Developer Documentation

Hela Weda Piyasa Ayurwedic Hospital

Team Software Project – Group 08S

Level – 3

Department of Computer Science

Faculty of Science

University of Jaffna

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Copyright's Statement

Component:

Hela Weda Piyasa Ayurvedic Hospital Management System.

Component Copyright Notice:

Copyright © 2021 DEALA Soft.Com.

License Text:

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Executive Summary

❖ Outcome to be achieved

At present, there are lots of private hospitals are available to provide medical services. People are seeking private hospitals as they believe that the private hospitals are providing higher quality treatment than government hospitals. This is the online system that can bring more advantages for the doctors, patients etc.

❖ Users

There are mainly 5 users. They are Patient, Doctors, Pharmacist, Medicine Producers, Ingredient suppliers. Additionally, there is an admin also available to control some particular activities.

❖ Problem Statement

➢ **Patients**

- Nowadays, if a patient wants to see a doctor, they should book before. So they need to visit to hospital and book.
- If they want to buy medicines they need to go to that pharmacy.
- There is no way to send their current condition to corresponding doctors.
- Now, we have clinic books to see past histories. In case, if the book is missed, no way to get back

.

➢ **Doctors**

- Normally, doctors write prescription in papers. So patient should carry the paper to pharmacist.
- To keep admitted patient record we need to maintain a big ledger book.
- Doctors want to update the admitted patient records to give medicines to them.
- If doctor will be late or unable to come, he should inform to the staffs.
- Doctor doesn't aware himself how many patients are going to come today.

- **Pharmacist**

  - Pharmacist is not aware of medicine stocks. When will be expired? , how many stocks are there?
  - Pharmacist should ask with patient the prescription or medicine details and he need to calculate the bill.
  - Pharmacists are unaware about the amount of medicines and expiry date of medicines available in the stock.

- **Medicine Producer**

  - He should maintain a medicine table manually.
  - He should maintain ingredient table manually.
  - If he creates a new medicine he should acknowledge to pharmacists.
  - When ingredients finish in stock he will say to suppliers.
  - He may be forgotten to issue order. So he should maintain orders table manually also which is from pharmacist.

- **Ingredient Suppliers**

  - He should manage what ingredients stock has and maintain orders from producers.

❖ Solution

- **Patients**

  - Patients can simply book a doctor and order medicines from anywhere rather than go directly to the hospital.
  - They can send their symptoms, as text, images even as audio file.
  - No need to check any clinic books to see what the doctor said in last meeting.

- **Doctors**

  - Doctors can pass the prescription to pharmacist via online.
  - Patients can be admitted at hospital via/through this system.
  - Daily updates also can be added through system.
  - Doctors can see patients' symptoms through this system and they can suggest the solution.
  - Simply they can watch how many appointments they have today.
  - They can update the availability time.

- **Pharmacists**

  - Pharmacists are going to aware of medical stock through this system.
  - They don't need to calculate the bill amount. System will do.
  - They can see the requested orders from patients and doctors.
  - They can order medicines via online to medicine producer.

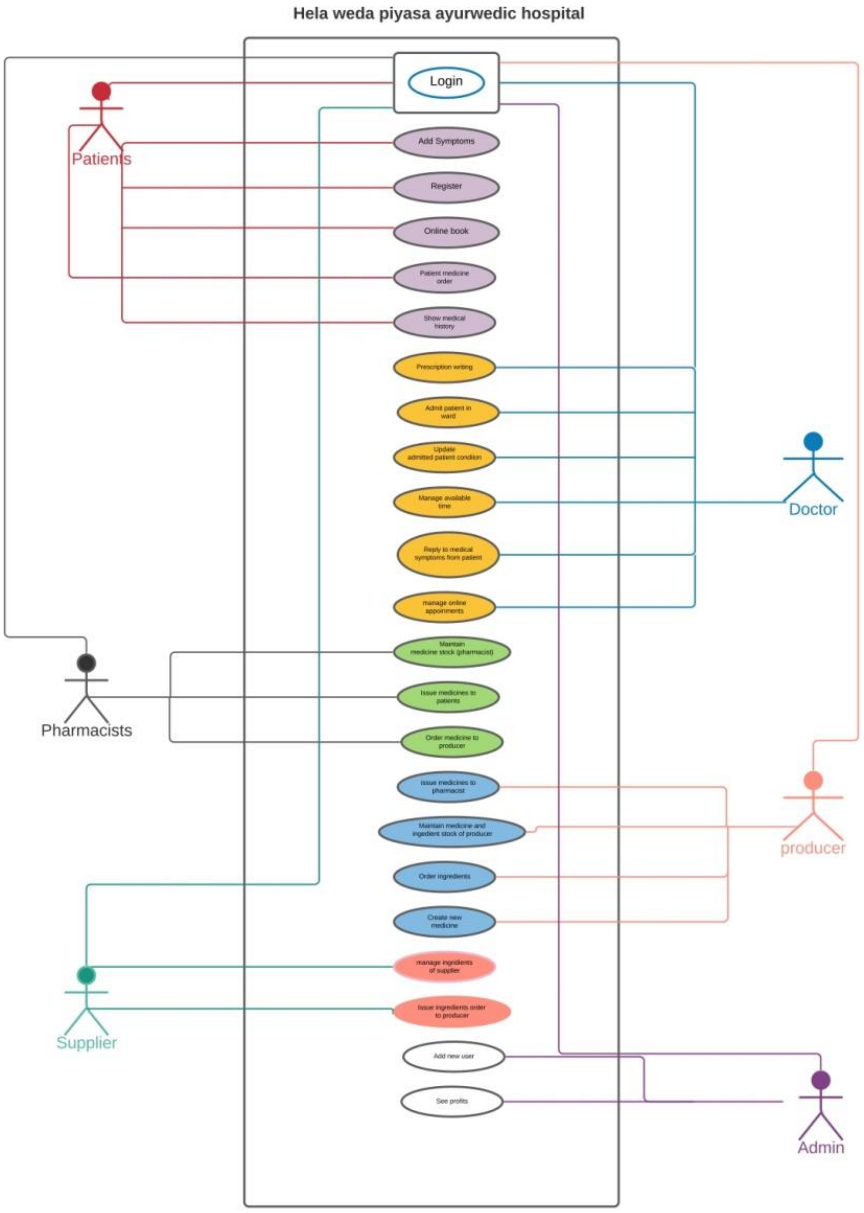
- **Medicine Producer**

  - Medicine and ingredient table will be maintained in their database.
  - He can able to acknowledge to pharmacist, when pharmacist requires new medicine.
  - Orders from pharmacist will be maintained.
  - Producer can place order to supplier when ingredients are finished.

