



FREE eBook

LEARNING codeigniter

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#codeigniter

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About

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Chapter 1: Getting started with codeigniter

Remarks

CodeIgniter is a MVC framework written in, and for, PHP.

It is lightweight compared to other MVC frameworks out there, at the cost of having less functionality, e.g. there is no built in authentication system which might be a part of other frameworks.

CodeIgniter is a good choice of frameworks for those who are starting out with MVC as it doesn't force any particular standards for naming and structure of code; but it is also suitable for larger projects where a large range of features contained in other frameworks might not be needed.

Versions

Version	Release Date
Version Beta 1.0	2006-02-28
Version 2.0.0	2011-01-28
Version 2.2.0	2014-06-02
Version 3.0.0	2015-03-30
Version 3.1.3	2017-01-09
Version is 3.1.4	2017-03-20
Version is 3.1.5	2017-06-19

Examples

Installation and Setup

Windows Environment

1. Install [XAMPP](#) or [WAMP](#)
2. Download and Unzip the package from [Codeigniter.com](#)
3. Extract all the document in the server space (htdocs or www directory)

Mac Environment

1. Install [MAMP](#)
2. Download and Unzip the package from [Codeigniter.com](#)
3. Extract all the document in the server space (htdocs)

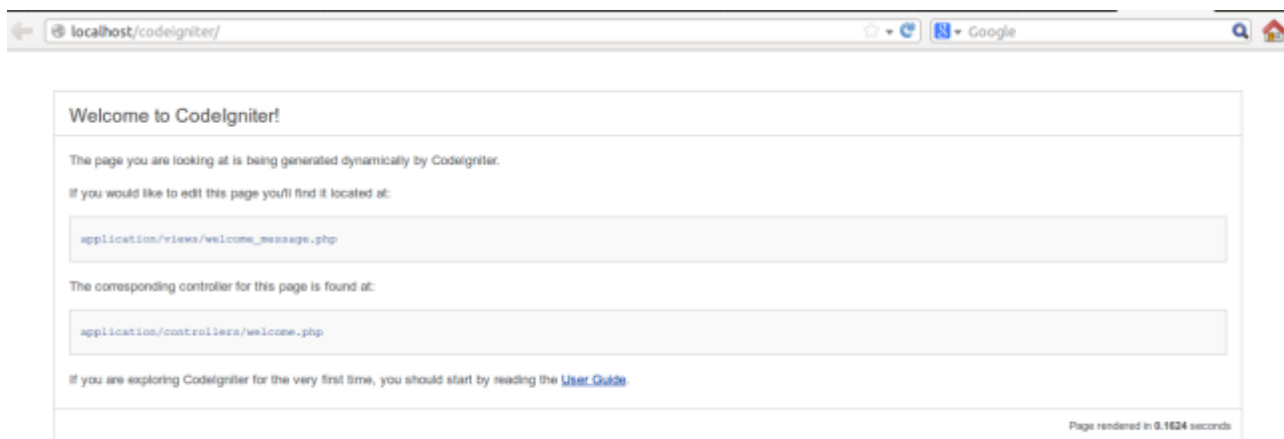
Linux Environment

1. Download and Unzip the package from [Codeigniter.com](#)
2. Place the extracted folder in /var/www (in WAMP) or xampp/htdocs (XAMPP)

GitHub

```
git clone https://github.com/bcit-ci/CodeIgniter.git
```

If you follow the system correctly, you will get the below screen.



Base URL

1. Go to `application/config/config.php`
2. Define base URL as `$config['base_url'] = 'http://localhost/path/to/folder';`

Remove `index.php` from URL

Apache Configuration

1. go to root
2. create htaccess file
3. Add below code inside it

```
RewriteEngine on
RewriteCond $1 !^(index\.php|assets|image|resources|robots\.txt)
RewriteCond %{REQUEST_FILENAME} !-f
RewriteCond %{REQUEST_FILENAME} !-d
RewriteRule ^(.*)$ index.php/$1 [L,QSA]
```

Note: .htaccess code vary depending on hosting server. In some hosting server (e.g.: Godaddy) need to use an extra ? in the last line of above code. The following line will be replaced with last line in applicable case:

```
RewriteRule ^(.*)$ index.php?/$1 [L,QSA]
```

Nginx Configuration

1. Open nginx config file (by default: /etc/nginx/sites-available/default)
2. Add below code inside it

```
server {
    server_name domain.tld;

    root /path-to-codeigniter-folder; //you codeigniter path
    index index.html index.php;

    # set expiration of assets to MAX for caching
    location ~* \.(ico|css|js|gif|jpe?g|png) (\?[0-9]+)?$ {
        expires max;
        log_not_found off;
    }

    location / {
        # Check if a file or directory index file exists, else route it to index.php.
        try_files $uri $uri/ /index.php;
    }

    location ~* \.php$ {
        fastcgi_pass 127.0.0.1:9000;
        include fastcgi.conf;
    }
}
```

Database Configuration

1. Go to application/config/database.php
2. Set the following configuration variables.

- Host
- Username
- Password
- Database Name
- Port

Set Default Controller

1. Go to `application/config/routes.php`
2. set the following configuration variable value with your controller name.
 - `default_controller`

AutoLoad Library And Helper

1. Go to `application/config/autoload.php`
2. set Auto load value like `$autoload['libraries'] = array('database', 'session');`
3. set Helper value like `$autoload['helper'] = array('url', 'file', 'form', 'html', 'text');`

Run multiple applications on one CI system

Codeigniter may be configured to run more than one project without duplicating CI core files.

It's possible by splitting CI Application side. For example let's take project of website, which contains `front-end` and `back-end` Content Management System (CMS) applications. In this case CI folder structure will be like:

Folder structure:

```
├── Codeigniter
│   ├── applications
│   │   ├── front-end
│   │   │   ├── views
│   │   │   ├── models
│   │   │   ├── controllers
│   │   │   ├── config
│   │   │   └── ...
│   │   └── back-end
│   │       ├── views
│   │       ├── models
│   │       ├── controllers
│   │       ├── config
│   │       └── ...
│   └── system
│       ├── core
│       ├── database
│       ├── helpers
│       └── ...
```

```
|   |— index.php
|   |— backend.php
```

In `applications` folder we created two folders: `front-end` and `back-end` and copied all default content of `applications` under these two folders.

Also we duplicated `index.php` file under root folder as `backend.php`

Next is to configure `CI` to work with this two instances of application.

Codeigniter Configuration:

Open **`index.php`** and **`backend.php`** files and update `application_folder` config:

```
//index.php
$application_folder = 'applications/front-end';

//backend.php
$application_folder = 'applications/back-end';
```

After configuration above, `CI` is ready to run two applications under one `CI` system:

Request on `example.com/Codeigniter/index.php` will open `front-end` app

Request on `example.com/Codeigniter/backend.php` will open `back-end` app

Increase security by hiding the location of your CodeIgniter files

Within the CodeIgniter, there are two main directories to worry about: **system** and **application**. The system folder contains the core guts of CodeIgniter. The application folder will contain all of the code specific to your application, including models, controllers, views and other relevant libraries.

Per the CodeIgniter [installation instructions](#), in the best interest of securing your application, both the system and application folder should be placed above web root so that they are not directly accessible via a browser. By default, `.htaccess` files are included in each folder to help prevent direct access, but it is best to remove them from public access entirely in case the web server configuration changes or doesn't abide by the `.htaccess`.

```
|— CodeIgniter
|   |— application
|   |— system
|   |— wwwroot
|   |— index.php
```

After moving the system and application folders, open the main `index.php` file and set the `$system_path`, `$application_folder` variables, preferably with a full path, e.g. `'/www/MyUser/system'`. However, relative paths should work.

For Linux/Apache:

```
$application_folder = './application';  
$system_path = './system';
```

For Windows/IIS:

```
$application_folder = '../application/';  
$system_path = '../system/';
```

Read **Getting started with codeigniter** online: <https://riptutorial.com/codeigniter/topic/929/getting-started-with-codeigniter>

Chapter 2: Array Helper

Introduction

The Array Helper file contains functions that assist in working with arrays.

Examples

Loading this Helper

This helper is loaded using the following code:

```
$this->load->helper('array');
```

The following functions are available:

element()

Lets you fetch an item from an array. The function tests whether the array index is set and whether it has a value. If a value exists it is returned. If a value does not exist it returns FALSE, or whatever you've specified as the default value via the third parameter. Example:

```
$array = array('color' => 'red', 'shape' => 'round', 'size' => '');  
  
// returns "red"  
echo element('color', $array);  
  
// returns NULL  
echo element('size', $array, NULL);
```

random_element()

Takes an array as input and returns a random element from it. Usage example:

```
$quotes = array(  
    "I find that the harder I work, the more luck I seem to have. - Thomas Jefferson",  
    "Don't stay in bed, unless you can make money in bed. - George Burns",  
    "We didn't lose the game; we just ran out of time. - Vince Lombardi",  
    "If everything seems under control, you're not going fast enough. - Mario  
Andretti",  
    "Reality is merely an illusion, albeit a very persistent one. - Albert Einstein",  
    "Chance favors the prepared mind - Louis Pasteur"  
);  
  
echo random_element($quotes);
```

elements()

Lets you fetch a number of items from an array. The function tests whether each of the array

indices is set. If an index does not exist it is set to FALSE, or whatever you've specified as the default value via the third parameter. Example:

```
$array = array(
    'color' => 'red',
    'shape' => 'round',
    'radius' => '10',
    'diameter' => '20'
);

$my_shape = elements(array('color', 'shape', 'height'), $array);
```

The above will return the following array:

```
array(
    'color' => 'red',
    'shape' => 'round',
    'height' => FALSE
);
```

You can set the third parameter to any default value you like:

```
$my_shape = elements(array('color', 'shape', 'height'), $array, NULL);
```

The above will return the following array:

```
array(
    'color' => 'red',
    'shape' => 'round',
    'height' => NULL
);
```

This is useful when sending the `$_POST` array to one of your Models. This prevents users from sending additional POST data to be entered into your tables:

```
$this->load->model('post_model');

$this->post_model->update(elements(array('id', 'title', 'content'), $_POST));
```

This ensures that only the id, title and content fields are sent to be updated.

Read Array Helper online: <https://riptutorial.com/codeigniter/topic/8068/array-helper>

Chapter 3: Authentication

Examples

Loading Your Auth library for Every Controller

go to codeigniter/application/libraries/ create or replace your library files here.

go to codeigniter/application/core/ create a new php file named like MY_Controller.php

inside MY_Controller.php

```
<?php
class MY_Controller extends CI_Controller{
    public function __construct(){
        parent::__construct();
        $this->load->library('AuthLib'); // AuthLib is your library name
    }
}
```

And then on every controller file you need to extends MY_Controller.

Example of a controller; go to codeigniter/application/controllers and create a php file

```
<?php
class Profile extends MY_Controller{
    public function __construct(){
        parent::__construct();
        if ($this->AuthLib->logged_in() === FALSE) { //if you wanna make this condition
stament on every controller just write it to inside construct function in MY_Controller.php
            redirect(base_url('/'));
        }
    }
}
```

Read Authentication online: <https://riptutorial.com/codeigniter/topic/7722/authentication>

Chapter 4: Base url in Codeigniter

Examples

Setting your base url in Codeigniter

You will need to set your base URL in `application/config/config.php`

If it is not set, then Codeigniter will try to guess the protocol and path to your installation, but due to the security concerns the hostname will be set to `$_SERVER['SERVER_ADDR']` if available, or `localhost` otherwise. The auto-detection mechanism exists only for convenience during development and **MUST NOT** be used in production!

```
$config['base_url'] = '';
```

It should be filed like

```
$config['base_url'] = 'http://localhost/projectname/';  
  
$config['base_url'] = 'http://www.example.com/';
```

Always good to use `/` at end of `base_url`

When you do not set your base URL you might run into some errors where you can not load your CSS, images, and other assets items. And also you might have trouble submitting forms as some users have come across.

