

Web Application Development 3

PHP Applications

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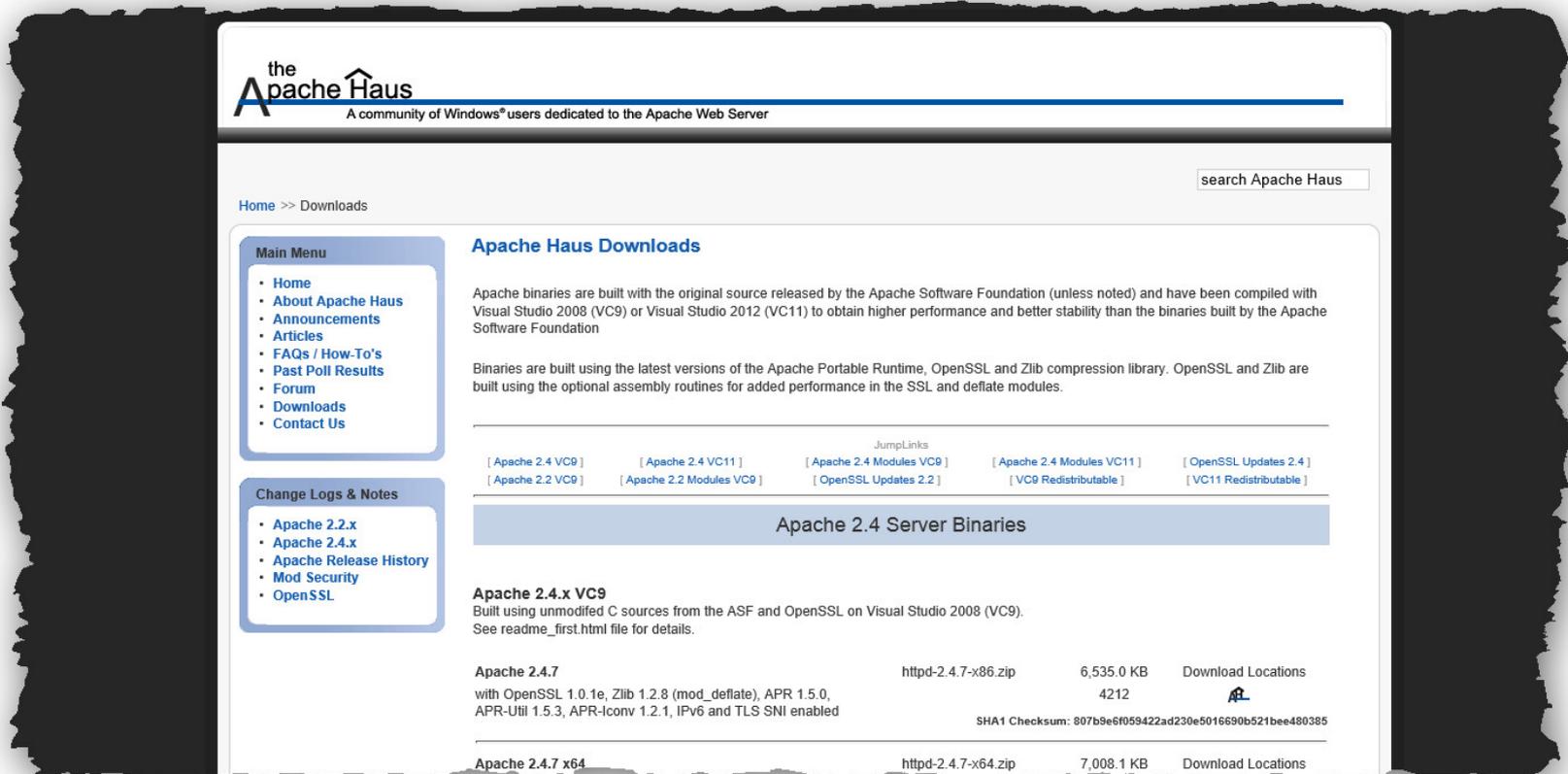
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- PHP & Apache HTTP Server
 - Deploying,
 - Configuring,
 - and Testing of PHP & Apache HTTP Server
- Access RDBMS via PHP
 - Get connection
 - Develop PHP in Eclipse
 - Execute SQL statement
- PHP + jQuery
- Yii Framework

- **The Apache HTTP Server**
 - commonly referred to as **Apache** (/ə'pætʃi:/ ə-PA-chee)
 - is a web server application notable for playing a key role in the initial growth of the World Wide Web User enters interacts with a web page.
- The Apache HTTP Server Project itself does not provide binary releases of software, only source code.
 - You can obtain a binary package from numerous binary distributions available on the Internet.
 - Popular options for deploying Apache httpd, and, optionally, PHP and MySQL, on Microsoft Windows, include:
 - [ApacheHaus](#)
 - [Apache Lounge](#)
 - [BitNami WAMP Stack](#)
 - [WampServer](#)
 - [XAMPP](#)



