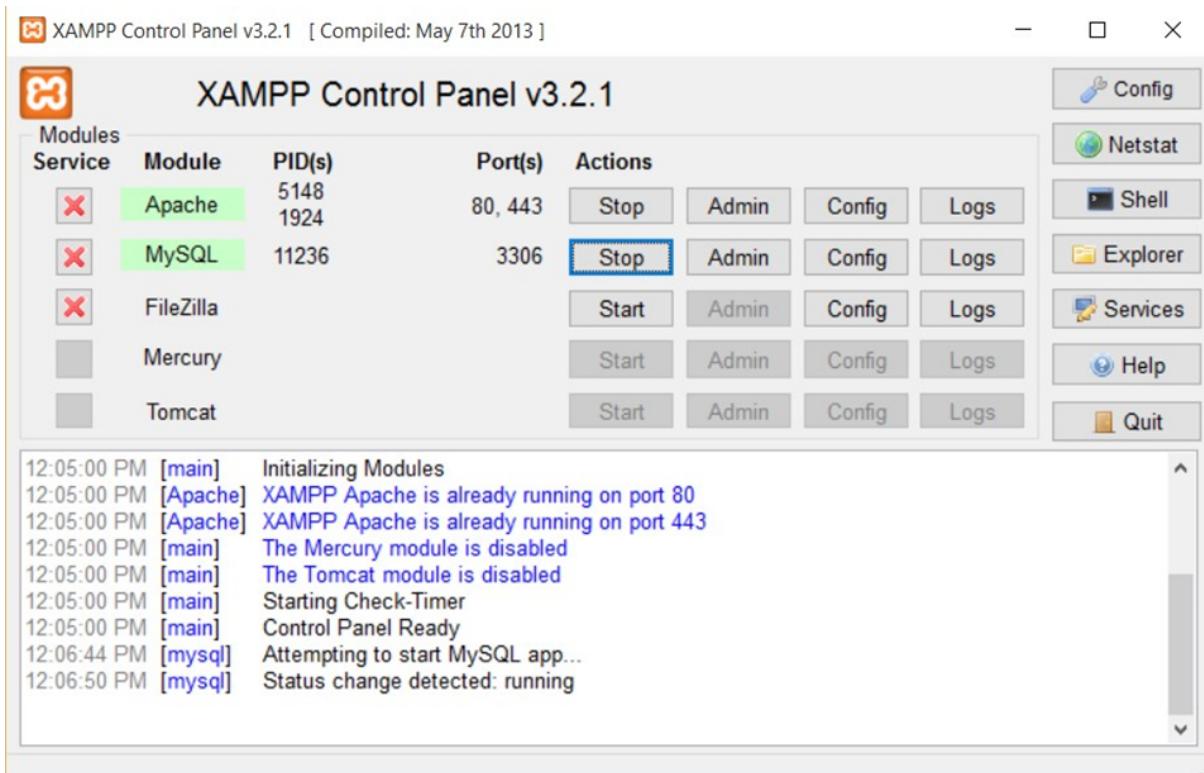
The installation is complete.

Note: If you want to start XAMPP Control Panel next time, right-click on the XAMPP icon found in the desktop or in the start menu, then select “Run as administrator”. Click “Yes” on the ”User Account Control” popup.

13. If the XAMPP control panel is not already started, find the XAMPP control panel in the start menu or the it's desktop icon, right click on it and select ”Run as administrator”. Click ”Yes” on the ”User Account Control” popup, and wait for the XAMPP control panel to start. You will see the XAMPP control panel running.



14. Click on the Start button next to Apache, and wait for apache to start. After the Apache has started, click on the Start button next to MySQL. Wait for MySQL to start. Both Apache and MySQL are running now.





Windows Security Alert

X



Windows Firewall has blocked some features of this app

Windows Firewall has blocked some features of mysqld on all public and private networks.



Name: mysqld
Publisher: Unknown
Path: C:\xampp\mysql\bin\mysqld.exe

Allow mysqld to communicate on these networks:

Private networks, such as my home or work network

Public networks, such as those in airports and coffee shops (not recommended because these networks often have little or no security)

[What are the risks of allowing an app through a firewall?](#)

Allow access

Cancel

15. Now, open your web browser like Internet Explorer, Mozilla Firefox or Google Chrome.

Type “localhost” in the address bar and click enter. The browser will be redirected to “localhost/xampp/splash.php”. The browser should display the page shown below.

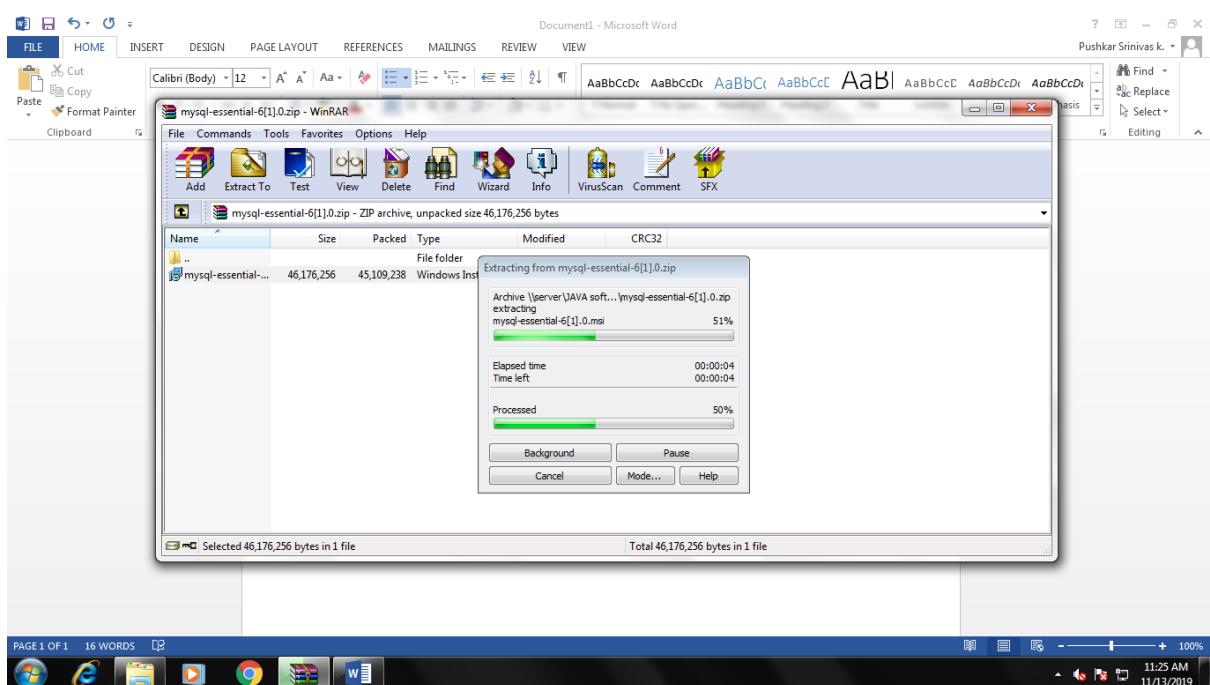
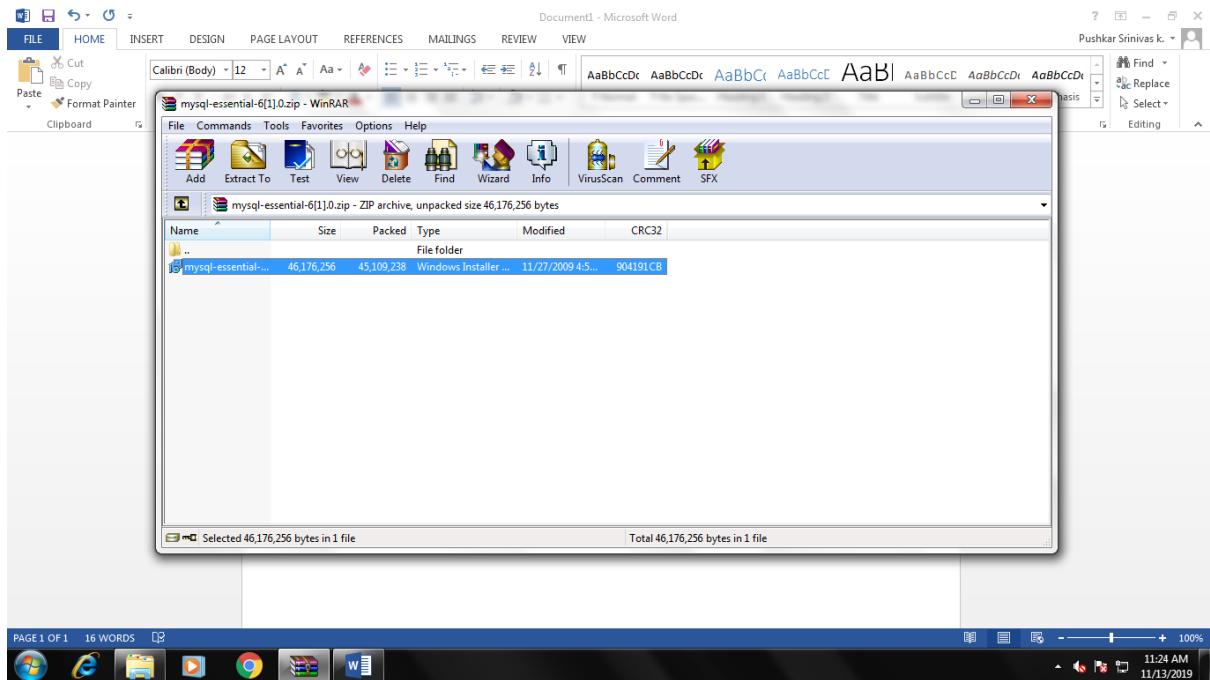