- **Ingredient Supplier**

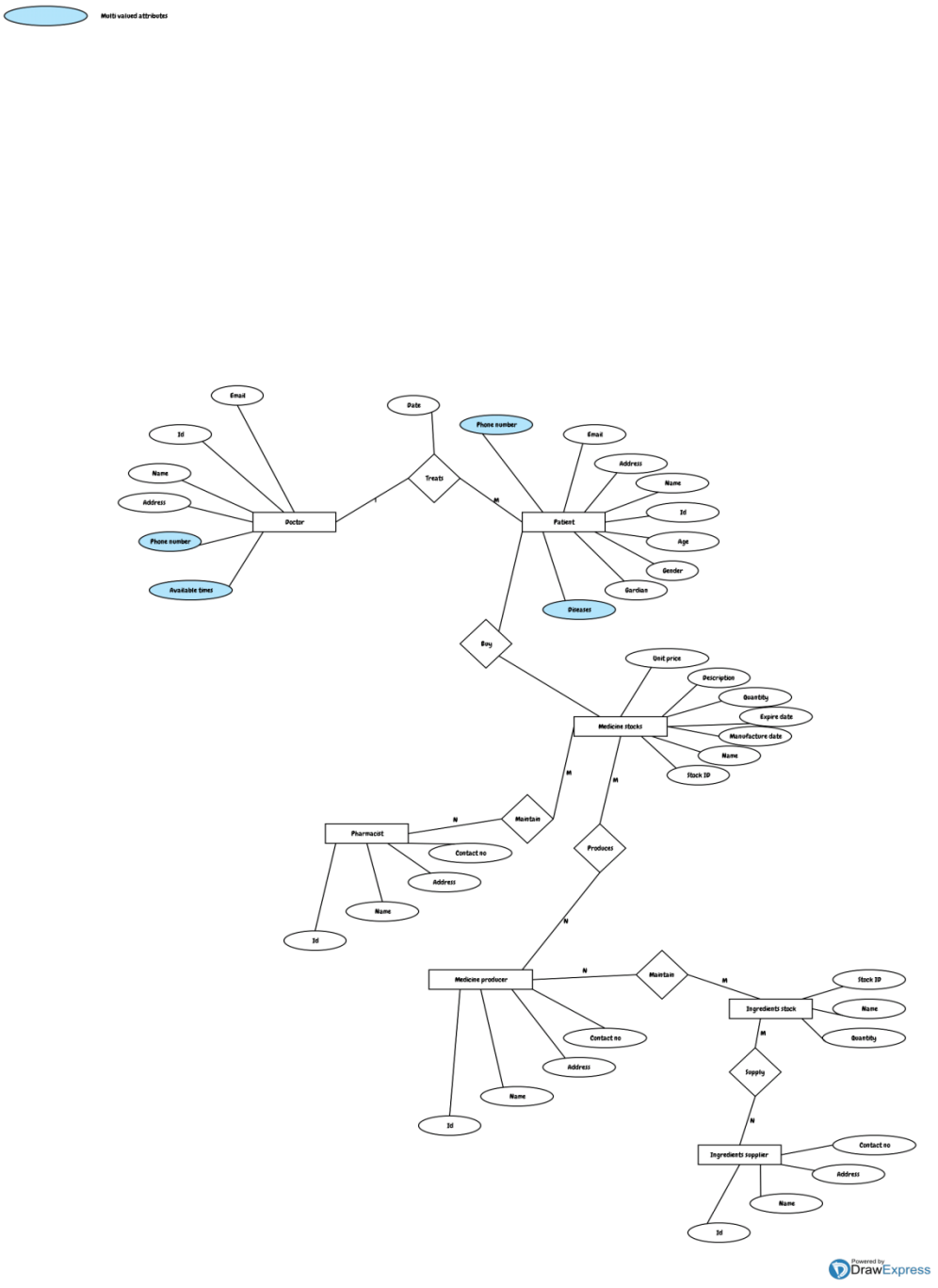
  - Supplier can manage his ingredient stocks and can see the ingredients order details from medicine producer.

Usecase Diagram



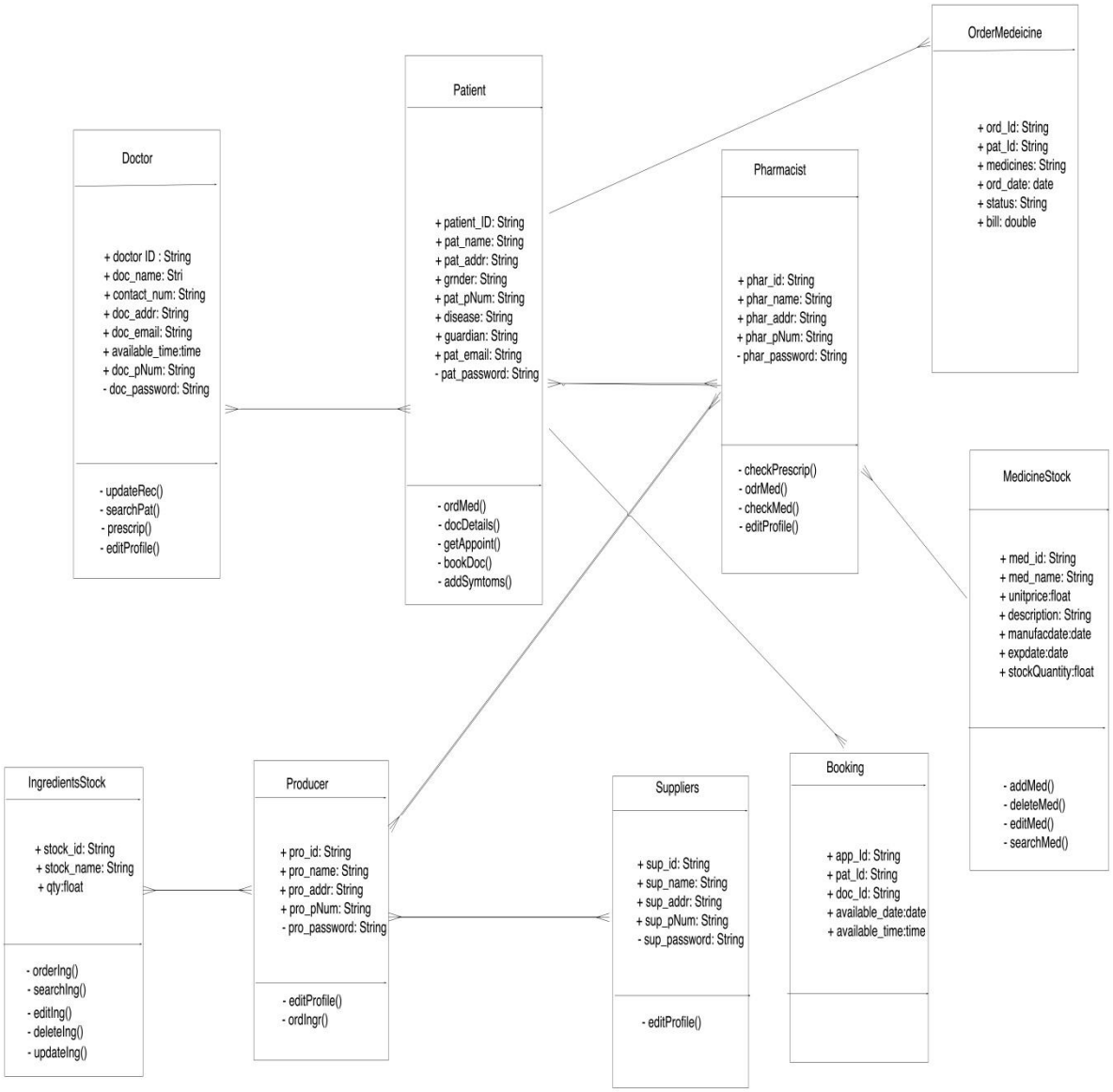
See Original PDF of usecase diagram in github

ER Diagram



See Original image of ER diagram in github

Class Diagram



See Original image of Class diagram in github

Team Information

This web system is developed by the following team members.

1. Elackshana M. - elackshana@gmail.com 2017CSC018(Database Design)
2. P.A.Gamage. - ajanthasirigamage@gmail.com 2017CSC033(App Development)
3. Dilki Hasara - dhwways@gmail.com 2017CSC022(UI Design)
4. S. Lokavannilavan - lokavan007@gmail.com 2017CSC047(System Testing)
5. ULM Afrid - mafrid029@gmail.com 2017CSC029 (Team Leader)

Github Repository link : https://github.com/afrid029/TeamSoftwareDevelopmentGroup08.git

Blog: https://umafd.blogspot.com/2021/04/hela-weda-piyasa-ayurwedic-hospital.html

Customer: Mrs. Mala Gunawardhane, Hulandawa, Monaragala.

