

How to Install, Manage, and Customize a “Personal” Moodle on Your PC or Mac

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Objectives

- **Overview**
- **Install Moodle on Mac and PC (installer)**
- **Install Moodle on Mac and PC (scratch)**
- **php.ini settings**
- **Some initial Moodle settings**
- **Themes and settings**
- **Installing plugins**
- **Adding courses and users**
- **Adding custom CSS**
- **Install a second Moodle**
- **Backup and restore (Courses and Moodle)**
- **Fix opcache**
- **Upgrading your Moodle**
- **Migrating your Moodle**
- **Fix my.ini (my.cnf)**
- **Some hosted and VPS notes**

Overview

- An “sandbox” experimental Moodle
 - **Not for production!**
 - For education and experimenting
- Notes about Rick’s computers:
 - PC – Windows 10 (new install and virtual)
 - Mac – Mojave (new install and virtual)

Can and Can't Do

- **Can**
 - Experiment with many Moodle settings
 - Act as manager, teacher, student
 - Create courses and move to production
 - Create quizzes and move to production
 - Themes and CSS
 - Explore add-ins
- **Can't**
 - Email related items
 - Have others log in (from the Internet)
 - Cron is limited

Moodle Installation

- **Why use the Moodle.org installers?**
 - Fast, they work, no “server” worries
- **Why not?**
 - **PC install is not full AMP server**
 - Missing phpMyAdmin
- **Components**
 - moodle application
 - moodledata folder
 - A database (MySQL or MariaDB)
- **config.php**
- **php.ini (php configuration file)**
- **my.cnf (database configuration file)**

Install on Mac from Moodle.org

- Moodle installer for Mac (MAMP)
 1. Download and unpack
 2. Start MAMP server
 - Allow MAMP to run in security
 - Safari URL, type **localhost:8888/moodle/**
 3. Configure “your” profile

Success!

Install on a PC from Moodle.org

1. Turn off Windows Defender (faster unzipping)
 - Run **gpedit.msc**: computer admin templates, windows components, windows defender, turn off = enabled, **reboot**
2. Install required redistributable x86
3. Download and unpack Moodle for Windows
4. Start XAMPP server
 - Edge URL, type **localhost/**
5. Problems? – You might need to start Apache from the xampp-control app
6. Install Moodle
7. Configure “your” Moodle

Success!

What do we have?

- A working copy of Moodle
- A local “server” running
- Nothing in Moodle, **yet!**

- Stopping and starting your “server”

- Add to dock/toolbar
- Add shortcut to browser
- Make **NOTES!!!!**

- Stopping and starting your server

Reflection: What have we done?

- **What's where?**
- **Explore Moodle files**
- **Explore Moodle environment**
- **Explore config.php (text editor)**
- **Explore the database (phpMyAdmin)**

- **Keep notes of what you have done!**

Explore Files

- **PC**

- C:/moodle
- Moodle folder
- moodledata folder
- mysql folder
- Config.php inside moodle
- Also: version.php file

- **Mac**

- MAMP
- htdocs/moodle37
- data/moodledata
- Db/mysql57
- Config.php inside moodle37
- Also: version.php file

Explore Moodle

- **PC**

- Site Admin, server, environment
- MariaDB 10.1.28
- Php 7.1.10
- Moodle 3.7, build (20190628?)

- **No opcache**
- **Not 64-bit!**

- **Mac**

- Site Admin, server, environment
- Mysql 5.7.23
- Php 7.2.10
- Moodle 3.7, build (20190520?)

PC and Mac Differences

- Slightly different install methods
- PC needs some extra support
 - 32-bit redistributable, zipping
 - Use the XAMPP control panel app, not start/stop apps
- Other differences
 - Mac contains phpMyAdmin, plus more
 - localhost:8888/MAMP

Conclusion

- **PC version is not quite as robust**
- **Mac file structure seems better**
- **Both work!**

Installing Another Moodle

- **MAC has “user-friendly” tools, but PC does not**
- **What to do?**
- **PC – Install XAMPP and Moodle from scratch**
- **Mac – Install MAMP and Moodle from scratch**

Install XAMPP and MAMP from Scratch

- **A bit more technical**
- **XAMPP – Download and install 64-bit latest**
 - **C:\xampp**
- **MAMP**
 - **First rename MAMP, like MAMP-1**
 - **Download and install MAMP**
- **localhost/dashboard (PC)**
- **localhost:8888/ (Mac)**