- Download a binary version
 - Unzip it on your disk



- Append the followings to `conf/httpd.conf`

```
PHPIniDir "E:/php-5.5.8/"
```

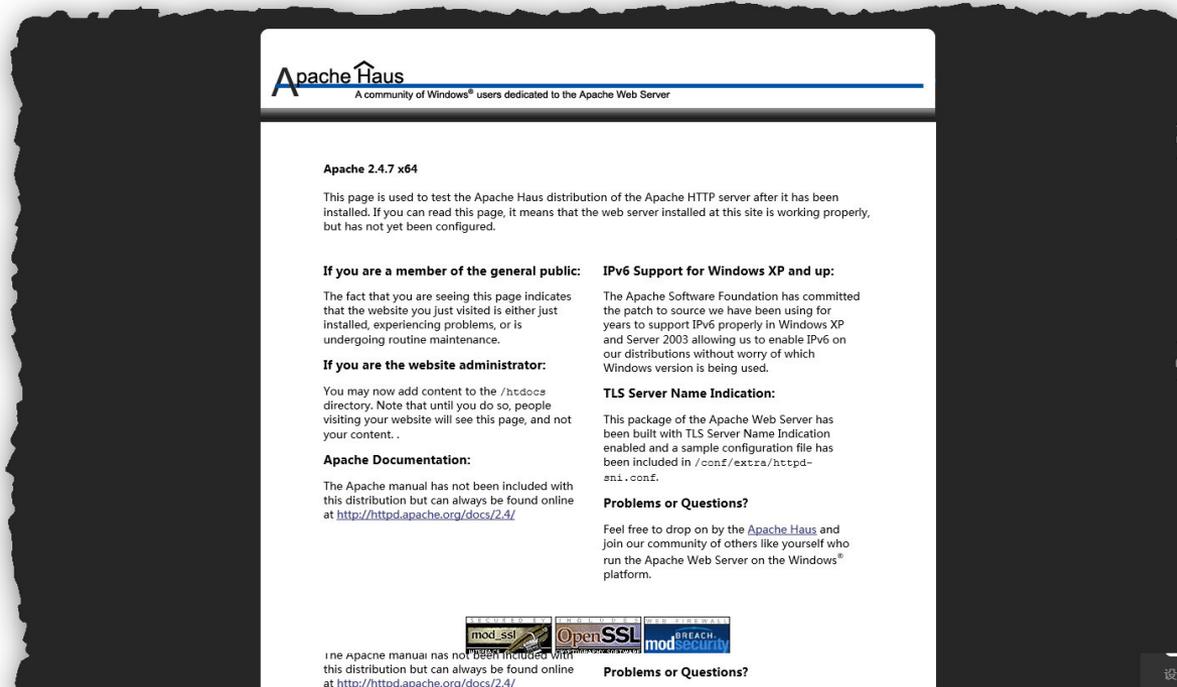
```
LoadModule php5_module "E:/php-5.5.8/php5apache2_4.dll"
```

```
AddType application/x-httpd-php .php
```

– where,

- `PHPIniDir` is the directory of PHP home.
- `LoadModule` is in the directory of PHP home, which allows the support to PHP is loaded as a module of Apache HTTP Server.

- Run `bin/httpd.exe`
 - The Apache HTTP Server will be running in a command window.
- Browse `http://localhost`
 - If the Apache HTTP Server is correctly deployed, you will see:

