WordPress, Installation of WordPress in windows 10 and Ubuntu 20

WordPress:

WordPress is a software which is used to create your own website/blog and publish it on the internet. It is also called as content management system/CMS. It is created in 2003, it is the most popular website publishing programs in the world. WordPress powers 30% of the internet. It is an open-source software.

We can choose 11000 different themes which are template layouts that determine the look and style of your website, and you are able to tweak all the text including fonts and font sizes, you can create buttons, you can upload your images and videos and much more. You can also choose over 55000 plugins and widgets to help optimize the functionality of your website. For example, we can create a store, gallery etc. Building your website is all online so you can create your website from anywhere as long as you have an internet connection. Websites was to use code in HTML/PHP format and your web browser would just interpret this code into colors and text. Well WordPress exactly works like this except no coding.

WordPress, Your Way is used to make a free website with their web hosting but there's a catch.

1. Your website could be deleted.
2. Can't monetize with ADS.
3. Can't upload plugins.
4. Can't upload a customizable theme. We have limited options.
5. You do not own your domain name. An example of this type is (yourdomainname). WordPress, Your Way .

Blog Tool, Publishing Platform, and CMS - WordPress.org is used to make a free website with self-hosting.

1. Access to thousands of plugins.
2. Unique domain name that we own.
3. Monetize our website with ADS.
4. Option to create an online store.
5. Complete customization over our website.

Installation of Wordpress on windows 10 using WAMP:

To install WordPress on windows computer, we can use either WampServer or XAMPP Server. I have used WAMP server, WAMP is a software that bundles Apache web server, PHP, and MySQL specifically for windows devices. To install WordPress the steps are mentioned below.

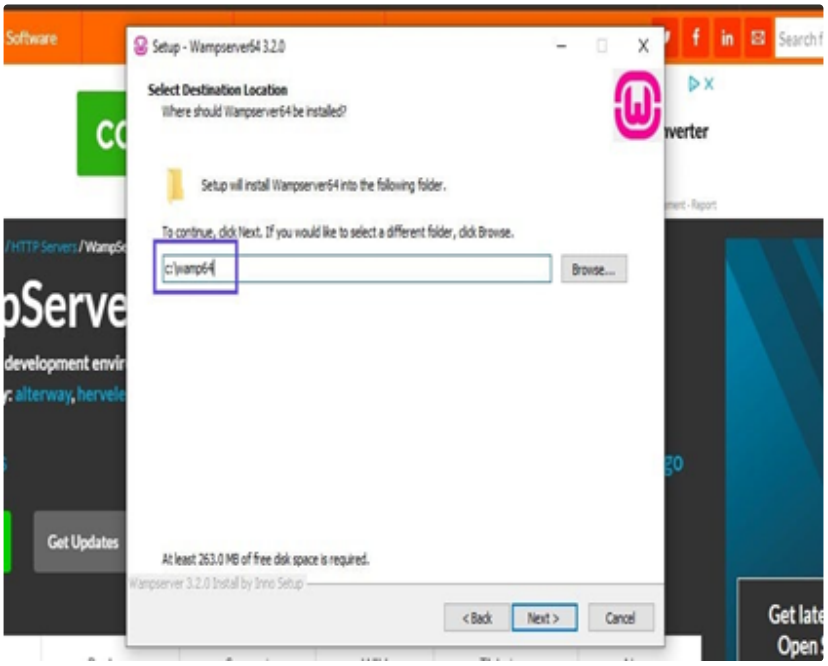
Step 1: Download and Install WAMP on Your Computer

The first step is to download and install the WAMP software to your computer. You can do this by visiting the WampServer website and selecting **Start Using WampServer:**

This will automatically bring you to the downloads section of the site, where you will have two versions to choose from: WampServer 32 bit and WampServer 64 bit. Select the one that is recommended for your operating system.

