

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

Rick Jerz

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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

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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)

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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

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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
- phi.ini (php configuration file)
- my.cnf (database configuration file)

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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!

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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!

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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

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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!

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Explore Files

<ul style="list-style-type: none"> • PC • C:/moodle • Moodle folder • moodledata folder • mysql folder • Config.php inside moodle • Also: version.php file 	<ul style="list-style-type: none"> • Mac • MAMP • htdocs/moodle37 • data/moodledata • Db/mysql57 • Config.php inside moodle37 • Also: version.php file
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Explore Moodle

<ul style="list-style-type: none"> • PC • Site Admin, server, environment • MariaDB 10.1.28 • Php 7.1.10 • Moodle 3.7, build (20190628?) • No opcache • Not 64-bit! 	<ul style="list-style-type: none"> • Mac • Site Admin, server, environment • Mysql 5.7.23 • Php 7.2.10 • Moodle 3.7, build (20190520?)
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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

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Conclusion

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

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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

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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)

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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)

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Install Moodle (from scratch)

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

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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

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Where are we?

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

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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

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Theme Settings

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

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Moodle Plugins

- Collapsed Topics
- Checklist
- Configurable Reports

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Some Moodle setup

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

- Use multiple browser tabs, and windows

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Custom CSS

- Where to add CSS
- Adding CSS versus modifying code

- Examples

- How to explore
 - Using Firefox

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Installing a Second Moodle

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

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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`

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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"
```

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Fix opcache (Mac)

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

- Done!

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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

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Migrating Moodle

- New \geq Old
- Same add-ins

- Clear new database and restore
- Clear moodledata and restore

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Improve my.ini (my.cnf)

- Add in my.ini

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

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My VPS (Production) Install

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

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