If your browser displays the above page, XAMPP is installed successfully and working properly.

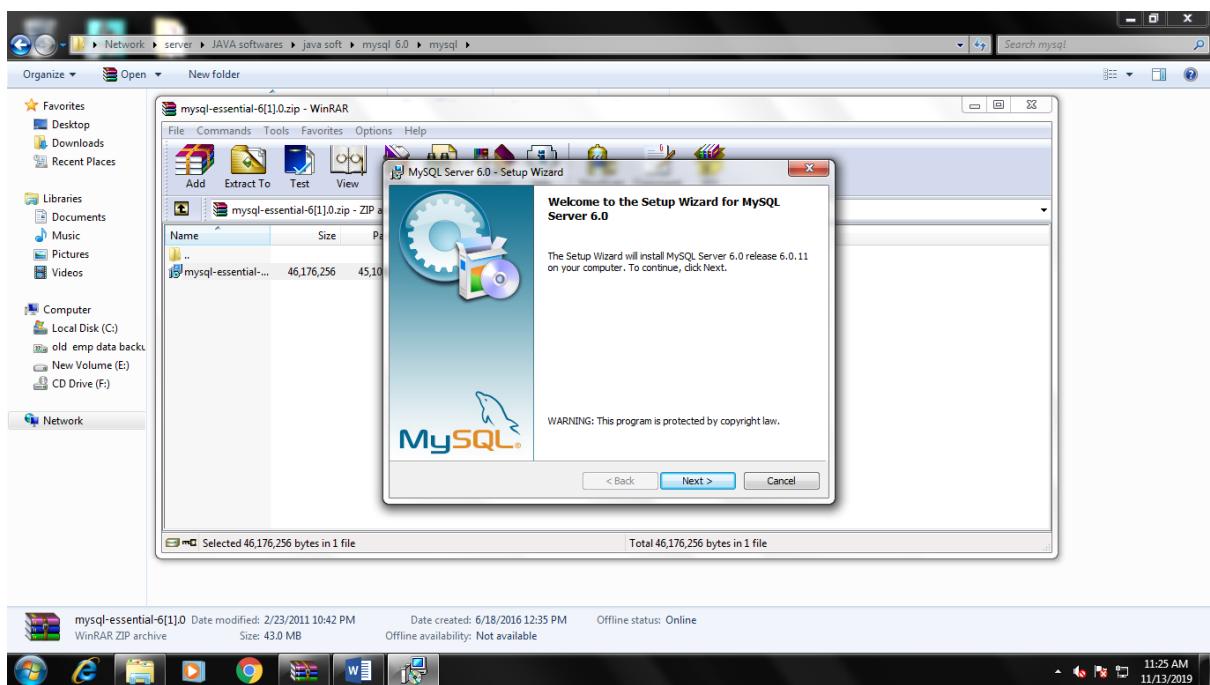
XAMPP is ready to run your blog or website locally on your computer.

1.4 Installing MySQL:

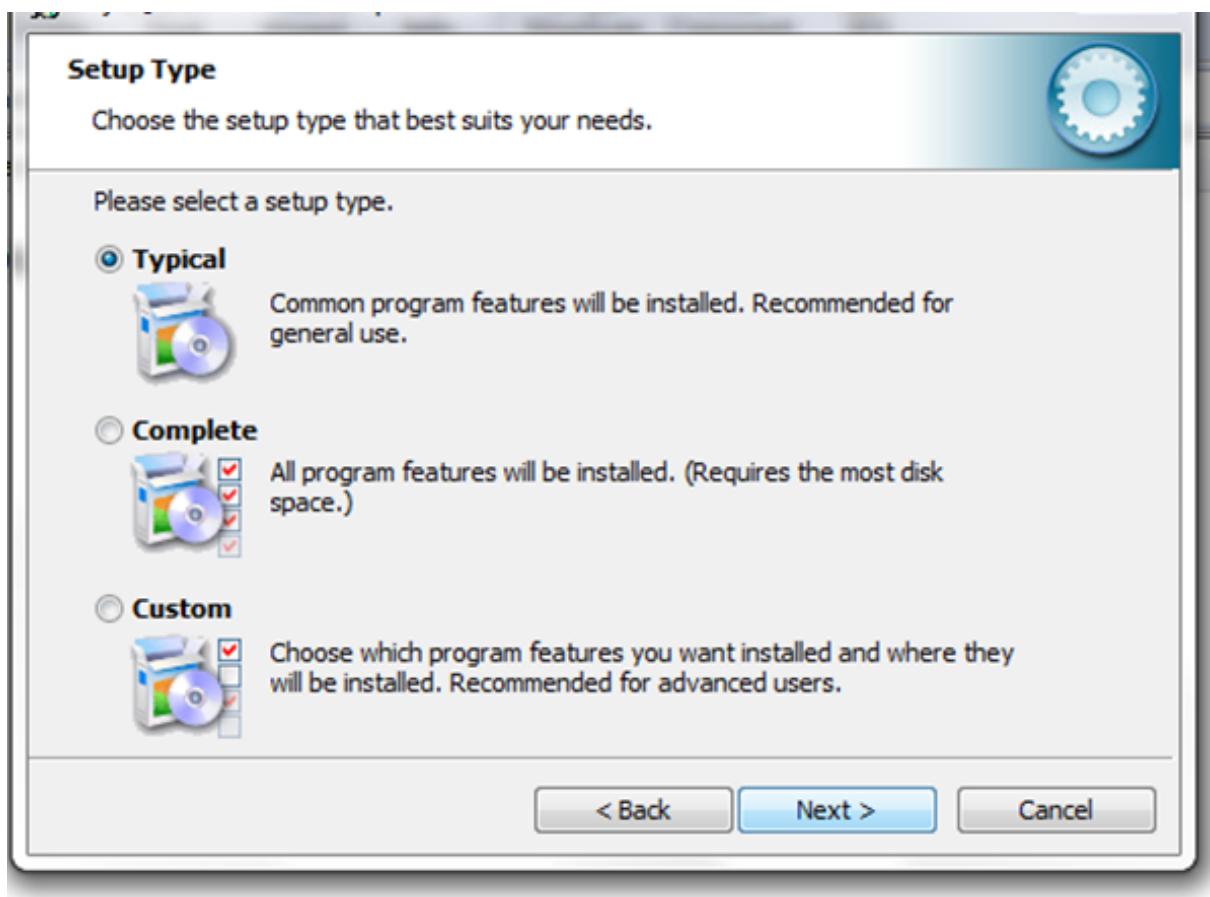
Open copied zip file or folder and double click on sql essentials.