Step 2: Run the Wampserver.exe File to Start the Installation

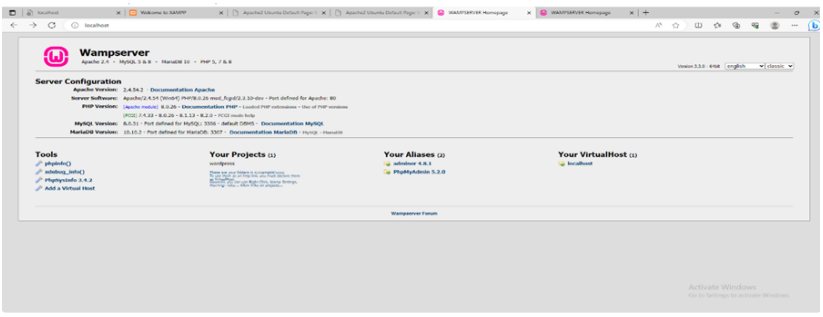
After you download the software, click on the **wampserver.exe** file to run the installer. This may take a minute or two.Also, make note of where this file downloaded to, as you'll need to revisit it later:



The Wamp setup window

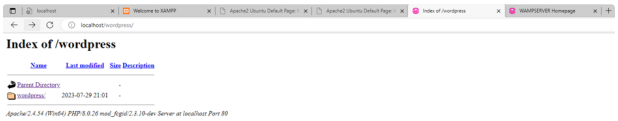
You'll be prompted with a series of instructions on the screen to complete the installation process.

During this process, you'll be asked to define a web browser. You can always change this option to a browser you prefer by navigating to the **Program Files** of your computer. After this we will find a wamp server logo at the right end of the screen with green colour, we should click it. After that everything will be ready. We should check it by searching localhost in the browser. The next step is to set up a blank MySQL database. After you launch WAMP, there will be a green icon in the bottom right-hand corner of your screen.

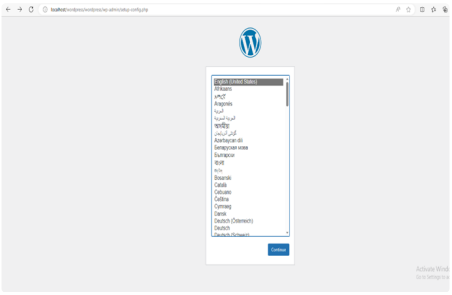


After the getting wamp server page we need to download and extract the wordpress files. We must store in www file which is stored in wamp64 file. By doing this we can get project as WordPress in the projects section.

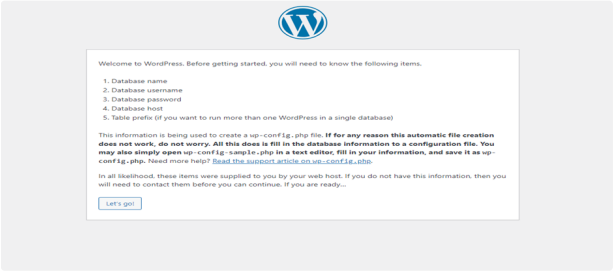
In new tab we need to search localhost/WordPress we get a page like the following:



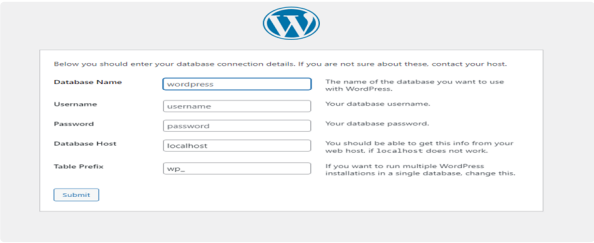
From the above page we should click on WordPress to go through the process. By clicking it we get a page like the following:



Here we need to select the language.



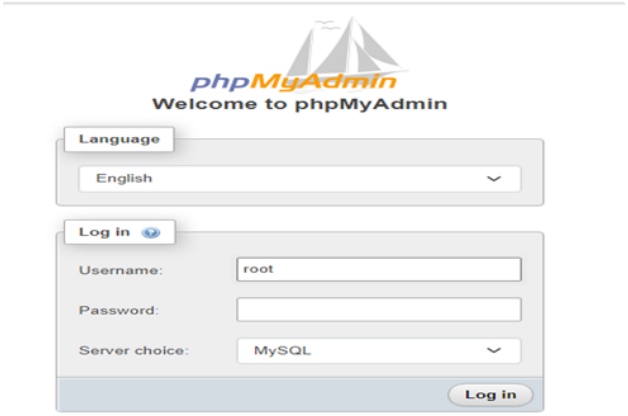
By reading the above-mentioned information we need to click the let's go button.



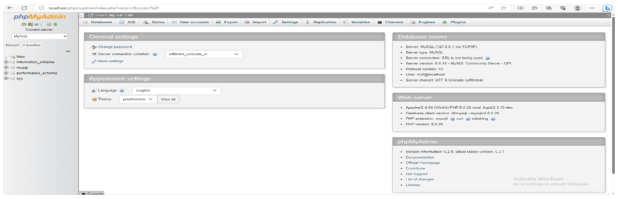
As of now we don't need to give the details. We need to open server configuration page and click on phpMyAdmin from Your Aliases section.

