Homework #04
Web Hosting

Announce: 2008/11/25
Due: 2008/12/02 23:59:59

FAMP(FreeBSD+Apache+MySQL+PHP)

- ◉ Apache 2.2
  - › /usr/ports/www/apache22
  - › apache22_enable="YES" (/etc/rc.conf)
  - › /usr/local/etc/rc.d/apache22 start

- ◉ MySQL 5.0
  - › /usr/ports/databases/mysql50-server
  - › mysql_enable="YES " (/etc/rc.conf)
  - › /usr/local/etc/rc.d/ mysql-server start

- ◉ PHP 5
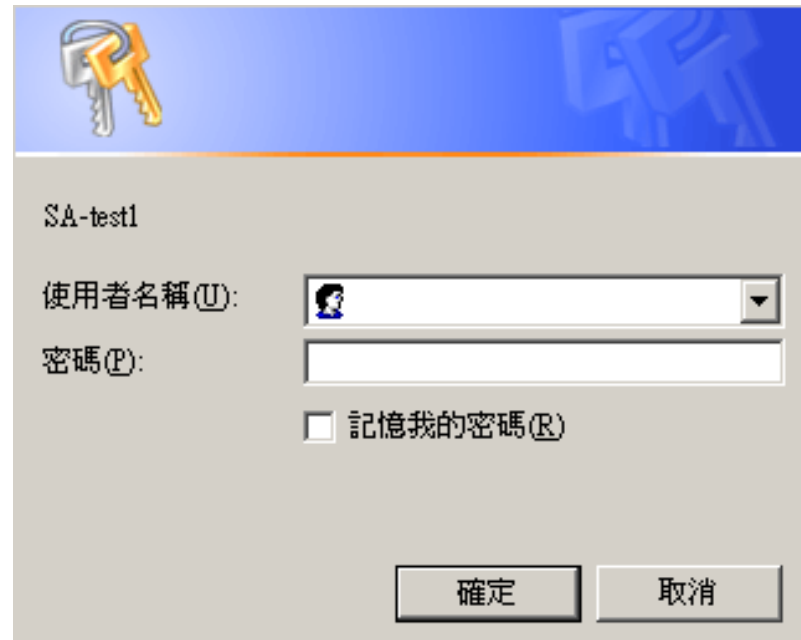 - › /usr/ports/lang/php5

Virtual Hosts(1/2)

- Providing services for more than one domain-name (or IP) in one web server.
- IP-Based Virtual Hosts vs. Name-Based Virtual Hosts
  - IP-Based   –Several IPs(or ports)
  - Name-Based   –Singe IP, several hostnames
- Apache Name-Based configuration example
  - /usr/local/etc/apache22/extra/httpd-vhosts.conf
  - Notice virtual host's DocumentRoot permission

Virtual Hosts(2/2)

- How Name-Based Virtual Hosts works?
  - It takes advantage of HTTP Headers.
- To do this homework , you need 2 domain name
  - http://twbbs.org/
  - http://www.dhs.org/
  - http://www.no-ip.com / (If you don't have static IP)

.htaccess

- ◉ You can use these tools
  - › http://www.linuxkungfu.org/tools/htaccesser/index.php
  - › http://www.htaccesseditor.com/

Userdir

⊙ Let users have their own web space

```
# User home directories
#Include etc/apache22/extra/httpd-userdir.conf
```

```
UserDir public_html
UserDir disabled root toor daemon operator bin tty kmem games news man sshd bind
proxy _pflogd _dhcp uucp pop www nobody mailnull smmsp
#
# Control access to UserDir directories.  The following is an example
# for a site where these directories are restricted to read-only.
#
<Directory /home/*/public_html>
  AllowOverride FileInfo AuthConfig Limit Indexes
  Options MultiViews Indexes SymLinksIfOwnerMatch IncludesNoExec
  <Limit GET POST OPTIONS>
    Order allow,deny
    Allow from all
  </Limit>
  <LimitExcept GET POST OPTIONS>
    Order deny,allow
    Deny from all
  </LimitExcept>
</Directory>
```

Blog

- You can use
  - Wordpress
  - Movable Type
  - Others you like or Write a system yourself
- Don't use BSP(blog service provider)

MySQL

- What is SQL(Structured Query Language)
  - The most popular computer language which is used to create, modify, retrieve and manipulate data from relational database management systems.
  - SQL Introduction: http://dev.mysql.com/doc/
- A multithreaded, multi-user, SQL Database Management System.

phpMyAdmin(1/2)

◉ phpMyAdmin can manage a whole MySQL server as well as a single database over the World Wide Web.