Update

If you do not want to set your base URL another way is.

Create a new core file in `application/core/MY_Config.php`

And paste this code

```
<?php  
  
class MY_Config extends CI_Config {  
  
    public function __construct() {  
  
        $this->config =& get_config();  
  
        log_message('debug', "Config Class Initialized");  
  
        // Set the base_url automatically if none was provided  
  
        if ($this->config['base_url'] == '')  
        {  
            if (isset($_SERVER['HTTP_HOST']))
```

```

        {
            $base_url = isset($_SERVER['HTTPS']) && strtolower($_SERVER['HTTPS']) !==
'off' ? 'https' : 'http';
            $base_url .= '://'. $_SERVER['HTTP_HOST'];
            $base_url .= str_replace(basename($_SERVER['SCRIPT_NAME']), '',
$_SERVER['SCRIPT_NAME']);
        }

        else
        {
            $base_url = 'http://localhost/';
        }

        $this->set_item('base_url', $base_url);
    }
}
}

```

Something More About base_url

What happens if I don't set `base_url` ?

You will not get any Impotency error to set this and proceed. You can continue without setting, but you should know about [HTTP header injection](#)

If I didn't set it what will show up?

You will get `http://[::1]/` instead of your actual URL.

What does this mean `http://[::1]/` ??

This is temporary URL which set by CI by Default. This will point the root of your document.

`::1` - Server address (localhost) [Read More about this](#)

How to set proper `base_url()` ??

Base URL should always point to root of your project folder. (outside application folder)

```

$config['base_url'] = 'http://localhost/path/to/project'; # If localhost
$config['base_url'] = 'http://stackoverflow.com/'; # If live
$config['base_url'] = 'http://stackoverflow.com/documentation'; # If live & inside subdomain
(assume documentation is subfolder/subdomain)

```

How to use `base_url()` ??

Most common use is to find the right path to your js or css files.

```
<link rel="stylesheet" href="<?php echo base_url('styles/style.css');?>" />
<script src="<?php echo base_url('vendor/jquery/jquery.min.js');?>"></script>
```

Adding the code above in your view will produce HTML as below:

```
<link rel="stylesheet" href="http://localhost/path/to/project/styles/style.css" />
<script src="http://localhost/path/to/project/vendor/jquery/jquery.min.js"></script>
```

Links

1. [URL Helper](#)

Smart way to setting up the `base_url`

The following lines of code is more smart way to setting up the `base_url` in codeigniter:

```
$config['base_url'] = ((isset($_SERVER['HTTPS']) && $_SERVER['HTTPS'] == "on") ? "https" :
"http");
$config['base_url'] .= "://".$_SERVER['HTTP_HOST'];
$config['base_url'] .=
str_replace(basename($_SERVER['SCRIPT_NAME']), "", $_SERVER['SCRIPT_NAME']);
```

Recommended is

```
$config['base_url'] = 'https://stackoverflow.com/';
```

Because everyone knows the hosting space. So if you set like this you ***can prevent Injection to your site/host.***

Read Base url in Codeigniter online: <https://riptutorial.com/codeigniter/topic/3643/base-url-in-codeigniter>

Chapter 5: Calling a model method in a view

Introduction

Sometimes it is more useful to make a call to a model's method in our view, so this is a way to make it

Examples

Save a method call in a variable

In Controller:

```
$this->load->model('your_model');  
$data['model'] = $this->your_model;
```

In view:

```
$model->your_method;
```

Read [Calling a model method in a view](https://riptutorial.com/codeigniter/topic/8163/calling-a-model-method-in-a-view) online:

<https://riptutorial.com/codeigniter/topic/8163/calling-a-model-method-in-a-view>

Chapter 6: CAPTCHA Helper

Examples

Loading this Helper

This helper is loaded using the following code:

In Controller itself(* can repeat again and again*)

```
$this->load->helper('captcha');
```

In config/autoload.php (*Load only once*)

```
$autoload['helper'] = array('captcha');
```

create_captcha(\$data)

Takes an array of information to generate the CAPTCHA as input and creates the image to your specifications, returning an array of associative data about the image.

```
[array]
(
  'image' => IMAGE TAG
  'time'   => TIMESTAMP (in microtime)
  'word'   => CAPTCHA WORD
)
```

The "image" is the actual image tag:

```

```

The "time" is the micro timestamp used as the image name without the file extension. It will be a number like this: 1139612155.3422

The "word" is the word that appears in the captcha image, which if not supplied to the function, will be a random string.

Using the CAPTCHA helper

Once loaded you can generate a captcha like this:

```
$vals = array(
  'word'      => 'Random word',
  'img_path'   => './captcha/',
  'img_url'    => 'http://example.com/captcha/',
  'font_path'  => './path/to/fonts/texb.ttf',
```

```

    'img_width'    => '150',
    'img_height' => 30,
    'expiration' => 7200
);

$cap = create_captcha($vals);
echo $cap['image'];

```

- The captcha function requires the GD image library.
- Only the `img_path` and `img_url` are required.
- If a "word" is not supplied, the function will generate a random ASCII string. You might put together your own word library that you can draw randomly from.
- If you do not specify a path to a TRUE TYPE font, the native ugly GD font will be used. The "captcha" folder must be writable (666, or 777)
- The "expiration" (in seconds) signifies how long an image will remain in the captcha folder before it will be deleted. The default is two hours.

Complete example

Here is an example of usage with a database. On the page where the CAPTCHA will be shown you'll have something like this:

```

$this->load->helper('captcha');
$vals = array(
    'img_path'    => './captcha/',
    'img_url'     => 'http://example.com/captcha/'
);

$cap = create_captcha($vals);

$data = array(
    'captcha_time' => $cap['time'],
    'ip_address'   => $this->input->ip_address(),
    'word'         => $cap['word']
);

$query = $this->db->insert_string('captcha', $data);
$this->db->query($query);

echo 'Submit the word you see below:';
echo $cap['image'];
echo '<input type="text" name="captcha" value="" />';

```

Then, on the page that accepts the submission you'll have something like this:

```

// First, delete old captchas
$expiration = time()-7200; // Two hour limit
$this->db->query("DELETE FROM captcha WHERE captcha_time < ".$expiration);

// Then see if a captcha exists:
$sql = "SELECT COUNT(*) AS count FROM captcha WHERE word = ? AND ip_address = ? AND captcha_time > ?";
$binds = array($_POST['captcha'], $this->input->ip_address(), $expiration);
$query = $this->db->query($sql, $binds);
$row = $query->row();

```



```
if ($row->count == 0)
{
    echo "You must submit the word that appears in the image";
}
```

Read CAPTCHA Helper online: <https://riptutorial.com/codeigniter/topic/7902/captcha-helper>

Chapter 7: CodeIgniter - Internationalization

Introduction

The language class in CodeIgniter provides an easy way to support multiple languages for internationalization. To some extent, we can use different language files to display text in many different languages.

Examples

Example

Creating files Language

To create a language file, you must end it with `_lang.php`. For example, you want to create a language file for French language, then you must save it with `french_lang.php`. Within this file you can store all your language texts in key, value combination in `$lang` array as shown below.

```
$lang['key'] = 'val';
```

Loading Language file

To use any of the language in your application, you must first load the file of that particular language to retrieve various texts stored in that file. You can use the following code to load the language file.

```
$this->lang->load('filename', 'language');
```

filename : It is the name of file you want to load. Don't use extension of file here but only name of file. **Language** : It is the language set containing it.

Fetching Language Text

```
$this->lang->line('language_key');
```

To fetch a line from the language file simply execute the following code. Where **language_key** is the key parameter used to fetch value of the key in the loaded language file.

Autoload Languages

If you need some language globally, then you can autoload it in `application/config/autoload.php` file as shown below.

```
| -----  
| Auto-load Language files  
| -----
```

```
| Prototype:
|   $autoload['language'] = array('lang1', 'lang2');
|
| NOTE: Do not include the "_lang" part of your file. For example
| "codeigniter_lang.php" would be referenced as array('codeigniter');
|
| */
$autoload['language'] = array();
```

Simply, pass the different languages to be autoloaded by CodeIgniter.

Create a controller called `Lang_controller.php` and save it in `application/controller/Lang_controller.php`

```
<?php
```

`class Lang_controller extends CI_Controller {`

```
public function index(){
    //Load form helper
    $this->load->helper('form');

    //Get the selected language
    $language = $this->input->post('language');

    //Choose language file according to selected lanaguage
    if($language == "french")
        $this->lang->load('french_lang','french');
    else if($language == "german")
        $this->lang->load('german_lang','german');
    else
        $this->lang->load('english_lang','english');

    //Fetch the message from language file.
    $data['msg'] = $this->lang->line('msg');

    $data['language'] = $language;
    //Load the view file
    $this->load->view('lang_view',$data);
}
}
```

Create a view file called `lang_view.php` and save it at `application/views/lang_view.php`

```
<!DOCTYPE html>
<html lang = "en">
    <head>
        <meta charset = "utf-8">
        <title>CodeIgniter Internationalization Example</title>
    </head>
    <body>
        <?php
            echo form_open('/lang');
        ?>
        <select name = "language" onchange = "javascript:this.form.submit();">
            <?php
```

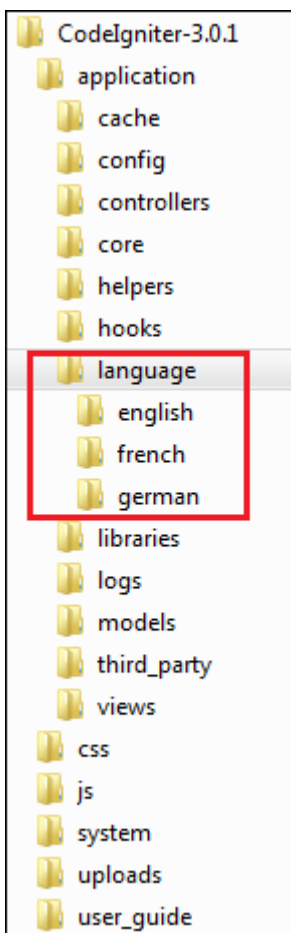
```

        $lang = array('english'=>"English", 'french'=>"French", 'german'=>"German");

        foreach($lang as $key=>$val) {
            if($key == $language)
                echo "<option value = '". $key.'" selected>".$val."</option>";
            else
                echo "<option value = '". $key.'">".$val."</option>";
        }
    ?>
</select>
<?php
    form_close();
    echo $msg;
?>
</body>
</html>

```

Create three folders called **English**, **French**, and **German** in **application/language** as shown in the figure below.



Copy the below given code and save it in `english_lang.php` file in `application/language/english` folder.

```

<?php
    $lang['msg'] = "CodeIgniter Internationalization example.";
?>

```

Copy the below given code and save it in `french_lang.php` file in `application/language/French` folder.

```
<?php
    $lang['msg'] = "Exemple CodeIgniter internationalisation.";
?>
```

Copy the below given code and save it in `german_lang.php` file in `application/language/german` folder.

```
<?php
    $lang['msg'] = "CodeIgniter Internationalisierung Beispiel.";
?>
```

Change the `routes.php` file in `application/config/routes.php` to add route for the above controller and add the following line at the end of the file.

```
$route['lang'] = "Lang_controller";
```

Execute the following URL in the browser to execute the above example.

```
http://yoursite.com/index.php/lang
```

Then Check in Your Browser. Thank you.