Step 3: Create a New MySQL Database

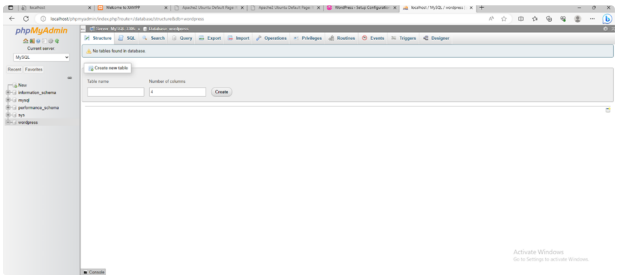
Click on the icon, followed by **phpMyAdmin**. This will automatically bring you to the login screen in your browser:



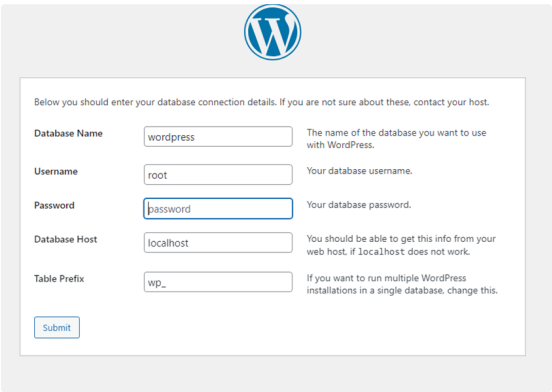
In the username field, input “root”, leave the password field empty and then select the **Go** button. Next, click on **Databases**:



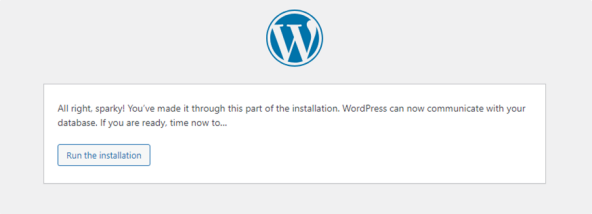
Under the **Create Databases** section, you will need to name your new database. Next, click on **Create**. That’s it. You now have your database set up.



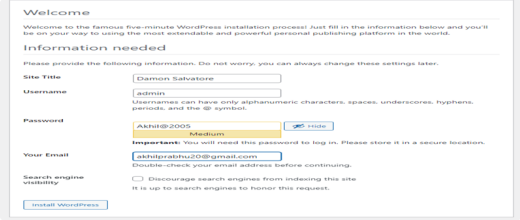
Now we have created a database named with WordPress, we can see it in the above picture. After creating a database, the title be stored in the place where we left the page to fill the details.



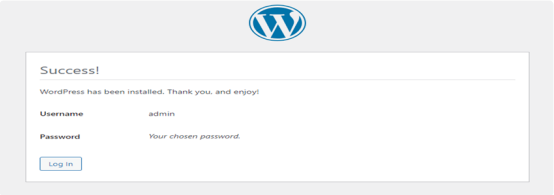
We need not to fill the database name it will be stored automatically, and the username will be root, no password should be given. After submitting we get the run the installation page.



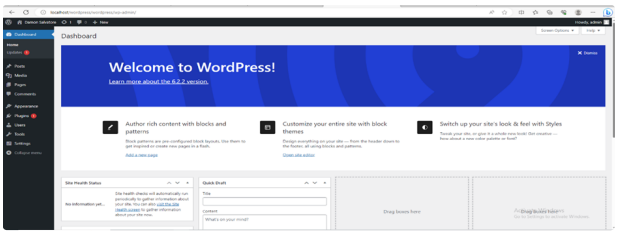
After running the installation, we can create a website by giving the details.



Now we are successfully created the credentials of our webpage.



Now everything is ready to setup the website, after clicking the logging in by using our username and password we get the following page:



This is the website page which I created using the WordPress.

Installation of WordPress in Ubuntu 20.0.4.6 in command line interface:

To install WordPress on ubuntu 20.0.4.6 in the command line interface we need to set up LAMP stack (Linux, Apache, MySQL, PHP) and then download and configure WordPress. Alternatives for LAMP stack is LEMP stack (Linux, Nginx, MySQL, PHP), MEAN (Mongo dB, Express.js, Angular.js, Node.js), MERN (Mongo db., Express.js, React) stack etc.