Install Moodle (from scratch)

- **Download & unpack moodle**
- **Move moodle to the correct folder**
 - **htdocs**
- **Create a database**
 - **mtf8mb4_unicode_ci, user=root,**
 - **PC - no password**
 - **Mac – password = root**
- **Create a moodledata folder, full rights**
- **Start moodle install (make sure server is running)**
 - **localhost/moodle (PC)**
 - **localhost:8888/moodle (Mac)**

Install Moodle (from scratch)

- **Database**
 - PC = MariaDB
 - MAC = mysql
- **PC – All kinds of errors**
 - *intl*, *xmlrpc*, soap, opcache
- **MAC – some warnings**
 - *xmlrpc*, opcache, database

Fixing php (on PC)

- **Find and edit php.ini**
 - Use amp dashboard, phpinfo
- **Turn on intl, xmlrpc, soap**
- **Add my favorites:**
 - `upload_max_filesize = 128M`
 - `post_max_size = 128M`
 - `memory_limit = 384M`
 - `max_input_time to 600`
 - `max_execution_time to 300`
 - `max_input_vars = 5000;`
- **Restart server**

Where are we?

- **We are good in good shape**
 - **More flexible server running**
 - **Moodle running**

Some Moodle Settings

- **Site admin | Notification**
- **Turn off guest access**
- **Advanced features | Enable RSS feeds = YES**
- **Location | Location settings | Default country = United States**
- **Courses | Course settings (several settings)**
- **Plugins | Activity Modules | Activity Module | URL | Available display options: Add New Windows**
- **Plugins | Text editors**
- **Development | Purge caches**

Theme Settings

- **Appearance**
- **Try Classic, then back to Boost**
- **Try making some changes in Boost**

Moodle Plugins

- **Collapsed Topics**
- **Checklist**
- **Configurable Reports**

Some Moodle setup

- **Course categories**
- **Add a student**
- **Add a course, manually**
- **Add a course, via moodle**

- **Use multiple browser tabs, and windows**

Custom CSS

- **Where to add CSS**
- **Adding CSS versus modifying code**
- **Examples**
- **How to explore**
 - **Using Firefox**

Installing a Second Moodle

- **Database = moodle2, moodle 371**
- **Moodledata = moodledata2, moodledata371**
- **Moodle = moodle2, moodle371**

Backup

- **Course**
 - Move to MoodleCloud
- **Mac (using Terminal)**
 - `/Applications/MAMP/Library/bin/mysqldump -uroot -p --opt -r20180801-moodledb.sql moodle`
 - `/Applications/MAMP/Library/bin/mysql -uroot -p moodle?? <20180801-moodledb.sql`
- **PC (Windows-R, cmd This is DOS!)**
 - `C:/xampp/mysql/bin/mysqldump -uroot -p --opt -r20180801-moodledb.sql moodle`
 - `C:/xampp/mysql/bin/mysql -uroot -p moodle?? <2014-12-06-moodledb.sql`

Fix opcache (PC)

- **Edit php.ini, add the following at the bottom**

```
[opcache]
opcache.enable = 1
opcache.memory_consumption = 128
opcache.max_accelerated_files = 10000
opcache.revalidate_freq = 60
; Required for Moodle
opcache.use_cwd = 1
opcache.validate_timestamps = 1
opcache.save_comments = 1
opcache.enable_file_override = 0

zend_extension="c:\xampp\php\ext\php_opcache.dll"
```

Fix opcache (Mac)

- **Stop server**
- **Enable opcache from MAMP preferences**
- **Start server**

- **Done!**

Upgrading Moodle

- **Important: config.php**
 - Copy this file
- Replace old moodle with new
- Install **plugins**
 - This is the most troublesome step
- Move config.php into position
- Do something in moodle

Migrating Moodle

- **New \geq Old**
- **Same add-ins**

- **Clear new database and restore**
- **Clear moodledata and restore**

Improve my.ini (my.cnf)

- Add in my.ini

```
[mysqld]  
innodb_file_format = Barracuda  
innodb_file_per_table = 1  
innodb_large_prefix
```

My VPS (Production) Install

- Moodle is the same
- Worry about server settings
- Email
- Cron
- https