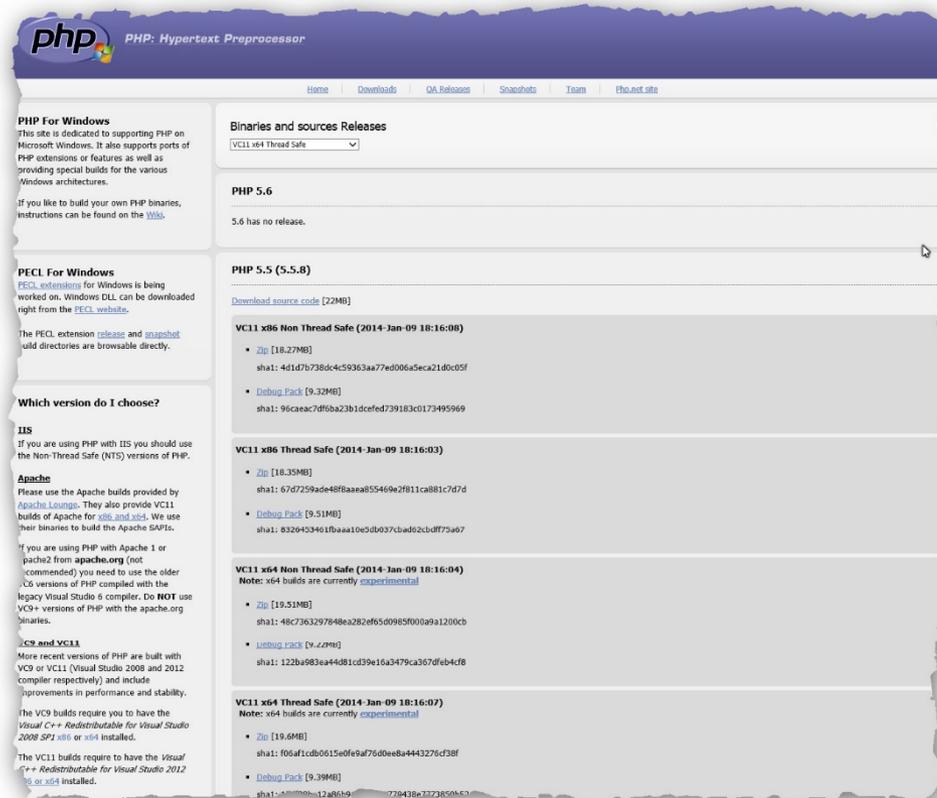


- PHP
 - Hypertext Preprocessor
 - PHP is a popular general-purpose scripting language that is especially suited to web development.
 - Fast, flexible and pragmatic, PHP powers everything from your blog to the most popular websites in the world.

From <http://www.php.net/>



- Download a binary version
 - <http://windows.php.net/download/>
 - php-5.5.8-Win32-VC11-x64.zip (VC11 x64 Thread Safe)
 - Unzip it on your disk



- Rename `php.ini-production` to `php.ini`
- Modify the followings in `php-5.5.8/php.ini`

```
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
; Paths and Directories ;
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
; On windows:
extension_dir = "E:/php-5.5.8/ext"
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
; Dynamic Extensions ;
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
; Windows Extensions
extension=php_curl.dll
extension=php_gd2.dll
extension=php_mbstring.dll
extension=php_mysql.dll
extension=php_mysqli.dll
extension=php_pdo_mysql.dll
extension=php_pdo_odbc.dll
extension=php_xmlrpc.dll
[Session]
session.save_path = "E:/php-5.5.8/tmp"; // this directory needs to be writeable
```

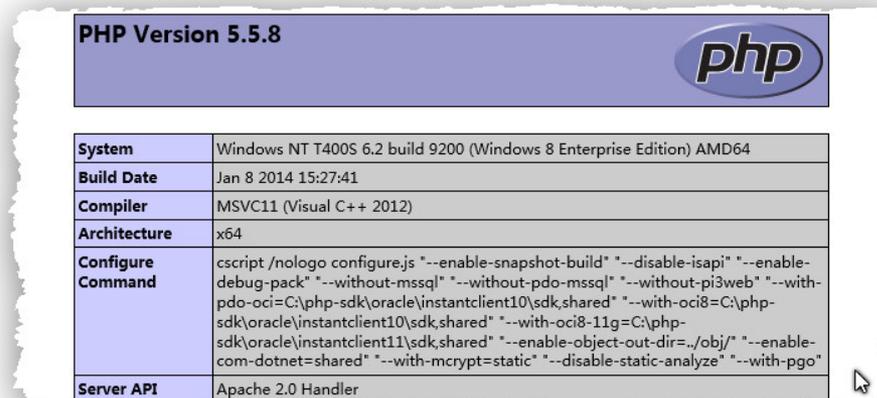
- Environment Variable
 - Add an entry to Path
 - PHP_HOME/ext
 - For example:
 - E:/php-5.5.8/ext

- Copy `php5ts.dll` to `system32`

- Edit `test.php` and deploy it into `Apache_HOME/htdocs`

```
<html>
  <head><title>test</title></head>
  <body>
    <?php  phpinfo();?>
  </body>
</html>
```

- Browse `http://localhost/test.php`
 - If the PHP is correctly deployed, you will see:



The screenshot shows the output of the `phpinfo()` function. At the top, it displays "PHP Version 5.5.8" next to the PHP logo. Below this is a table with the following information:

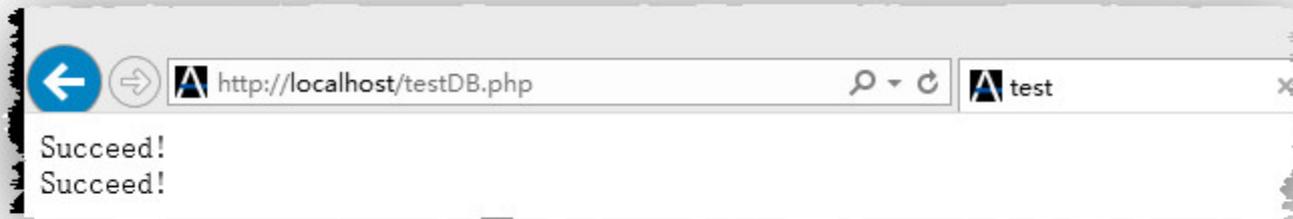
System	Windows NT T400S 6.2 build 9200 (Windows 8 Enterprise Edition) AMD64
Build Date	Jan 8 2014 15:27:41
Compiler	MSVC11 (Visual C++ 2012)
Architecture	x64
Configure Command	cscript /nologo configure.js "--enable-snapshot-build" "--disable-isapi" "--enable-debug-pack" "--without-mssql" "--without-pdo-mssql" "--without-pi3web" "--with-pdo-oci=C:\php-sdk\oracle\instantclient10\sdk,shared" "--with-oci8=C:\php-sdk\oracle\instantclient10\sdk,shared" "--with-oci8-11g=C:\php-sdk\oracle\instantclient11\sdk,shared" "--enable-object-out-dir=../obj/" "--enable-com-dotnet=shared" "--with-mcrypt=static" "--disable-static-analyze" "--with-pgo"
Server API	Apache 2.0 Handler

- Edit `testDB.php` and deploy it into `Apache_HOME/htdocs`

```
<html>
  <head><title>test</title></head>
  <body>
    <?php
      $dbhost = 'localhost'; //the ip of RDBMS server
      $dbuser = 'root'; //username
      $dbpassword= '12345678'; //password
      $connect = mysql_connect($dbhost,$dbuser,$dbpassword);
      if ($connect) {
        echo 'Succeed!<br>';
      } else {
        echo 'Failed!<br>';
      }

      $dbname = 'sample_one'; //the name of DB
      $db = mysql_select_db($dbname);
      if ($db) {
        echo 'Succeed!';
      } else {
        echo 'Failed!';
      }
    ?>
  </body>
</html>
```

- Create database `sample_one` in MySQL.
- Browse <http://localhost/test.php>
 - If all the configuration are correct, you will see:



- Append the followings to `conf/httpd.conf`

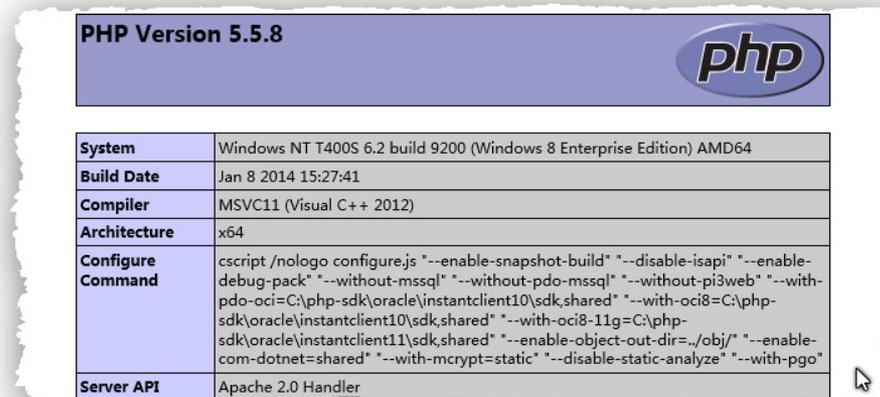
```
Alias /Workspace/ "E:/Projects/PHP/"  
<Directory "E:/Projects/PHP/">  
    Options Indexes MultiViews  
    AllowOverride None  
    Require all granted  
</Directory>
```

- where,
 - `Workspace` is the alias of the workspace of Eclipse.

- Window->Preferences->PHP->PHP Executables->Add
 - Name: PHP 5.5.8
 - Executable Path: E:/PHP-5.5.8/php.exe
 - PHP ini file(optional): D:/PHP-5.5.8/php.ini
 - PHP debugger: Zend Debugger
- Window->Preferences->PHP->PHP Server
 - Change Default PHP Web Server to <http://localhost/Workspace>
 - Where
 - `Workspace` is the alias configured in `conf/httpd.conf`

- New a project `HelloWorld`
- Edit `test.php`

```
<?php
    phpinfo();
?>
```
- Right Click on `test.php` and Run as ->PHP Web Page
 - The URL will be `http://localhost/workspace/HelloWorld/test.php`



PHP Version 5.5.8 

System	Windows NT T400S 6.2 build 9200 (Windows 8 Enterprise Edition) AMD64
Build Date	Jan 8 2014 15:27:41
Compiler	MSVC11 (Visual C++ 2012)
Architecture	x64
Configure Command	cmd /c "cd /d C:\php-sdk\oracle\instantclient10\sdk; .\configure.bat --enable-snapshot-build --disable-isapi --enable-debug-pack --without-mssql --without-pdo-mssql --without-pi3web --with-pdo-oci=C:\php-sdk\oracle\instantclient10\sdk,shared --with-oci8=C:\php-sdk\oracle\instantclient10\sdk,shared --with-oci8-11g=C:\php-sdk\oracle\instantclient11\sdk,shared --enable-object-out-dir=../obj/ --enable-com-dotnet=shared --with-mcrypt=static --disable-static-analyze --with-pgo"
Server API	Apache 2.0 Handler

