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Web Design in WordPress

# Installing WordPress

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# Introduction to the Installation Process

- The installation of WordPress represents the practical application of theoretical knowledge about CMS systems.
- The goal of installing it in a local environment is for the student to understand all the components that enable a website to function.
- For this purpose, we use **XAMPP**, an integrated development environment that includes the Apache server, MySQL database, PHP interpreter, and Perl support.
- A local installation provides complete control, safe experimentation, and work without the need for an internet connection or commercial hosting.



# XAMPP



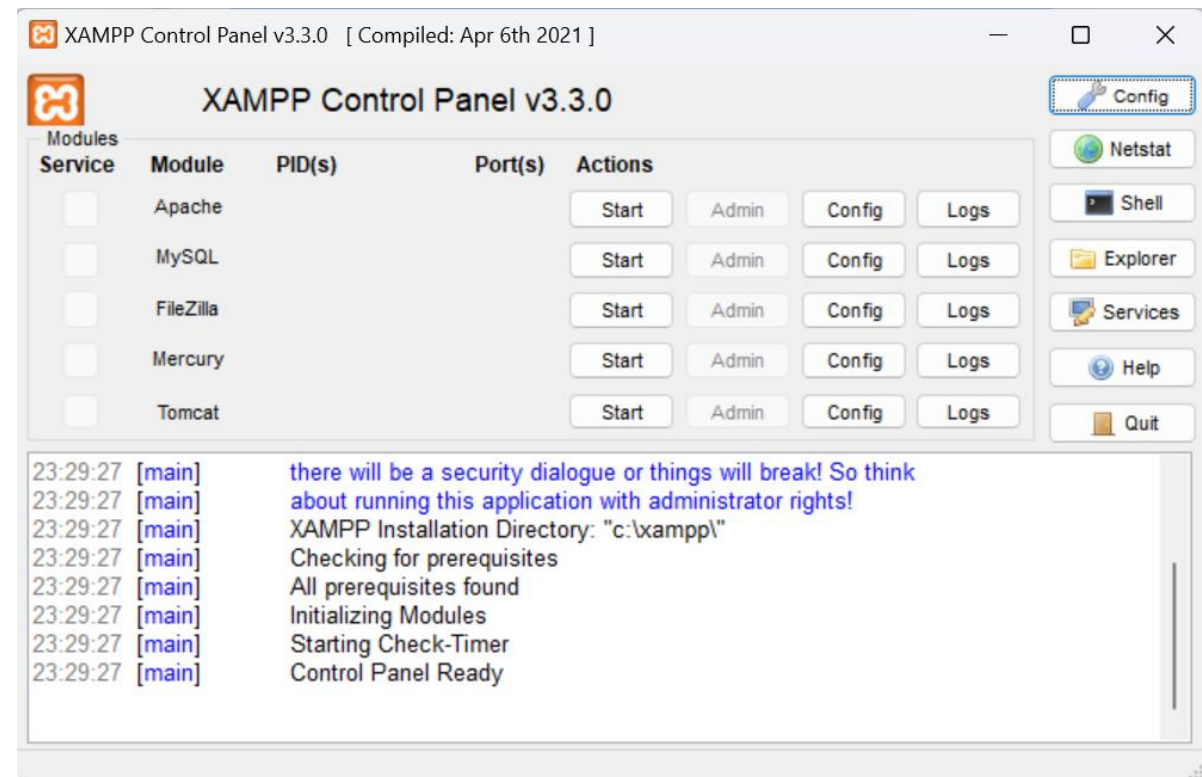
# Why Use XAMPP

- XAMPP is an ideal tool for educational and development purposes as it simulates a real server environment on a local computer.
- Its main advantage is easy installation and visual management of services through a control panel.
- By using XAMPP, students can run multiple projects, test themes and plugins, and learn the principles of server architecture.
- XAMPP integrates all the essential components that WordPress requires — without the costs, risks, or limitations typical of public hosting.