◉ Official Site: http://www.phpmyadmin.net/

◉ Documentation: http://www.phpmyadmin.net/documentation/

◉ Characteristics

  › Browser-based, Supporting PHP5.2+, MySQL 5.0+, Open Source

◉ There are four authentication modes offered : http, cookie, signon and config(the less secure one, not recommanded).

phpMyAdmin(2/2)

◉ Create another user with limited privilege
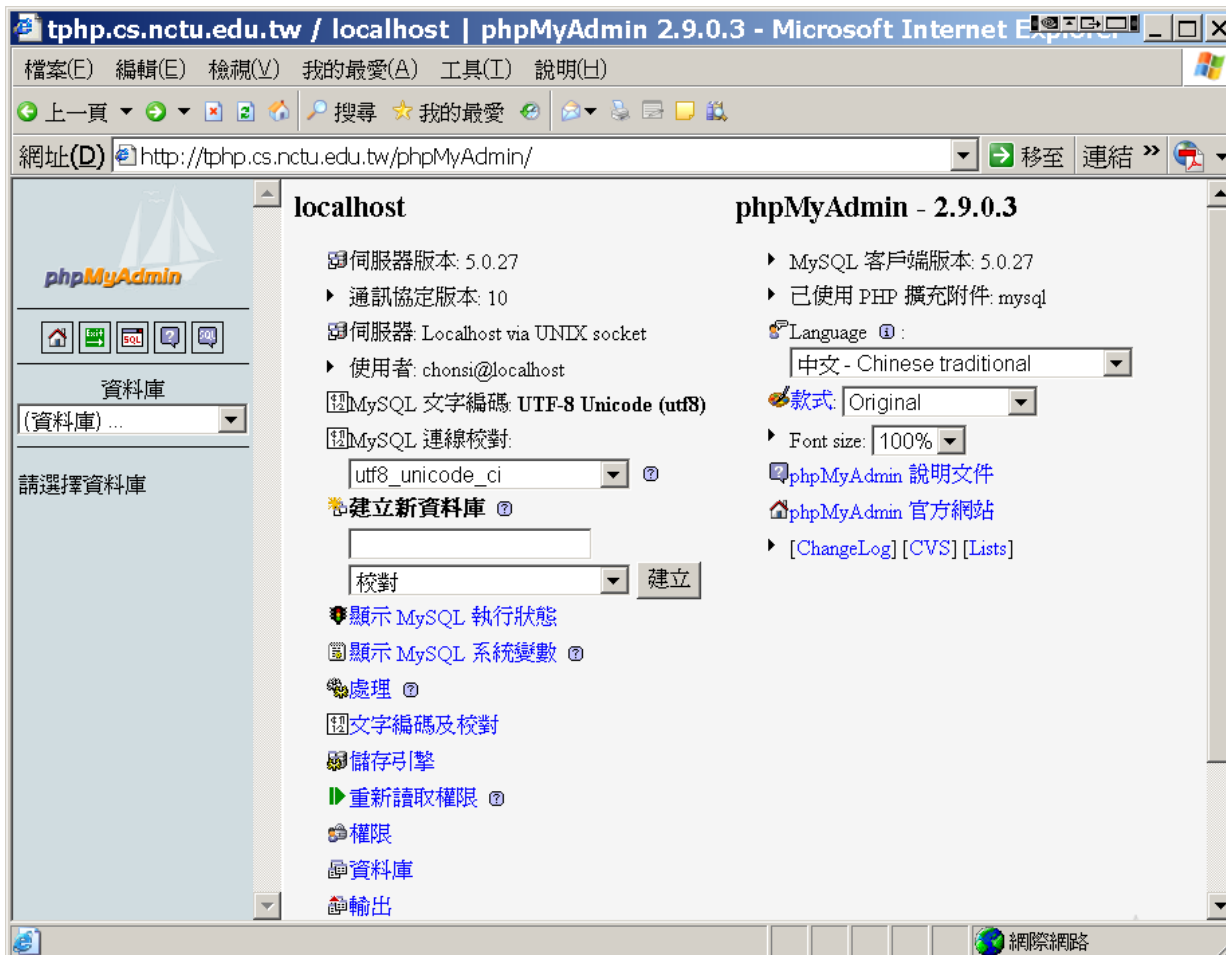
Bonus1 (3%)

- One of your domain name can use userdir, but another cannot.
  - For example
    - web. example.org's IP is 123.123.123.123
    - blog. example.org's IP is 123.123.123.123
    - http://web.example.com/~ych/ is valid, but http://blog.example.com/~ych/ is invalid.

Bonus2 (5%)

- suphp
  - A tool for executing PHP scripts with the permissions of their owners. By using this, user does not need set permission to others.
  - Official Site: http://www.suphp.org/
- Install suphp and config it
  - Don't permit a php file execution if user except file owner has its write permission.

Bonus3 (7%)

◉ mod_rewrite

> If users access http://yourdomain1/yyyy/mm/dd/, open a page shows "You are reading 'yyyymmdd'" .

> If user doesn't access your site's pictures(*.gif, *.bmp, *.jpg) from your site, redirect to http://yourdomain1/warning.htm to alert user.

   • Hint: HTTP_REFERER

Other Bonus?

- If you add extra features, please let TAs know. TAs will give bonus score according to degree of difficulty.
- This homework's score upper bound is 120.

Summary of requestions

◉ You need two host names use same IP address.

◉ When access http://yourdomain1/private/, user need enter id "nctucs" and password "sahw4" which is implemented by .htaccess.

◉ System user *sysadm* can put file at ~/WWW/ and others can access it by visiting http://yourdomain1/~sysadm/. *sysadm*'s password is your student id.

◉ Your blog domain name is http://yourdomain2/

◉ Users use cookie authentication when access your phpMyAdmin site http://yourdomain1/phpMyAdmin/ (You need to add a MySQL user for authentication). And notice that if others access http://yourdomain2/phpMyAdmin/, they can not access it.

Demo Time

- **Please make your service available from** 12/03 00:00 to 12/04 23:59.

- **If your service is not available when TAs demo, you will not get any score for this homework.**

- **If you have special reasons for service failed, please let TAs know before due.**