Once the above process is completed it will be open be like below



Click on next



Select typical and select next

Ready to Install the Program

The wizard is ready to begin installation.



If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.

Current Settings:

Setup Type:

Typical

Destination Folder:

C:\Program Files (x86)\MySQL\MySQL Server 6.0\

Data Folder:

C:\ProgramData\MySQL\MySQL Server 6.0\

< Back

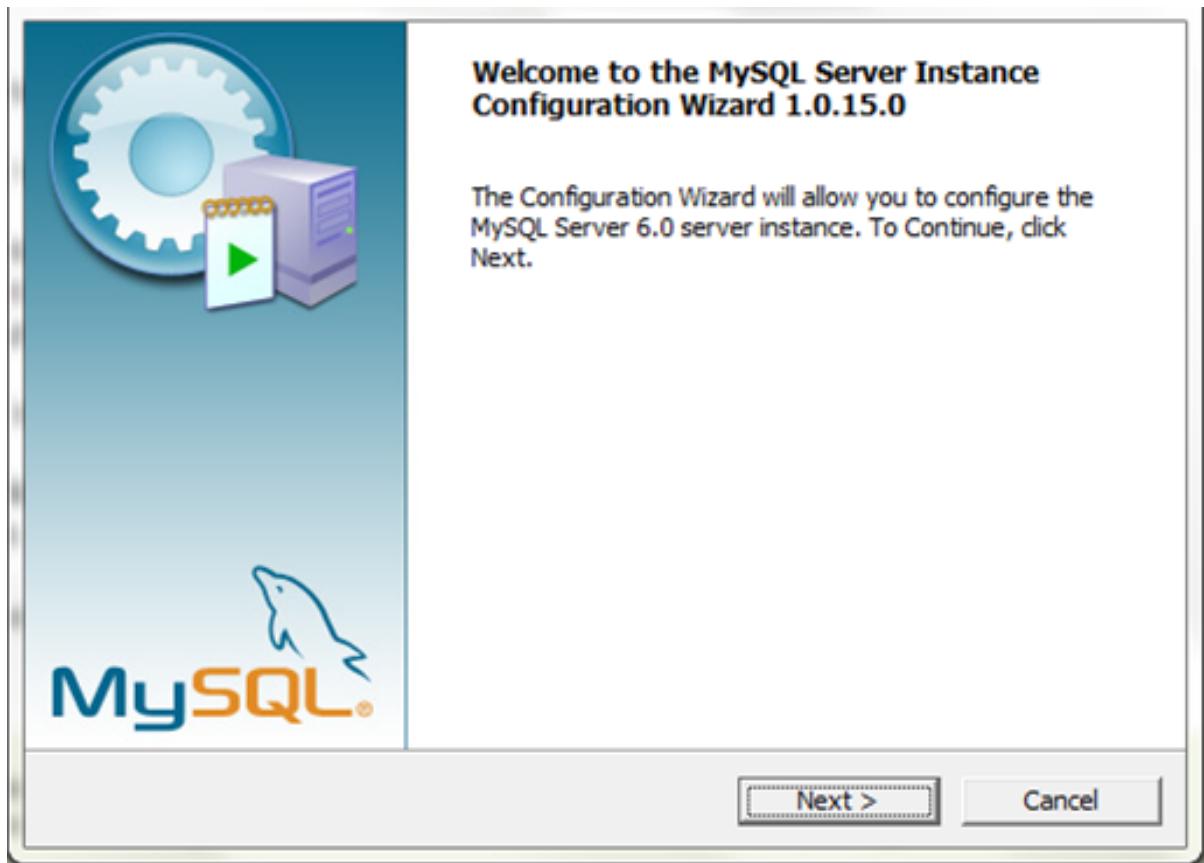
Install

Cancel

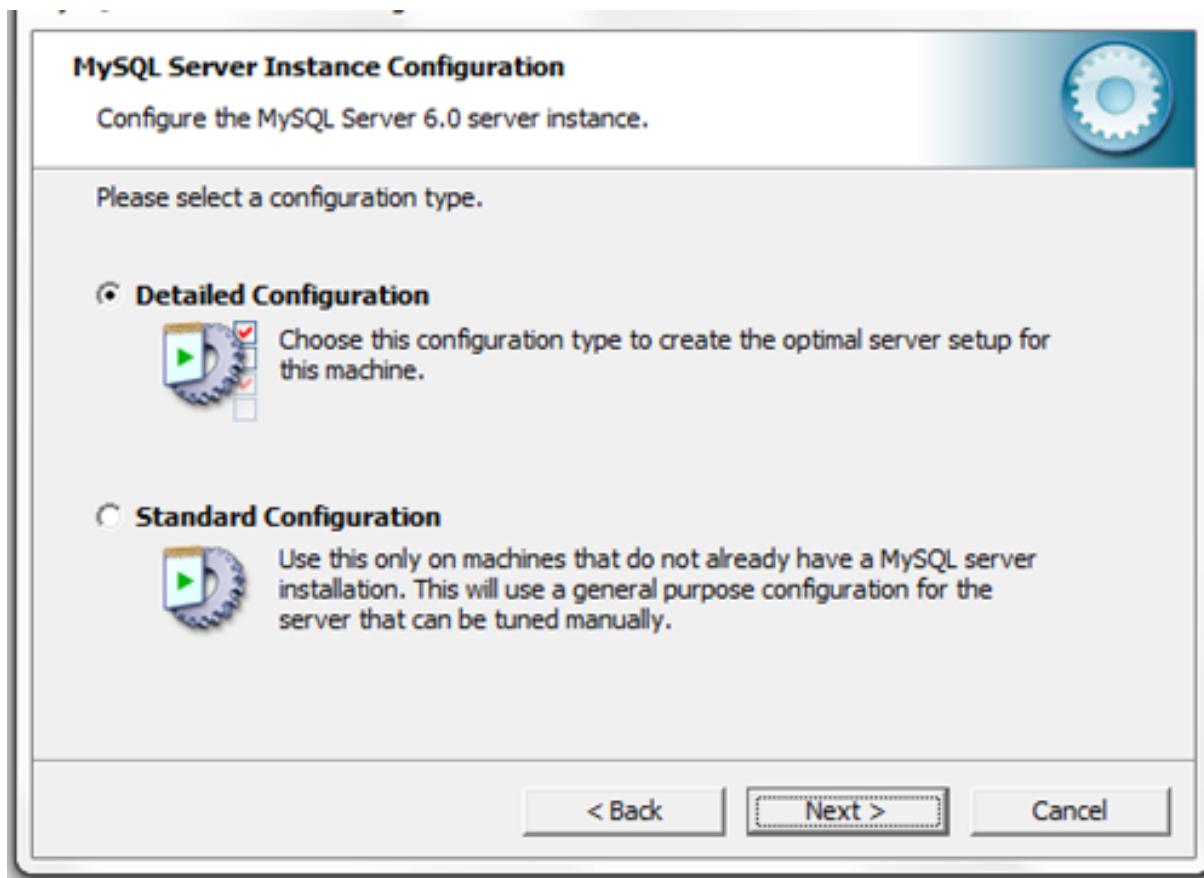
Click on install



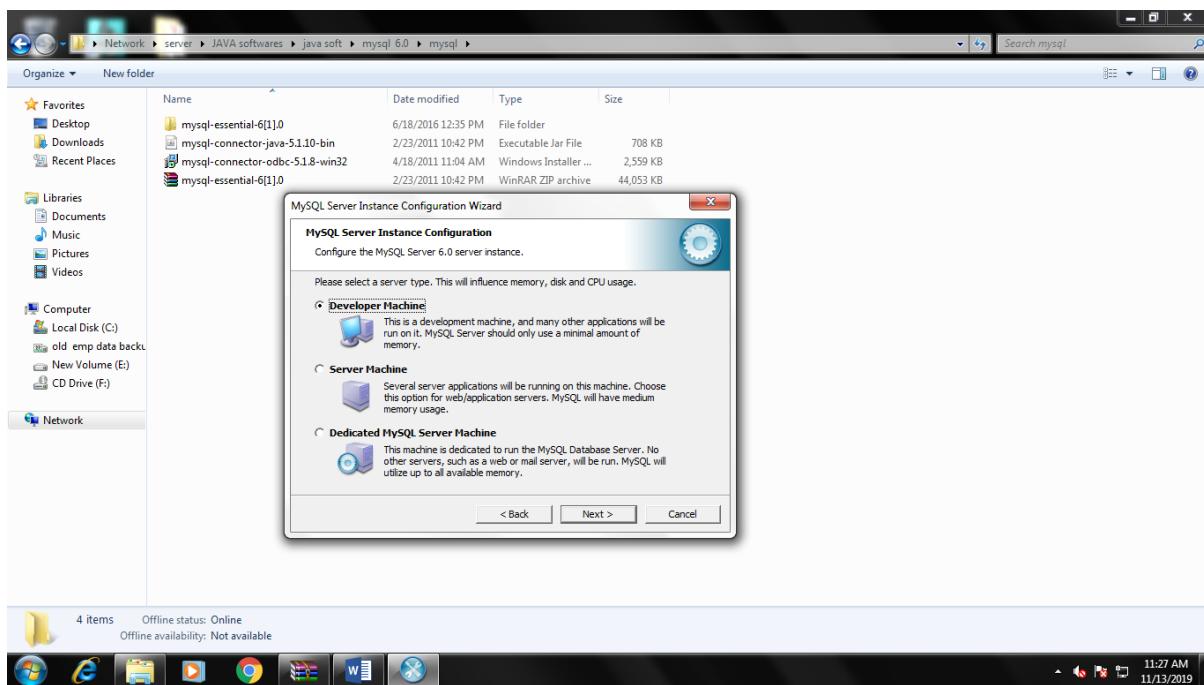
Click on finish



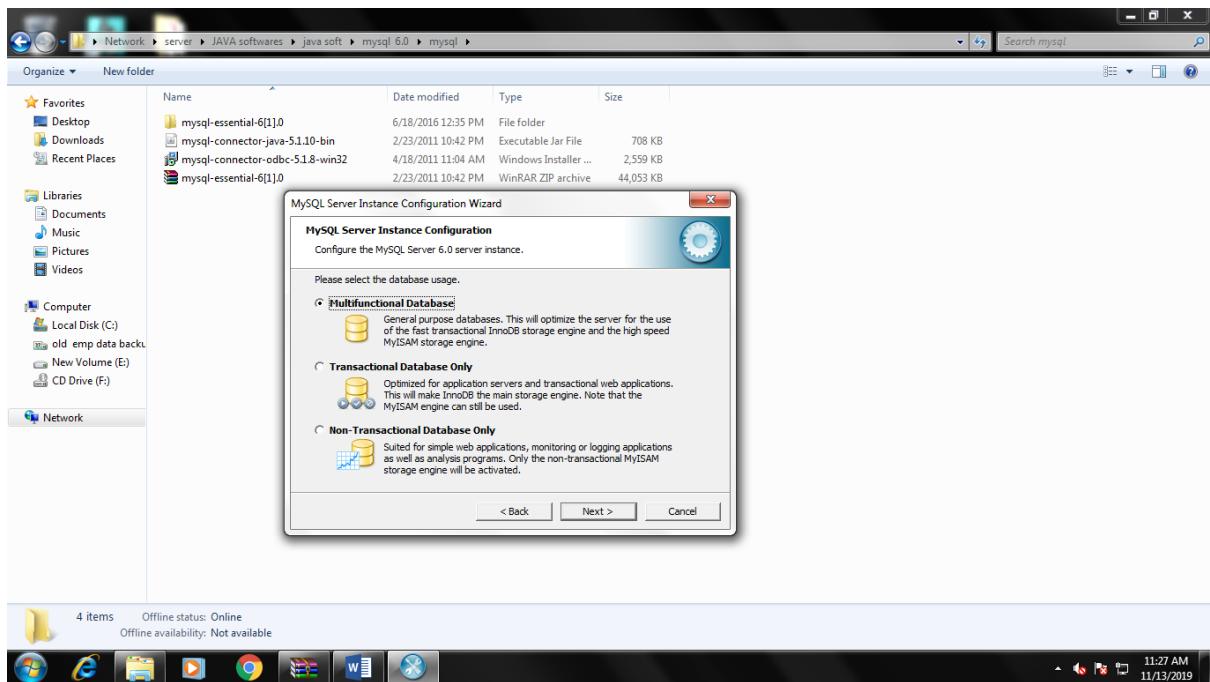
Again open another window like above and click on next



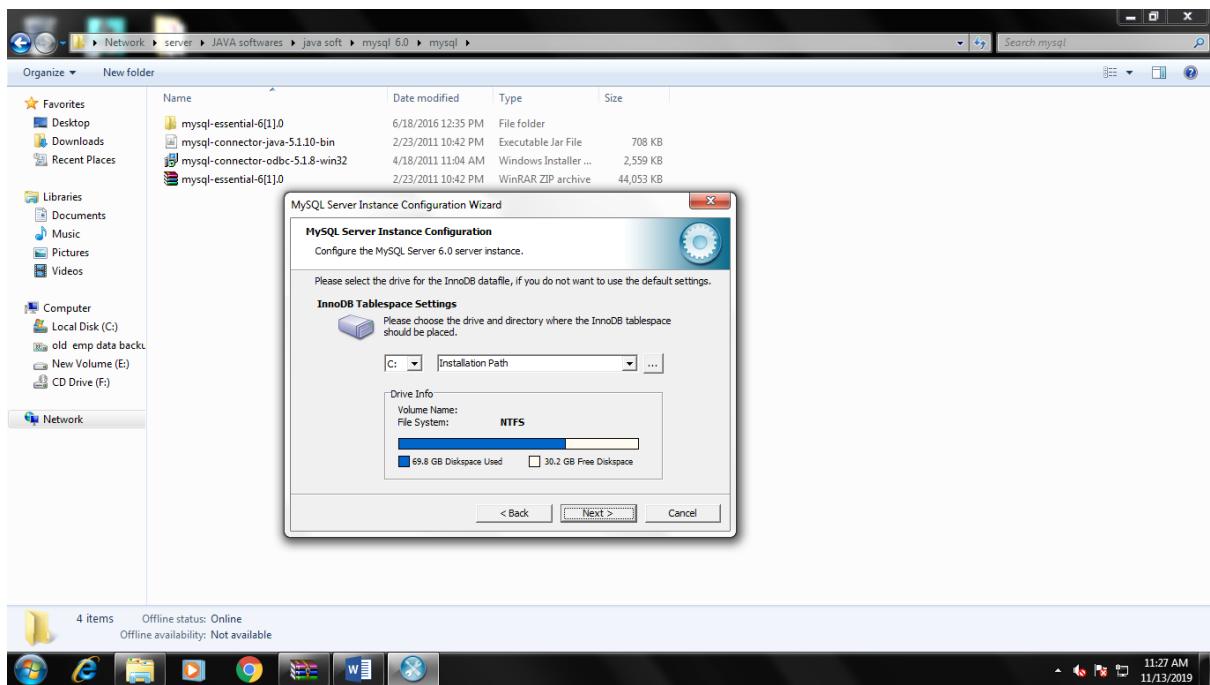
Then select detailed configuration and click on next