- Get connection:

```
$dbhost = 'localhost'; //the ip of RDBMS server
$dbuser = 'root'; //username
$dbpassword= '12345678'; //password
$connect = mysql_connect($dbhost,$dbuser,$dbpassword);
```
- Select a database:

```
$dbname = 'sample_one'; //the name of DB
$db = mysql_select_db($dbname);
```
- Execute SQL statement:

```
$mysql_command = <statement>;
$result = mysql_query($mysql_command);
```
- Create a database:

```
$mysql_command = "create database testDB";
```
- Drop a database:

```
$mysql_command = "drop database if exists testDB";
```

- Create a table:

```
$mysql_command = "create table testOne (  
    id int not null primary key auto_increment,  
    column1 varchar(128))";
```
- Drop a table:

```
$mysql_command = "drop table testOne";
```
- Get server information:

```
echo mysql_get_server_info();
```
- Close connection:

```
mysql_close($connect);
```
- `die()` and `mysql_error()`:

```
$result = mysql_query($mysql_command)  
        or die(mysql_error());
```
- Client encoding:

```
mysql_client_encoding();
```

- Create records:

```
$count = 10;
while($count >= 1){
    $mysql_command = "insert into `testOne` values
                      ($count, 'Zhang San{$count}')";
    $result = mysql_query($mysql_command);
    $count --;
}
```

- Retrieve records:

```
$mysql_command = "select * from testOne";
$result = mysql_query($mysql_command);
while($row = mysql_fetch_object($result)){
    echo json_encode($row);
    echo '<br>';
}
```

- Update records:

```
$mysql_command = "update testOne set name = 'Zhang San 5'  
                WHERE id <= 10 or id >=1";
```

- Delete records:

```
$mysql_command = "delete from testOne WHERE id = 10";
```

- Error information:

```
mysql_error()  
mysql_errno()
```

- Persistent connection:

```
$connect = mysql_pconnect($dbhost,$dbuser,$dbpassword);
```

- Other functions

- <http://www.w3school.com.cn/php/index.asp>

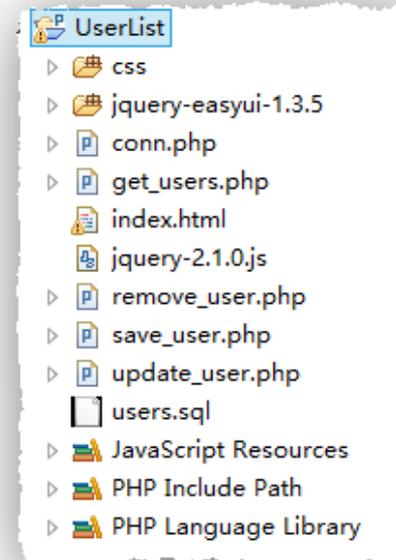
- jQuery
 - is a fast, small, and feature-rich JavaScript library.
 - jQuery v2.1.0



- jQuery EasyUI framework
 - helps you build your web pages easily
 - jQuery EasyUI v1.3.5



- New a PHP project in Eclipse
 - The structure of project is as the left figure
- This is a demo given by jQuery EasyUI
 - You can download it at [demo](#)



- `index.html`

```
<title>jQuery EasyUI CRUD Demo</title>
```

```
<link rel="stylesheet" type="text/css" href="css/easyui.css">
```

```
<link rel="stylesheet" type="text/css" href="css/icon.css">
```

```
<link rel="stylesheet" type="text/css" href="css/demo.css">
```

- index.html

```
<script type="text/javascript" src="jquery-2.1.0.js"></script>
<script type="text/javascript" src="jquery-easyui-1.3.5/jquery.easyui.min.js"></script>
```

```
<script type="text/javascript">
    var url;
    function newUser(){
        $('#dlg').dialog('open').dialog('setTitle','New User');
        $('#fm').form('clear');
        url = 'save_user.php';
    }

    function editUser(){
        var row = $('#dg').datagrid('getSelected');
        if (row){
            $('#dlg').dialog('open').dialog('setTitle','Edit User');
            $('#fm').form('load',row);
            url = 'update_user.php?id='+row.id;
        }
    }
}
```

- index.html

```
function saveUser(){
    $('#fm').form('submit',{
        url: url,
        onSubmit: function(){
            return $(this).form('validate');
        },
        success: function(result){
            var result = eval('(' + result + ')');
            if (result.success){
                $('#dlg').dialog('close');
                $('#dg').datagrid('reload');
            } else {
                $.messenger.show({
                    title: 'Error',
                    msg: result.msg
                });
            }
        }
    });
}
```