Supervisor: Ms. Samantha Tharani Jayakumar.

Software License

We are using following softwares.

- PHP – version 7.4.10
- Laravel – version 4.1.1
- Composer – version 1.10.13
- Apache – version 2.0
- Microsoft Visual Studio Code – version 1.52.1
- Mysql – version 10.4.14

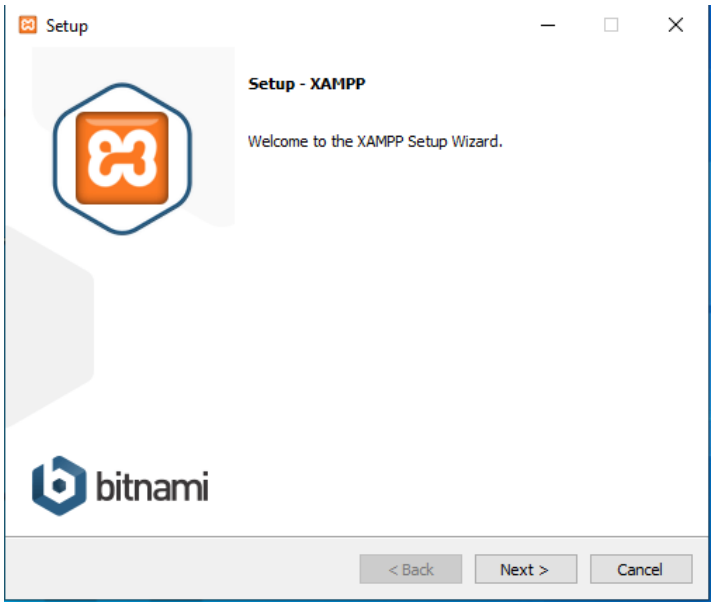
Installing Softwares

- **Installing PHP, Apache, Mysql**

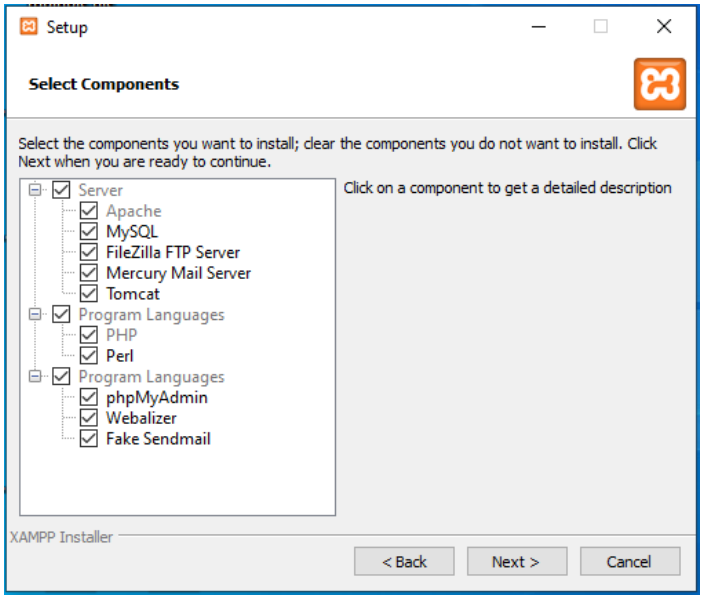
  Above three softwares will be installed by install **XAMPP**
  Download XAMPP here: https://www.apachefriends.org/index.html

Install XAMPP on windows

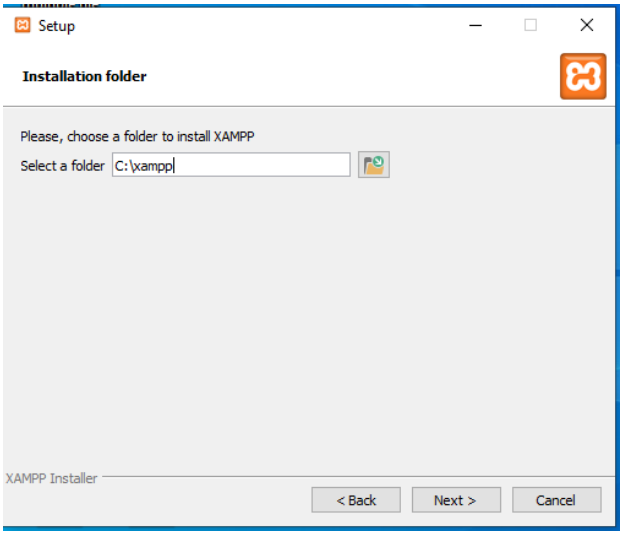
Press **Next>**



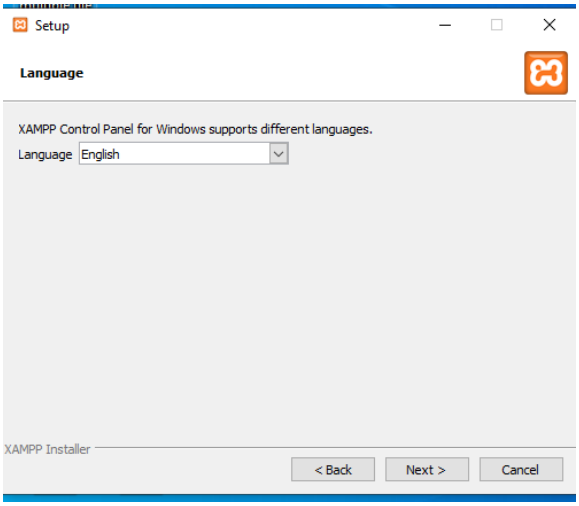
Press **Next>**

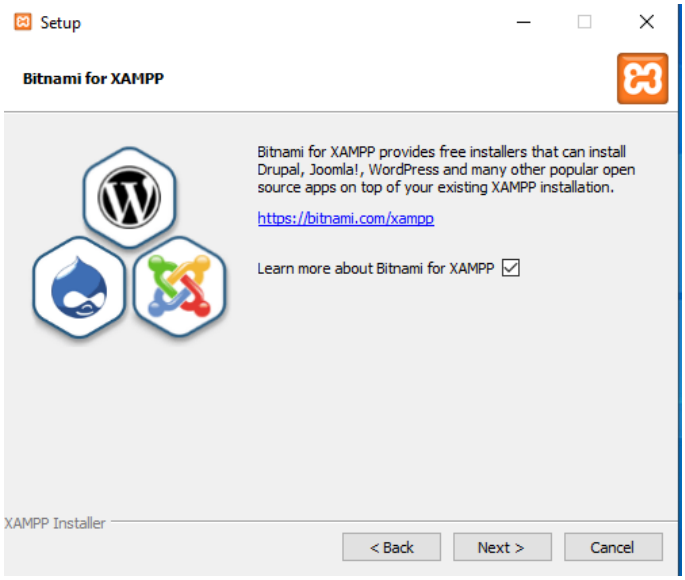


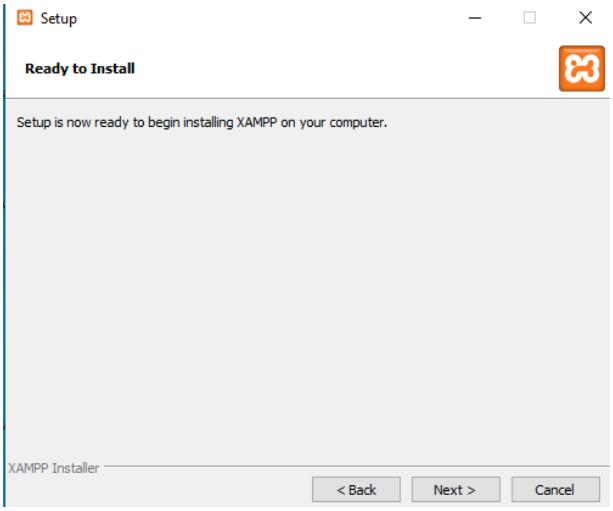
Select a folder to install and press **Next>**