# Downloading and Installing XAMPP

- XAMPP can be downloaded for free from the official website **apachefriends.org**.
- The installation process includes selecting components (Apache, MySQL, PHP, phpMyAdmin).
- It is recommended to install the complete package to ensure full functional compatibility.
- After installation, the XAMPP control panel allows you to enable and disable individual services.



# Local Paths and Working Directory

- The main working directory of XAMPP is located inside the **htdocs** folder.
- This is the root directory where all web projects are stored.
- Each project functions as a subfolder, for example: **htdocs/mywebsite**.
- WordPress is installed directly inside this subfolder.
- Access to the local website is achieved by entering the address <http://localhost/mywebsite> in the browser.
- Understanding local paths is important for later creating child themes and customised functionalities.



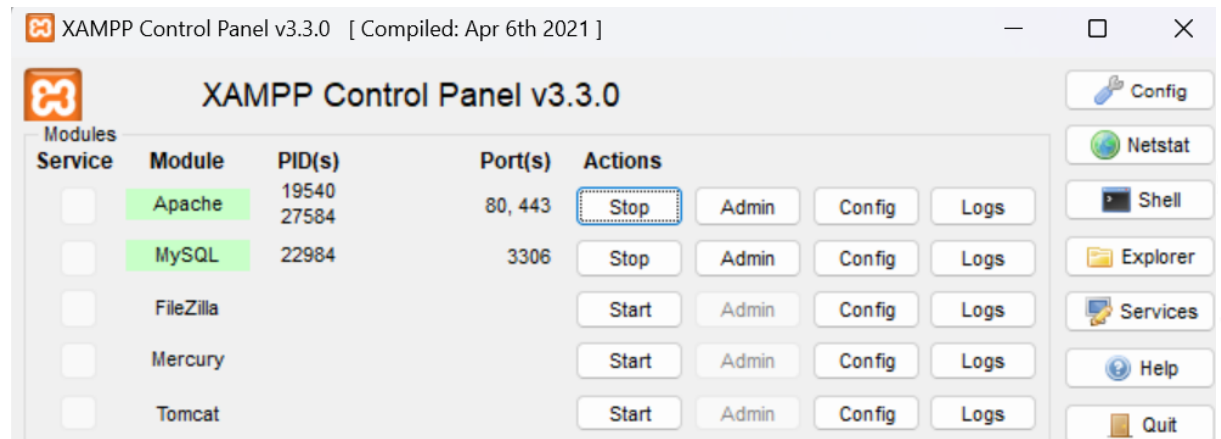
# Downloading the WordPress Package

- WordPress is downloaded from the official website **wordpress.org/download**.
- The downloaded file is a ZIP archive containing the CMS core.
- It is necessary to extract the contents and copy them into the XAMPP **htdocs** directory.
- It is recommended to name the folder simply (e.g. “wordpress” or the project name).
- This structure enables easy access to files and simplifies later addition of themes, plugins, and custom configurations.



# Starting Apache and MySQL Services

- Before the installation begins, it is necessary to start **Apache** and **MySQL** through the XAMPP control panel.
- A green light next to the service name indicates that it is active.
- Apache enables the display of web pages, while MySQL runs the database that stores all WordPress information.
- Without active services, the installation process cannot start because WordPress requires a continuous connection between the PHP server and the database.



# Creating a Database in phpMyAdmin

- After starting MySQL, it is necessary to open **phpMyAdmin** (in the browser at <http://localhost/phpmyadmin>).
- A new database is created by clicking “**New**” and entering the database name, e.g. *wordpress*.
- WordPress will automatically create all required tables within that database.
- It is important to understand that the database stores content, users, metadata, and configuration settings, while themes and plugins are stored in the file system.





phpMyAdmin

Recent Favorites

New

- + eucionica
- + information\_schema
- + mysql
- + performance\_schema
- + phpmyadmin
- + test
- + vespeded\_eucionica
- wordpress
  - New
  - + wp\_actionscheduler\_actions
  - + wp\_actionscheduler\_claims
  - + wp\_actionscheduler\_groups
  - + wp\_actionscheduler\_logs
  - + wp\_commentmeta
  - + wp\_comments
  - + wp\_e\_events
  - + wp\_links
  - + wp\_options
  - + wp\_postmeta
  - + wp\_posts
  - + wp\_termmeta
  - + wp\_terms
  - + wp\_term\_relationships
  - + wp\_term\_taxonomy
  - + wp\_usermeta
  - + wp\_users