Read CodeIgniter - Internationalization online:

<https://riptutorial.com/codeigniter/topic/9864/codeigniter---internationalization>

Chapter 8: Codeigniter Pagination

Examples

in this section i assume you know to calling helper, in the controller

```
public function house()
{
    $config['base_url']          = site_url().'/user/house/';
    $config['total_rows']       = $this->houses->select_row_house_design();
    $config['per_page']         = 12;
    $config['cur_tag_open']     = '<li><a><b>';
    $config['cur_tag_close']    = '</li></a></b>';
    $config['prev_tag_open']    = '<li>';
    $config['prev_tag_close']   = '</li>';
    $config['next_tag_open']    = '<li>';
    $config['next_tag_close']   = '</li>';
    $config['num_tag_open']     = '<li>';
    $config['num_tag_close']    = '</li>';
    $config['last_tag_open']    = '<li>';
    $config['last_tag_close']   = '</li>';
    $config['first_tag_open']   = '<li>';
    $config['first_tag_close']  = '</li>';
    $this->pagination->initialize($config);
    $from = $this->uri->segment('3');
    $data['design'] = $this->houses->select_all_house_design($config['per_page'],$from);
    $title['menu'] = 'house design';
    $this->load->view('user/template/header',$title);
    $this->load->view('user/house',$data);
    $this->load->view('user/template/footer');
}
```

in the view

`pagination->create_links(); ?>`

Read Codeigniter Pagination online: <https://riptutorial.com/codeigniter/topic/9393/codeigniter-pagination>

Chapter 9: CodeIgniter Shopping Cart

Introduction

We can utilize CI's shopping cart library when we are building a e-commerce site. we can setup add to cart, update cart items, delete cart items and even clear the cart functionalities using this library.

From CodeIgniter Doc : The Cart Class permits items to be added to a session that stays active while a user is browsing your site. These items can be retrieved and displayed in a standard “shopping cart” format, allowing the user to update the quantity or remove items from the cart.

Examples

Adding Items In Cart

You should create functions in a controller like insert, update, delete, and clear cart etc. eg : for insert new item in cart write below code that accepts value.

```
$cartItem = array(
    'id'      => 'MOTOG5',
    'qty'     => 5,
    'price'   => 100.99,
    'name'    => 'Motorola Moto G5 - 16 GB',
    'options' => array(
        'ram' => '3GB',
        'Color' => 'Fine Gold'
    )
);
```

And create functions in model for cart tasks like insert, update, delete, clear etc.

eg : for insert items in cart

```
$this->cart->insert($cartItem);
```

The insert() method will return the \$rowid if you successfully insert a single item. so you can check that item has inserted or not and show related message to user.

and you can insert multiple item like this

```
$data = array(
    array(
        'id'      => 'sku_123ABC',
        'qty'     => 1,
        'price'   => 39.95,
        'name'    => 'T-Shirt',
        'options' => array('Size' => 'L', 'Color' => 'Red')
    )
);
```

```

    ),
    array(
        'id'      => 'sku_567ZYX',
        'qty'     => 1,
        'price'   => 9.95,
        'name'    => 'Coffee Mug'
    ),
    array(
        'id'      => 'sku_965QRS',
        'qty'     => 1,
        'price'   => 29.95,
        'name'    => 'Shot Glass'
    )
);

$this->cart->insert($data);

```

Basic Elements of CI Shopping Cart

As we can add multiple elements in Cart array and then add it to cart session, but there are 4 basic elements which Cart class requires to add data successfully in cart session.

1. id (string)
2. qty (number)
3. price (number, decimal)
4. name (String)

And if you want to add more options regarding product then you can use 5th element which is "options". you can set array of options in this element.

It will look like this :

```

$cartItem = array(
    'id'      => 'MOTOG5',
    'qty'     => 5,
    'price'   => 100.99,
    'name'    => 'Motorola Moto G5 - 16 GB',
    'options' => array(
        'ram' => '3GB',
        'Color' => 'Fine Gold'
    )
);

```

Display Cart Items

You can show cart items by loop through cart or you can display single item from cart.

```

$cartContents = $this->cart->contents();

```

This will return an array of cart items so you can loop through this array using foreach loop.

```

foreach ($cartContents as $items){
    echo "ID : ". $items["id"] . "<br>";
}

```



```
echo "Name : ". $items["name"] . "<br>";
echo "Quantity : ". $items["qty"] . "<br>";
echo "Price : ". $items["price"] . "<br>";
}
```

You can format this data as table cell or some div and then show in view.

Update cart item

Rowid : The row ID is a unique identifier that is generated by the cart code when an item is added to the cart. The reason a unique ID is created is so that identical products with different options can be managed by the cart.

Every item in cart has a rowid element and by rowid you can update cart item.

```
$updateItem = array(
    'rowid' => 'b99ccdf16028f015540f341130b6d8ec',
    'qty'   => 3
);
```

and then below code

```
$this->cart->update($data);
```

Delete cart items

By using rowid element you can delete an item from cart. you just have to set item's qty to 0

```
$deleteItem = array(
    'rowid' => 'b99ccdf16028f015540f341130b6d8ec',
    'qty'   => 0
);

$this->cart->update($data);
```

this will delete item with this rowid.

Read CodeIgniter Shopping Cart online: <https://riptutorial.com/codeigniter/topic/9372/codeigniter-shopping-cart>

Chapter 10: Codeigniter Troubleshooting

Introduction

For debugging and troubleshooting in Codeigniter, you can use **Profiler**, part of Output library

Examples

Troubleshooting

If you find that no matter what you put in your URL only your default page is loading, it might be that your server does not support the `PATH_INFO` variable needed to serve search-engine friendly URLs.

As a first step, open your `application/config/config.php` file and look for the `URI Protocol` information. It will recommend that you try a couple alternate settings.

If it still doesn't work after you've tried this you'll need to force Codeigniter to add a question mark to your URLs. To do this open your `application/config/config.php` file and change this:

```
$config['index_page'] = "index.php";
```

To this:

```
$config['index_page'] = "index.php?";
```

Read Codeigniter Troubleshooting online: <https://riptutorial.com/codeigniter/topic/7901/codeigniter-troubleshooting>

Chapter 11: CodeIgniter URI Segment

Examples

URI Segments:

For example, please consider the following URI:

```
http://stackoverflow.com/questions/some-number/how-can-i-do-this/others
```

Segment allows to retrieve a specific segment from URI string where n is a segment number. Segments are numbered from left to right. For example, the following code:

```
$this->uri->segment (n)
```

Is used to retrieve a specific segment from the URI where n is the segment number.

```
echo $this->uri->segment (0); //it will print stackoverflow.com
echo $this->uri->segment (1); //it will print questions
echo $this->uri->segment (2); //it will print some-number
echo $this->uri->segment (3); //it will print how-can-i-do-this
echo $this->uri->segment (4); //it will print others
```

Get last and before last URI segment

Get last segment

```
echo end($this->uri->segment_array()); //it will print others
```

Get before last segment

```
echo $this->uri->segment (count ($this->uri->segment_array())-1); //it will print how-can-i-do-
this
```

More info: [<http://stackoverflow.com/questions/9221164/code-igniter-get-before-last-uri-segment>][1]

Read CodeIgniter URI Segment online: <https://riptutorial.com/codeigniter/topic/5402/codeigniter-uri-segment>

Chapter 12: Creating cronjob in codeigniter on linux hosting server

Examples

Calling a CodeIgniter controller from cron

```
// application/controllers/Company_controller.php
<?php
if(!defined('BASEPATH'))
    exit('No direct script access allowed');

class Company_controller extends CI_Controller {
    public function __construct() {
        parent::__construct();
        $this->load->model('companies_model');
    }

    // cron entry would be something like this:
    // 1 1 * * * /usr/bin/php [full path to]/index.php company_controller cronCLI AcmeCorp
    >/dev/null 2>&1
    public function cronCLI($firmName) {
        if(PHP_SAPI_NAME == 'cli') {
            $this->companies_model->doSomeDB_Process($firmName);
        } else {
            echo 'CLI only';
        }
    }
}
```

Cronjob in Codeigniter

```
<?php if ( ! defined('BASEPATH')) exit('No direct script access allowed');
class Cron extends CI_Controller
{
    /**
     * This is default constructor of the class
     */
    public function __construct()
    {
        parent::__construct();
        $this->load->library('input');
        $this->load->model('cron_model');
    }

    /**
     * This function is used to update the age of users automatically
     * This function is called by cron job once in a day at midnight 00:00
     */
    public function updateAge()
    {
        // is_cli_request() is provided by default input library of codeigniter
        if($this->input->is_cli_request())
```

```
        {
            $this->cron_model->updateAge();
        }
    else
    {
        echo "You dont have access";
    }
}
}
?>
```

Call this from your cpanel/cron manager as follows (I added more ways to call it):

```
0 0 0 0 0 php-cli /home/your_site_user/public_html/index.php cron updateAge
```

OR

```
0 0 0 0 0 wget http://your_site_url/cron/updateAge
```

OR

```
0 0 0 0 0 /usr/bin/php /home/your_site_user/public_html/index.php cron updateAge
```

In my case: wget thing is working on plesk and cpanel (wget creating files on server in your root directory). php-cli works on plesk and cpanel both.

Read [Creating cronjob in codeigniter on linux hosting server](https://riptutorial.com/codeigniter/topic/4980/creating-cronjob-in-codeigniter-on-linux-hosting-server) online:

<https://riptutorial.com/codeigniter/topic/4980/creating-cronjob-in-codeigniter-on-linux-hosting-server>

Chapter 13: Error Handling

Introduction

CodeIgniter lets you build error reporting into your applications using the functions described below. In addition, it has an error logging class that permits error and debugging messages to be saved as text files.

Examples

`show_error()`

This function will display the error message supplied to it using the following error template:

Path - `application/errors/error_general.php`

The optional parameter `$status_code` determines what HTTP status code should be sent with the error.

Syntax

```
show_error($message, $status_code, $heading = 'An Error Was Encountered')
```

Parameters:

- `$message` (mixed) – Error message
- `$status_code` (int) – HTTP Response status code
- `$heading` (string) – Error page heading

Return type: void

Source

1. [show_error](#) in [codeigniter.com](#)

`show_404()`

This function will display the 404 error message supplied to it using the following error template:

Path - `application/errors/error_404.php`

The function expects the string passed to it to be the file path to the page that isn't found. Note

that CodeIgniter automatically shows 404 messages if controllers are not found.

CodeIgniter automatically logs any `show_404()` calls. Setting the optional second parameter to `FALSE` will skip logging.

Syntax

```
show_404($page = '', $log_error = TRUE)
```

Parameters:

- `$page` (string) – URI string
- `$log_error` (bool) – Whether to log the error

Return type: void

Source

1. [show_404](#) in [codeigniter.com](#)

log_message()

This function lets you write messages to your log files. You must supply one of three "levels" in the first parameter, indicating what type of message it is (debug, error, info), with the message itself in the second parameter.

Example:

```
if ($some_var == "") {
    log_message('error', 'Some variable did not contain a value.');
```

```
}
else {
    log_message('debug', 'Some variable was correctly set');
```

```
}

log_message('info', 'The purpose of some variable is to provide some value.');
```

Syntax

```
log_message($level, $message);
```

Parameters:

- `$level (string)` – Log level: 'error', 'debug' or 'info'
- `$message (string)` – Message to log

Return type: void

There are three message types:

- **Error Messages.** These are actual errors, such as PHP errors or user errors.
- **Debug Messages.** These are messages that assist in debugging. For example, if a class has been initialized, you could log this as debugging info.
- **Informational Messages.** These are the lowest priority messages, simply giving information regarding some process. CodeIgniter doesn't natively generate any info messages but you may want to in your application.

Note: In order for the log file to actually be written, the "logs" the folder must be writable. In addition, you must set the "threshold" for logging in `application/config/config.php`. You might, for example, only want error messages to be logged, and not the other two types. If you set it to zero logging will be disabled.