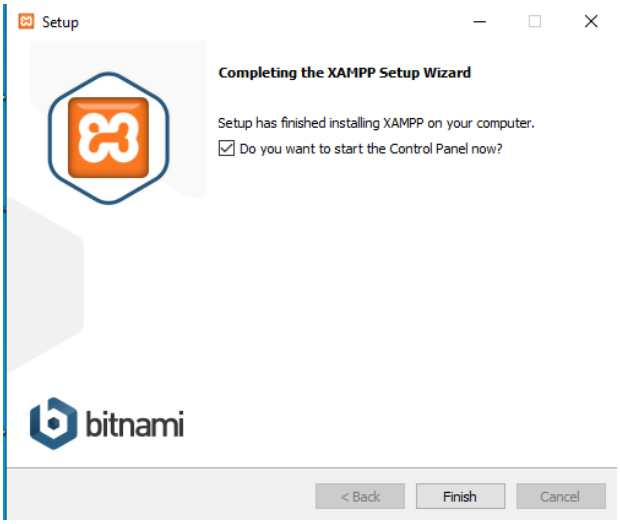


Select Language and press **Next>**






Setup
Ready to Install
Setup is now ready to begin installing XAMPP on your computer.
XAMPP Installer
< Back
Next >
Cancel


Setup
Completing the XAMPP Setup Wizard
Setup has finished installing XAMPP on your computer.
Do you want to start the Control Panel now?
bitnami
< Back
Finish
Cancel

Setup
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

Check whether it is installed or not

Open **cmd** and type **php –v** to check the version of php

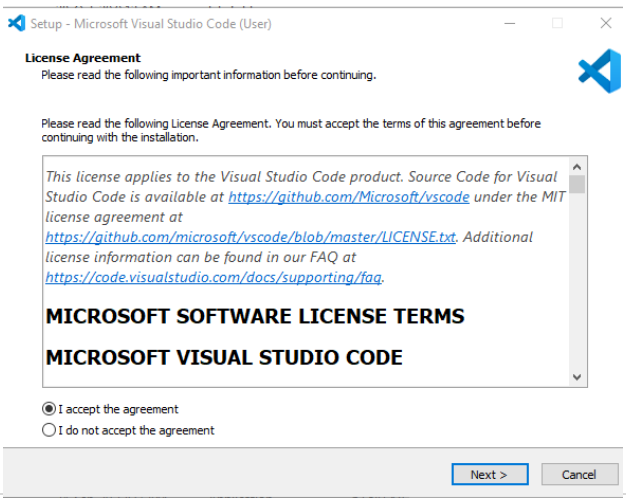
```
Microsoft Windows [Version 10.0.18363.1082]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\UL Muhammadh Afrid>php -v
PHP 7.4.10 (cli) (built: Sep  1 2020 16:52:39) ( ZTS Visual C++ 2017 x64 )
Copyright (c) The PHP Group
Zend Engine v3.4.0, Copyright (c) Zend Technologies

C:\Users\UL Muhammadh Afrid>
```

- ## Installing Microsoft VS Code for windows

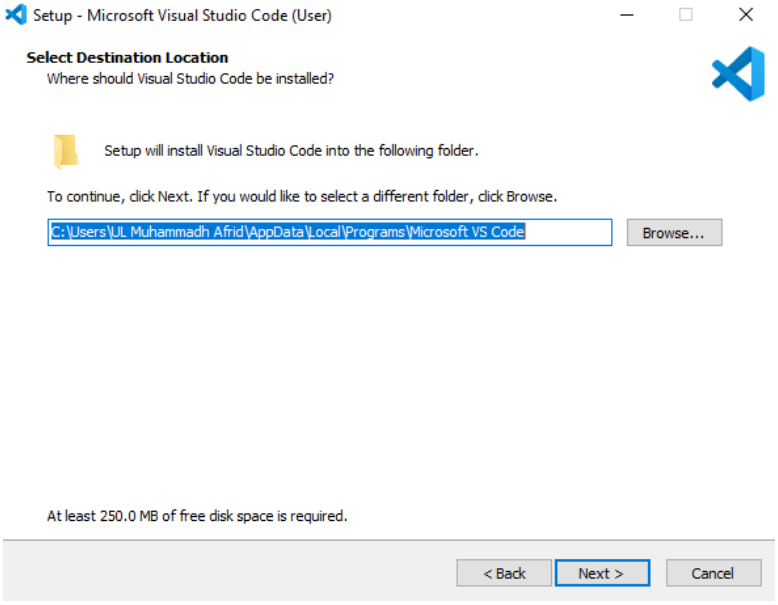
  We use MS VS code as our code editor.

  Download the software in : https://code.visualstudio.com/\

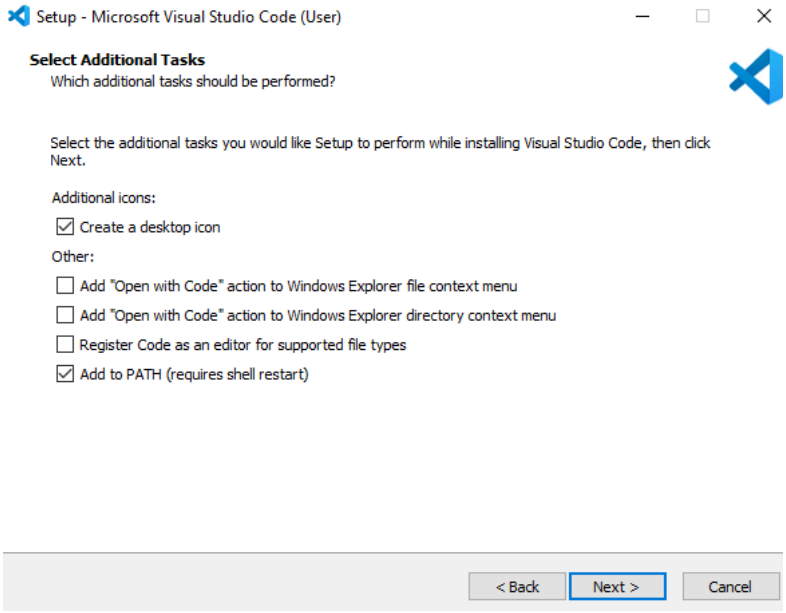
  - **Agree** the agreement and start to install

