

Create an interactive production wiki using PHP, Part 1: Introduction and scaffolding

Skill Level: Intermediate

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This "[Create an interactive production wiki using PHP](#)" series creates a wiki from scratch using PHP, with value-added features useful for tracking production. Wikis are widely used as tools to help speed development, increase productivity, and educate others. Each part of the series develops integral parts of the wiki until it is complete and ready for primetime, with features including file uploading, a calendaring "milestone" system, and an open blog. The wiki will also contain projects whose permissions are customizable to certain users.

Section 1. Before you start

This "[Create an interactive production wiki using PHP](#)" series is designed for PHP application developers who want to take a run at making their own custom wikis. You'll define everything about the application, from the database all the way up to the wiki markup you want to use. In the final product, you will be able to configure much of the application at a granular level, from who can edit pages to how open the blog really is.

At the end of this tutorial, you will have learned what goes into making a wiki, considerations in defining your wiki markup, potential pitfalls and challenges in dealing with file uploads, and some implications involved when setting up an environment where content is edited by a collective, rather than an individual. Some of these issues can make wikis tricky. But they can also make them great.

About this series

Part 1 of this series will draw the big picture. You will determine how you want the application to look, flow, work, and behave. You'll design the database and rough-out some scaffolding. [Part 2](#) focuses on the primary wiki development, including defining the markup, tracking changes, and file uploads. In [Part 3](#), you define some users and groups, as well as a way to control access to certain aspects of individual Wiki pages and uploaded files. [Part 4](#) deals with a Calendaring and Milestones feature to track tasks, to-dos, and progress against set goals. And in [Part 5](#), you put together an open blog to allow discussion of production topics and concerns.

About this tutorial

PHP is a popular language choice when developing Web applications. Binary and source versions are available, and while the binaries are Windows®-specific, the source can be compiled for most common platforms. PHP is widely available at most third-party hosting companies. It's easy to learn, but at the same time, it's powerful, flexible, and capable. All of these things make PHP a good choice for writing a wiki engine.

This tutorial focuses on application design. After you get your prerequisites out of the way, you'll get a picture for how the application is going to look, and jump into the database design and scaffolding parts. You're building the beginnings of your custom PHP wiki engine. But rather than refer to it as "your custom PHP wiki engine," you are going to have to give it an easy-to-remember name, such as *Criki*.

Topics include:

- What makes a wiki?
- Criki's architecture
- Database design
- Scaffolding

Prerequisites

It is assumed that you have some experience working with PHP and MySQL. We won't be doing a lot of deep database tuning, so as long as you know the basic ins and outs, you should be fine. You may find it helpful to download and install [phpMyAdmin](#), a browser-based administration console for your MySQL database.

System requirements

Before you begin, you need to have an environment in which you can work. The general requirements are reasonably minimal:

- An HTTP server that supports sessions (and preferably `mod_rewrite`). This tutorial was written using Apache V1.3 with `mod_rewrite` enabled.
- PHP V4.3.2 or later (including PHP V5). This was written using PHP V5.0.4
- Any version of MySQL from the last few years will do. This was written using MySQL V4.1.15.

You'll also need a database and database user ready for your application to use. The tutorial will provide syntax for creating any necessary tables in MySQL.

Additionally, to save time, we will be developing Criki using a PHP framework called CakePHP. Download CakePHP by visiting CakeForge.org and downloading the latest stable version. This tutorial was written using V1.1.13. For information about installing and configuring CakePHP, check out the tutorial series titled "Cook up Web sites fast with CakePHP" (see [Resources](#)).

Section 2. Introduction

If you've ever had to work on a project with people who were scattered geographically, you've probably used something to collaborate online. Historically, collaboration software has been heavy, overbearing, and pointlessly complicated, often a hindrance to collaboration. But as wikis have risen into common usage, people have put them to good use as a tool in support of collaboration.

Wikis can be fun tools to use. They derive a lot of power from their openness and simplicity. Building your own wiki engine from scratch can be an enlightening exercise as you get a good look at what's going on behind the scenes. But before you start, you should get an idea for what a wiki typically looks like.

What makes a wiki?

There are many wiki flavors, and wiki engines (the software behind the wiki) have been written in just about every language suitable for the Web. But most of these

have the same kinds of features:

Browser-based

A wiki typically runs in the context of a Web browser.

Open editing

Generally, anyone who can access the wiki can add to or edit the content.

Wiki markup

A wiki typically uses a sort of meta-language for formatting that acts as a shorthand version of HTML.

Simplicity

Because wikis are used for collaboration, they are generally designed as simple tools that can easily used by most anyone. The focus is on authoring and presentation of information.

Some wikis require user registration and are less open. Some allow for use of raw HTML, rather than a markup language. But these general features hold true when looking at most Wiki engines.

