

# 任务 1：安装 httpd+php+mysql

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## 实验目的

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

## 实验器材

### 硬件

LinkSprite Acadia

MicroUSB 数据线

TP-Link WR874N 无线路由器

### 软件

Xshell 5

Microsoft Windows 8.1

## 实验步骤

1. 在 pcDuino 上安装并配置 apache；
2. 验证 apache 已经安装并能成功访问；
3. 在 pcDuino 上安装并配置 php；
4. 写一个 php 脚本验证 php 已经安装成功；
5. 在 pcDuino 上安装并配置 mysql；
6. 写一个 php 脚本访问 mysql，验证 mysql 安装成功。

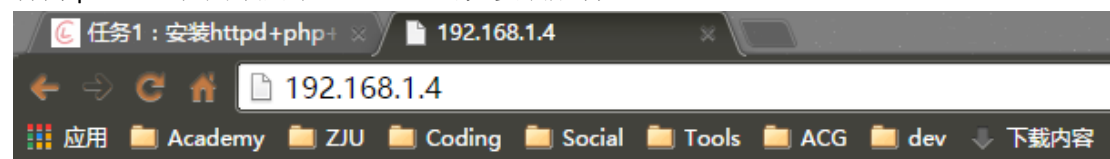
# 实验过程及结果

## 安装 Apache2

使用 apt-get 安装 Apache2

```
lishunan@Acadia:~$ sudo apt-get install apache2
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  apache2-mpm-worker apache2-utils apache2.2-bin apache2.2-common libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap
Suggested packages:
  apache2-doc apache2-suexec apache2-suexec-custom ufw
Recommended packages:
  ssl-cert
The following NEW packages will be installed:
  apache2 apache2-mpm-worker apache2-utils apache2.2-bin apache2.2-common libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap
0 upgraded, 9 newly installed, 0 to remove and 0 not upgraded.
Need to get 1590 kB of archives.
After this operation, 4209 kB of additional disk space will be used.
Do you want to continue [Y/n]? y
WARNING: The following packages cannot be authenticated!
  libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap apache2.2-bin apache2-utils apache2.2-common apache2-mpm-worker apache2
Authentication warning overridden.
Get:1 http://ports.ubuntu.com/ubuntu-ports/ precise/main libapr1 armhf 1.4.6-1 [76.1 kB]
Get:2 http://ports.ubuntu.com/ubuntu-ports/ precise/main libaprutil1 armhf 1.3.12+dfsg-3 [60.7 kB]
Get:3 http://ports.ubuntu.com/ubuntu-ports/ precise/main libaprutil1-dbd-sqlite3 armhf 1.3.12+dfsg-3 [8340 B]
Get:4 http://ports.ubuntu.com/ubuntu-ports/ precise/main libaprutil1-ldap armhf 1.3.12+dfsg-3 [7298 B]
Get:5 http://ports.ubuntu.com/ubuntu-ports/ precise/main apache2.2-bin armhf 2.2.22-1ubuntu1 [1115 kB]
```

访问 pcDuino 在局域网中 IP 地址，可见安装成功。



# It works!

This is the default web page for this server.

The web server software is running but no content has been added, yet.

## 安装 PHP

安装 php5

```

lishunan@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]?
WARNING: The following packages cannot be authenticated!
  apache2-mpm-prefork php5-common libapache2-mod-php5 php5
Authentication warning overridden.
Get:1 http://ports.ubuntu.com/ubuntu-ports/ precise/main apache2-mpm-prefork armhf 2.2.22-1ubuntu1 [2408 B]
Get:2 http://ports.ubuntu.com/ubuntu-ports/ precise/main php5-common armhf 5.3.10-1ubuntu3 [427 kB]
Get:3 http://ports.ubuntu.com/ubuntu-ports/ precise/main libapache2-mod-php5 armhf 5.3.10-1ubuntu3 [2797 kB]

```

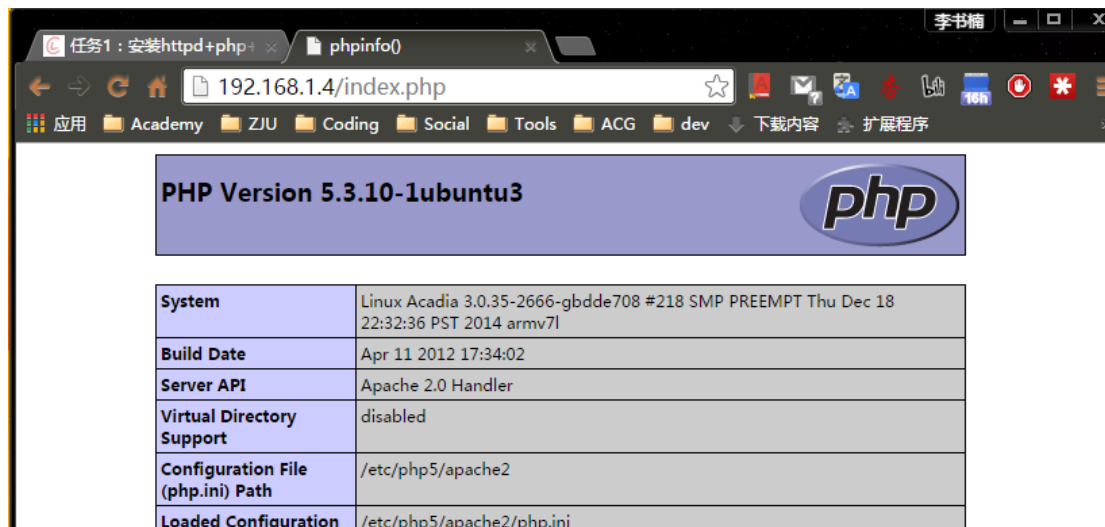
在/var/www/下建立 index.php,内容如下:

```

<?
phpinfo();
?>
~