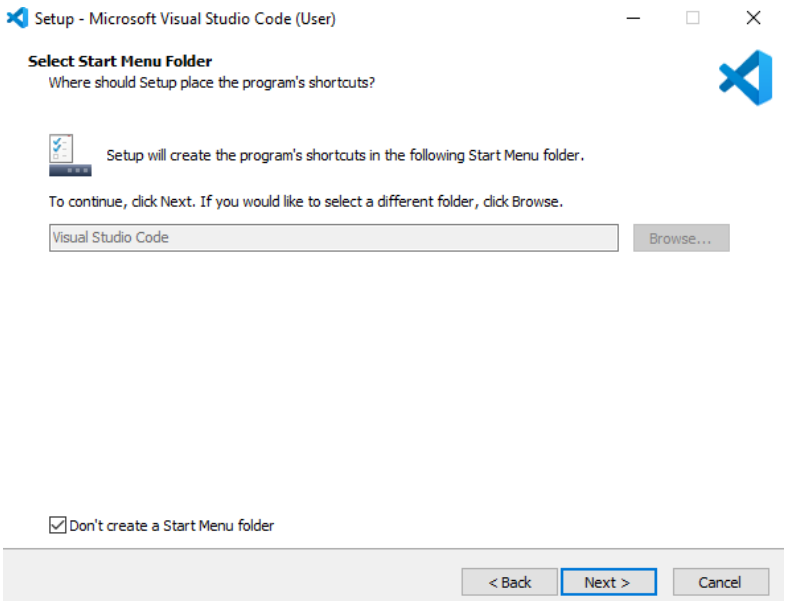


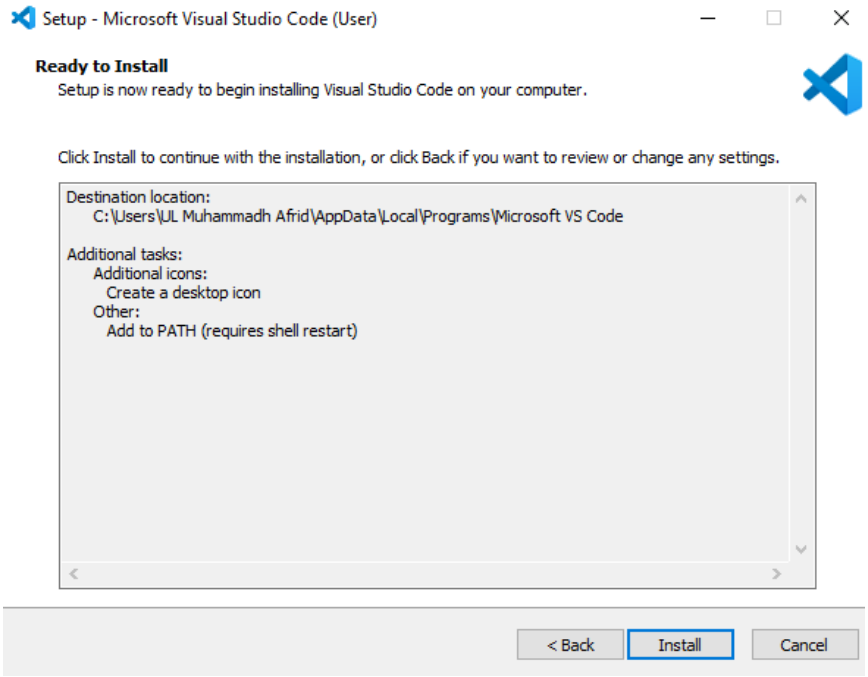
- Choose the **path** to install

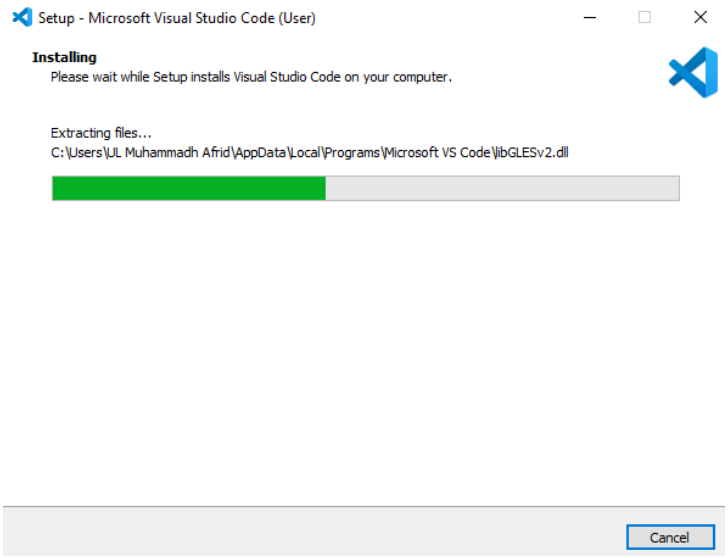


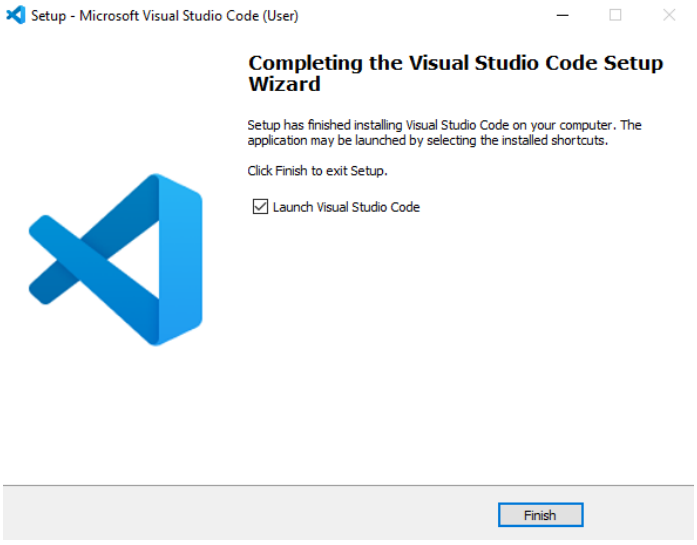
-



- 
Setup - Microsoft Visual Studio Code (User)
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
Visual Studio Code
Browse...
Don't create a Start Menu folder
< Back
Next >
Cancel

- 
Setup - Microsoft Visual Studio Code (User)
Ready to Install
Setup is now ready to begin installing Visual Studio Code on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\Users\UL Muhammadh Afrid\AppData\Local\Programs\Microsoft VS Code
Additional tasks:
Additional icons:
Create a desktop icon
Other:
Add to PATH (requires shell restart)
< Back
Install
Cancel

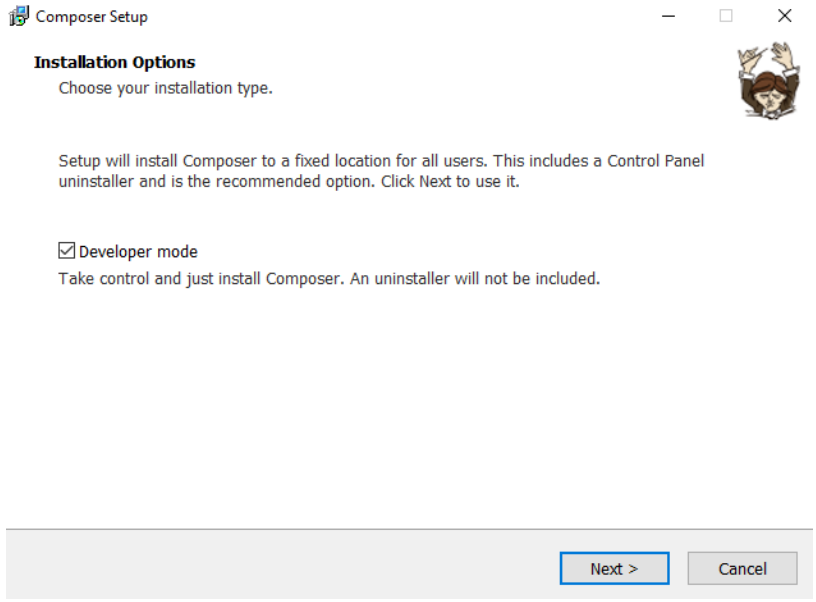
- 
Setup - Microsoft Visual Studio Code (User)
Installing
Please wait while Setup installs Visual Studio Code on your computer.
Extracting files...
C:\Users\JL Muhammadh Afrid\AppData\Local\Programs\Microsoft VS Code\libGLESv2.dll
Cancel