Read Error Handling online: <https://riptutorial.com/codeigniter/topic/8699/error-handling>

Chapter 14: Form Validation

Examples

Validate Form Example

```
// initialize library
$this->load->library('form_validation');

$this->form_validation->set_rules('username', 'Username', 'required|max_length[20]'); // Add
validation rules for require and max
$this->form_validation->set_rules('password', 'Password', 'required|matches[password]'); //
Validation for the input match
$this->form_validation->set_rules('passconf', 'Password Confirmation', 'required');
$this->form_validation->set_rules('email', 'Email',
'required|valid_email|is_unique[userTable.emailColumn]'); // add validation for the email and
check the emailColumn in userTable for unique value
$this->form_validation->set_message('is_unique', 'The %s is already taken, Please use another
%s'); // add message for the is_unique

if ($this->form_validation->run() === FALSE)
{
    // fail
}
else
{
    // success
}
```

[Link](#)

Read Form Validation online: <https://riptutorial.com/codeigniter/topic/7398/form-validation>

Chapter 15: How to set time zone in CodeIgniter

Examples

How to set the time zone in CodeIgniter

Placing `date_default_timezone_set('Asia/Kolkata');` on `config.php` above base URL also works.

PHP [List of Supported Time Zones](#)

application/config.php

```
<?php

defined('BASEPATH') OR exit('No direct script access allowed');

date_default_timezone_set('Asia/Kolkata');
```

Another way I have found useful is if you wish to set a time zone for each user:

- Create a `MY_Controller.php` file.
- Create a column in your `user` table you can name it `timezone` or any thing you want to. So that way, when user selects his time zone, it can be set to his timezone when login.

application/core/MY_Controller.php

```
<?php

class MY_Controller extends CI_Controller {

    public function __construct() {
        parent::__construct();
        $this->set_timezone();
    }

    public function set_timezone() {
        if ($this->session->userdata('user_id')) {
            $this->db->select('timezone');
            $this->db->from($this->db->dbprefix . 'user');
            $this->db->where('user_id', $this->session->userdata('user_id'));
            $query = $this->db->get();
            if ($query->num_rows() > 0) {
                date_default_timezone_set($query->row()->timezone);
            } else {
                return false;
            }
        }
    }
}
```

Also, to get the list of time zones in PHP:

```
$timezones = DateTimeZone::listIdentifiers(DateTimeZone::ALL);

foreach ($timezones as $timezone) {
    echo $timezone;
    echo "<br />";
}
```

Another way to set timezone in codeigniter

To set the timezone in Codeigniter by extending date helper is an alternative way. For doing that need to follow the following two step activity.

1. Extend date helper with the following function:

```
if ( ! function_exists('now'))
{
    /**
     * Get "now" time
     *
     * Returns time() based on the timezone parameter or on the
     * "time_reference" setting
     *
     * @param    string
     * @return    int
     */
    function now($timezone = NULL)
    {
        if (empty($timezone))
        {
            $timezone = config_item('time_reference');
        }
        if ($timezone === 'local' OR $timezone === date_default_timezone_get())
        {
            return time();
        }
        $datetime = new DateTime('now', new DateTimeZone($timezone));
        sscanf($datetime->format('j-n-Y G:i:s'), '%d-%d-%d %d:%d:%d', $day, $month, $year,
        $hour, $minute, $second);
        return mktime($hour, $minute, $second, $month, $day, $year);
    }
}
```

2. Now set the timezone as a value of time_reference of config.php like:

```
$config['time_reference'] = 'Asia/Dhaka';
```

This is all set for using time zone.

FYI: List of Timezone List is added in the first example.

Read How to set time zone in CodeIgniter online:

<https://riptutorial.com/codeigniter/topic/3767/how-to-set-time-zone-in-codeigniter>

Chapter 16: How to use the CI libraries and helper

Examples

Using libraries and helpers

The example is for illustration purpose of using libraries and helpers and not a valid code. Do not copy / paste it on your projects.

HELPER helpers/sendEmail_helper.php

```
if ( ! function_exists('sendEmail'))
{
    function sendEmail($email, $subject, $message, $lang, $cc = null, $file = null) {

        $CI =& get_instance();

        $mail_config['protocol'] = 'smtp';
        $mail_config['smtp_host'] = 'host';
        $mail_config['smtp_user'] = 'user';
        $mail_config['smtp_pass'] = 'pass';
        $mail_config['smtp_port'] = '587';
        $mail_config['smtp_timeout'] = 5;
        $mail_config['charset'] = 'utf-8';
        $mail_config['mailtype'] = 'html';
        $mail_config['wrapchars'] = 76;
        $mail_config['wordwrap'] = TRUE;

        $CI->email->initialize($mail_config);
        $CI->email->set_newLine('\r\n');

        if ($lang == "en"){
            $CI->email->from('support.en@domain.com', 'English Support');
        }else{
            $CI->email->from('support.fr@domain.com', 'Support en francais');
        }
        $CI->email->to($email);
        if ($cc != null){
            $CI->email->cc($cc);
        }
        $CI->email->subject($subject);
        $CI->email->message($message);
        if ($file != null){
            $CI->email->attach($file);
        }
        // $CI->email->print_debugger();
        return $CI->email->send();
    }
}
```

LIBRARY libraries/Alerter.php

```

class Alerter {

    public function alert_user($user_email, $subject, $message, $lang) {
        //load helper
        $this->load->helper('sendEmail');
        //using helper
        sendEmail($user_email, $subject, $message, $lang);
    }

    public function alert_admin($admin_email, $subject, $message, $lang, $reason){
        //load helper
        $this->load->helper('sendEmail');
        .....
        //using helper
        sendEmail($admin_email, $subject, $message, $lang);
        .....
    }
}

```

CONTROLLER

```

class Alerts extends CI_Controller {
    function __construct() {
        parent::__construct();
    }

    public function send_alert($userid) {

        //load library and model
        $this->load->library('Alerter');
        $this->load->model('alerter_model');

        //get user
        $user = $this->alerter_model->get_one_by_id($userid);

        //using library
        $this->Alerter->alert_user($user->email, $subject, $message, $lang);

    }
}

```

Helper

Autoload your helper function. if you use many time in your project

```
$autoload['helper'] = array('url', 'form');
```

Use form helper in view

```

<?php echo form_open('Public/Login/loginAuth'); ?>

<?php
    echo "<div class='row'>";
    echo "<label for='inputEmail' class='col-lg-2 control-label col-lg-offset-2 col-md-2 control-label col-md-offset-2 col-sm-2 control-label col-sm-offset-2'>Enter Email</label>";
    $email = array(

```

```

        "name"=>"email",
        "placeholder"=>"Email",
        "class"=>"form-control"
    );

    echo "<div class='col-lg-6 col-md-6 col-sm-6'>";
    echo form_error('email');
    echo form_input($email)."<br/>";
    echo "</div>";
echo "</div>";

echo "<div class='row'>";
    echo "<label for='inputPassword' class='col-lg-2 control-label col-lg-offset-2 col-md-2
control-label col-md-offset-2 col-sm-2 control-label col-sm-offset-2'>Enter Password</label>";
    $password = array(
        "name"=>"password",
        "placeholder"=>"Password",
        "class"=>"form-control"
    );

    echo "<div class='col-lg-6 col-md-6 col-sm-6'>";
    echo form_error('password');
    echo form_password($password)."<br/>";
    echo "</div>";
echo "</div>";

echo "<div class='row'>";

    $submit = array(
        "name"=>"submit",
        "value"=>"Submit",
        "class"=>"btn btn-primary col-lg-offset-9 col-md-offset-9 col-sm-offset-9 col-xs-offset-9"
    );
    echo form_submit($submit)."<br/>";

echo "</div>";

```

?>

Read How to use the CI libraries and helper online:

<https://riptutorial.com/codeigniter/topic/3776/how-to-use-the-ci-libraries-and-helper>

Chapter 17: How to use the CI libraries and helper?

Syntax

1. `$this->load->library('library_name');`
2. `$this->library_name->function_name();`
3. `$this->load->library('cart'); # for helper $this->load->helper('helperName');`
4. `$this->cart->insert($Array);`

Examples

Creating and calling a library

In order to use libraries in CodeIgniter, you need to create a library.

```
class Pro {  
    function show_hello_world()  
    {  
        return 'Hello World';  
    }  
}
```

In this library, which is called is pro.php, this file must be added to the following path.

Path: `\xampp\htdocs\project\application\libraries`

Now you can use it in your controller. Code to load this library in the controller:

```
$this->load->library('pro');
```

Code to use the library functions:

```
class Admin extends CI_Controller {  
    function index()  
    {  
        $this->load->library('pro');  
        echo $this->pro->show_hello_world();  
    }  
}
```

Read [How to use the CI libraries and helper?](https://riptutorial.com/codeigniter/topic/3770/how-to-use-the-ci-libraries-and-helper-) online:

<https://riptutorial.com/codeigniter/topic/3770/how-to-use-the-ci-libraries-and-helper->

Chapter 18: Image/File Uploader In CodeIgniter

Remarks

It is not necessary that you have to use the same names for the (Controller,File,Class,ID) or whatever it might be. All the things what I have used is for the understanding purpose of the coding flow and my assumptions. It is up to the developer who takes the code and edits the code/name according to their wish and then host the code and succeed.

Examples

Single File/ Image Uploader

We shall now see how the Image/File Uploading code works in the native CI method with the help of the forms that has been proposed by the CI way.

File uploading in PHP has Two Scenarios. It is mentioned below as follows.

- Single Image/File uploader - This can be saved with the help of the normal variable in the form attribute. (E.g.) `<input type="file" name="image" />`
- Multi-image/File Uploader - This can be saved only with the help of the array variable for the name in the file type. (E.g.) `<input type="file" name="image[]" />`.

The array variable namely `name="profile[]"` can also be kept for the single image uploader as well as the multi-image **uploader** too.

Hence the Single Image/File Uploader Code in the Native CodeIgnitor format is as follows:

View Part:

```
<?php
echo form_open_multipart('employee/addemployee', array('name' => 'addemployee',
'class'=>'form-horizontal'));
?>
<div class="form-group">
    <label class="control-label col-sm-4" for="pwd">Profile:</label>
    <div class="col-sm-8">
        <input type="file" class="" id="profile" name="userimage">
    </div>
</div>
<div class="form-group">
    <div class="col-sm-offset-2 col-sm-10">
        <input type="submit" class="btn btn-primary pull-right" name="save" value="Save
Employee" />
    </div>
</div>
```



```
<?php
echo form_close();
?>
```

Hence if we submit the form it will be going to the

- Employee - Controller and search for the function named `addemployee`
- If you need the required attribute for the file uploader code you can add up the HTML5 attribute called `required` to the input tag.

Below is the two examples of how to use the required attribute but both the methods are the same as well.

1. Method One: `<input type="file" name="photo" required="required" />`
2. Method Two: `<input type="file" name="photo" required />`

Hence these are the some of the important tips that are to be followed in the view part of the image/file uploader.

Controller Part:

```
<?php if ( ! defined('BASEPATH')) exit('No direct script access allowed');

class Employee extends CI_Controller {

    function __construct() {
        parent::__construct();
        $this->load->model('employee_model');
        $this->load->helper('url'); //This will load up all the URL parameters from the helper
    }

    class
        $this->load->helper('form'); //This will load up all the form attributes that are need by
        the form.
    }

    public function addemployee()
    {
        if($_FILES["userimage"]['name']=='')
        {
            // Here you can directly redirect to the form page itself with the Error Message
        }
        else
        {
            $new_name = time().$_FILES["userimage"]['name']; //This line will be generating
            random name for images that are uploaded
            $config['upload_path'] = FCPATH ."assets/fileupload/";
            $config['allowed_types'] = 'gif|jpg|png';
            $config['file_name'] = $new_name;
            $this->load->library('upload', $config); //Loads the Uploader Library
            $this->upload->initialize($config);
            if ( ! $this->upload->do_upload('userimage')) {}
            else
            {
                {
                    $data = $this->upload->data(); //This will upload the `image/file` using native
                    image upload
                }
                $data_value = array(
                    'profile'=>$new_name,
```

```

        ); //Passing data to model as the array() parameter
        $this->employee_model->saveemployee($data_value); //save_employee is the function
name in the Model
    }
}
?>

```

Note: By default the upload routine expects the file to come from a form field called `userfile`, and the form must be of type `multipart`.