Server: 127.0.0.1

### General settings

Server connection collation: utf8mb4\_unicode\_ci

[More settings](#)

### Appearance settings

Language: English

Theme: pmahomme [View all](#)

### Database server

- Server: 127.0.0.1 via TCP/IP
- Server type: MariaDB
- Server connection: SSL is not being used
- Server version: 10.4.32-MariaDB - mariadb.org binary distribution
- Protocol version: 10
- User: root@localhost
- Server charset: UTF-8 Unicode (utf8mb4)

### Web server

- Apache/2.4.58 (Win64) OpenSSL/3.1.3 PHP/8.2.12

## Appearance of phpMyAdmin After Creating and Installing WordPress



# Starting the Installation Process

- In the browser, enter the address <http://localhost/wordpress>.
- WordPress automatically recognises that it is not yet installed and launches the setup wizard.
- The student enters the database details: database name, username (usually *root*), password (empty for local setup), and server (*localhost*).
- Next, the basic site parameters are defined: site title, username, password, and email.
- The installation takes only a few seconds and concludes with a success message.





Below you should enter your database connection details. If you're not sure about these, contact your host.

**Database Name**

The name of the database you want to use with WordPress.

**Username**

Your database username.

**Password**

Your database password.

**Database Host**

You should be able to get this info from your web host, if `localhost` doesn't work.

**Table Prefix**

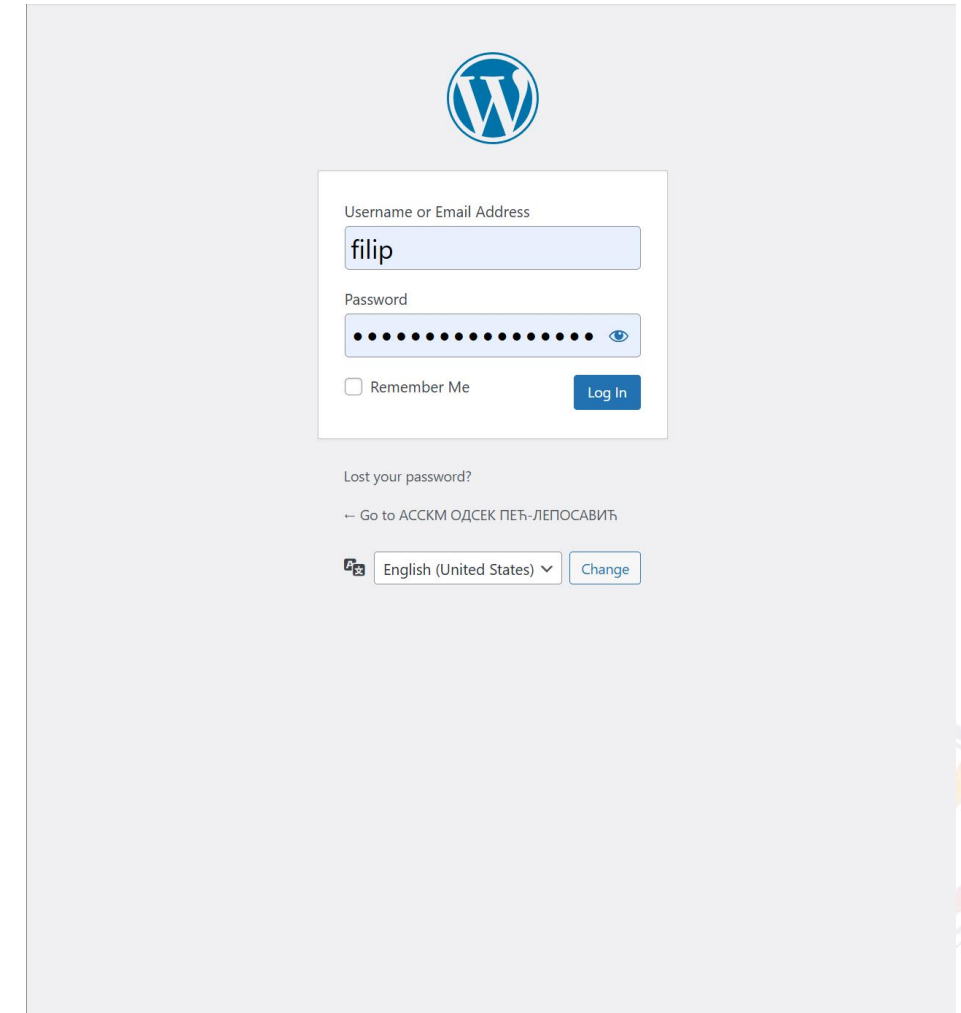
If you want to run multiple WordPress installations in a single database, change this.