```

访问该页面



## 安装 MySQL

安装 mysql-server 和 php5-mysql, 安装时设置好 mysql 密码.

```

lishunan@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
Suggested packages:
  libterm-readkey-perl tinycat 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
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]?

```

```

lishunan@Acadia:/var/www$ sudo apt-get install php5-mysql
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  php5-mysql
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 61.5 kB of archives.
After this operation, 182 kB of additional disk space will be used.
WARNING: The following packages cannot be authenticated!
  php5-mysql
Authentication warning overridden.
Get:1 http://ports.ubuntu.com/ubuntu-ports/ precise/main php5-mysql armhf 5.3.10-1ubuntu3 [61.5 kB]
Fetched 61.5 kB in 2s (23.1 kB/s)

```

编写 php 代码访问数据库

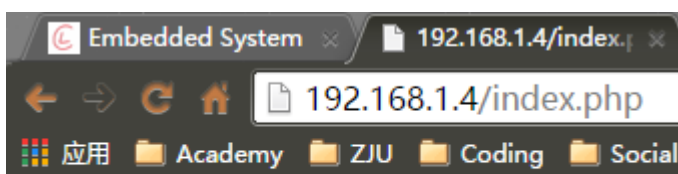
```

<? php
echo "start";
$conn=new mysqli("localhost","root","19940204");

if($conn->connect_error)
{
    die("fail");
}
echo "success";
?>

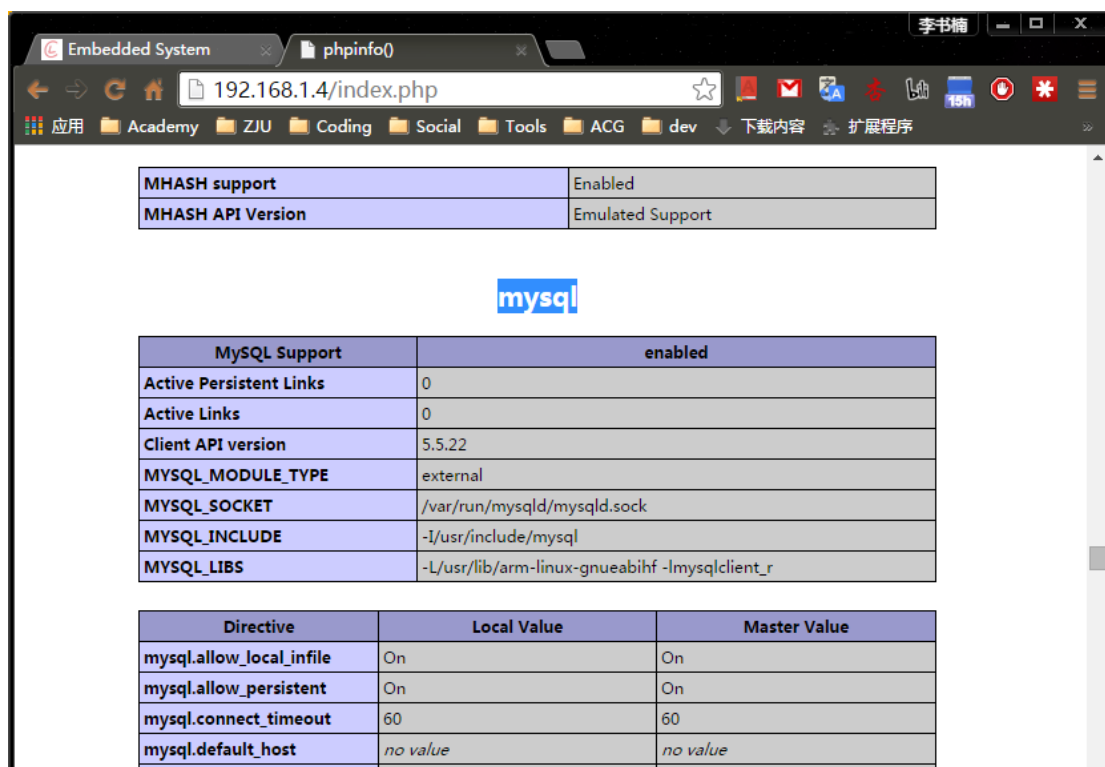
```

访问结果



startsuccess

可以看出有了对 MySQL 的支持



## 小结

有了 apt-get, PHP 环境在 Linux 的配置比在 Windows 上更加方便。