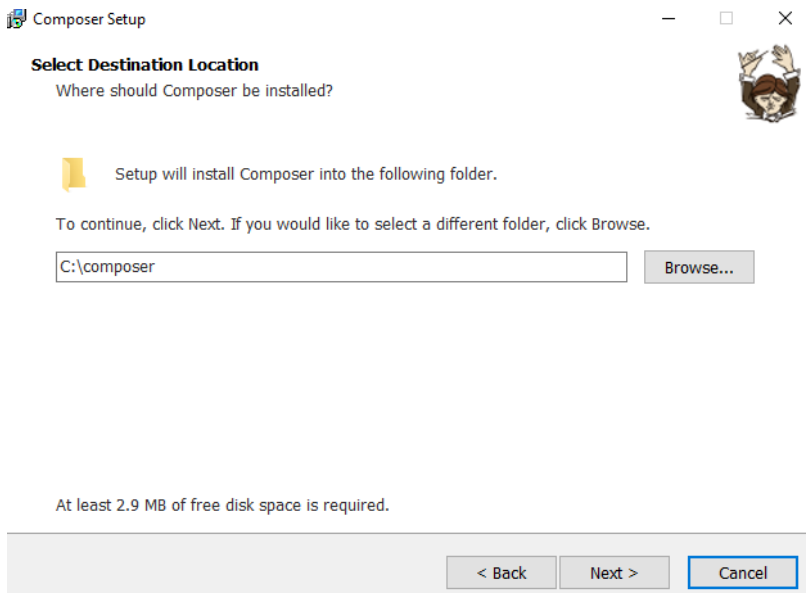
- 
Setup - Microsoft Visual Studio Code (User)
Completing the Visual Studio Code Setup Wizard
Setup has finished installing Visual Studio Code on your computer. The application may be launched by selecting the installed shortcuts.
Click Finish to exit Setup.
Launch Visual Studio Code
Finish

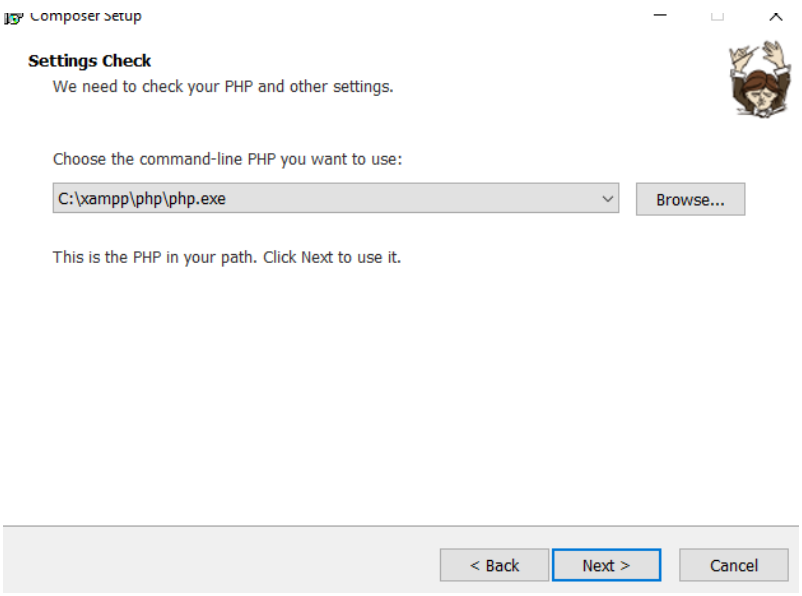
Installing Composer

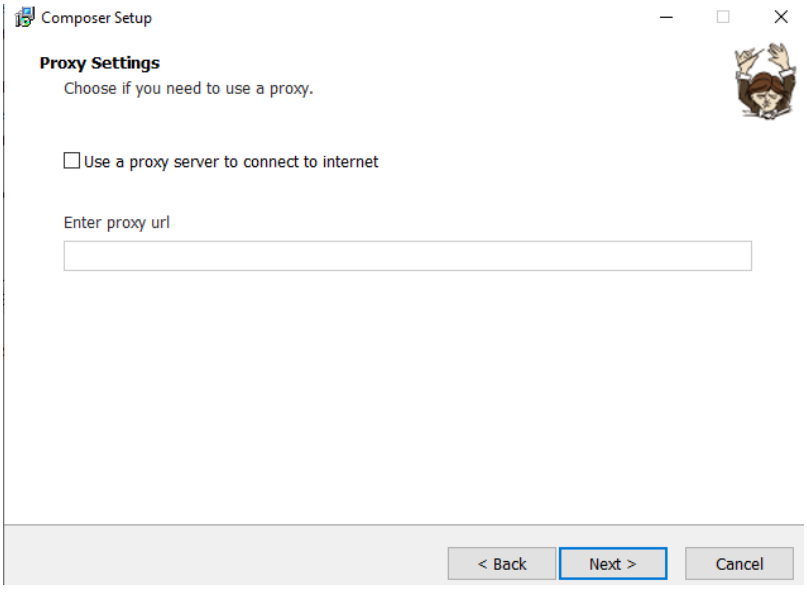
Composer is a dependency manager which contains libraries.

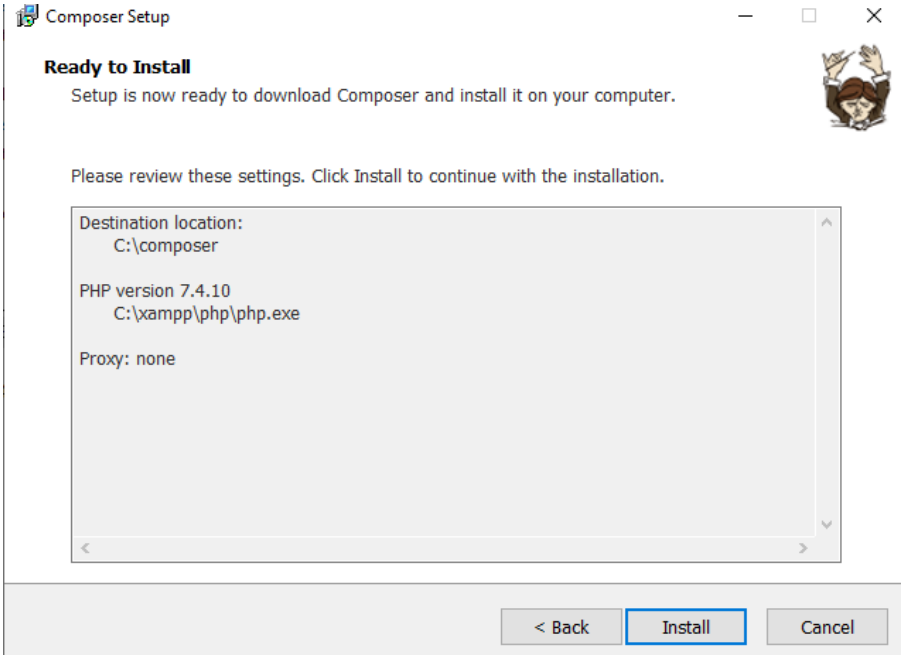
It is used to install packages like laravel framework, Doctrine, lodash etc..