- Hence it will go to the `employee_model` with the `$data_value` - array and it will be saving the data under the function called `saveemployee`.
- If you would like to set your own field name simply pass its value to the `do_upload()` method
- Using File Uploading class, we can upload files and we can also, restrict the type and size of the file to be uploaded.
- `display_errors()` - Retrieves any error messages if the `do_upload()` method returned false. The method does not echo automatically, it returns the data so you can assign it however you need

Notations:

These are the notations that are available in the CI and we can define it in the `index.php` as a Short Definition and we can use it in the Entire project.

```

EXT: The PHP file extension
FCPATH: Path to the front controller (this file) (root of CI)
SELF: The name of THIS file (index.php)
BASEPATH: Path to the system folder
APPPATH: The path to the "application" folder

```

Model Part:

```

public function saveemployee($data_value)
{
    $this->db->insert('employee',$data_value);
}

```

- It will be saving the data on the `employee` table with the uploaded image name.
- And the image uploaded will be saved into the directory that we have created at the root folder or any other folder that we specify.

Read Image/File Uploader In CodeIgniter online:

<https://riptutorial.com/codeigniter/topic/7450/image-file-uploader-in-codeigniter>

Chapter 19: Let's start: Hello World

Examples

A very simple Hello World application

Starting from a fresh installation of Codeigniter 3, here is a simple way to start with an Hello World application, to break the ice with this solid PHP framework.

To do this you can start creating the view that we want to be shown for our Hello World app.

We are going to put it in your application folder, here:

In `hello_world.php`(/application/views/)

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <title>Hello World</title>
</head>
<body>

    <h1>Hello World!</h1>

</body>
</html>
```

It's just a simple HTML content.

Now, in order to make this view shown, we need a **controller**. The controller is the one that will recall the view in order for its content to be displayed.

In order for it to work properly, the controller needs to go in the proper controllers folder.

Here is where we are going to place our Hello World controller:

/application/controllers/Hello_world.php

(The controller's name is generally *snake_case* with the first letter uppercase)

```
<?php
defined('BASEPATH') OR exit('No direct script access allowed');

class Hello_world extends CI_Controller {

    public function __construct()
    {
        parent::__construct();
    }

    public function index(){
```

```
$this->load->view('hello_world');  
}  
  
}
```

The default function for a controller is the index function.

Now you will be able to see the content of your Hello World page accessing the following address:

```
http://[your_domain_name]/index.php/hello_world
```

or, in case you applied the fix using .htaccess (go back to the installation page for the fix)

```
http://[your_domain_name]/hello_world
```

(If you are working locally, most likely the address where you'll find your page is:

```
http://localhost/hello_world)
```

The URL is actually formed calling your controller class (in this case `Hello_world`, but using all lowercase in the URL). In this case it is enough, since we used the index function. If we would have used a different function name (let's say `greetings`), we should have used an URL like this:

```
http://[your_domain_name]/hello_world/greetings
```

Which is structured as `/[controller_name]/[method_name]`.

Here you go! Your first Codeigniter application is working!

Let's use the controller a little more

Now we'll try going for a little more complex example, using the capabilities of the controller to fill in the view.

Here is our view: `/application/views/hello_world.php`

```
<!DOCTYPE html>  
<html lang="en">  
<head>  
    <meta charset="utf-8">  
    <title>Hello World</title>  
</head>  
<body>  
  
    <h1><?php echo $greetings;?></h1>  
  
</body>  
</html>
```

Now we have a placeholder for our greetings to be displayed.

Here is how we change the controller in order for this to work:

```

<?php
defined('BASEPATH') OR exit('No direct script access allowed');

class Hello_world extends CI_Controller {

    public function __construct() {
        parent::__construct();
    }

    public function greetings(){
        $data = array('greetings'=>'Hello World');
        $this->load->view('hello_world',$data);
    }
}

```

The `$data` array is prepared with the information to be injected into the view, using the same label (`greetings`) that has been recalled inside the view.

The final result is the same as with the first example, but we are now using more of the potentiality of the framework!

Let's choose our greetings: Hello World or Good Bye World or ...?

Let's say that we want to have an alternative greeting that is accessible through a different URL. We might create a new function or even a new controller for that, but a best practice is to optimize what we already have, to make it work at it's best!

To do this, we'll keep the same view as in the previous examples, but we'll introduce a parameter to our function, in order for it to be able to choose between two different greetings:

```

<?php
defined('BASEPATH') OR exit('No direct script access allowed');

class Hello_world extends CI_Controller {

    public function __construct() {
        parent::__construct();
    }

    public function greetings($my_greetings){
        switch($my_greetings)
        {
            case 'goodbye':
                $say = 'Good Bye World';
                break;
            case 'morning':
                $say = 'Good Morning World';
                break;
            default:
                $say = 'Hello World';
        }
        $data = array('greetings'=>$say);
        $this->load->view('hello_world',$data);
    }
}

```

Now we have multiple greetings options! In order for them to be visualized, we are going to add the parameter at the URL, as follows:

```
http://[your_domain_name]/hello_world/greetings/goodbye
```

This will show us the message: "Good Bye World".

The structure of the URL is as follows:

```
http://[your_domain_name]/[controller_name]/[function_name]/[parameter_1]
```

In this case, in order to get back to our good old "Hello World", it's enough to call the former url, without parameters:

```
http://localhost/hello_world/greetings
```

You can add multiple parameters to your function (for instance, if you need 3 of them):

```
public function greetings($param1, $param2, $param3)
```

and they can be filled up using the url as follows:

```
http://[your_domain_name]/[controller_name]/[function_name]/[param1]/[param2]/[param3]
```

e.g. `http://localhost/hello_world/greetings/goodbye/italian/red`

This way you can have parameters passed to you directly from the URL that will affect the content of what will be shown.

To know more about how to pass parameters through the URL, you might want look into the topic of routing!

Read **Let's start: Hello World** online: <https://riptutorial.com/codeigniter/topic/2411/let-s-start--hello-world>

Chapter 20: Make API in Codeigniter

Introduction

Codeigniter provide auto initialized Output class which is very useful for creating API and different type of documents output like .pdf, .csv, .image, etc...

NOTE :- Codeigniter default document type is HTML change it to application/json, API must be required type of json

Examples

create the new controller with name API

```
<?php

defined('BASEPATH') OR exit('No direct script access allowed');

class Api extends CI_Controller {
    //default value
    private $login_credential;

    function __construct() {
        parent::__construct();
        //for user authentication
        $this->load->library('session');

        //set page header type Json as default
        $this->output->set_content_type('application/json');
        //default credentials for user login
        $this->login_credential = array(
            'username'=>'admin',
            'password'=>'test@123',
            'email'=>'domain@test.com'
        );
    }
}
?>
```

Retrieve some data from API add following function in API controller

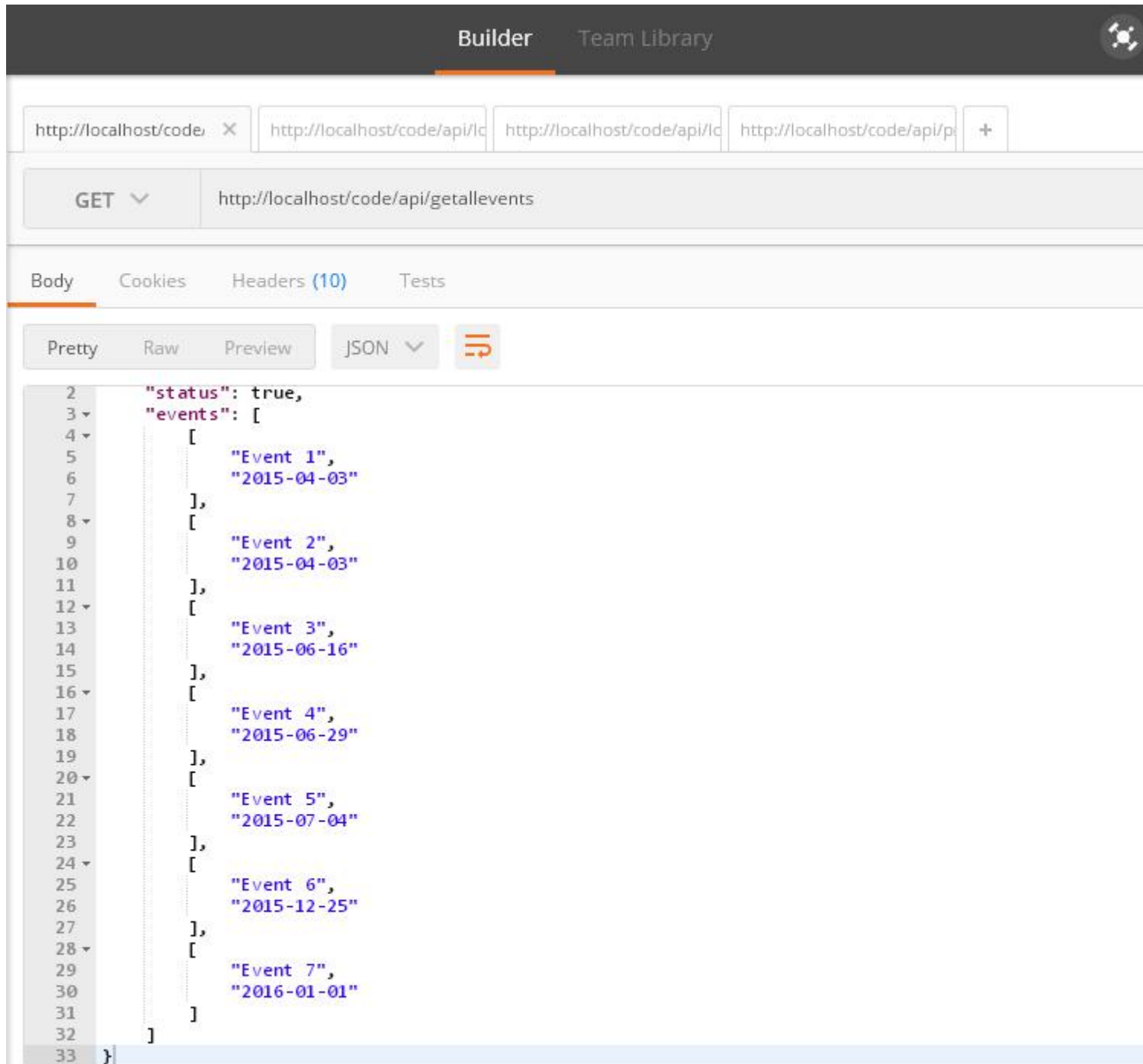
```
/******
@return all events
*****/
public function getallevents(){
    //get data from model
    $events = array(
        array('Event 1', '2015-04-03'),
        array('Event 2', '2015-04-03'),
        array('Event 3', '2015-06-16'),
        array('Event 4', '2015-06-29'),
        array('Event 5', '2015-07-04'),
```

```

        array('Event 6', '2015-12-25'),
        array('Event 7', '2016-01-01')
    );
    $this->output->set_output(json_encode(array('status'=>true, 'events'=>$events)));
}

```

Postman view



log in user API for allow access of some private data for particular user

```

/*****
login user
@required : username and password via post method only
@return user data if login successfull otherwise error message
*****/

```



