

# Installing Software for CT216 Software Engineering Project (V1.1)

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## Installing Apache

1. Download the Apache 1.3 Installer from the *Software Engineering Project* folder on the CT216 section of <http://blackboard.nuigalway.ie>
2. Execute the installer with the following settings:

Network Domain:	<i>nuigalway.ie</i>
Server Name:	<i>localhost</i>
Administrator Email:	<i>any email address</i>
Service Type:	<i>Run when started manually, only for me</i>
3. After the installation is complete, verify that the *ServerName* and *ServerAdmin* settings in the Apache configuration file (`httpd.conf`) are set to the values in the preceding table
4. The Apache HTTP server can then be started through the *Start Apache in Console* shortcut in the *Apache HTTP Server* start menu group.

## Installing PHP

1. Download the PHP 4.3 Zip File from the *Software Engineering Project* folder on the CT216 section of <http://blackboard.nuigalway.ie>
2. Extract the contents of the zip file to a local directory (such as `c:\php\`)

3. Open this directory and copy the file `php4ts.dll` into the `sapi` subdirectory (N.B. Please note that this step is omitted in the `install.txt` installation guide that accompanies the PHP distribution).
4. Rename the `php.ini-dist` file to `php.ini` and copy it to the base directory of the Apache installation (probably `c:\Program Files\Apache Group\Apache`). This file is the main configuration file for PHP.
5. Edit the Apache `httpd.conf` configuration file found in the `conf` subdirectory of Apache installation and add the following lines (add them at the end of the `<IfModule mod_mime.c>` ‘Document Types’ section of the config):

```
AddType application/x-httpd-php .php
LoadModule php4_module "c:/php/sapi/php4apache.dll"
```

6. Restart Apache if it is already running. PHP should now be installed. A PHP module will be loaded every time the Apache server is started. The Apache console should display a message similar to the following:

```
Apache/1.3.31 (Win32) PHP/4.3.9 running...
```

If the PHP/4.3.9 element is missing, then it is likely that the PHP module has not been successfully installed.

7. A very basic PHP program can be used to test the installation as follows:

```
<?
echo "Hello World";
?>
```

Put this PHP code in a file ending in the extension `test.php` and place the file in Apache’s root document directory (this is probably `c:\Program Files\Apache Group\Apache\htdocs`).

Ensure the Apache server is running and navigate your web browser to `http://localhost/test.php`. If PHP has been successfully installed the text “Hello World” should appear in your browser.

When navigating your web browser to a `localhost` URL, please make sure that the check box “Bypass proxy for local addresses” is selected in the *Lan Settings* dialog, in the *Connections* tab, in the *Internet Settings* menu option in Internet Explorer.

## Installing MySQL

1. Unzip the `mysql_4.0.21_win.zip` file into a temporary folder.
2. Run the `setup.exe` installer program
3. After installation is complete, MySQL can be started with the `c:\mysql\bin\winmysqladmin.exe` program (as outlined in Tutorial 3)

The MySQL client (`mysql.exe`) program can be used to access the server using the username 'root' and an empty password.

```
c:\mysql\bin\mysql.exe -u root
```

After logging in as 'root' initially, you can create a new database and add username/password permissions to access the new database as per the notes for Tutorial 3.

The following example creates a new database 'test' and adds permission for a user called 'eoin' to connect from the same PC as the server with password 'mypassword'.

```
CREATE DATABASE test;  
GRANT ALL PRIVILEGES ON test.* TO 'eoin'@'localhost'  
IDENTIFIED BY 'mypassword'
```

You could then login as this user.

```
c:\mysql\bin\mysql.exe -u eoin -p test
```

## Installing Tortoise CVS

Tortoise CVS can be installed from the file `TortoiseCVS_1.8.4.exe` available on [blackboard.nuigalway.ie](http://blackboard.nuigalway.ie).

After installing, Tortoise CVS integrates itself into Windows Explorer so that when you right click on a folder a new set of menu items appear.

To *check-out* the CT216 project right-click in a folder in Windows Explorer and select *CVS Checkout...*

The following settings will be needed to access the CT216 CVS repository:

Protocol: *Password server (:pserver:)*  
Server: *walrus.it.nuigalway.ie*  
Repository Folder: */var/lib/cvs*  
Username: *ct216*  
Module: *ct216project*  
Password: *programmingisfun*

A new sub-folder **ct216project** will then be created containing the checked-out source. Icons on the folder vary in accordance to the state of the folder.

Changes to checked-out files need to be committed using *CVS Commit...* into the repository before other users can see them.

New files can be added through the *CVS Add..* and so forth.

*CVS Update* will get any updates from the repository and apply them to the checked-out files.