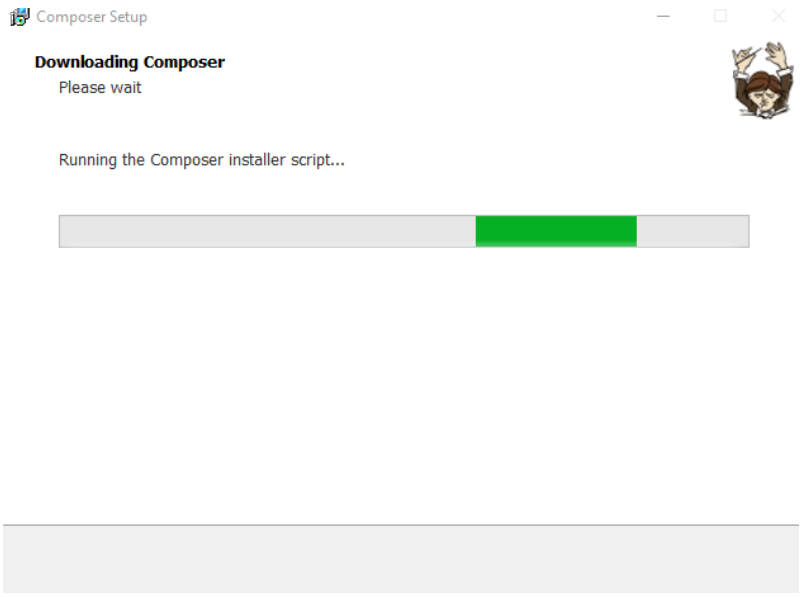
- 

- 

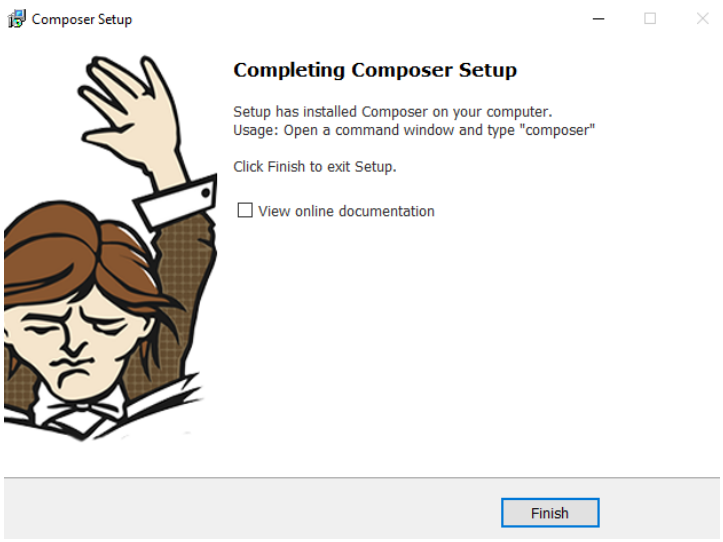
- 
Composer Setup
Settings Check
We need to check your PHP and other settings.
Choose the command-line PHP you want to use:
C:\xampp\php\php.exe
Browse...
This is the PHP in your path. Click Next to use it.
< Back
Next >
Cancel

- 
Composer Setup
Proxy Settings
Choose if you need to use a proxy.
Use a proxy server to connect to internet
Enter proxy url
< Back
Next >
Cancel

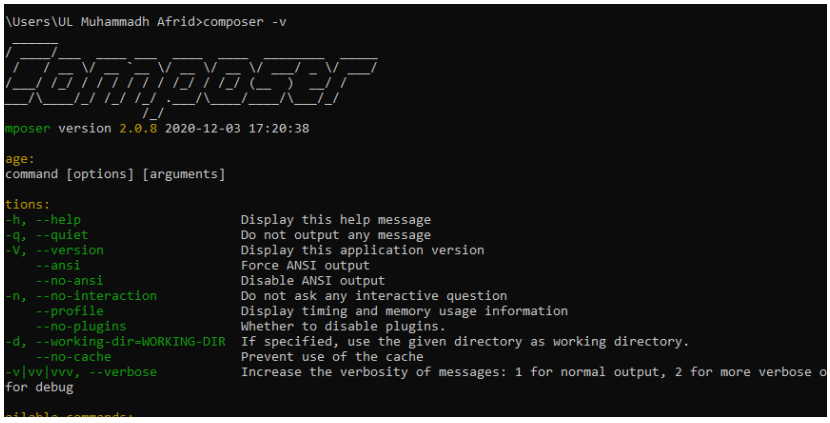
- 
Composer Setup
Ready to Install
Setup is now ready to download Composer and install it on your computer.
Please review these settings. Click Install to continue with the installation.
Destination location:
C:\composer
PHP version 7.4.10
C:\xampp\php\php.exe
Proxy: none
< Back
Install
Cancel

- 
Composer Setup
Downloading Composer
Please wait
Running the Composer installer script...

-



To check whether composer is installed or not : open **cmd** type **composer –v**



- **Installing laravel**

Laravel is installed using composer in cmd or visual code terminal.

```
composer global require laravel/installer
```

A new project created by, (Laravel should be installed already)

```
laravel new example-app
```

Or we can simply create project using composer command,

```
composer create-project laravel/laravel example-app
```

Set up .env

Set environment for database with database name.

```
DB_CONNECTION=mysql
DB_HOST=127.0.0.1
DB_PORT=3306
DB_DATABASE=laravel
DB_USERNAME=root
DB_PASSWORD=
```

Set environment to send email

```
MAIL_MAILER=smtp
MAIL_HOST=smtp.googlemail.com
MAIL_PORT=465
MAIL_USERNAME=contact.helaweda@gmail.com
MAIL_PASSWORD=[redacted]
MAIL_ENCRYPTION=SSL
MAIL_FROM_ADDRESS=contact.helaweda@gmail.com
MAIL_FROM_NAME="${APP_NAME}"
```

Basic Codes

- **php artisan serve** - Run the project in localhost at 127.0.0.1 and port number 8000
- **php artisan make:controller <controller name>** – Create controllers.
- **Php artisan make:model <model name>** - Create models.
- **Php artisan migrate** – Migrate database model with tables.
- **Php artisan migrate:fresh** – Drop all database models and remigrate.
- **Php artisan db:seed** – Record data into database from seeder.

How to clone the project from github repository.

When you create a repository on GitHub, it exists as a remote repository. You can clone your repository to create a local copy on your computer and sync between the two locations.

This procedure assumes you have already created a repository on GitHub, or have an existing repository owned by someone else you'd like to contribute to.

1. On GitHub, navigate to the main page of the repository.
2. Under the repository name, click Clone or download.
3. In the Clone with HTTPs section, click to copy the clone URL for the repository.
4. Open Git Bash.
5. Change the current working directory to the location where you want the cloned directory to be made.
6. Type git clone, and then paste the URL you copied in Step 2.
7. Press Enter. Your local clone will be created.

URLs and methods.

URL	Type of Method	Outcome
/welcome	Get	Redirect to home page
/register	Get	Redirect to registration page of patient
/saveuser	Post	Submitting registering details of patients.
/login	Get	Redirect to login page
/log	Post	Submitting login form details.
/enter/id	Post	When open a browser in case if user did not logout from last login, it will redirect to corresponding user profile.
/logout	Get	Logout
/forgot	Get	Redirect to forget password action doing page.

/forgotpass	Post	Submit details from forgot password page.

Doctors

URL	Type of Method	Outcome
/docedit	Post	When a doctor edits his profile data go through this link.
dochome/{c}/	Get	Redirect a doctor to his home page.
prescription/{c}/	Get	Redirect a doctor to prescription page.
admitted/{c}/	Get	Redirect a doctor to admitted patients' records page.
available/{c}/	Get	Redirect a doctor to available time periods page.
addpatdetails/{c}/	Get	Redirect a doctor to patient admitting page.
/savepres	Post	Saves a prescription that doctor wrote.
/saveadmit	Post	Saves a record about admitted patient.

/pressearch	Post	Returns search results of prescriptions.
/adsearch	Post	Returns search results of admitted patients' records.
/saveavailable	Post	Saves an available time period.
/avedit method	Post	To edit an available time period.
/avdelete/{id}/{docid}	Get	To delete an available time period.
/patadmit	Post	Saves details of newly admitted patient.
/admitsearch	Post	Returns search results of admitted patients.
docsymp/{c}/	Get	Redirects a doctor to medical symptoms page
docviewSymp/{i}/{j}/	Get	Redirects a doctor to view details of a medical symptom.
/docreply	Post	Update doctor's reply for a medical symptom.
appointment/{c}/	Get	Redirects a doctor to appointments page.
/appsearch	Post	Returns search results of appointments.

/docpic	Post	Update profile picture of a doctor.
discharge/{c}/{d}	Post	Discharges an admitted patient.