Section 3. Architecture

In the process of planning the development of Crik, there are several things to consider. Start by determining how the application is going to flow and consider what kind of markup will be used, how uploaded files will be stored, what levels of user permissions will be used, how users will be promoted (and demoted), and how pages will be protected (and unprotected). Considering these beforehand will give you a clearer path when coding later.

How is Crik going to flow?

Before you write a line of code, you should spend some time getting a clear picture for how your application is going to flow. You don't have to have precise determinations for UI specifics at this point (though having them won't hurt you), but you need a clear idea of what happens when you submit a page, add a user, edit text, upload a file, etc. As you go through this process, it is important to keep your target audience in mind. Sure, it may make sense to you, but you are not the only one using the application.

Types of users in Criki

What kinds of users will be using Criki? You shouldn't overthink this. Keeping in mind the open nature of wikis in general, defining every possible kind of user would be an exercise in frustration. Keep it simple:

Administrators

The highest level of user. Usually there would only be one administrator. Administrators will have full access to all users and pages within Criki.

Editors

Since Criki is to be used to manage projects, the project managers, team leaders, or tech leads might be editors. They will have some rights over some users and some rights over some pages.

Contributors

This is your average run-of-the-mill user. Contributors will have no rights over other users and minimal rights over some pages.

That should be enough user type definition. Remember, wikis derive much of their power from their openness. As you begin to use Criki more, you may find it beneficial to add other user types, but for now, these three should suffice.

Administering Criki

You are probably going to be the one administering Criki. And this can serve as a good place to start. Not because this will represent the most common of your tasks but because it will represent the most complex of your tasks. And it's the complex tasks, not the common ones, that will shape the bulk of the back end to Criki.

Start by identifying the tasks only an administrator will be able to perform:

1. Changing Criki configuration options
2. Removing a page completely from Criki
3. Removing a user from Criki
4. Removing an uploaded file from Criki
5. Promoting or Demoting any page to any access level
6. Promoting or Demoting any user to any access level

Promotion and demotion could be accomplished with a single button click. Removing a page, user, or uploaded file should have a confirmation box or the ability to recover from mistakes. For simplicity, a confirmation box will be used. Changing Criki configuration options will require its own page.

Editor tasks in Criki

There could be any number of editors using Criki. They should have access to more features than contributors, but they should not be able to access administrative tasks. Specifically, editors should be able to:

- Promote or demote any page to or from editor-level access
- Promote or demote any user to or from editor-level access

Again, promotion and demotion could be accomplished with a single button click. There's no need to overcomplicate the flow.

The security-minded might raise a hand at this point and point out the potential problems that come from this kind of structure. If two editors were to get into a disagreement, one of them could simply demote the other, causing arguments, escalations, hurt feelings, floods, fires, earthquakes, and plagues of locust. These kinds of concerns are worth considering when dealing with a wiki, but keep in mind that the general nature of a wiki and, indeed, what gives a wiki its power is its openness. There is inherent trust in the power structure.

But there doesn't have to be. Editor rights could just as easily be controlled by configuration settings, indicating what editors can and cannot promote or demote. By giving the administrator this level of control of the application configuration, you give the administrator the ability to configure the application to meet the needs at hand.

User registration in Criki

User registration in Criki could take a couple different forms:

- A user could self-register by entering e-mail address, name, and password.
- Users could only be able to register using a link from an invitation sent by an administrator or editor.
- Administrators and editors could have the ability to register users directly.

In all three cases, the user registration forms will look identical -- an e-mail field, a display name, and a password (and confirmation box). The primary difference

between them is who can perform the action.

In the first case, the user registration page is wide open. Anyone can access it and create an account. In the second case, the user registration page requires a valid invitation code to work properly, but the access levels for the page are the same as the first case. In the third case, access to the registration page is restricted.

In all three cases, the user registration process will flow exactly the same way: The form is filled out, the user is created, and a welcome e-mail is sent. Given the similarities of the three options, why do them all? The method used can be controlled using a configuration setting. This allows the administrator to determine which method works best.

Adding pages to Criki

Is Criki going to allow anyone to add pages to the wiki or will this be restricted to contributors? This is another place where putting the choice into a configuration setting can give the administrator power. Regardless of who can add pages to the wiki, the form to add the page will look exactly the same.

Generally, adding a page to a wiki is a two-part process. First, someone creates a link to the page that has not yet been created. When the wiki engine renders this link and sees that the page does not exist, the link is visually changed in some fashion and is changed to point to the edit page. Then, when someone clicks the link, the edit page is loaded. When the form is submitted, the page is created.

This is a sensible approach to adding pages to Criki. You could give Criki the ability to add a page directly, but unless it is linked to by another page, the page will be an *orphan* in that it won't be visible from anywhere in the wiki unless you make a page to show all pages that are not linked to from any other page.