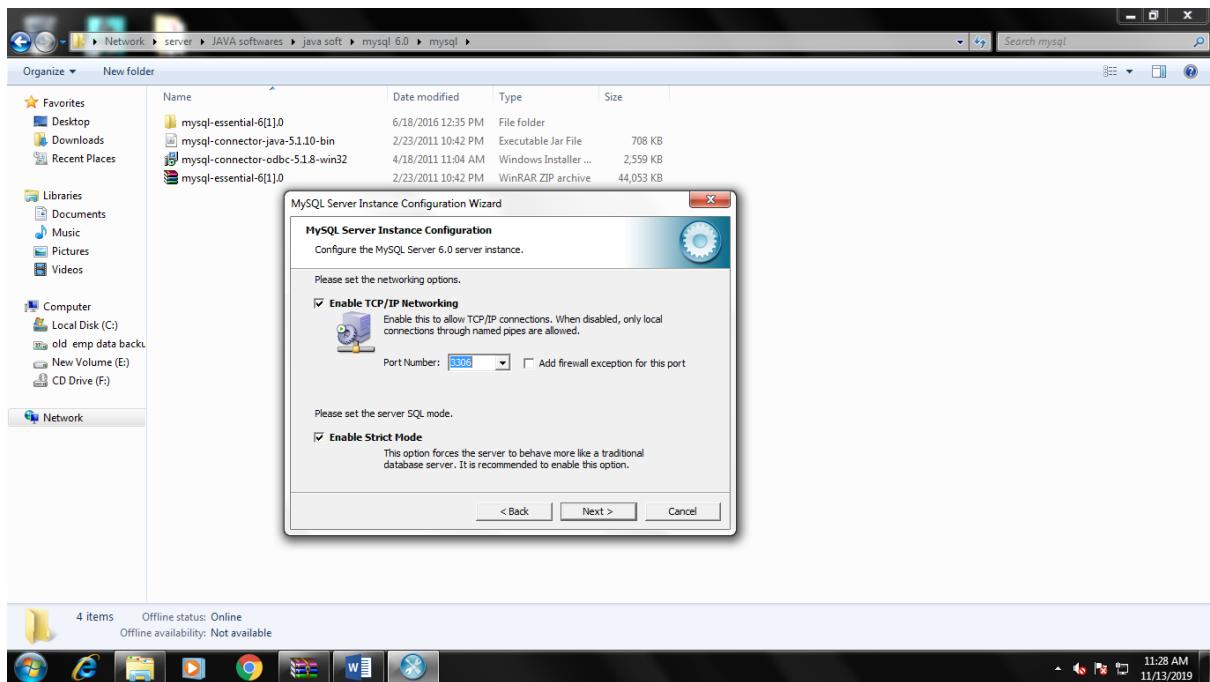
Select developer machine



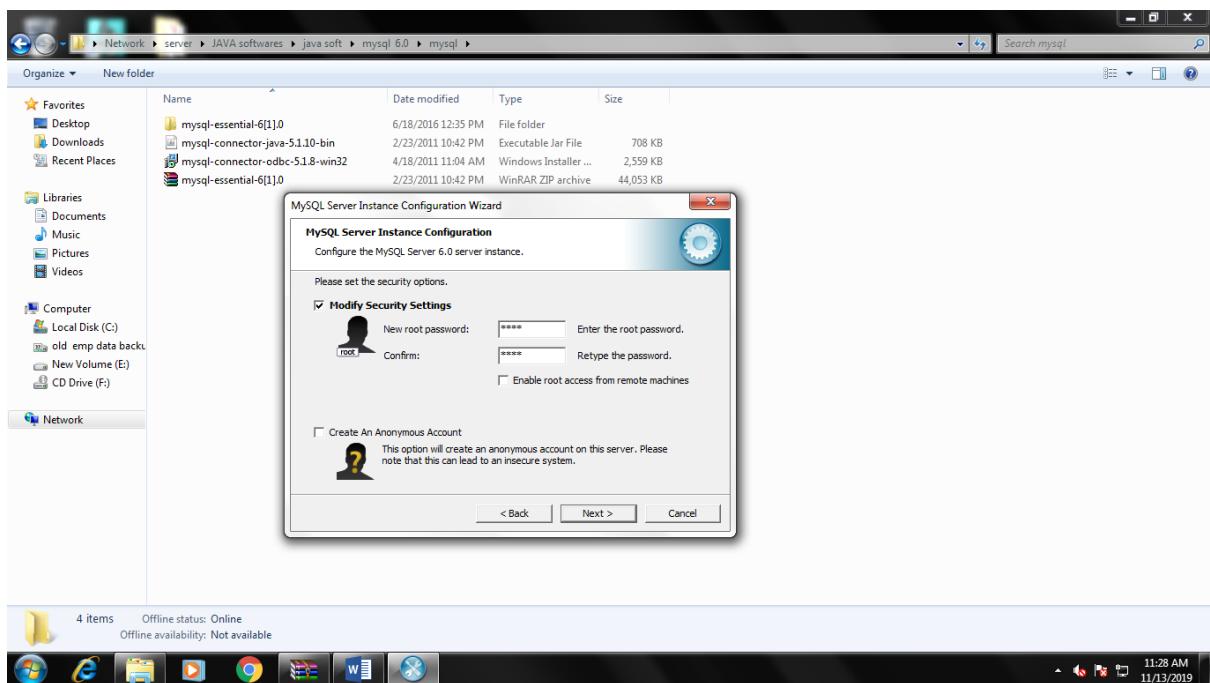
Select multi-functional database



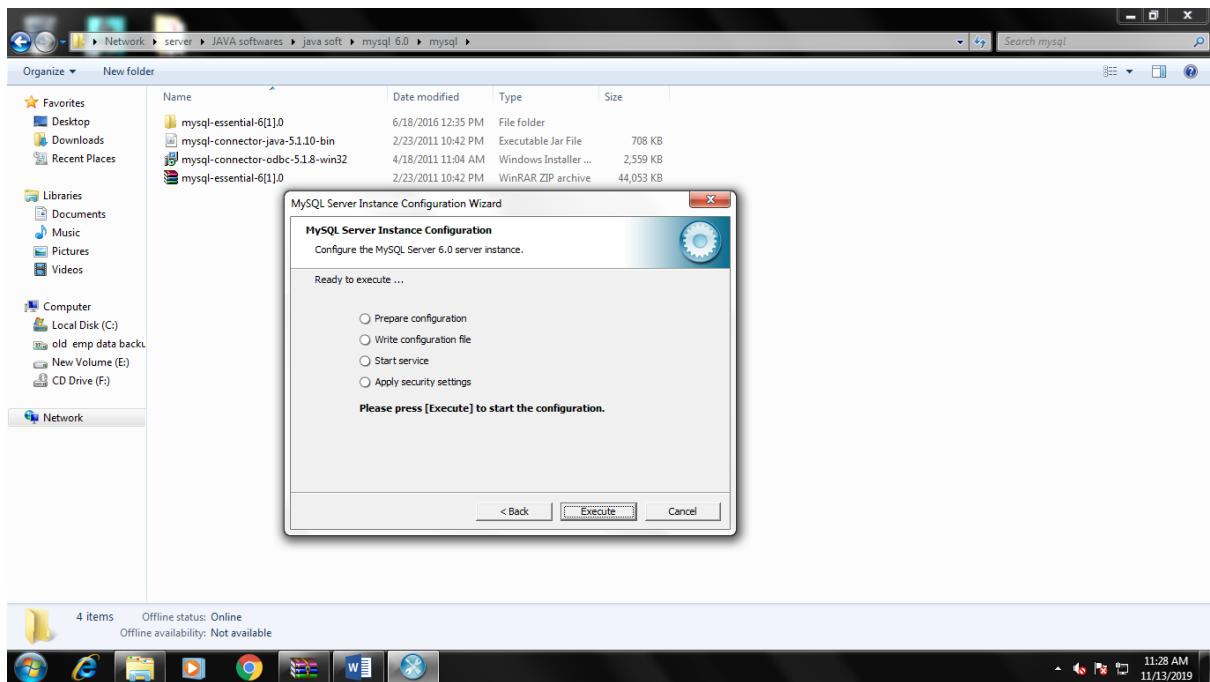
Click on next



Maintain port number 3306 and click on next