- index.html

```
function removeUser(){
    var row = $('#dg').datagrid('getSelected');
    if (row){
        $.messager.confirm('Confirm','Are you sure you want to
        remove this user?',function(r){
            if (r){
                $.post('remove_user.php',{id:row.id},function(result){
                    if (result.success){
                        $('#dg').datagrid('reload');
                    } else {
                        $.messager.show({
                            title: 'Error', msg: result.msg
                        });
                    }
                },'json');
            }
        });
    }
}
```

</script>

- conn.php

```
<?php
```

```
$conn = @mysql_connect('127.0.0.1', 'root', '12345678');  
if (!$conn) {  
    die('Could not connect: ' . mysql_error());  
}  
mysql_select_db('sample_one', $conn);
```

```
?>
```

- `save_user.php`

```
<?php
```

```
$firstname = $_REQUEST['firstname'];
$lastname = $_REQUEST['lastname'];
$phone = $_REQUEST['phone'];
$email = $_REQUEST['email'];

include 'conn.php';

$sql = "insert into users(firstname,lastname,phone,email)
      values('$firstname','$lastname','$phone','$email')";
$result = @mysql_query($sql);
if ($result){
    echo json_encode(array('success'=>true));
} else {
    echo json_encode(array('msg'=>'Some errors occurred.'));
}
```

```
?>
```

- `remove_user.php`

```
<?php
```

```
    $id = intval($_REQUEST['id']);
```

```
    include 'conn.php';
```

```
    $sql = "delete from users where id=$id";
```

```
    $result = @mysql_query($sql);
```

```
    if ($result){
```

```
        echo json_encode(array('success'=>true));
```

```
    } else {
```

```
        echo json_encode(array('msg'=>'Some errors occurred.'));
```

```
    }
```

```
?>
```

- `update_user.php`

```
<?php
```

```
$id = intval($_REQUEST['id']);
$firstname = $_REQUEST['firstname'];
$lastname = $_REQUEST['lastname'];
$phone = $_REQUEST['phone'];
$email = $_REQUEST['email'];

include 'conn.php';
$sql = "update users set firstname='$firstname',lastname='$lastname',
      phone='$phone',email='$email' where id=$id";
$result = @mysql_query($sql);
if ($result){
    echo json_encode(array('success'=>true));
} else {
    echo json_encode(array('msg'=>'Some errors occurred.'));
}
```

```
?>
```

- `get_users.php`

```
<?php
```

```
    $page = isset($_POST['page']) ? intval($_POST['page']) : 1;
    $rows = isset($_POST['rows']) ? intval($_POST['rows']) : 10;
    $offset = ($page-1)*$rows;
    $result = array();

    include 'conn.php';
    $rs = mysql_query("select count(*) from users");
    $row = mysql_fetch_row($rs);
    $result["total"] = $row[0];
    $rs = mysql_query("select * from users limit $offset,$rows");

    $items = array();
    while($row = mysql_fetch_object($rs)){
        array_push($items, $row);
    }
    $result["rows"] = $items;
    echo json_encode($result);
```

```
?>
```

- Browse <http://localhost/Workspace/UserList/index.html>

Basic CRUD Application

 Click the buttons on datagrid toolbar to do crud actions.

My Users

 New User  Edit User  Remove User

	First Name	Last Name	Phone	Email
1	Chen	Haopeng	(139)123-9876	chenhaopeng@gmail.com
2	Zhang	San	(010)987-6543	zhangsan@hotmail.com
3	Li	Si	(021)345-6789	lisi@163.com