Once you get in the mindset that adding pages is just like editing pages -- potentially with differing access levels -- all the important questions are answered by identifying what happens when a page is edited.

Editing pages in Criki

Who can edit pages in Criki? Anyone? Only contributors? Only editors? The same people who can add pages? Once again, this can be put into a configuration setting, so the administrator can determine what works best. Generally, if someone can add a page, someone can edit a page. But that may not always be the case. In some cases, the administrator may want to restrict edits by default.

More important to consider is what happens when a page is edited? Specifically:

- Is the page locked for editing when someone clicks the **Edit** button?
- If so, what happens if a user starts an edit and closes the browser?
- If not, what happens if two users edit the same page?
- Can the user preview changes?
- Does the user have to preview changes before submission?
- Is the page history tracked?
- Are you going to provide revision diffs?
- What information are you going to track about edits?

Most of these things wouldn't be of much use as a configuration setting. For simplicity, Criki will not lock a page when a user clicks an **Edit** button. If two users edit the same page at the same time, the last one submitted will win. A full history of edits will be kept, including the user and IP address of the person who edited the page. A user can preview pages, but doesn't have to. Criki won't provide version diffs.

Reading pages in Criki

Now you are getting down to the more mundane tasks in the wiki. Reading pages will be the bulk of what your users will be doing. Reading a page should be as simple as passing the page name to a controller, verifying that the user has rights to read the page, and retrieving the text for display.

Access verification should be a simple matter, as the permissions on the actual wiki pages will be fairly open. But some pages will be only readable by editors and administrators. Keep in mind that, since the page text was stored in the database in wiki markup, it is during page retrieval and formatting that this markup will need to be rendered into HTML.

Uploading files to Criki

Uploading files is a powerful feature, but it needs to be handled with care. Once you give users the ability to upload files to your application, you open up a world of potential security issues. For example, if you allow any user to upload any kind of file, and if the file was directly accessible via a browser, a malicious user could upload his own PHP file that could be used to manipulate the file system, delete files, elevate access rights, etc.

Therefore, it follows that file types should be restricted or uploaded files should not

be directly accessible via a browser, or both. For Crikki, you will allow the administrator to control what file types can be uploaded via a configuration setting. The files will be stored on the file system. Taking this approach puts both the power and the responsibility firmly in the hands of the administrator.

If a file is uploaded that has the same name as an existing file, the existing file will be backed up and marked with a revision number.

What markup will Crikki use?

No two wiki engines use exactly the same markup. Since you are writing Crikki from scratch, you can tailor the markup to suit your specific needs. For our purposes, the markup will be kept fairly simple:

- Wrapping text in three equal signs (===) will cause the text to be wrapped in <h3> tags.
- Wrapping text in three single quotes (""") will cause the text to be wrapped in <i> tags.
- Wrapping text in three exclamation points (!!!) will cause the text to be wrapped tags.
- Wrapping text in three underscores (___) will cause the text to be wrapped in <u> tags.
- Wrapping text in three ampersands (&&&) will cause the text to be wrapped in <pre> tags.
- Wrapping text in triple braces ([[like this]]) will cause the text to be turned into a link. If the text does not appear to be a URL, the link will be interpreted as a link to another page on the wiki, stripping out nonalphanumerics. An alternate name may be provided following a pipe (|). For example:
 - [[ftp://ftp.yourdomain.com]] will output a link to ftp.yourdomain.com with the text "ftp.yourdomain.com"
 - [[ftp://ftp.yourdomain.com|my ftp site]] will output a link to ftp.yourdomain.com with the text "my ftp site"
 - [[how to do it]], [[howtodoit]], [[HowToDoIt]] and [[how_to_do_it]] will all output links to the wiki page "howtodoit." The text of the link will be whatever was wrapped in the braces.
 - [[howtodoit|Instructions]] will output a link to the wiki page "howtodoit" with the text "Instructions."

- Consecutive lines beginning with an asterisk (*) will be rendered as an unordered list ().
- Consecutive lines beginning with a pound sign (#) will be rendered as an ordered list ().
- Three dashes (---) on a line by themselves will be rendered as an <hr /> tag.
- URLs beginning with 'http:/' will automatically be turned into hyperlinks.

When applying the markup, it will be important to consider the order in which you apply the various markups. Specifically, the &&& markup should be applied first, as it is most likely to contain code fragments and comments that could be interpreted as markup. You should experiment with the application of the various markups to determine what happens when markups are nested. Cwiki should handle nested markup gracefully. That is to say: It's not as important to render the markup properly as it is to *not* render the markup badly.

For example, consider the following lines.

```
===I don't want to fight
*unless I have to===
```

What's the proper way to render these lines? Taken literally, they would be rendered something like Listing 1.

