

# 任务1：安装httpd+php+mysql

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在 PCduino 上安装 httpd+php+mysql 环境。

实现目的

- 1 熟悉pcduino在linux下软件的安装；
- 2 掌握httpd、php、mysql的安装与配置。

硬件

- pcduino v2板一块；
- 5V/1A电源一个；
- microUSB线一根；
- USB-TTL串口线一根（FT232RL芯片或PL2303芯片）。

以下为自备（可选）器材：

- PC（Windows/Mac OS/Linux）一台；
- 以太网线一根（可能还需要路由器等）。

软件

- PC上的USB-TTL串口线配套的驱动程序；
- PC上的串口终端软件，如minicom、picocom、putty等；
- PC上的SSH软件，如putty等。

## 实验步骤

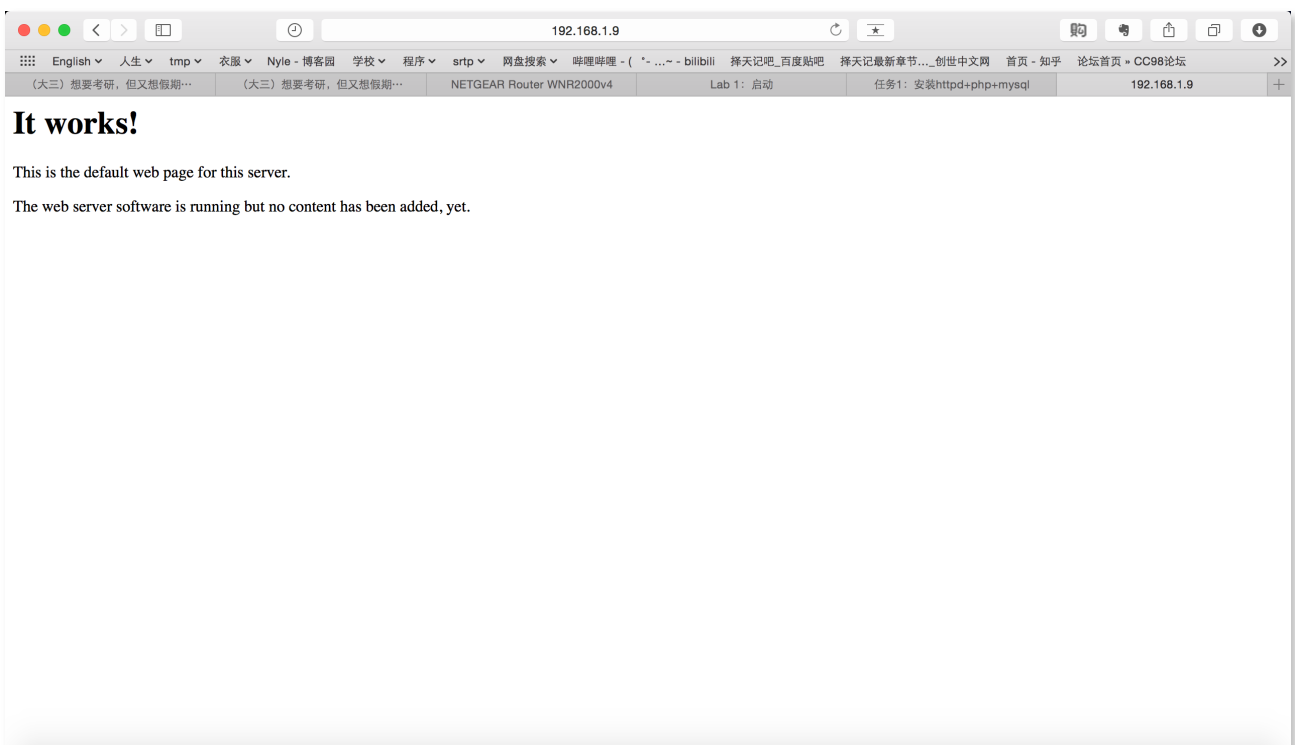
- 1 在pcduino上安装并配置apache；  
升级apt-get源

```
root@Acadia:~# sudo apt-get update
Ign http://ports.ubuntu.com precise InRelease
Hit http://ports.ubuntu.com precise Release.gpg
Ign http://ppa.launchpad.net precise InRelease
Hit http://ports.ubuntu.com precise Release
Hit http://ppa.launchpad.net precise Release.gpg
Hit http://ports.ubuntu.com precise/main Sources
Hit http://ppa.launchpad.net precise Release
Hit http://ports.ubuntu.com precise/universe Sources
Hit http://ports.ubuntu.com precise/main armhf Packages
Hit http://ports.ubuntu.com precise/universe armhf Packages
```