LAMP Stack:

Linux, Apache, MySQL, PHP are four components which are opensource free to use. LAMP stack is used for building websites and web applications.

The process of visitor to a website will enter a web address in a browser this will send off a request to a web server that server will execute some code that generates an HTML file and sends it back to the visitors browser all the LAMP components are installed and running here on the web server a server is a type of computer and it needs an operating system, here Linux is the operating system which all the other components can run . A stand for Apache which is the webserver software it receives and handles all those requests from visitors, if we search for the file index.html apache looks on the server for the file and sends it back to the visitor's browser. Php stands for Perl/Python, it is a programming language for generating dynamic web pages. When a visitor requests a php file apache won't just get that file and send it back to browser like html page or image instead it gives the file to PHP first PHP executes the code in that file and generates the HTML for the web page, the HTML generated by the PHP goes back to Apache and then goes back to visitor's browser. M stands for MySql. This is a database engine used for storing sites data. Often the data needed to generate a PHP file depends on who the visitor is like their name, account number or order of history. The database allows that data to persist over time. PHP retrieves that data from the database used to generate the HTML for the page and then sends it by Apache back to the visitor's browser.

- Update the packages by using the following command.
  sudo apt update && sudo apt upgrade -y
  sudo apt update && sudo apt upgrade -y, is used to perform two main tasks:
  sudo apt update: This command updates the local package index from the repositories. It checks for updates to the package lists and metadata, but it does not actually upgrade any packages.
  sudo apt upgrade -y: This command performs an actual upgrade of the installed packages. The -y flag automatically answers "Yes" to any prompts that might come up during the upgrade process. This ensures that the upgrade happens without requiring manual confirmation for each package.

- Install Apache2 by using the following command.
  sudo apt install apache2 -y (apache2: This is the name of the package you want to install, which in this case is the Apache HTTP Server, a popular web server software.)
- Install PHP by using the following command.
  sudo apt install php libapache2-mod-php php-mysql -y
  sudo: This is used to execute a command with superuser (administrative) privileges. It will prompt you to enter your user password before proceeding.
  apt: This is the package manager used on Debian-based Linux distributions like Ubuntu. It is used to manage software packages, including installing, updating, and removing them.
  install: This is the apt command used to install packages.
  php: This is the PHP programming language itself, which you're installing.
  libapache2-mod-php: This package includes the PHP module for the Apache web server, allowing PHP code to be executed by the server.
  php-mysql: This package allows PHP to communicate with MySQL databases, enabling you to run PHP applications that interact with MySQL.
  The -y flag is used to automatically answer "yes" to any prompts during the installation process, which helps in automated installations.
  Before running this command, please ensure that you have the necessary repositories enabled and that your system is up-to-date.
  Running system updates (sudo apt update && sudo apt upgrade -y) is always a good idea before installing new packages.
  Also, make sure you have the appropriate permissions and knowledge about what you're installing and how it might affect your system.
  It's essential to be cautious while using the sudo command to prevent any unintended consequences.

- Install database by using the following command.
  sudo apt install mysql-server -y
  sudo mysql_secure_installation
  sudo mysql -u root -p

(u is the user you want to select in this case root is the user with administrative privilages, p is the password)

CREATE DATABASE wpdb DEFAULT CHARACTER SET utf8 COLLATE utf8_unicode_ci;

Create database is used to create a database, wpdb is the database you created, DEFAULT CHARACTER SET utf8 is used to set default character set for database to utf8. utf8 character set is commonly used for multilanguage support, as it can handle wide range of characters from different lang, COLLATE utf8 is used collate defines the rules for comparing and sorting characters in database. utf8_uicode_ci is also for multilanguage support.

CREATE USER 'wpuser'@'localhost' IDENTIFIED BY 'Akhil@2005';
wpuser@localhost part specifies the username is wpuser and the location is localhost.@localhost means this user can only connect from the same machine where sql server is running.

GRANT ALL ON wpdb.* TO 'wpuser'@'localhost';
This part specifies the database and the tables to which the privileges should be granted. In this case, "wpdb.*" means all tables within the "wpdb" database.