Listing 1. Improper rendering of lines

```
<h3>I don't want to fight
<ul>
<li>unless I have to</li>
</ul>
</h3>
```

That's probably not going to look the way it's intended to or the way the user wanted it to. But it's not as simple as grabbing the biggest match for your patterns (greedy pattern matching). Consider the following lines:

Listing 2. Lines to be rendered

```
===I don't want to fight===
*unless I have to
*And I don't want to
===If you have to fight===
*Fight Dirty
*Win
```

Greedy pattern matching might render the text as shown below.

Listing 3. Poorly rendered lines

```
<h3>I don't want to fight===  
*unless I have to  
*and I don't want to  
===If you have to fight</h3>  
<ul>  
<li>Fight Dirty</li>  
<li>Win</li>  
</ul>
```

Again -- not what you're after. You don't have to solve this problem right now, but it's a good idea to keep it in the back of your mind, so you can chew on it while you design the rest of the Crik.

Section 4. How will Crik do all that?

So you know basically how you want Crik to work. Now you can start working out how you are going to put it together. Since we're doing this in CakePHP, we'll be using a standard Model-View-Controller (MVC) design.

MVC overview

Model-View-Controller (MVC) refers to a specific method of designing an application. While a full discussion of MVC is outside the scope of this tutorial, the main points will be touched on briefly.

MVC breaks an application into three distinctive pieces: Model, View, and Controller. Each part of the application is responsible for specific tasks.

The Model is primarily concerned with saving and retrieving data. All database interaction takes place within the Model. The Model takes data from the Controller and saves it into the database, and the Model retrieves data from the database and passes it on to the Controller.

The Controller is primarily concerned with logic. This is where the bulk of the application workload is done. The Controller takes data from the Model, applies logic, and passes output to the View to be displayed to the user. The Controller also takes input from user, applies logic, and makes decisions based on the input (such as passing the input to the Model to be saved or passing other information to the

View to be displayed).

The View is primarily concerned with presentation. This is where the HTML lives. The View takes output from the Controller, and formats it for display to the user. In MVC, application logic is separated completely from presentation logic.

Taking the MVC approach has many benefits. If you need to switch to a new database vendor, for example, you can update the Model code without having to wade through presentation and application logic. To change the look of the application, you can update the View code without having to touch the application logic or database code. Keeping the three layers separate generally makes each layer and, thus, the application as a whole, easier to maintain.