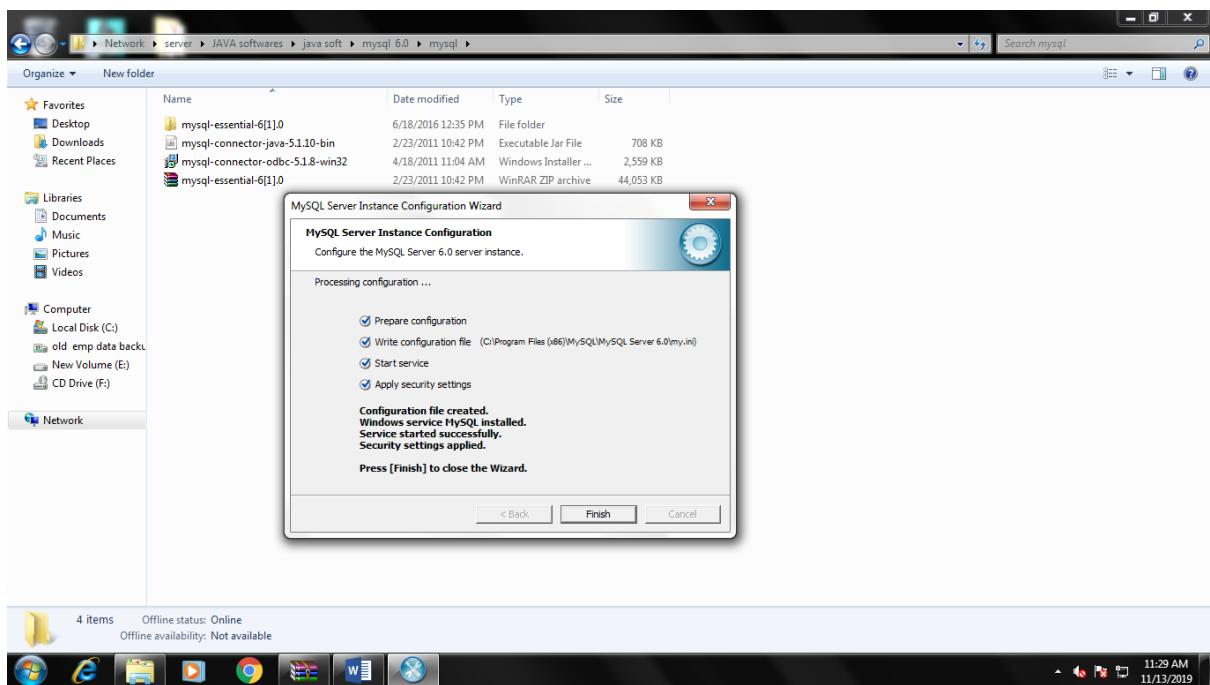


Set password

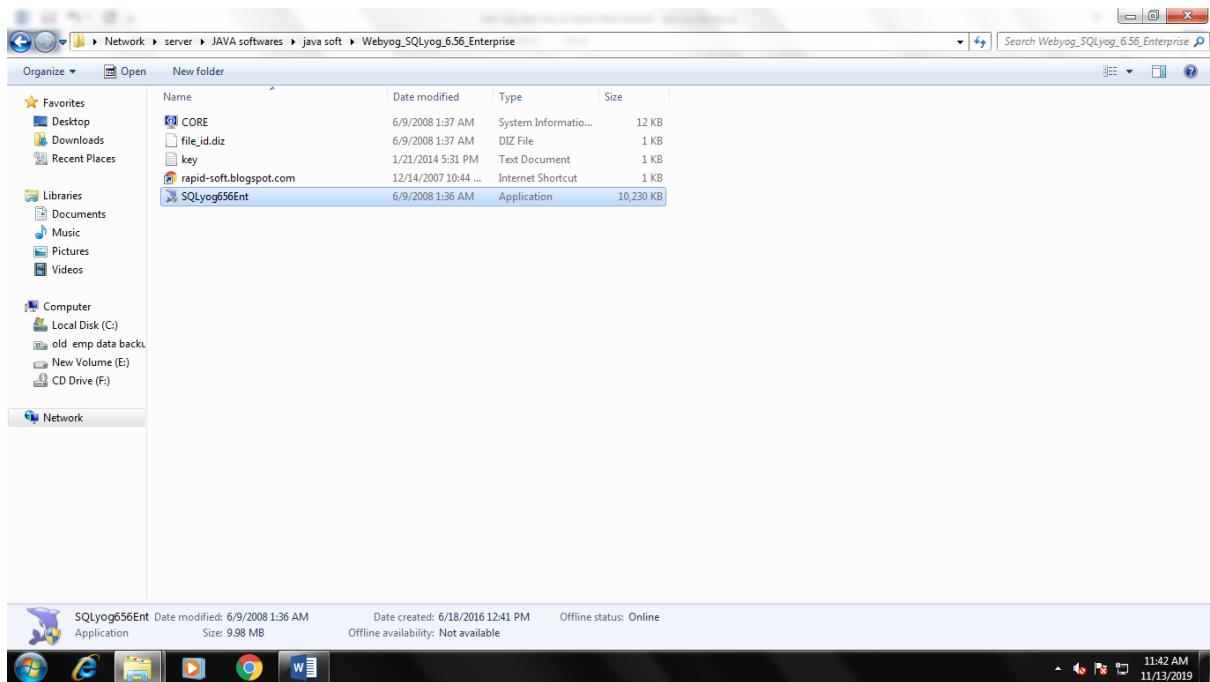


Click on execute

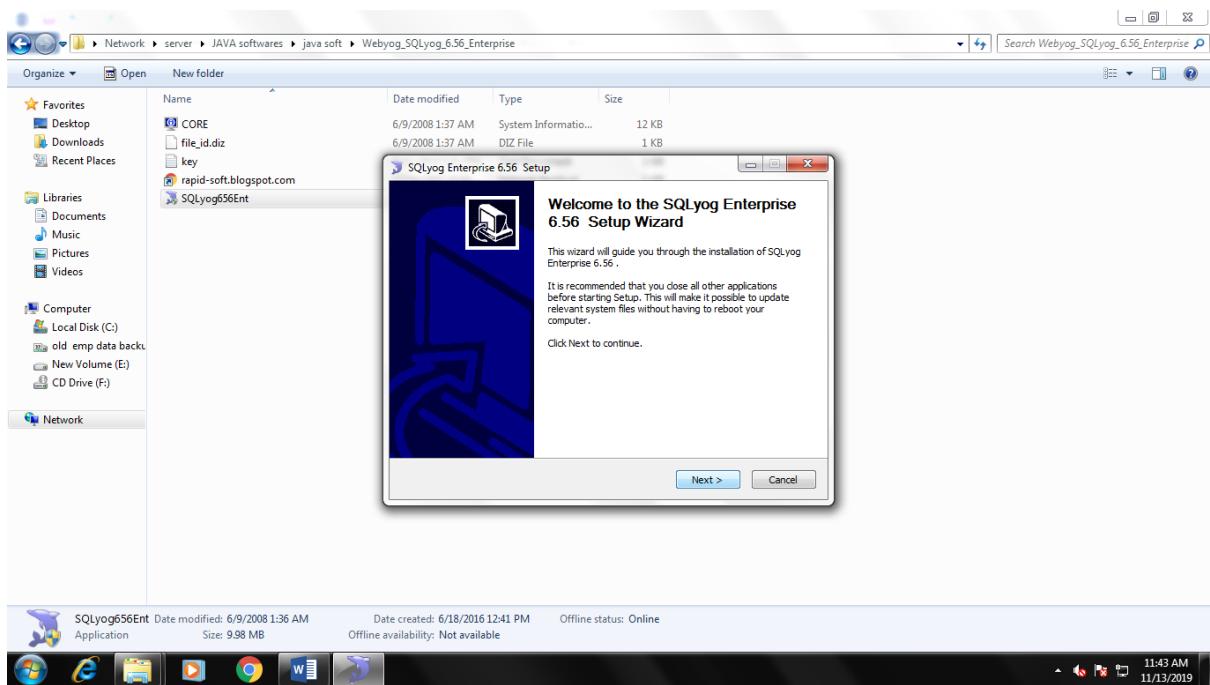
After executing completed it will shows below
Then finish