Patients

URL	Type of Method	Outcome
/pathome/pat1	Get	A patient after login, redirect to his profile.
/patedit	Patch	When a patient edits his profile data go through this link.
/changeprofile/pat1	Patch	Patient change his profile picture.
/symp/pat1	Get	Patient (pat1) is redirected to symptom adding page.
/addsymptomps/pat1	Post	Patient (pat1) is submitting his medical symptoms to doctor.
/order/pat1	Get	Patient (pat1) is redirected to order medicine page.
/ordermedicine/pat1	Post	Order medicine to pharmacist.
/book/pat1	Get	Redirect a particular patient into book a doctor page.

/showAvail	Get	Filter doctors' available time by patient wish
/appoint	Get	Redirect to page which shows available time for doctors.
/confirmAppoinment	Post	When a patient confirm his appointment, it will be sent through this link
/deleteAppoint	Get	Delete doctors' appointment.
/history/pat1	Get	A patient sees his medical history.

Pharmacist

URL	Type of Method	Outcome
/phahome/pha1	Get	After login as pharmacist, redirect to pharmacist profile page.
/phaedit	Post	When a pharmacist edits his profile data go through this link.
/pharprofilepic/pha1	Patch	Pharmacist changes his profile picture.
/medicalstock/pha1	Get	Redirect a pharmacist to medical stock page
/addmedicine	Post	Add new medicine into pharmacist medical stock.

/updatemedicine/pha1	Post	Update existing medicine stock details in pharmacist medicine stock.
/Delmedicine/pha1	Post	Delete a medicine from pharmacist medical stock.
/issueMedicine/pha1	Get	Redirect a pharmacist to issue medicine page.
/Issuepatorder/pha1	Post	Issuing medicine order from patient online orderings.
/issuedocorder/pha1	Post	Issuing medicine from doctor's prescription.
/phaordermedicine/pha1	Get	Redirect pharmacist to pharmacist medicine ordering page.
Ordertopro/pha1	Post	Order medicine to producer from pharmacist.

Medicine producer

URL	Type of Method	Outcome
mphome/{c}/	Get	Redirects a medicine producer to his profile home page.
issuemedicine/{c}/	Get	Redirects a medicine producer to issue medicine orders page.
Ingstock/{c}/	Get	Redirects a medicine producer to ingredients stock page.

medstock/{c}/	Get	Redirects a medicine producer to his medicine stock page.
ordering/{c}/	Get	Redirects a medicine producer to order ingredients page.
/proedit	Post	Edits profile of medicine producer.
/proaddmedicine	Post	Add new medicine stock.
/proupdatemedicine	Post	Update existing medicine stock details.
/promeddelete/{c}/{d}	Get	Delete a medicine stock.
/proadding	Post	Add a new ingredient stock.
/proingdelete/{c}/{d}	Get	Delete an ingredient stock.
/proupdateing	Post	Update details of existing ingredient stock.
/proingorder	Post	Place an ingredient order to ingredient supplier.
/ordersearch	Post	Return search result of ingredient orders.
/issusearch	Post	Return search result of issue medicine.

reorder/{c}/{d}	Get	Issue a medicine order.
medicines/{c}/	Get	Redirect a medicine producer to medicine details page.
/newmedicine	Post	Add a new medicine.

Ingredient supplier

URL	Type of Method	Outcome
suphome/{c}/	Get	Redirect an ingredient supplier to his profile home page.
/supedit	Post	Edit profile of ingredient supplier.
/suppic	Post	Edit profile picture of ingredient supplier.
issueing/{c}/	Get	Redirect an ingredient supplier to issue ingredient orders page.
newing/{c}/	Get	Redirect ingredient supplier to add new ingredient page.
supreorder/{c}/{d}	Get	Issue an ingredient order.
/newingredient	Post	Add new ingredient.

/issuingsearch	Post	Return search results of ingredient orders.

Admin

URL	Type of Method	Outcome
/adminpage/adminid	Get	Redirect to home page of admin.
/admedit	Post	Edit profile of admin
/regist/adminid	Get	Redirect to users' registration page.
/addnew	Post	Create new user (doctor/pharmacist/medicine producer, ingredient supplier).
/profit/adminid	Get	Redirect to profit view page.
/patbill	Post	When admin use any filters in viewing profits from patient medicine orders.
/patbill	Get	When admin search with no filters in patient medicine orders, it will provide all details.
/docbill	Get	When admin use any filters in viewing profits from doctors medicine prescription.
/docbill	Get	When admin search with no filters in doctors' medicine prescription, it will provide all details.

/profview/adminid	Get	View users' profile by Admin.

Database models

- AllUsers : Allusers details.
- Doctor: save doctors' details
- Ingredient_supplier: save supplier details.
- Medicine_producer: save medicine producer's details.
- Patient: save patients' details.
- Pharmacist: save pharmacists' details.
- admin: save admin details.
- Add_pat_up : Admitted patients updates.
- Add_pat : Add new patient to ward.
- add_symptomps : Store medical symptoms
- Doc_available_time : save doctors' available time
- Ingredient_ordering : save ingredients orders details from medicine producer.
- Ingredient_stock : ingredient stock details in producer.
- Ingredients: maintain all ingredient details by supplier.
- Medical_history : medical histories of outpatients.
- Medicine_ordering : save medicine orders details from pharmacist to producer.
- Medicine_stock : medicine stocks pharmacist.

- Medicines: maintain all medicines details by medicine producer.
- new_med_stock : medicine stock of medicine producer.
- OnlineBooking : save patients' online booking details.
- pat_med_ordering : save patients' medicine ordering details.

Controllers

- AdminController : control all admin backend activities.
- patientsController : control all patients backend activities.
- pharmacistController : control all pharmacists backend activities.
- login : control login parts' backend activities of all users.
- PageController : control redirecting activities of login, register and logout functions.
- redirect : control all backend activities of redirecting parts pages of doctors, medicine producer and ingredient supplier.
- search : control backend activities of searching functions of doctors, medicine producer and ingredient supplier.
- store : control backend activities of new record creating functions of doctors, medicine producer and ingredient supplier.
- update : control backend activities of update existing records functions of doctors, medicine producer and ingredient supplier.

Test Cases

Test ID	Test scenario	Test data/Action	Expected Output	Actual Output
001	Login with correct credentials	User id: pat1 Password: pat1@	Redirect to Profile page of pat1.	Redirected to profile page of pat1.
002	Login with correct user id and false password	User id: pat1 Password: xyza	Show warning message	Shown as wrong password or username.
003	Login with empty fields	User id: Password:	Show warning message	Shown as wrong password or username.
004	Doctor adds prescription to non-existing patient.	Pat id : pat90000 Disease: fever Diagnosis: headache Medicine : panadol	Show "The patient doesn't exist."	Shown, "The patient doesn't exist."
005	Doctor searching admitted patient record with false patient id.	Pat id: pat 578585	Nothing will be shown	Table is empty and shown "No Records Found"
006	Pharmacist issue ordered medicine from patient and prescribed medicine from doctors.	Press issue order in issue medicine page.	Quantity of issued medicine will be reduced in medicine stock.	Quantity of issued medicine was reduced in medicine stock and marked as issued.
007	Medicine producer issue ordered medicine from pharmacists.	Press issue order in issue medicine page.	Quantity of issued medicine will be reduced in medicine stock.	Quantity of issued medicine was reduced in medicine stock and issue button changed as issued.

008	Admin registers users.	Fill all field of users details.	User id and password will be sent to his mail.	User id and password was sent to his mail.
009	When a user already logged in, accessing login page.	Redirecting login page manually.	It will be redirected to already logged in user's profile.	It was redirected to already logged in user's profile.
010	Logout then come back and do an action	Log out and come back and do an action.	It will be redirected to login page.	It was redirected to login page with warning login first.