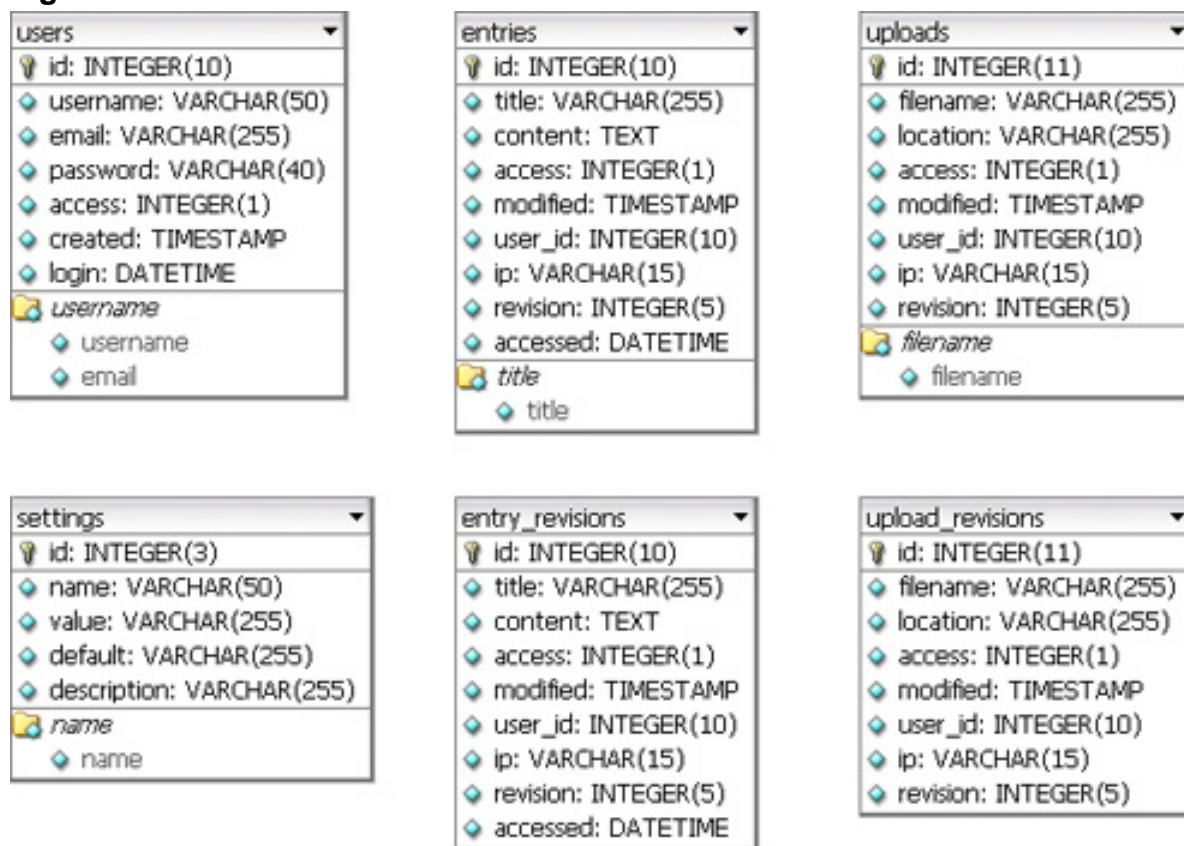
Designing the database

Now that you have a fairly good idea for how you want Criki to be used and how it will be put together, you can start thinking about how Criki will go about accomplishing its various tasks. Looking back through the list of tasks, you should start to get an idea for how the database is going to look. You're going to need:

1. **A table to hold user data** -- This will need to hold at least a user name (unique), e-mail (unique), password, and access level. Other information you may want would include a numeric ID for the user, creation date, and last login date.
2. **A table to hold page data** -- This will need to hold at least a page name (unique), page content, page access level, last-modified date, user who last edited the page, and the IP address of that user (for when user registration is not required). Other information you may want would include a numeric ID for the page, as well as maybe a revision number and last-accessed timestamp.
3. **A table to hold uploaded file data** -- You could probably get by without this, but by putting uploaded file information into its own table, you eliminate the need to walk the directory where files have been uploaded, while making it easier to store things like file access rights. This table will need to hold at least a file name (unique), location, revision number, and access rights. Other information you may want would include a numeric ID for the file, user who uploaded the file, and IP address of the user uploaded the file (for times when file upload does not require user registration).
4. **A table to hold page history** -- This will look exactly like the page table, with the exception that page name need not be unique.

5. **A table to hold file history** -- This will look exactly like the file table, with the exception that page name need not be unique.
6. **A table to hold configuration settings** -- This would probably work best as an entity-attribute-value (EAV) table. An EAV table is designed to hold an arbitrary number of values by using generic column names such as "id" and "value," rather than specific column names like "enable_fileupload" or "access_level." By storing the configuration settings in this fashion, you allow yourself room to easily add additional configuration options to Crikri in future releases, while at the same time making it easier for the administrator to change the configuration options via a browser interface, rather than via a configuration file. For Crikri, you're going to add a field called "description" that will be used as the label for the configuration field. See Figure 1.

Figure 1. Crikri tables



Six tables -- that's all you should need to get the basics of Crikri in place. Go ahead and run the SQL script included with the [source code](#) now. Then we'll use some built-in CakePHP shortcuts to help us get a leg up on the application.

Section 5. Scaffolding

You have the database created. It's time to get cracking. CakePHP ships with a script called Bake that will help get you up and running, but before you bake your controllers and views, you need to create your models.

Creating the models

All the models you create will go in the `app\models` directory where you installed Cake. Keep in mind that in CakePHP, models are singular, while database table names are plural. For example, the basic model for the entries table would be called `entry.php` and would look like this:

Listing 4. Basic model entries table

```
<?php
class Entry extends AppModel {

    var $name = 'Entry';

}
?>
```

Yes -- CakePHP is smart enough to know that the plural form of "entry" is "entries."

Save the entry model and create models for `entry_revision`, `settings`, `upload`, `upload_revision`, and `user`. All the models will look almost identical to the one above -- just a class definition and a `$name`. If you're not sure you got them right, check the models in the accompanying [source code](#).

Baking the controllers

Now that you have the database and models in place, you can use the Bake code generator tool that ships with CakePHP to get a quick scaffold up for Crik. Before you proceed, you should back up the `app` directory for your CakePHP installation, as Bake will overwrite some files that exist there. If you are doing all of your work on a fresh install, you shouldn't need to back anything up. Additionally, if this is your first time using the Bake code generator, you may need to change the value of `max_input_time` in the `php.ini` file, as Bake might time out if you take too long.