```

public function login(){
    $username=$this->input->post('username');
    $password=$this->input->post('password');
    if($username && $password){
        //check username and password
        if($this->login_credential['username']==$username && $this->login_credential['password']==$password){
            //set user data to store in session
            $userdata = array(
                'username' => $this->login_credential['username'],
                'email' => $this->login_credential['email'],
                'logged_in' => true
            );
            //set session
            $this->session->set_userdata($userdata);
            //display log in successfull msg
            $this->output->set_output(json_encode(array('status'=>true,'msg'=>'log in successfully','data'=>$userdata)));
        }else{
            //wrong username or password
            $this->output->set_output(json_encode(array('status'=>false,'msg'=>'invalid Username or password')));
        }
    }else{
        //when username and password not set
        $this->output->set_output(json_encode(array('status'=>false,'msg'=>'provide Username and password')));
    }
}

```

http://localhost/code/welcome http://localhost/code/api/login X http://localhost/code/api/logout http://localhost/code/api/p +

POST http://localhost/code/api/login

Authorization Headers **Body** Pre-request Script Tests

☒ form-data ☐ x-www-form-urlencoded ☐ raw ☐ binary

	Key	Value	Description
<input checked="" type="checkbox"/>	username	admin	
<input checked="" type="checkbox"/>	password	test@123	
	New key	Value	Description

Body Cookies Headers (10) Tests

Pretty Raw Preview JSON

```

1 {
2   "status": true,
3   "msg": "log in successfully",
4   "data": {
5     "username": "admin",
6     "email": "domain@test.com",
7     "logged_in": true
8   }
9 }

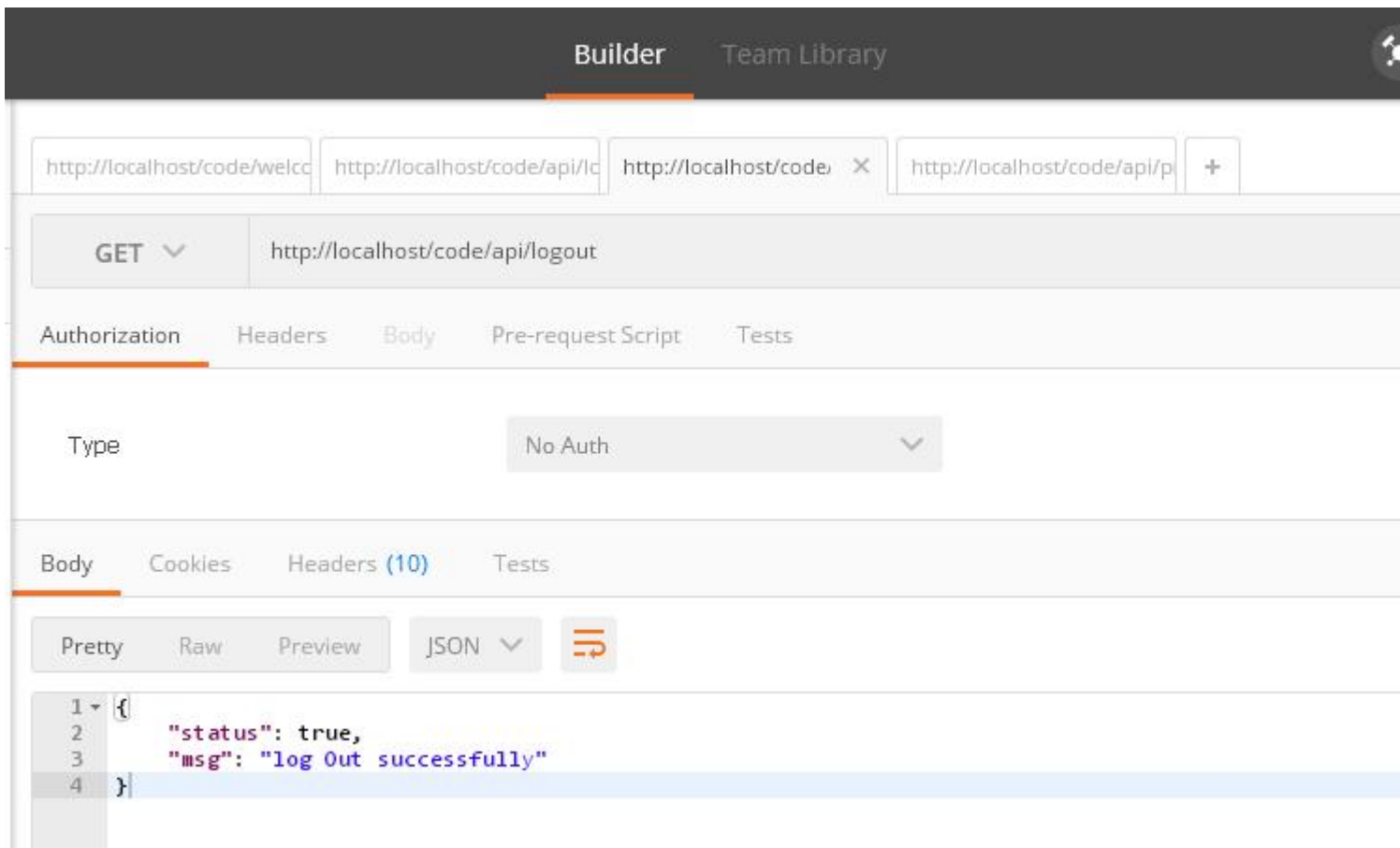
```

user log out api to destroy the session of logged in user

```

/*****
log out user
*****/
public function logout(){
    //delete all session
    session_destroy();
    $this->output->set_output(json_encode(array('status'=>true,'msg'=>'log Out successfully')));
}

```



create protected api

This API not accessible for public user, authentication is required

```
/*  
this is protected api this is not accessible if you are not logged in  
*/  
public function protectedapi(){  
    if($this->session->userdata('logged_in')){  
        //this section only accessible when user logged in  
        $this->output->set_output(json_encode(array('status'=>true,'msg'=>'Access allowed')));  
    }else{  
        $this->output->set_output(json_encode(array('status'=>true,'msg'=>'Access denied')));  
    }  
}
```

Builder Team Library


http://localhost/code/welcc http://localhost/code/api/lc http://localhost/code/api/lc http://localhost/code/ X +

GET ▼ http://localhost/code/api/protectedapi

Authorization Headers Body Pre-request Script Tests

Type No Auth ▼

Body Cookies Headers (10) Tests

Pretty Raw Preview JSON ▼ 

```
1 {  
2   "status": true,  
3   "msg": "Access allowed"  
4 }
```

Read Make API in Codeigniter online: <https://riptutorial.com/codeigniter/topic/10903/make-api-in-codeigniter>

Chapter 21: Play with English word with INFLECTOR helper

Introduction

Inflector is a very handy helper to change/convert english word to singular, plural, camel case, humanize etc. The helper also help to check whether a word has plural version or not.

Examples

Load inflector helper

To use the method of inflector helper, first load the helper like all other helper with the following code:

```
$this->load->helper('inflector');
```

Make a word singular

Function `singular($string)`, convert a plural word to singular. To get perfect result parameter `$string` should be a single word. The function will return `string`.

```
echo singular("books"); //prints 'book'
```

Check a word has plural

`is_countable($string)` is use for checking a word has plural form or not. Return type will be `boolean` means if the given word has plural form it will return `true`, otherwise will return `false`.

```
is_countable('book'); // Returns TRUE
```

Make a word plural

For getting plural form of any English word the `plural($string)` function is handy. Like `singular($string)`, the function `plural($string)` also return `string` result.

```
echo plural("book"); //prints 'books'
```

Camelized the string

Camel Case is the practise of writing compound words or phrases where every word begins with Capital letter, without space between word. The function `camelize($string)` helps to make a string

camelized. It converts a string of words separated by spaces or underscores to camel case.

```
echo camelize('Mc donald'); //Prints mcDonald
```

Remove / Add delimiter between words

Remove delimiter

The function `humanize($words)`, takes multiple words separated by underscores and adds spaces for underscores with capitalized each word.

```
echo humanize('mac_donald'); // Prints 'Mac Donald'
```

The function can also replace any declared separator/delimiter. In this case, delimiter will be second parameter.

```
echo humanize('mac-donald','-'); // Prints 'Mac Donald'
echo humanize('mac#donald','#'); // Prints 'Mac Donald'
```

Add Underscore

On the other hand, `underscore($words)` function replace the space between words with `underscore(_)`.

```
echo underscore('Mac Donald'); // Prints 'mac_donald'
```

Read Play with English word with INFLECTOR helper online:

<https://riptutorial.com/codeigniter/topic/8057/play-with-english-word-with-inflector-helper>

Chapter 22: Query Structure

Examples

Selecting Data

The following functions allow you to build SQL SELECT statements.

```
$this->db->get()
```

This runs the selection query and returns the result. Can be used by itself to retrieve all records from a table:

```
$query = $this->db->get('tablename'); // Produces: SELECT * FROM tablename
```

The second and third parameters enable you to set a limit and offset clause:

```
$query = $this->db->get('tablename', 10, 20);  
  
// Executes: SELECT * FROM tablename LIMIT 20, 10  
// (in MySQL. Other databases have slightly different syntax)
```

Selecting Data

Selecting data with condition

```
$query = $this->db->select('*')  
    ->from('table_name')  
    ->where('column_name', $value) // Condition  
    ->get();  
return $query->result();
```

Selecting data with multiple conditions

```
$conditions = array('column_name_1' => $value_1, 'column_name_2' => $value_2);  
$query = $this->db->select('*')  
    ->from('table_name')  
    ->where($conditions) // Conditions  
    ->get();  
return $query->result();
```

Select data with condition and limit

```
$query = $this->db->select('*')  
    ->from('table_name')  
    ->where('column_name', $value) // Condition  
    ->limit(10) // Maximum 10 rows  
    ->get();
```

```
return $query->result();
```

Select data with condition, maximum rows and order descending

```
$query = $this->db->select('*')
        ->from('table_name')
        ->where('column_name', $value) // Condition
        ->limit(10) // Maximum 10 rows
        ->order_by('id', 'DESC') // Order data descending
        ->get();
return $query->result();
```

Selecting data with second Optional Parameter

Usually we are not using second parameter in `select([$select = '*', $escape = NULL])` in CodeIgniter. If you set it to `FALSE`, CodeIgniter will not try to protect your field or table names.

In the following example, we are going to select the datetime type field by formatting it using sql query and set it `FALSE` (By doing this, we are going to tell CI not to escape the query automatically).

```
public function getUserInfo($id)
{
    $this->db->select('BaseTbl.id, BaseTbl.name, DATE_FORMAT(BaseTbl.createdDtm, "%d-%m-%Y")
    AS createdDtm', FALSE); // FALSE is the second optional parameter
    $this->db->from('tbl_users as BaseTbl');
    $this->db->where('isDeleted', 0);
    $this->db->where('BaseTbl.id', $id);
    $query = $this->db->get();

    return $query->result();
}
```

If we are not set it to `FALSE`, it will automatically escapes and break the query.

Join Tables Using Query Builder

Sometimes we need to join multiple tables to get aggregate data in return. here is how we can achieve the same using CodeIgniter Query Builder / Active Records.