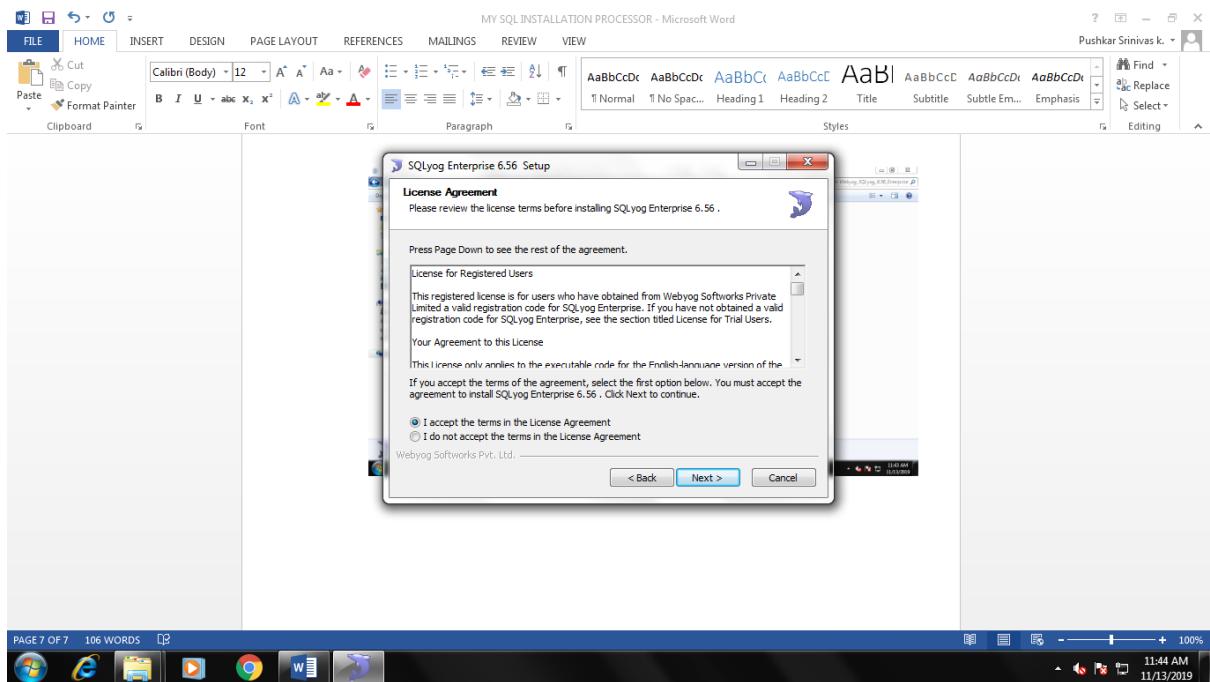


After completed you need to run webyog setup file

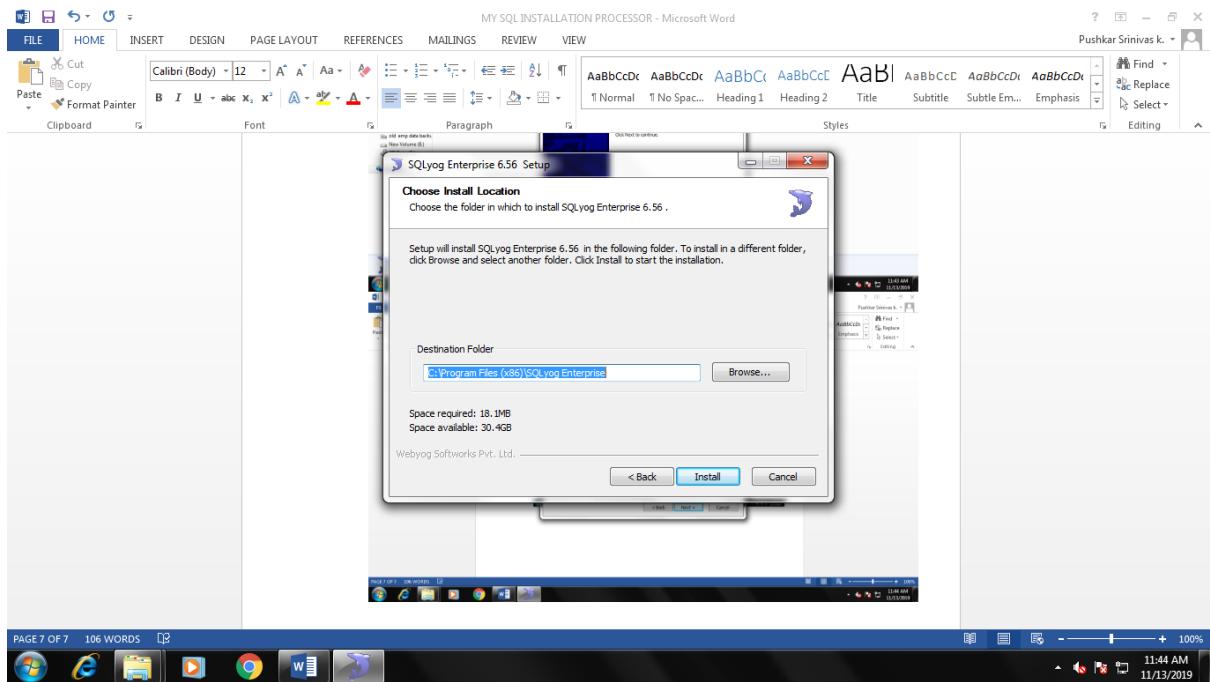


Double click on sqlyog application

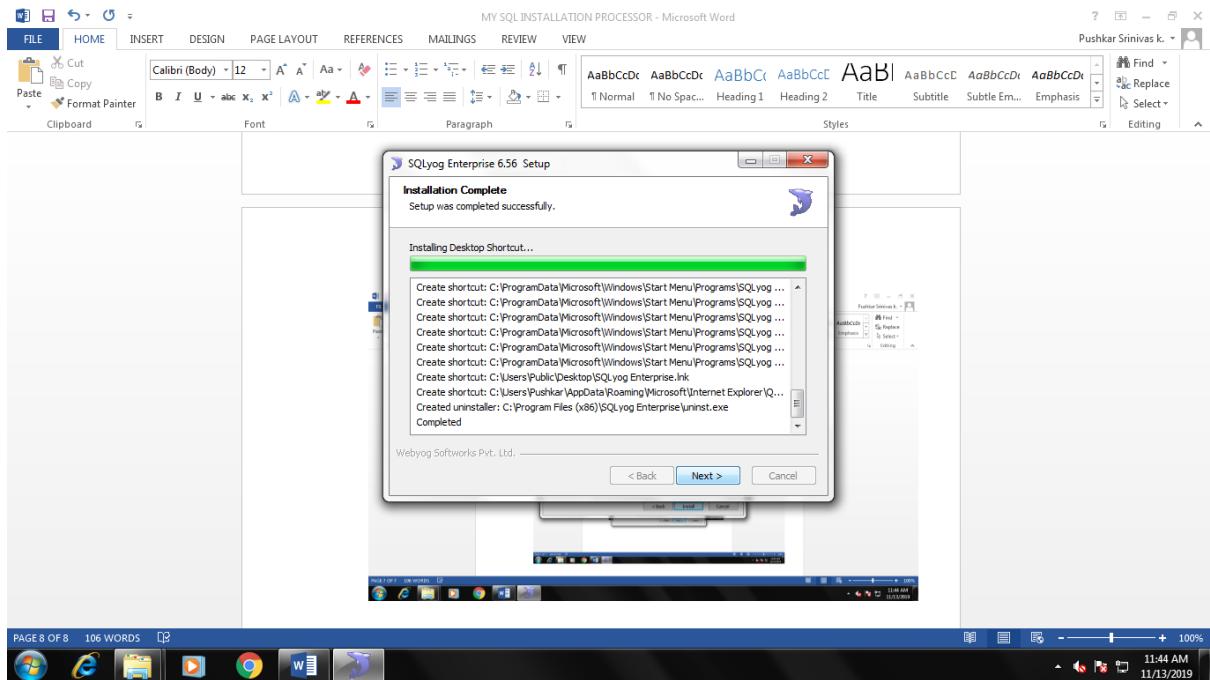




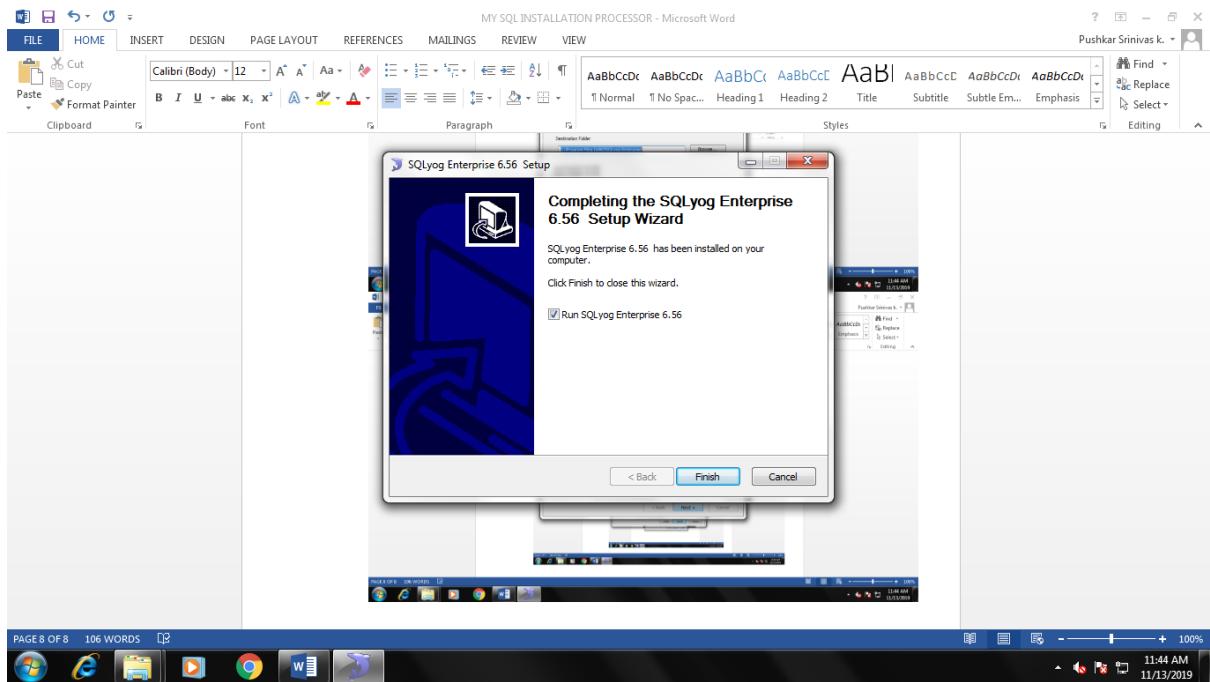
Click on to accept the license agreement and click next



Then click on install



After completed then click next



And .sql software installation is completed.

2 System Maintenance

1. At first open the PyCharm and follow these steps:

-
2. Open PyCharm and then a dialog box appears then click on OK button next after this another dialog box will get opened. Click on the check box and click on continue, another dialog box appears click on don't send.
 3. Then a window appears then click on Open and then a window appears there go to choose file option there select the renamed folder (which we have renamed previously).
 4. Click on new window button, your project will be appeared on PyCharm
 5. Now set the python environment
 6. Select file and click settings
 7. Next open XAMPP server and click on start MySQL
 8. Open SQLYOG click on connect button
 9. Now we are going to Dump Data base into MySQL database
 10. For execution we select the app.py and right click and select run
 11. After selecting run button and executing the link will be appeared in terminal, copy that link and paste it in Google chrome only
 12. If u are facing any issues in package installation
 - (a) use pip command
 - (b) go to PyCharm open terminal
 - (c) type as: pip install pandas
 13. Open your real email
 14. Open manage account
 15. search less secure
 16. check whether the less secure is in on if not on it
 17. Now run the program

3 Front-end GUI/Forms

A web framework is a code library that makes a developer's life easier when building reliable, scalable and maintainable web applications.

Why are web frameworks useful?

Web frameworks encapsulate what developers have learned over the past twenty years while programming sites and applications for the web. Frameworks make it easier to reuse code for common HTTP operations and to structure projects so other developers with knowledge of the framework can quickly build and maintain the application.

Common web framework functionality

Frameworks provide functionality in their code or through extensions to perform common

operations required to run web applications. These common operations include:

1. URL routing
2. HTML, XML, JSON, and other output format tinplating
3. Database manipulation
4. Security against Cross-site request forgery (CSRF) and other attacks
5. Session storage and retrieval

Not all web frameworks include code for all of the above functionality. Frameworks fall on the spectrum from executing a single use case to providing every known web framework feature to every developer. Some frameworks take the "batteries-included" approach where everything possible comes bundled with the framework while others have a minimal core package that is amenable to extensions provided by other packages.

Comparing web frameworks

There is also a repository called `compare-python-web-frameworks` where the same web application is being coded with varying Python web frameworks, tinplating engines and object.

Web framework resources

1. When you are learning how to use one or more web frameworks it's helpful to have an idea of what the code under the covers is doing.
2. Frameworks is a really well done short video that explains how to choose between web frameworks. The author has some particular opinions about what should be in a framework. For the most part I agree although I've found sessions and database ORMs to be a helpful part of a framework when done well.
3. What is a web framework? Is an in-depth explanation of what web frameworks are and their relation to web servers?
