

Project Tutorial 1

Project Overview

Dr. Yuzuko Nakamura
Dept. of Computer Science
Y.Nakamura@ucl.ac.uk

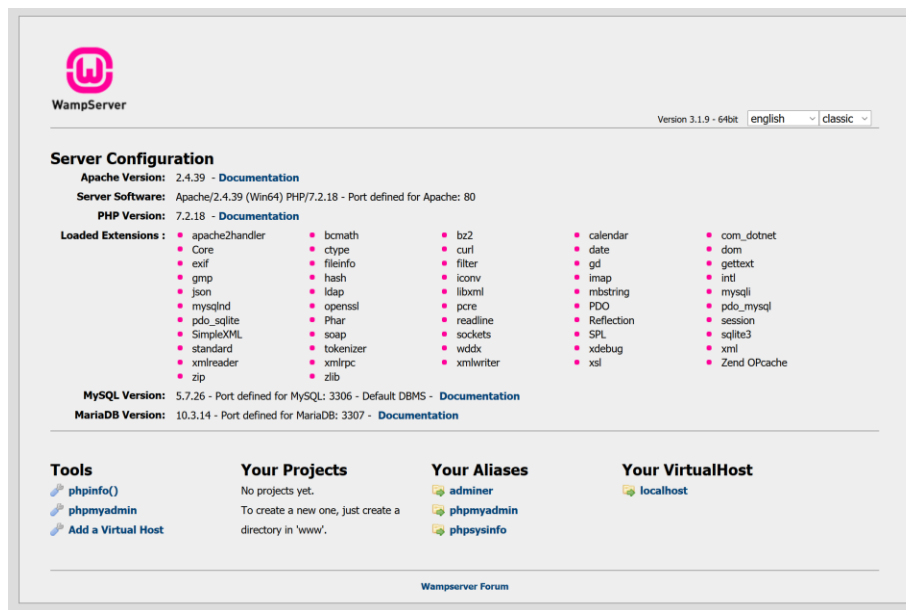
Coursework

- The practical component counts for 50% of the module assessment.
- Check Moodle for coursework specification.
- Aim is to get practice designing, creating, and using a database to support a website.

Technology

- WAMP (available on lab machines).
 - On your own computer, you can use MAMP, XAMPP, etc.
 - Apache server + MySQL + PHP
- Version control (e.g. Github) for group work
 - Can sign up for a Github student pack
- May want an IDE (e.g. Microsoft Visual Studio Code, IntelliJ IDEA, etc.)

WAMP demo



The screenshot shows the WampServer dashboard. At the top left is the WampServer logo and the text 'WampServer'. To the right, it says 'Version 3.1.9 - 64bit' with dropdown menus for 'english' and 'classic'. Below this is the 'Server Configuration' section. It lists: 'Apache Version: 2.4.39 - Documentation', 'Server Software: Apache/2.4.39 (Win64) PHP/7.2.18 - Port defined for Apache: 80', and 'PHP Version: 7.2.18 - Documentation'. Under 'Loaded Extensions', there are two columns of extension names: Core, bz2, calendar, date, dom, gettext, intl, mysqli, pdo_mysql, session, spl, sqlite3, xml, and Zend OPcache. Below this is the 'MySQL Version: 5.7.26 - Port defined for MySQL: 3306 - Default DBMS - Documentation' and 'MariaDB Version: 10.3.14 - Port defined for MariaDB: 3307 - Documentation'. At the bottom, there are four sections: 'Tools' with links for 'phpinfo()', 'phpmyadmin', and 'Add a Virtual Host'; 'Your Projects' with the text 'No projects yet. To create a new one, just create a directory in 'www''; 'Your Aliases' with links for 'adminer', 'phpmyadmin', and 'phpsysinfo'; and 'Your VirtualHost' with a link for 'localhost'. At the very bottom, there is a link to 'Wampserver Forum'.

WampServer

- Installs free MySQL software.
- MySQL database can be accessed via web interface, phpMyAdmin.
 - Use your MySQL database as your personal sandbox!
- PHP files run differently when opened locally vs. requested from a server running PHP.

Groups

- Groups of four.
- Meet with group to decide on peer marking criteria.
- Register your group and peer marking criteria on Moodle.
- Evaluate your groupmates at end of project.
- Group project mark will be modulated by peer marks.

Deliverables

- Due 2 December:
 - Group submission:
 - Video demonstrating the function of your website.
 - Design document describing project, giving link to video and including ER diagram.
 - Code files.
 - Individual submission:
 - Self-assessment / summary of own contributions.
 - Peer assessment of all groupmates.

Video

- Examples on Moodle.
- Structure video with one section for each of the capabilities/features listed on the briefing sheet (in order if possible).
- Make clear how you have provided each capability/feature.
- Have a caption, or clearly state, when each capability/feature description starts.

Marking

70-100%	1st	Excellent database and design, most/all features working well.
60-69%	2:1	Good database and design, core features implemented.
50-59%	2:2	Satisfactory database and design, some features implemented.
0-49%	Fail	Lack of substance, issues with database design; most features not working.

Starter code

- Mostly-functional frontend made from HTML, CSS, and JavaScript.
 - Uses Bootstrap (CSS library), JQuery (JS library), and FontAwesome (icon library).
- Mostly-empty backend: no database!
 - Make your own MySQL database and use PHP's SQL functions to interact with it.

Using other libraries/frameworks

- In addition to Bootstrap and JQuery, you can use any other frontend (HTML/CSS/JS) libraries you like.
 - Using Bootstrap and JQuery not necessary.
- Do not use pre-made application frameworks like Django or a PHP framework – they do too much of the database interaction for you.
- Properly attribute any code not written by you!

Focus on the database aspect

- Projects will be marked on sophistication of database usage and design.
- Don't spend too long on making things pretty. (No extra points awarded for sleek UIs!)

Resources

Other resources

- PHP: <http://www.php.net/>
- MAMP: <http://www.mamp.info/en/index.html>
- WAMP: <http://www.wampserver.com/en/>
- LAMP: use distribution package manager and/or find a tutorial on the web
- HTML: <http://www.w3schools.com> + many other sites.
- CSS: www.w3schools.com/css + many other sites
- MySQL: <http://www.mysql.com/>
 - Download MySQL Community Edition
- Bootstrap <http://getbootstrap.com>

UCL Lynda.com / LinkedIn Learning

- By virtue of being a UCL student, you get access to various Lynda.com tutorials / video training courses:
 - HTML/CSS
 - PHP
 - SQL
 - JavaScript
 - Bootstrap
 - and more...

Project Discussion Forum on Moodle

- Use this forum to discuss the project.
- Ask questions.
- Post useful information.
 - e.g., Useful tutorials, tools, tips and tricks, etc

TODOs this week:

- Introduce yourself and start finding a group.
- Read coursework write-up.
- Install WAMP or equivalent on your machine.
- Experiment with setting up a MySQL database.