10 

Page 1 of 1

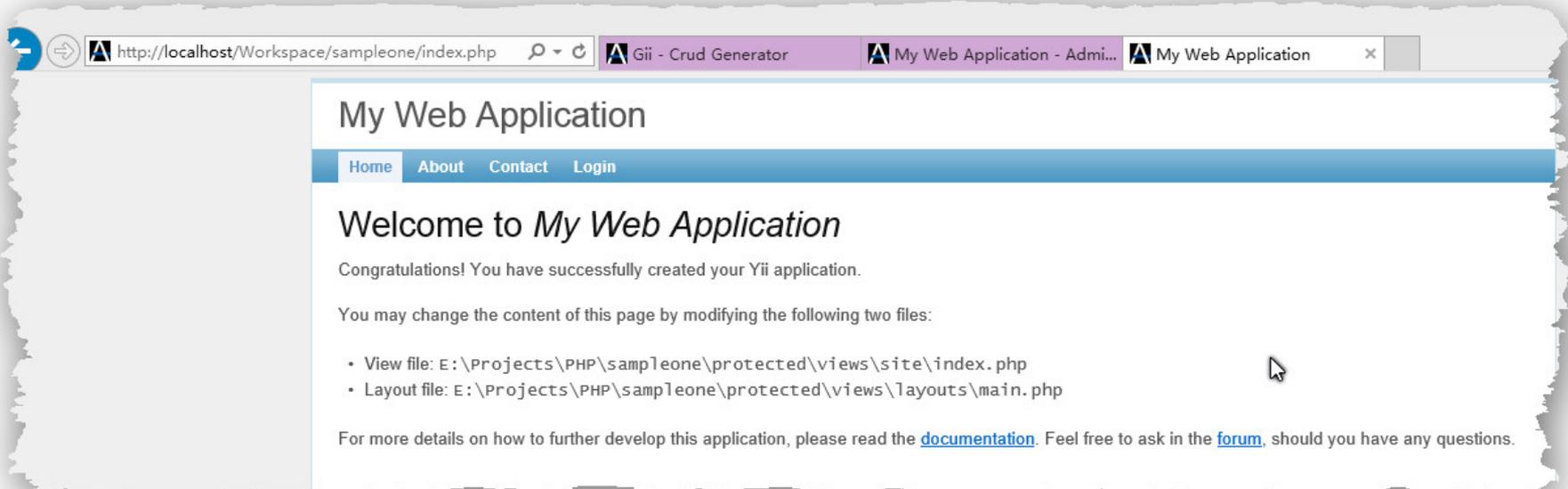
Displaying 1 to 3 of 3 items

- Yii is a high-performance PHP framework best for developing Web 2.0 applications.
- Download Yii v1.1.14
 - And unzip the archive,
 - Copy the directory `/framework` and `/requirements` to
 - `Apache/htdocs`, or
 - `Eclipse/Workspace`
 - Run `yiic.bat` in `/framework` to generate your web application
 - `yiic webapp <app-path> [<vcs>]`
 - Where,
 - `app-path`: required, the directory where the new application will be created.
 - `vcs`: optional, version control system you're going to use in the new project.

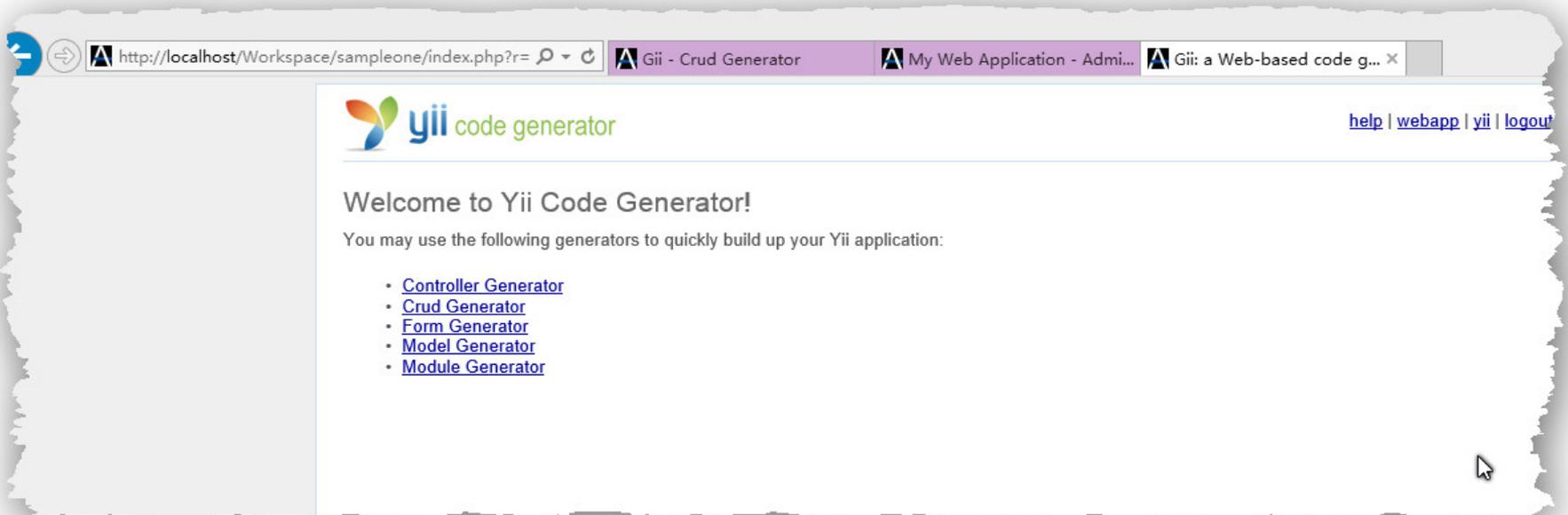


- Uncomment
 - `extension=php-pdo-sqlite`in `php.ini`
- Modify
 - `webapp/protected/views/layouts/main.php(51)`
 - Add `date_default_timezone_set('Asia/Shanghai');`
 - `webapp/protected/config/main.php`
 - Uncomment line(24) `gii` part
 - Uncomment line(50) `db` part
 - `webapp/protected/config/console.php`
 - Uncomment line(19) `db` part
- Remember,
 - The directory of `session.save_path` should be **writable**.