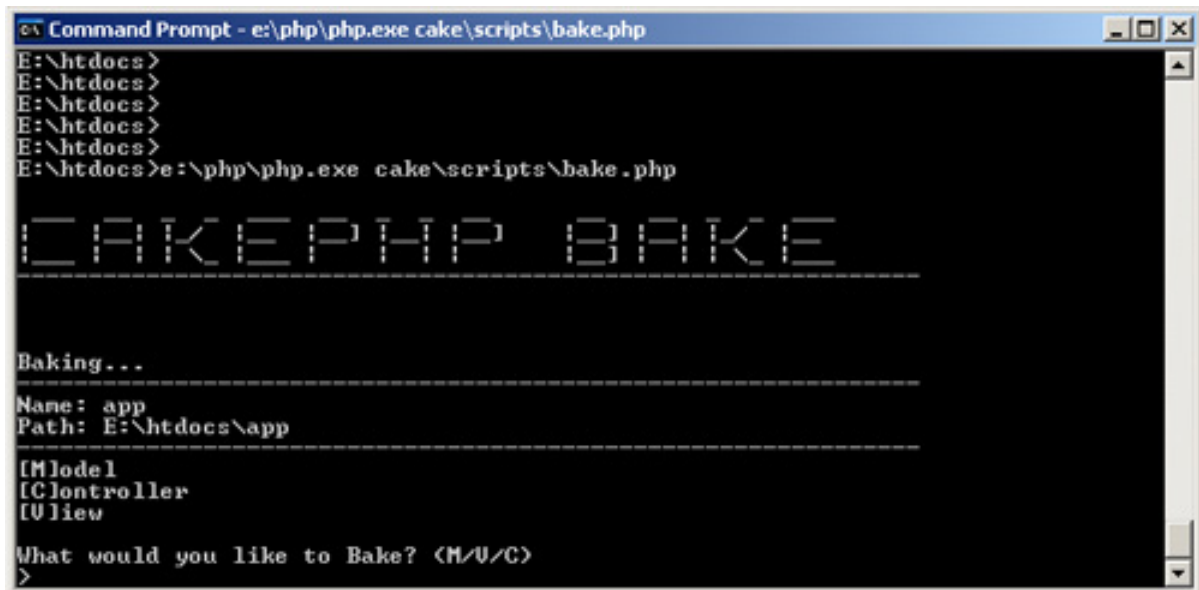
In this case, running Bake is a snap. `cd` into the directory where you installed CakePHP and execute the `bake.php` script located in `cake\scripts\`. For example, if

you installed CakePHP in the directory `\htdocs`, you need to `cd` into `\htdocs` and run `php cake\scripts\cake.php`.

If you have problems getting Bake to run, make sure you are in the directory where you installed Cake and that the `php.exe` is in a directory located in your path. If it's not, you should just be able to specify the full path to the `php.exe` binary.

To start, you'll be presented with the Bake menu.

Figure 2. Bake menu



```
Command Prompt - e:\php\php.exe cake\scripts\cake.php
E:\htdocs>
E:\htdocs>
E:\htdocs>
E:\htdocs>
E:\htdocs>
E:\htdocs>
E:\htdocs>e:\php\php.exe cake\scripts\cake.php

CAKEPHP BAKE
-----

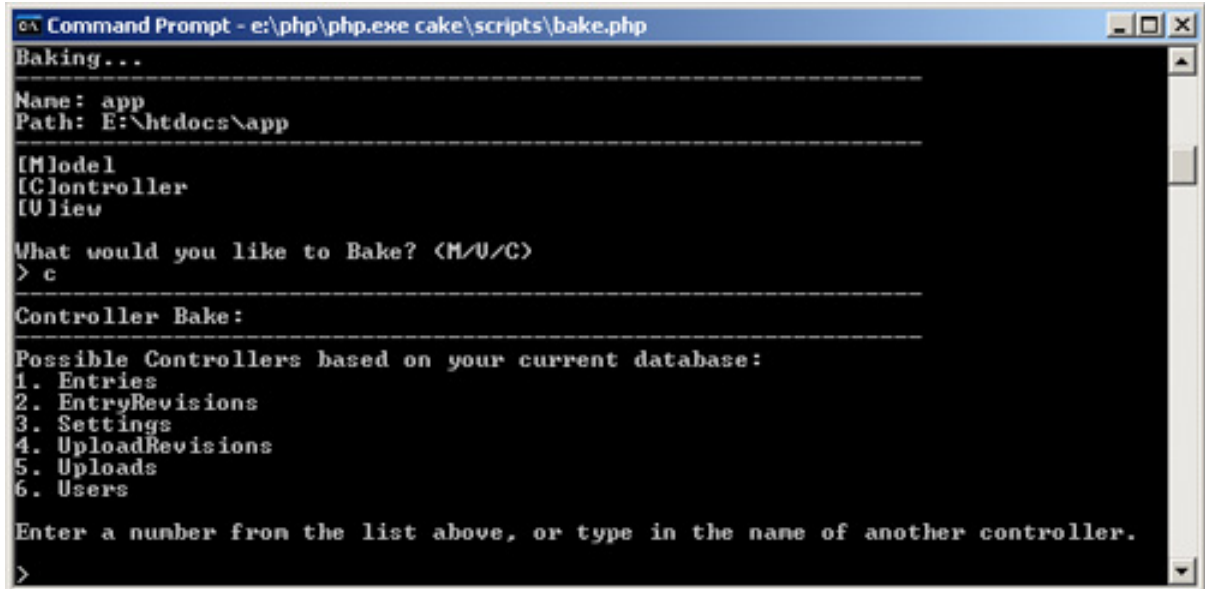
Baking...
-----
Name: app
Path: E:\htdocs\app
-----

[M]odel
[C]ontroller
[U]iew

What would you like to Bake? (M/U/C)
>
```

