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* Models

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[**Models**](#gjdgxs)[**¶**](#30j0zll)

Models are **optionally** available for those who want to use a more traditional MVC approach.

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[**What is a Model?**](#1t3h5sf)[**¶**](#1fob9te)

Models are PHP classes that are designed to work with information in your database. For example, let’s say you use CodeIgniter to manage a blog. You might have a model class that contains functions to insert, update, and retrieve your blog data. Here is an example of what such a model class might look like:

class Blog\_model extends CI\_Model {  
  
 public $title;  
 public $content;  
 public $date;  
  
 public function \_\_construct()  
 {  
 // Call the CI\_Model constructor  
 parent::\_\_construct();  
 }  
  
 public function get\_last\_ten\_entries()  
 {  
 $query = $this->db->get('entries', 10);  
 return $query->result();  
 }  
  
 public function insert\_entry()  
 {  
 $this->title = $\_POST['title']; // please read the below note  
 $this->content = $\_POST['content'];  
 $this->date = time();  
  
 $this->db->insert('entries', $this);  
 }  
  
 public function update\_entry()  
 {  
 $this->title = $\_POST['title'];  
 $this->content = $\_POST['content'];  
 $this->date = time();  
  
 $this->db->update('entries', $this, array('id' => $\_POST['id']));  
 }  
  
}

Note

The methods in the above example use the [*Query Builder*](http://docs.google.com/database/query_builder.html) database methods.

Note

For the sake of simplicity in this example we’re using $\_POST directly. This is generally bad practice, and a more common approach would be to use the [*Input Library*](http://docs.google.com/libraries/input.html) $this->input->post('title').

[**Anatomy of a Model**](#4d34og8)[**¶**](#3znysh7)

Model classes are stored in your **application/models/** directory. They can be nested within sub-directories if you want this type of organization.

The basic prototype for a model class is this:

class Model\_name extends CI\_Model {  
  
 public function \_\_construct()  
 {  
 parent::\_\_construct();  
 }  
  
}

Where **Model\_name** is the name of your class. Class names **must** have the first letter capitalized with the rest of the name lowercase. Make sure your class extends the base Model class.

The file name must match the class name. For example, if this is your class:

class User\_model extends CI\_Model {  
  
 public function \_\_construct()  
 {  
 parent::\_\_construct();  
 }  
  
}

Your file will be this:

application/models/User\_model.php

[**Loading a Model**](#2s8eyo1)[**¶**](#2et92p0)

Your models will typically be loaded and called from within your [*controller*](http://docs.google.com/controllers.html) methods. To load a model you will use the following method:

$this->load->model('model\_name');

If your model is located in a sub-directory, include the relative path from your models directory. For example, if you have a model located at *application/models/blog/Queries.php* you’ll load it using:

$this->load->model('blog/queries');

Once loaded, you will access your model methods using an object with the same name as your class:

$this->load->model('model\_name');  
  
$this->model\_name->method();

If you would like your model assigned to a different object name you can specify it via the second parameter of the loading method:

$this->load->model('model\_name', 'foobar');  
  
$this->foobar->method();

Here is an example of a controller, that loads a model, then serves a view:

class Blog\_controller extends CI\_Controller {  
  
 public function blog()  
 {  
 $this->load->model('blog');  
  
 $data['query'] = $this->blog->get\_last\_ten\_entries();  
  
 $this->load->view('blog', $data);  
 }  
}

[**Auto-loading Models**](#17dp8vu)[**¶**](#tyjcwt)

If you find that you need a particular model globally throughout your application, you can tell CodeIgniter to auto-load it during system initialization. This is done by opening the **application/config/autoload.php** file and adding the model to the autoload array.

[**Connecting to your Database**](#3rdcrjn)[**¶**](#3dy6vkm)

When a model is loaded it does **NOT** connect automatically to your database. The following options for connecting are available to you:

* You can connect using the standard database methods [*described here*](http://docs.google.com/database/connecting.html), either from within your Controller class or your Model class.
* You can tell the model loading method to auto-connect by passing TRUE (boolean) via the third parameter, and connectivity settings, as defined in your database config file will be used:  
  $this->load->model('model\_name', '', TRUE);
* You can manually pass database connectivity settings via the third parameter:  
  $config['hostname'] = 'localhost';  
  $config['username'] = 'myusername';  
  $config['password'] = 'mypassword';  
  $config['database'] = 'mydatabase';  
  $config['dbdriver'] = 'mysqli';  
  $config['dbprefix'] = '';  
  $config['pconnect'] = FALSE;  
  $config['db\_debug'] = TRUE;  
    
  $this->load->model('model\_name', '', $config);

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