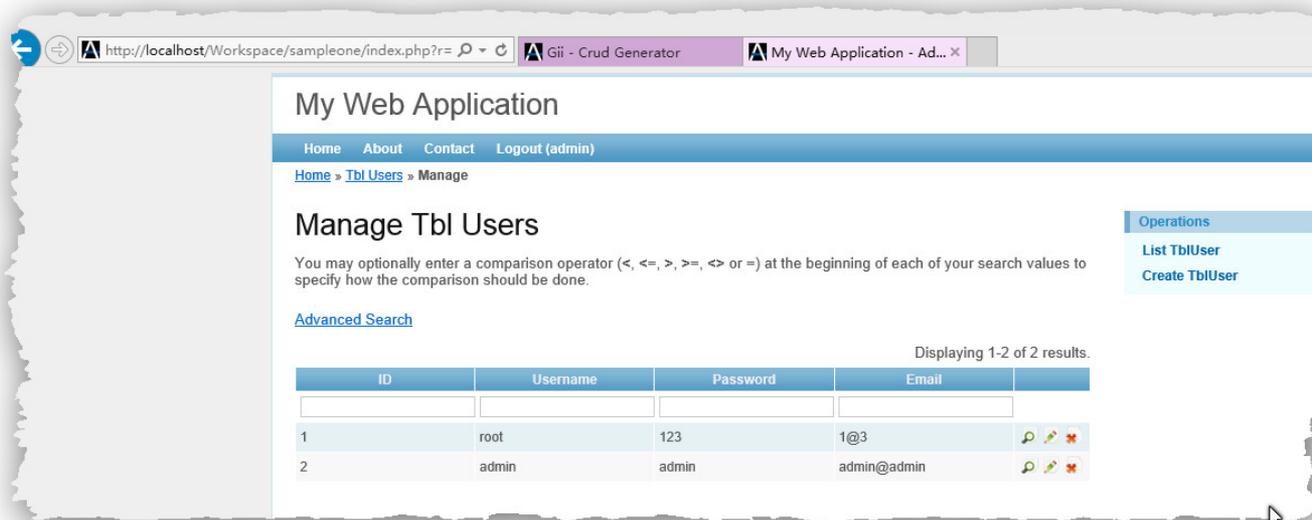
- You first web application
 - <http://localhost/sampleone/index.php> (in the case of Apache), or
 - <http://localhost/Workspace/sampleone/index.php> (in the case of Eclipse)



- Use `gii` to generate code
 - <http://localhost/Workspace/sampleone/index.php?r=gii>
 - After logged in, you will see:



- Create a table
create table tbl_user (
id integer not null primary key auto_increment,
username varchar(128) not null,
password varchar(128) not null,
email varchar(128) not null);
- Generate code with the **Model Generator** and **CRUD Generator**



The screenshot shows a web browser window with the URL `http://localhost/Workspace/sampleone/index.php?r=`. The page title is "My Web Application". The navigation menu includes "Home", "About", "Contact", and "Logout (admin)". The breadcrumb trail is "Home » Tbl Users » Manage". The main heading is "Manage Tbl Users". Below the heading, there is a text box for search criteria with a note: "You may optionally enter a comparison operator (<, <=, >, >=, <> or =) at the beginning of each of your search values to specify how the comparison should be done." There is a link for "Advanced Search". On the right side, there is a "Operations" menu with "List TblUser" and "Create TblUser" options. Below the search area, it says "Displaying 1-2 of 2 results." and shows a table with the following data:

ID	Username	Password	Email	
1	root	123	1@3	  
2	admin	admin	admin@admin	  

- To develop a Book Store with PHP
 - jQuery UI
 - MySQL DB
 - Apache HTTP Server
 - To implement the CRUD of book, order and user.
 - You can design the structure of book, order and user tables as your will.

- PHP Documentation, <http://www.php.net/manual/en/>
- Using Apache HTTP Server on Microsoft Windows, <http://httpd.apache.org/docs/2.4/en/platform/windows.html>
- Windows7 下安装配置Apache2.2+PHP5.4+MySQL5.5环境, <http://www.54xue.com/w/23/n-31523.html>
- 搭建Eclipse PHP开发环境, <http://blog.csdn.net/zhoudaxia/article/details/5271250>
- PHP 教程, <http://www.w3school.com.cn/php/index.asp>
- Build CRUD Application with jQuery EasyUI, <http://www.jeasyui.com/tutorial/app/crud.php>
- Yiiframework, <http://www.yiiframework.com/>



Thank You!