安装apache,下图为安装完成图

```
Enabling module mime.  
Enabling module negotiation.  
Enabling module setenvif.  
Enabling module status.  
Enabling module auth_basic.  
Enabling module deflate.  
Enabling module authz_default.  
Enabling module authz_user.  
Enabling module authz_groupfile.  
Enabling module authn_file.  
Enabling module authz_host.  
Enabling module reqtimeout.  
Setting up apache2-mpm-worker (2.2.22-1ubuntu1) ...  
* Starting web server apache2      apache2: Could not reliably determine the server's fully qualified domain name: /etc/hostname  
[ OK ]  
Setting up apache2 (2.2.22-1ubuntu1) ...  
Processing triggers for libc-bin ...  
ldconfig deferred processing now taking place  
^[[Broot@Acadia:~#
```

2 验证apache已经安装并能成功访问;



3 在pcDuino上安装并配置php;

sudo apt-get install php5

```

^[[Broot@Acadia:~# sudo apt-get install php5
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  apache2-mpm-prefork libapache2-mod-php5 php5-common
Suggested packages:
  php-pear php5-suhosin
Recommended packages:
  php5-cli
The following packages will be REMOVED:
  apache2-mpm-worker
The following NEW packages will be installed:
  apache2-mpm-prefork libapache2-mod-php5 php5 php5-common
0 upgraded, 4 newly installed, 1 to remove and 0 not upgraded.
Need to get 3227 kB of archives.
After this operation, 7433 kB of additional disk space will be used.
Do you want to continue [Y/n]?

```

4 写一个php脚本验证php已经安装成功;  
脚本如下:

```

~
root@Acadia:/var/www# cat try.php
<?php
echo "Hello World!";
phpinfo()
?>
root@Acadia:/var/www#

```

访问页面后得到效果图:

The screenshot shows a web browser window with the address bar set to 192.168.1.9. The page content is as follows:

Hello World!

**PHP Version 5.3.10-1ubuntu3**

<b>System</b>	Linux Acadia 3.0.35-2666-gbde708 #218 SMP PREEMPT Thu Dec 18 22:32:36 PST 2014 armv7l
<b>Build Date</b>	Apr 11 2012 17:34:02
<b>Server API</b>	Apache 2.0 Handler
<b>Virtual Directory Support</b>	disabled
<b>Configuration File (php.ini) Path</b>	/etc/php5/apache2
<b>Loaded Configuration File</b>	/etc/php5/apache2/php.ini
<b>Scan this dir for additional .ini files</b>	/etc/php5/apache2/conf.d
<b>Additional .ini files parsed</b>	/etc/php5/apache2/conf.d/pdo.ini
<b>PHP API</b>	20090626
<b>PHP Extension</b>	20090626
<b>Zend Extension</b>	220090626
<b>Zend Extension Build</b>	API220090626,NTS
<b>PHP Extension Build</b>	API20090626,NTS
<b>Debug Build</b>	no
<b>Thread Safety</b>	disabled
<b>Zend Memory Manager</b>	enabled
<b>Zend Multibyte Support</b>	disabled
<b>IPv6 Support</b>	enabled
<b>Registered PHP Streams</b>	https, ftps, compress.zlib, compress.bzip2, php, file, glob, data, http, ftp, phar, zip
<b>Registered Stream Socket Transports</b>	tcp, udp, unix, udg, ssl, sslv3, tls
<b>Registered Stream Filters</b>	zlib.*, bzip2.*, convert.iconv.*, string.rot13, string.toupper, string.tolower, string.strip_tags, convert.* consumed, denbunk