Since you have already built the models, you can jump right in to building the controllers.

Figure 3. Building the controllers



```
Command Prompt - e:\php\php.exe cake\scripts\bake.php
Baking...
-----
Name: app
Path: E:\htdocs\app
-----
[M]odel
[C]ontroller
[U]iew
What would you like to Bake? <M/U/C>
> c
-----
Controller Bake:
-----
Possible Controllers based on your current database:
1. Entries
2. EntryRevisions
3. Settings
4. UploadRevisions
5. Uploads
6. Users
Enter a number from the list above, or type in the name of another controller.
>
```

Start from the top and work your way down:

1. Bake will ask, "Would you like bake to build your controller interactively?" Unless you feel like going down that route, press **n** to skip interactive baking.
2. Bake will then ask, "Would you like to include some basic class methods?" Press **y** for yes.
3. Bake will then ask, "Would you like to create the methods for admin routing?" Go ahead and press **n** for no.
4. Finally, Bake may ask if you want to build unit test files. The unit test files will not be covered in the tutorial series. Press **n** and Bake will exit.

Figure 4. Exiting Bake

```

ex Command Prompt
5. Users
Enter a number from the list above, or type in the name of another controller.
> 2
Would you like bake to build your controller interactively?
Warning: Choosing no will overwrite controller if it exist. (y/n)
[y] > n
Would you like to include some basic class methods (index(), add(), view(), edit
())? (y/n)
[y] > y
Would you like to create the methods for admin routing? (y/n)
[y] > n
Creating file E:\htdocs\app\controllers\files_controller.php
Wrote E:\htdocs\app\controllers\files_controller.php
Cake test suite not installed. Do you want to bake unit test files anyway? (y/n)
>
[y] > n
E:\htdocs>

```

Repeat these steps for each of the controllers.

Baking the views

Baking the views is almost exactly like baking the controllers. When you select views from the Bake menu, you are again presented with a list of views that you can create.

Figure 5. Select views from the Bake menu

```

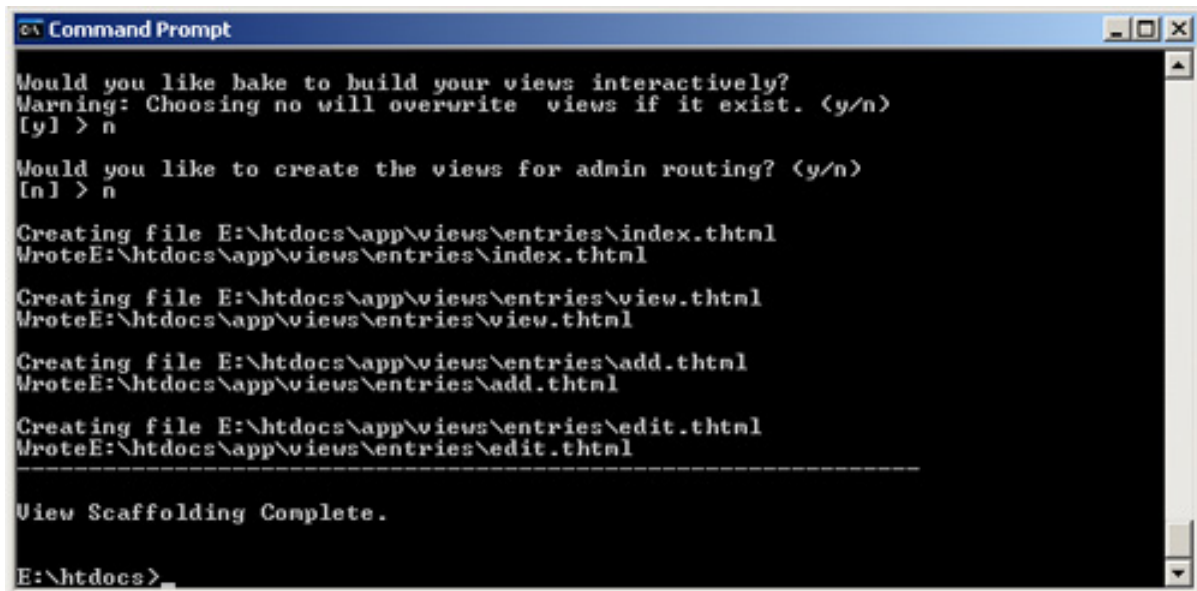
ex Command Prompt - e:\php\php.exe cake\scripts\bake.php
Baking...
-----
Name: app
Path: E:\htdocs\app
-----
[M]odel
[C]ontroller
[U]iew
What would you like to Bake? (M/U/C)
> v
-----
View Bake:
-----
Possible Controllers based on your current database:
1. Entries
2. EntryRevisions
3. Settings
4. UploadRevisions
5. Uploads
6. Users
Enter a number from the list above, or type in the name of another controller.
>