4. Jingo vs. Flash vs. Pyramid: Choosing a Python web framework contains background information and code comparisons for similar web applications built in these three big Python frameworks.
5. This fascinating blog post takes a look at the code complexity of several Python web frameworks by providing visualizations based on their code bases.
6. Python's web frameworks benchmarks is a test of the responsiveness of a framework with encoding an object to JSON and returning it as a response as well as retrieving data from the database and rendering it in a template. There were no conclusive results but the output is fun to read about nonetheless.
7. What web frameworks do you use and why are they awesome? Is a language agnostic Reddit discussion on web frameworks? It's interesting to see what programmers in other languages like and dislike about their suite of web frameworks compared to the main Python frameworks.
8. This user-voted question and answer site asked "What are the best general purpose Python web frameworks usable in production?" The votes aren't as important as the list of the many frameworks that are available to Python developers.

Web frameworks learning checklist

1. Choose a major Python web framework (Jingo or Flask are recommended) and stick with it. When you're just starting it's best to learn one framework first instead of bouncing around trying to understand every framework.
2. Work through a detailed tutorial found within the resources links on the framework's page.
3. Study open source examples built with your framework of choice so you can take parts of those projects and reuse the code in your application.
4. Build the first simple iteration of your web application then go to the deployment section to make it accessible on the web.
 - (a) In flask framework for web designing we will store all the CSS,JS and images files are stored in static and all template files are stored in templates.

Static:

1. Images
2. CSS files
3. Js files
4. Fonts
5. Scripts
6. Styles

Templates:

HTML files

4 Database and Back-end

1. Through XAMPP server we will connect to MySQL database
2. Our database name is bank transaction, port number:3306, user name: Root, Password: Null, MySQL host: Local host
3. The physical database is created manually and also the tables are created manually.
4. To connect the database with python MySQL Connector library is used.
5. Within this file there are the various SQL statements that are used to persist the data.
6. The queries are implemented using SQL queries.
7. Queries information:
 - (a) Insert query for storing data in database
 - (b) Select query for retrieving the data from database
 - (c) Delete query to delete data from database
 - (d) Update query to update data from database

5 Business Logic/General Classes

This explanation is regarding the roles performed during our project implementation.

5.1 System

1. Here the system acts as the database that which will stores the customer information during their registration process and about the transaction details.
2. System gives access to customer during the login, if the entered details are same as registered details from database.
3. System will generate the transaction histories.
4. The transaction details will be sent to customer as an email notification.

5.2 Customer

1. Here the customer will register with their details into the account and can login.
2. After login into the account, they can check the transaction details and can make their transactions.
3. Customer will get the email notifications about the transaction that which includes the purpose, time and location (local or non-local).
4. Customer can request for the change of the password if he/she forgets password.