## 5 在pcDuino上安装并配置mysql;

`sudo apt-get install mysql-server`

```
root@Acadia:/var/www# sudo apt-get install mysql-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  libdbd-mysql-perl libdbi-perl libmysqlclient18 libnet-daemon-perl
  libplrpc-perl mysql-client-5.5 mysql-client-core-5.5 mysql-common
  mysql-server-5.5 mysql-server-core-5.5
Suggested packages:
  libterm-readkey-perl tinyca mailx
Recommended packages:
  libhtml-template-perl
The following NEW packages will be installed:
  libdbd-mysql-perl libdbi-perl libmysqlclient18 libnet-daemon-perl
  libplrpc-perl mysql-client-5.5 mysql-client-core-5.5 mysql-common
  mysql-server mysql-server-5.5 mysql-server-core-5.5
0 upgraded, 11 newly installed, 0 to remove and 0 not upgraded.
Need to get 25.3 MB of archives.
After this operation, 85.6 MB of additional disk space will be used.
Do you want to continue [Y/n]? █
```

`sudo apt-get install libapache2-mod-auth-mysql` 安装apache 相关mysql

```
root@Acadia:~# sudo apt-get install libapache2-mod-auth-mysql
```

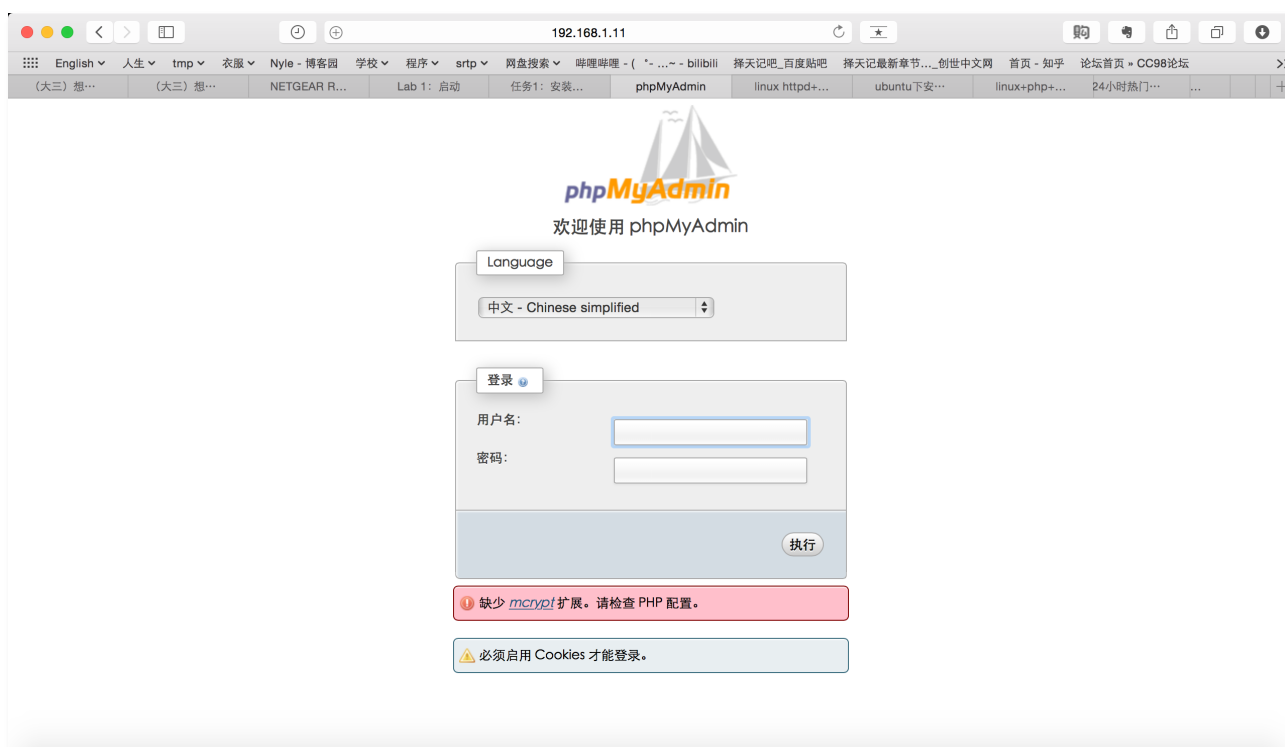
`sudo apt-get install php5-mysql` 安装php相关mysql

```
Selecting previously unselected package php5-mysql.
(Reading database ... 73482 files and directories currently installed.)
Unpacking php5-mysql (from .../php5-mysql_5.3.10-1ubuntu3_armhf.deb) ...
Processing triggers for libapache2-mod-php5 ...
* Reloading web server config apache2      apache2: Could not reliably determine the sere
[ OK ]
Setting up php5-mysql (5.3.10-1ubuntu3) ...
```