```

Start again from the top and work your way down. Bake will ask if you want to build your views interactively, and if you want to create the views for admin routing. Say

no to both and just let Bake build up the basic views.

Figure 6. Letting Bake build up the basic views



```
ex Command Prompt
Would you like bake to build your views interactively?
Warning: Choosing no will overwrite views if it exist. (y/n)
[y] > n

Would you like to create the views for admin routing? (y/n)
[n] > n

Creating file E:\htdocs\app\views\entries\index.html
WroteE:\htdocs\app\views\entries\index.html

Creating file E:\htdocs\app\views\entries\view.html
WroteE:\htdocs\app\views\entries\view.html

Creating file E:\htdocs\app\views\entries\add.html
WroteE:\htdocs\app\views\entries\add.html

Creating file E:\htdocs\app\views\entries\edit.html
WroteE:\htdocs\app\views\entries\edit.html
-----
View Scaffolding Complete.

E:\htdocs>
```

Repeat the above steps for each of the views. Once you're done, access your application and take a look around. <http://localhost/users> should take you to the users list, where you can add, edit and view users. Likewise, <http://localhost/entries>, http://localhost/entry_revisions, <http://localhost/settings>, <http://localhost/uploads>, and http://localhost/upload_revisions should take you to the various scaffolds for those controllers, as well. Feel free to test out putting some data in. In [Part 2](#), start customizing the views and controllers.

Section 6. Summary

You've got your database together, and you've cobbled together some basic views. But you're not going to want to use the default layout for Criki. Spend some time thinking about how you want it to look. For example, where do you want your links? What colors do you want to use?

Create a default layout (`app/views/layouts/default.html`) and experiment with some different looks. Use the default template in `cake/lib/views/templates/layouts/default.html` as a guide when building your new layout. Just make sure you don't change the original.

Happy coding. Be sure to read [Part 2](#), where we focus on the primary wiki development, including defining the markup, tracking changes, and file uploads.

Downloads

Description	Name	Size	Download method
Part 1 source code	os-php-wiki1.source.zip	14KB	HTTP

[Information about download methods](#)

Resources

Learn

- It seems natural to start with the Wikipedia entry for [wiki](#).
- Check out [WikiWikiWeb](#) for a good discussion about wikis.
- Visit the official home of [CakePHP](#).
- Check out the "[Cook up Web sites fast with CakePHP](#)" tutorial series for a good place to get started.
- The [CakePHP API](#) has been thoroughly documented. This is the place to get the most up-to-date documentation for CakePHP.
- There's a ton of information available at [The Bakery](#), the CakePHP user community.
- Find out more about how PHP handles [sessions](#).
- Check out the official [PHP documentation](#).
- Start with the "[Considering Ajax](#)" series to learn what you need to know before using Ajax techniques when creating a Web site.
- Read the five-part "[Mastering Ajax](#)" series on developerWorks for a comprehensive overview of Ajax.
- [CakePHP Data Validation](#) uses PHP Perl-compatible regular expressions.
- See a tutorial on "[How to use regular expressions in PHP](#)."
- Want to learn more about design patterns? Check out [Design Patterns: Elements of Reusable Object-Oriented Software](#), also known as the "Gang Of Four" book.
- [Source material for creating users](#).
- Check out the [Model-View-Controller](#) on Wikipedia.
- Here is more useful background on the [Model-View-Controller](#).
- [Here's a whole list](#) of different types of software design patterns.
- Read about [Design Patterns](#).
- [PHP.net](#) is the resource for PHP developers.
- Check out the "[Recommended PHP reading list](#)."
- Browse all the [PHP content](#) on developerWorks.
- Expand your PHP skills by checking out IBM developerWorks' [PHP project](#)

[resources](#).

- To listen to interesting interviews and discussions for software developers, check out developerWorks' [podcasts](#).
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About the author

Duane O'Brien

Duane O'Brien has been a technological Swiss Army knife since the Oregon Trail was text only. His favorite color is sushi. He has never been to the moon.