## Appearance of the Initial WordPress Installation Process



# Logging into the Administrator Panel

- Access to the administrative section is done at <http://localhost/wordpress/admin>.
- The credentials defined during installation are used.
- Students will see the **WordPress Dashboard** for the first time – the central place for website management.
- Understanding the structure of the panel is essential for further work: this is where pages, themes, plugins, and users are managed.
- This is the moment when the local server becomes a fully functional WordPress system.



# Structure of WordPress Files

- Inside the installation folder are the key directories:
- /wp-admin – manages administration
- /wp-content – contains themes, plugins, and media
- /wp-includes – includes core functions and libraries
- In addition, the file wp-config.php connects WordPress with the database.
- Understanding the file structure allows students to later modify the system at a professional level.



# Configuration File wp-config.php

- Configuration File wp-config.php
- This file is the central part of system configuration.
- It contains parameters such as:
  - Database name (DB\_NAME)
  - Username (DB\_USER)
  - Password (DB\_PASSWORD)
  - Host (DB\_HOST)
- It can be manually edited to optimise performance or to add advanced security options.

```
C: > xampp > htdocs > wordpress > wp-config.php
1  k?php
2  /**
3   * The base configuration for WordPress
4   *
5   * The wp-config.php creation script uses this file during the installation.
6   * You don't have to use the website, you can copy this file to "wp-config.php"
7   * and fill in the values.
8   *
9   * This file contains the following configurations:
10  *
11  * Database settings
12  * Secret keys
13  * Database table prefix
14  * ABSPATH
15  *
16  * @link https://developer.wordpress.org/advanced-administration/wordpress/wp-config/
17  *
18  * @package WordPress
19  */
20
21 // ** Database settings - You can get this info from your web host ** //
22 /** The name of the database for WordPress */
23 define( 'DB_NAME', 'wordpress' );
24
25 /** Database username */
26 define( 'DB_USER', 'root' );
27
28 /** Database password */
29 define( 'DB_PASSWORD', '' );
30
31 /** Database hostname */
32 define( 'DB_HOST', 'localhost' );
33
34 /** Database charset to use in creating database tables. */
35 define( 'DB_CHARSET', 'utf8mb4' );
36
37 /** The database collate type. Don't change this if in doubt. */
38 define( 'DB_COLLATE', '' );
39
```

# Advantages of Working in a Local Environment

- Working in XAMPP allows experimentation without risk.
- The user can freely install plugins, change themes, and test functionalities.
- Errors can be easily corrected, and the entire project can later be transferred to a live server.
- Local development encourages understanding of the interaction between client, server, and database, which is the foundation of professional web development.



# Common Errors and Their Solutions

- Installation errors most often occur due to:
  - Inactive services in XAMPP
  - Incorrect database information
  - Port conflicts (e.g. Skype uses port 80)
  - Incompatible PHP version
- Solutions include checking logs, changing ports in XAMPP, and manually adjusting the wp-config.php file.
- This experience helps students learn to diagnose and solve real-world problems in web environments.







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# Questions & Answers

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