```
public function getStudentInfo($studentid){
    $query = $this->db->select("st.id, st.name, st.class, mk.maths, mk.science")
        ->from("students as st")
        ->join("marks as mk", "mk.student_id = st.id", "inner")
        ->where("st.id", $studentId)
        ->get();
    return $query->result();
}
```

Here we use `join()` to join multiple tables and we can change join type in 3rd parameter like "inner", "left", "right" etc.

Read Query Structure online: <https://riptutorial.com/codeigniter/topic/3769/query-structure>

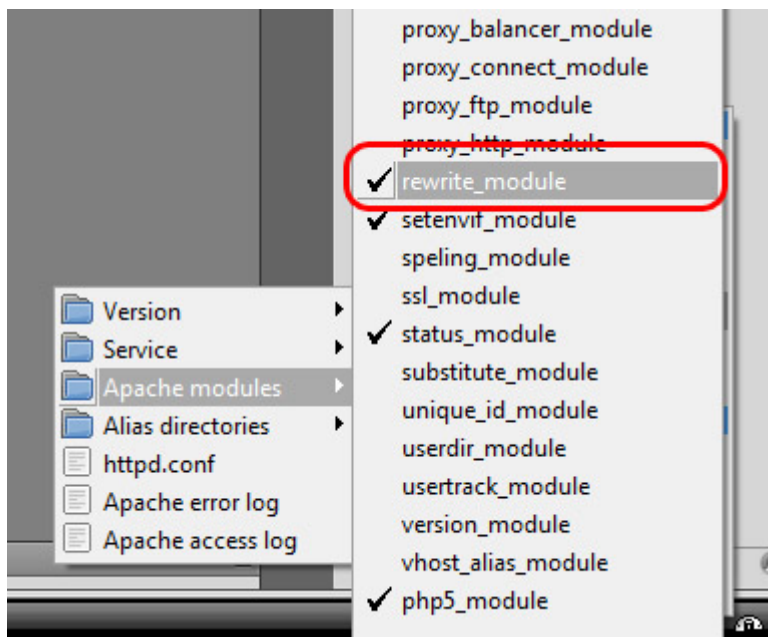
Chapter 23: Removing index.php using WAMP and CodeIgniter

Examples

How to remove the index.php from url's with using wamp and codeigniter

First thing to do is enable the mod rewrite on wamp go to Apache modules and scroll down the list

If not showing tick enable it and then restart all servers.



Linux users can also use below terminal command to enable rewrite module

```
sudo a2enmod rewrite
```

Then restart apache using:

```
sudo service apache2 restart
```

Then out side of your application folder create a file called .htaccess

```
project > application
project > system
project > .htaccess
project > index.php
```

Try this code below

```
Options +FollowSymLinks
RewriteEngine on
RewriteCond $1 !^(index\.php|images|robots\.txt)
RewriteCond %{REQUEST_FILENAME} !-f
RewriteCond %{REQUEST_FILENAME} !-d
RewriteRule ^(.*)$ ./index.php/$1 [L]
```

If not here is some more htaccess [examples](#)

Then go to the config.php file. Set your base_url and make the index_page blank

```
$config['base_url'] = ((isset($_SERVER['HTTPS']) && $_SERVER['HTTPS'] == "on") ? "https" :
"http");
$config['base_url'] .= "://".$_SERVER['HTTP_HOST'];
$config['base_url'] .=
str_replace(dirname($_SERVER['SCRIPT_NAME']), "", $_SERVER['SCRIPT_NAME']);
$config['index_page'] = '';
```

Hope this helps you can use the htaccess files from examples for others.

Read [Removing index.php using WAMP and CodeIgniter online](#):

<https://riptutorial.com/codeigniter/topic/4340/removing-index-php-using-wamp-and-codeigniter>

Chapter 24: Securing your web application

Introduction

Remember CodeIgniter is a development Framework. It doesn't strive to make your application secure. It merely gives you the tools to do it yourself. If you look at CI's Security page, it's pretty clear they are expecting the developer to understand Application Security and build it into their application.

If WebApp security is relatively new for you, I would start with OWASP. It might be advantageous to look at other frameworks such as Zend or Cake which I believe do more upfront things

Syntax

- `$freshdata = $this->security->xss_clean($user_input_data);`

Parameters

array of user input	blank
insert array of user input in <code>xss_filter(\$array of user input)</code>	Blank

Examples

XSS Prevention

XSS means cross-site scripting. CodeIgniter comes with XSS filtering security. This filter will prevent any malicious JavaScript code or any other code that attempts to hijack cookie and do malicious activities. To filter data through the XSS filter, use the `xss_clean()` method as shown below.

```
$data = $this->security->xss_clean($data);
```

You should use this function only when you are submitting data. The optional second Boolean parameter can also be used to check image file for XSS attack. This is useful for file upload facility. If its value is true, means image is safe and not otherwise.

SQL Injection Prevention

SQL injection is an attack made on the database query. In PHP, we use **`mysql_real_escape_string()`** function to prevent this along with other techniques but CodeIgniter provides inbuilt functions and libraries to prevent this.

We can prevent SQL Injection in CodeIgniter in the following three ways –

- Escaping Queries
- Query Biding
- Active Record Class

Escaping Queries

```
<?php
$username = $this->input->post('username');
$query = 'SELECT * FROM subscribers_tbl WHERE user_name = ' .
$this->db->escape($email);
$this->db->query($query);
?>
```

`$this->db->escape()` function automatically adds single quotes around the data and determines the data type so that it can escape only string data.

Query Biding

```
<?php
$sql = "SELECT * FROM some_table WHERE id = ? AND status = ? AND author = ?";
$this->db->query($sql, array(3, 'live', 'Rick'));
?>
```

In the above example, the question mark(?) will be replaced by the array in the second parameter of the `query()` function. The main advantage of building query this way is that the values are automatically escaped which produce safe queries. CodeIgniter engine does it for you automatically, so you do not have to remember it.

Active Record Class

```
<?php
$this->db->get_where('subscribers_tbl', array('status' => 'active', 'email' =>
'info@arjun.net.in'));
?>
```

Using active records, query syntax is generated by each database adapter. It also allows safer queries, since the values escape automatically.

Hiding PHP Errors

In production environment, we often do not want to display any error message to the users. It is good if it is enabled in the development environment for debugging purposes. These error messages may contain some information, which we should not show to the site users for security reasons.

There are three CodeIgniter files related with errors. PHP Error Reporting Level

Different environment requires different levels of error reporting. By default, development will show

errors but testing and live will hide them. There is a file called `index.php` in root directory of CodeIgniter, which is used for this purpose. If we pass zero as argument to `error_reporting()` function then that will hide all the errors.

CSRF Prevention

CSRF stands for cross-site request forgery. You can prevent this attack by enabling an option in the `application/config/config.php` file as shown below.

```
$config['csrf_protection'] = TRUE;
```

When you create a form using the `form_open()` function, it will automatically insert a CSRF token in a hidden field. You can also manually add the CSRF token using the `get_csrf_token_name()` and `get_csrf_hash()` function. As their names suggest, the `get_csrf_token_name()` function will return the name of the CSRF token, while `get_csrf_hash()` will return the hash.

The CSRF token can be regenerated every time for submission or you can also keep it the same throughout the life of the CSRF cookie. Setting the configuration option `'csrf_regenerate'` will force regeneration of the token as shown below.

```
$config['csrf_regenerate'] = TRUE;
```

You can whitelist URLs from CSRF protection by setting matches for them in the configuration array using the key `'csrf_exclude_uris'` as shown below. You can also use regular expressions.

```
$config['csrf_exclude_uris'] = array('api/person/add');
```

Remove Abuse Data from User input

```
// XSS Filtering
$data = array(
    'name' => '<script>Abuse Data</script>'
);
$data = $this->security->xss_clean($data); // Clean Data

// Escaping Queries
<?php $username = $this->input->post('username'); $query = 'SELECT * FROM subscribers_tbl
WHERE user_name = '. $this->db->escape($email); $this->db->query($query); ?>
```

XSS Prevention on User Input

Don't rely on any user input. user input everything like `<script>` tag or any javascript `alert()`; so we have to prevent this all data will no run in our browser. so we have to use xss prevention method to restrict our secure data to kept in hacker hand and also it's developer's responsibility to user's input validation and solve error by programatically.

so, check this is a example of xss prevention in CodeIgniter.

```

$data = array(
    'name' => "<script>alert('abc')</script>",
    'email' => "useremail@gmail.com"
);
var_dump($data);
// Print array without xss cleaning/xss filtering

array(2) { ["name"]=> string(29) "" ["email"]=> string(19) "useremail@gmail.com" } // Result
with alert

// now print data after xss filtering

$data = $this->security->xss_clean($data);
var_dump($data);

//Print array without xss cleaning/xss filtering
array(2) { ["name"]=> string(38) "[removed]alert('abc')[removed]" ["email"]=> string(19)
"useremail@gmail.com" } // Result Without alert

```

so, after added xss_filtering we don't have any issue to run any abuse code which input by user. and CodeIgniter replace this abuse tag with [removed] keyword.

Read Securing your web application online: <https://riptutorial.com/codeigniter/topic/9857/securing-your-web-application>

Chapter 25: Sending Email

Remarks

In CodeIgniter 3 you have to include the parameter:

```
$config['newline'] = "\r\n";
```

It just won't work without it.

If you don't care about new lines and you're using CodeIgniter 2 then this config parameter is optional.

Examples

Load The Email Library

First you need to load the email library.

Do this either in the controller file that will be sending the email:

```
$this->load->library('email');
```

Or load it globally in the autoload.php file in the config folder:

```
$autoload['libraries'] = array('email');
```

While you're there, you may want to load the email helper if you want to use some of CodeIgniter's built in shortcuts:

```
$autoload['helper'] = array('email');
```

The email helper can be loaded in the Controller file in a similar way to the email library:

```
$this->load->helper('email');
```

Set Your Email Config Parameters

Create a new file in the application/config folder named email.php

Set the parameters for sending email. These will load when you send your email.

```
$config['newline'] = "\r\n"; //You must use double quotes on this one
$config['protocol'] = 'smtp';
$config['smtp_host'] = 'ssl://smtp.gmail.com'; //Change for your specific needs
```

```
$config['smtp_port'] = 465; //Change for your specific needs
$config['smtp_user'] = 'test@test.com'; //Change for your specific needs
$config['smtp_pass'] = 'yourpassword'; //Change for your specific needs
$config['charset'] = 'iso-8859-1';
$config['mailtype'] = 'text'; //This can be set as 'html' too
```

Create Your Email

```
$this->email->from('accounts@yourwebsite.com', 'Tom Webmaster');
$this->email->to('fred@fake.com', 'Freddie Fakeperson');
$this->email->subject('Your Account Is Active');
$this->email->message('Welcome to our new site!');
```

In the 'from' method, the first parameter is the email address your are sending from, the second parameter is the name you'd like the receiver to see.

In the 'to' method, you define who the email is being sent to.

The 'subject' method defines the subject of the email.

The 'message' method defines what will be in the body of your email.

Any of these could be a data that was sent to your site by a user. So you may have a variable in here that holds posted data. So they may look more like this:

```
$this->email->to($email, $username);
```

Send Your Email

```
$sent = $this->email->send();

//This is optional - but good when you're in a testing environment.
if(isset($sent)){
    echo "It sent!";
}else{
    echo "It did not send.";
}
```

Send An HTML Email

But you don't just want a plain text email. You want a pretty html email.

Set your config file as html:

```
$config['mailtype'] = 'html';
```

If you want to pass data (like a username for example) to the html email, put them in an array:

```
$data = array('name' => $name,
```



```
'email' => $email,  
'phone' => $phone,  
'date' => $date);
```

Then when sending, point your 'message' to a view. Then pass your data array to it:

```
$this->email->message($this->load->view('new_user',$data, true));
```

In your application/view folder create your view.

In this case it's named 'new_user.php'.

You can style this anyway you'd like. Here's a quick example:

```
<html>  
<head>  
  <style type='text/css'>  
    body {background-color: #CCD9F9;  
          font-family: Verdana, Geneva, sans-serif}  
  
    h3 {color:#4C628D}  
  
    p {font-weight:bold}  
  </style>  
</head>  
<body>  
  
  <h3>Hi <?php echo $name;?>,</h3>  
  <h3>Thanks for contacting us.</h3>  
  
  <p>You've taken your first step into a larger world.</p>  
  <p>We really appreciate your interest.</p>  
  
</body>  
</html>
```

Contact Form

Controller (Pages.php)

```
public function contact()  
{  
  
  $this->load->library('email');  
  $this->load->library('form_validation');  
  