然后还安装了phpmyadmin

```
root@Acadia:~# sudo apt-get install phpmyadmin
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  dbconfig-common libmcrypt4 php5-mcrypt
Suggested packages:
  libmcrypt-dev mcrypt
Recommended packages:
  php5-gd
The following NEW packages will be installed:
  dbconfig-common libmcrypt4 php5-mcrypt phpmyadmin
0 upgraded, 4 newly installed, 0 to remove and 0 not upgraded.
Need to get 5884 kB of archives.
After this operation, 17.6 MB of additional disk space will be used.
Do you want to continue [Y/n]? █
```

6 写一个php脚本访问mysql，验证mysql安装成功。



测试php脚本

```
1. root@Acadia: /var/www (ssh)
<!DOCTYPE html>
<html>
  <body>
    <?php
      $con = mysql_connect("localhost","root","lsj8967079");
      if (!$con){
        die('Could not connect:' . mysql_error());
      }
      mysql_select_db("test", $con);
      $result = mysql_query("SELECT * FROM nyle");
      while($row = mysql_fetch_array($result)) {
        echo "<br/>". "value:". $row['a'];
      }
      mysql_close($con);
    ?>
  </body>
</html>
```

数据库如下图

test

nyle

新建数据表

显示行 0 - 3 (~4 总计), 查询花费 0.0007 秒)

SELECT \*

FROM `nyle`

LIMIT 0, 30

显示: 30 行, 起始行 # 0 以 水平 模式显示, 并且在 100 行后重复标题

+ 选项

<input type="checkbox"/>	编辑	<input type="checkbox"/>	快速编辑	<input type="checkbox"/>	复制	<input type="checkbox"/>	删除	1
<input type="checkbox"/>	编辑	<input type="checkbox"/>	快速编辑	<input type="checkbox"/>	复制	<input type="checkbox"/>	删除	2
<input type="checkbox"/>	编辑	<input type="checkbox"/>	快速编辑	<input type="checkbox"/>	复制	<input type="checkbox"/>	删除	1
<input type="checkbox"/>	编辑	<input type="checkbox"/>	快速编辑	<input type="checkbox"/>	复制	<input type="checkbox"/>	删除	2

得到结果如下

```
hello
value:1
value:2
value:1
value:2
```

感想：

学习了一下apache+mysql+php的搭建，方便了以后网络服务器的搭建。而且深一步了解了嵌入式设备。