- Wordpress
  cd /var/www/html/
  (to change current directory to /var/www/html/, cd is the command to change current working dirctory and /var/www/html/ is the path to change into /var/www/html/ directory)
  ls is the command to list the current files present in the working directory.
  Sudo rm *
  (it deletes all the files present in the working directory)

sudo wget http://wordpress.org/latest.tar.gz

(To download latest version of wordpress, using wget utility with administration privilages.) http://wordpress.org/latest.tar.gz this is the url of the file you want to download.
sudo tar xzf latest.tar.gz tar: This is a command-line utility used to handle tarballs, which are archives that can contain multiple files and directories.

x: This option tells the tar command to extract the contents of the tarball.

z: This option specifies that the tarball is compressed using gzip compression. It allows the tar command to decompress the tarball before extracting its contents.

f: This option specifies the filename of the tarball that you want to work with. In this case, it is "latest.tar.gz".
ls (wordpress)

sudo mv wordpress/* .

(to move file to current directory) The command "sudo mv wordpress/* ." is used to move all the files and directories from the "wordpress" directory (after extracting the WordPress tarball) to the current working directory.mv: This is the command to move files and directories.

wordpress/*: This specifies the source of the move operation. It represents all files and directories within the "wordpress" directory.

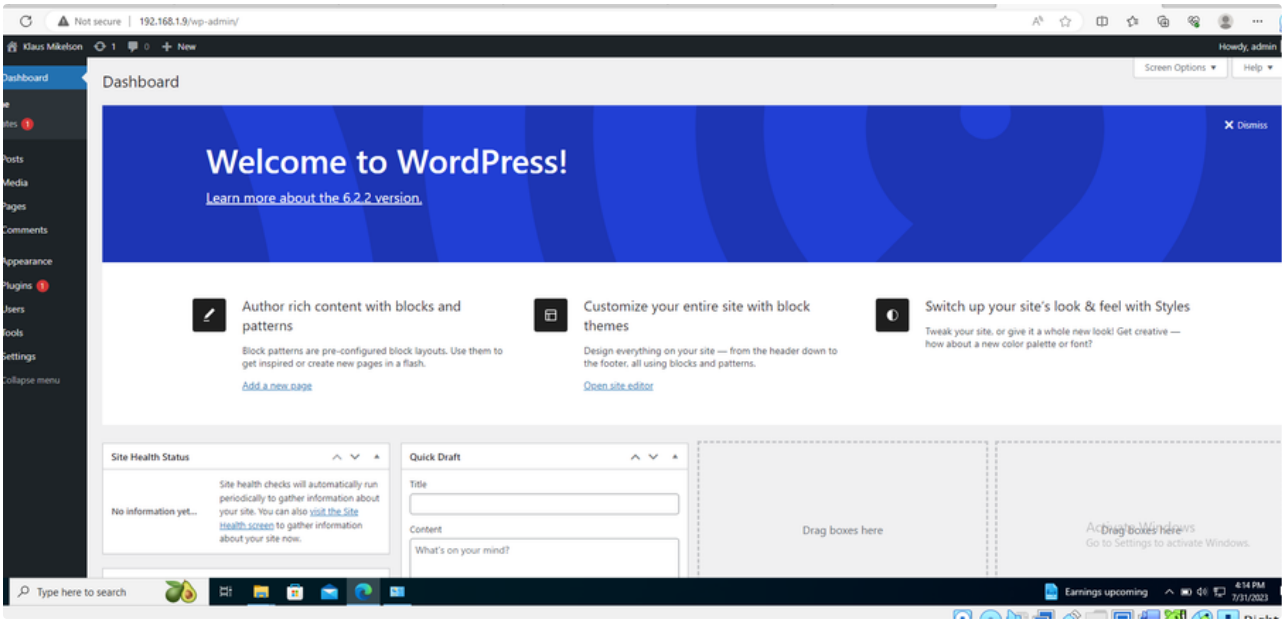
.: This specifies the destination of the move operation. The dot (.) represents the current working directory.

sudo chown -R www-data:.

The command "sudo chown -R www-data: ." is used to change the ownership of all files and directories in the current working directory to the user and group specified, which is "www-data" in this case.
chown: This is the command used to change the ownership of files and directories.
-R: This option stands for "recursive," and it tells the "chown" command to change the ownership of all files and directories inside the current directory, including any subdirectories.
'www-data:: This is the user specified as the new owner. In this case, it is "www-data." The colon (:) is used to separate the user and group.

.: This represents the current working directory, and it is the target directory for the ownership change.
cd

After creating the website using WordPress in ubuntu 20.04.6 command line interface.



Alternatives like Bitnami WordPress Stack and EasyPHP are available for running WordPress on Windows. These packages provide a convenient way to set up a local WordPress environment.