  //Set form validation  
  $this->form_validation->set_rules('name', 'Name',  
'trim|required|min_length[4]|max_length[16]');  
  $this->form_validation->set_rules('email', 'Email',  
'trim|required|valid_email|min_length[6]|max_length[60]');  
  $this->form_validation->set_rules('message', 'Message',  
'trim|required|min_length[12]|max_length[200]');  
  
  //Run form validation  
  if ($this->form_validation->run() === FALSE)
```

```

{
    $this->load->view('contact');
} else {

    //Get the form data
    $name = $this->input->post('name');
    $from_email = $this->input->post('email');
    $subject = $this->input->post('subject');
    $message = $this->input->post('message');

    //Web master email
    $to_email = 'admin@domain.com'; //Webmaster email, who receive mails

    //Mail settings
    $config['protocol'] = 'smtp';
    $config['smtp_host'] = 'ssl://smtp.gmail.com';
    $config['smtp_port'] = '465';
    $config['smtp_user'] = 'mail@domain.com'; // Your email address
    $config['smtp_pass'] = 'mailpassword'; // Your email account password
    $config['mailtype'] = 'html'; // or 'text'
    $config['charset'] = 'iso-8859-1';
    $config['wordwrap'] = TRUE; //No quotes required
    $config['newline'] = "\r\n"; //Double quotes required

    $this->email->initialize($config);

    //Send mail with data
    $this->email->from($from_email, $name);
    $this->email->to($to_email);
    $this->email->subject($subject);
    $this->email->message($message);

    if ($this->email->send())
    {
        $this->session->set_flashdata('msg','<div class="alert alert-success">Mail
sent!</div>');

        redirect('contact');
    } else {
        $this->session->set_flashdata('msg','<div class="alert alert-danger">Problem in
sending</div>');
        $this->load->view('contact');
    }
}
}

```

Views (contact.php)

```

<div class="container">
<h2>Contact</h2>
<div class="row">
    <div class="col-lg-6">
        <?php echo $this->session->flashdata('msg'); ?>
        <form action=""<?php echo base_url('contact'); ?>" method="post">
        <div class="form-group">
            <input name="name" placeholder="Your name" type="text" value=""<?php echo
set_value('name'); ?>" class="form-control" />
            <?php echo form_error('name', '<span class="text-danger">', '</span>'); ?>
        </div>
        <div class="form-group">

```

```

        <input name="email" placeholder="Your e-mail" type="text" value="<?php echo
set_value('email'); ?>" class="form-control" />
        <?php echo form_error('email', '<span class="text-danger">', '</span>'); ?>
    </div>
    <div class="form-group">
        <input name="subject" placeholder="Subject" type="text" value="<?php echo
set_value('subject'); ?>" class="form-control" />
    </div>
    <div class="form-group">
        <textarea name="message" rows="4" class="form-control" placeholder="Your
message"><?php echo set_value('message'); ?></textarea>
        <?php echo form_error('message', '<span class="text-danger">', '</span>'); ?>
    </div>
    <button name="submit" type="submit" class="btn btn-primary" />Send</button>
</form>
</div>
</div>

```

Read Sending Email online: <https://riptutorial.com/codeigniter/topic/5403/sending-email>

Chapter 26: session setflashdata

Examples

How to Set session flash data in controller

You can set flash data in controller just using this syntax

```
$this->session->set_flashdata('message', 'Message you want to set');
```

Here 'message' is identifier for access data in view. You can Set more than one message by just changing identifier.

for ex

```
$this->session->set_flashdata('my_alert', 'Message you want to set');  
$this->session->set_flashdata('my_warnig', 'Message you want to set');
```

How to Display Flashdata in view

You can simply access the fashdata in view like this

```
<?php echo $this->session->flashdata('message'); ?>
```

For access multiple message just change identifier

For Ex.

```
<?php echo $this->session->flashdata('my_alert'); ?>  
<?php echo $this->session->flashdata('my_warnig'); ?>
```

Read session setflashdata online: <https://riptutorial.com/codeigniter/topic/9688/session-set-flashdata>

Chapter 27: url suffix

Examples

url suffix

```
$config['url_suffix'] = 'html';
```

change everything you want like html or asp, this is will work after your rwmoving index.php on config.php

Read url suffix online: <https://riptutorial.com/codeigniter/topic/9379/url-suffix>

Chapter 28: Use of hooks

Examples

Enabling Hooks

The hooks feature can be globally enabled/disabled by setting the following item in the `application/config/config.php` file:

```
$config['enable_hooks'] = TRUE;
```

Defining a Hook

Hooks are defined in the `application/config/hooks.php` file. Each hook is specified as an array with this prototype

```
$hook['pre_controller'] = array(  
    'class'      => 'MyClass',  
    'function'   => 'Myfunction',  
    'filename'   => 'Myclass.php',  
    'filepath'   => 'hooks',  
    'params'     => array('beer', 'wine', 'snacks')  
);
```

The array index correlates to the name of the particular hook point you want to use. In the above example, the hook point is `pre_controller`. A list of hook points is found below. The following items should be defined in your associative hook array:

class The name of the class you wish to invoke. If you prefer to use a procedural function instead of a class, leave this item blank.

function The function (or method) name you wish to call.

filename The file name containing your class/function.

file-path The name of the directory containing your script.

params Any parameters you wish to pass to your script. This item is optional.

Hook Points

`pre_system`

Called very early during system execution. Only the benchmark and hooks class have been loaded at this point. No routing or other processes have happened.

`pre_controller`

Called immediately prior to any of your controllers being called. All base classes, routing, and security checks have been done.

`post_controller_constructor`

Called immediately after your controller is instantiated, but prior to any method calls happening.

`post_controller`

Called immediately after your controller is fully executed.

`display_override`

Overrides the `_display()` method, used to send the finalized page to the web browser at the end of system execution. This permits you to use your own display methodology. Note that you will need to reference the CI super-object with `$this->CI =& get_instance()` and then the finalized data will be available by calling `$this->CI->output->get_output()`.

`cache_override`

Enables you to call your own method instead of the `_display_cache()` method in the Output Library. This permits you to use your own cache display mechanism.

`post_system`

Called after the final rendered page is sent to the browser, at the end of system execution after the finalized data is sent to the browser.

Pre Controller Hook example using CodeIgniter

In `application/hooks` folder, create a file with name `Blocker.php` and paste the below code.

```
<?php
class Blocker {

    function Blocker() {
    }

    /**
     * This function used to block the every request except allowed ip address
     */
    function requestBlocker() {

        if($_SERVER["REMOTE_ADDR"] != "49.248.51.230") {
            echo "not allowed";
            die;
        }
    }
}
?>
```

In `application/config/hooks.php`, declare the following hook.

```
$hook['pre_controller'] = array(
    'class'      => 'Blocker',
    'function'   => 'requestBlocker',
    'filename'   => 'Blocker.php',
    'filepath'   => 'hooks',
    'params'     => ""
);
```

In `application/config/config.php`, set following value as true

Defining a Hook

Hooks are defined in `application/config/hooks.php` file. Each hook is specified as an array with this prototype:

```
$hook['pre_controller'] = array(
    'class'      => 'MyClass',
    'function'   => 'Myfunction',
    'filename'   => 'Myclass.php',
    'filepath'   => 'hooks',
    'params'     => array('bread', 'wine', 'butter')
);
```

- **CLASS**- The class that you wish to invoke if it is procedural code leave it as blank.
- **FUNCTION**- The function name you wish to call.
- **FILENAME**- The file name containing your class/function.
- **FILEPATH**- Location of the hook file.
- **PARAMS**-Additional parameter if needed it is optional

Read Use of hooks online: <https://riptutorial.com/codeigniter/topic/3953/use-of-hooks>

Chapter 29: Using Model in codeigniter

Examples

Creating Model

Go to `application/model`

File name - **Home_model.php**

Inside the file

```
class Home_model extends CI_Model {

    public $variable;

    public function __construct()
    {
        parent::__construct();
    }

    public function get_data()
    {
        $query = $this->db->get('table_name', 10);
        return $query->result_array();
    }
}
```

And when you need to load this model:

```
$this->load->model('home_model');
$this->home_model->get_data();
```

Or If you would like your model assigned to a different object name you can specify it like this:

```
$this->load->model('home_model', 'home');
$this->home->get_data();
```

Loading Model

Syntax - `$this->load->model('model_name');`

Practice - `$this->load->model('home_model');`

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

Syntax -

```
$this->load->model('model_name', 'foobar');
$this->foobar->method();
```

Practice -

```
$this->load->model('home_model', 'home');  
$this->home->get_data();
```

Calling Model function

Syntax

```
$this->load->model('model_name');  
$this->model_name->method_name();
```

Practice

```
$this->load->model('home_model');  
$this->home_model->get_data();
```

Passing data to model

Syntax

```
$array = array(  
    '' => ,  
); # can pass array  
$singelData = ''; # something just a filed value  
$this->load->model('model_name');  
$this->model_name->method_name($singelData, $array);
```

Practice

```
$array = array(  
    'name' => 'codeigniter',  
    'version' => '3.0',  
    'isArray' => 'yes',  
);  
$singelData = 'using model'; # something just a filed value  
$this->load->model('home_model');  
$this->home_model->get_data($singelData, $array);
```

Receiving data from controller

```
public function method_name($single, $array)  
{  
    echo $single;  
    print_r($array);  
}
```

Beware with the order which pass from controller to model.

Return Data to Controller

```
public function get_username($uid)
{
    $query =
    $this->db->select('id')
        ->select('name')
        ->from('user_table')
        ->where('id', $uid)
        ->get();
    return $query->result_array();
}
```

this will return the result with matched id and username to the controller.

Read Using Model in codeigniter online: <https://riptutorial.com/codeigniter/topic/3777/using-model-in-codeigniter>

Chapter 30: Using Sessions

Remarks

The Codeigniter **Sessions** class uses browser cookies to save data that will persist across multiple page loads.

Reference: https://codeigniter.com/user_guide/libraries/sessions.html

Examples

Creating a Session

To Initialize a session, you can simply load it in your controller, this is usually placed inside the controller constructs, but it also can be autoloaded into the array found inside `application/config/autoload.php`:

```
$this->load->library('session');
```

Handling Session Data

A session is simply an array consisting of the following user information:

1. The user's unique Session ID (this is a statistically random string with very strong entropy, hashed with MD5 for portability, and regenerated (by default) every five minutes)
2. The user's IP Address
3. The user's User Agent data (the first 120 characters of the browser data string)
4. The "last activity" time stamp.

Source ([what-is-session-data](#))

To retrieve session data

such as the SessionID:

```
$this->session->userdata('session_id');
```

Note - for Codeigniter 3.x, you can use the above syntax, but the concept of magic getters has been introduced, where you can use `$this->session->session_id`.

Remember that the `userdata()` returns NULL if the session item doesn't exist.

To retrieve all session data

```
$this->session->all_userdata()
```

To Set Session Data

the `set_userdata()` method allows you to set data into your session, the following example demonstrates an example array you wish to insert:

```
$newdata = array(  
    'username' => 'johndoe',  
    'email'    => 'johndoe@some-site.com',  
    'logged_in' => TRUE  
);  
  
$this->session->set_userdata($newdata);
```

You can also set one data at a time, for example:

```
$this->session->set_userdata('some_name', 'some_value');
```

or

```
$some_name = 'some_value';  
$this->session->set_userdata($some_name);
```

To Remove Session and Session Data

```
$this->session->unset_userdata('some_name')
```

This method also accepts an array of item keys to unset:

For Codeigniter 3.x:

```
$array_items = array('username', 'email');  
  
$this->session->unset_userdata($array_items);
```

For Codeigniter 2.x (this legacy syntax doesn't support 3.x):

```
$array_items = array('key' => 'value');  
  
$this->session->unset_userdata($array_items);
```

Read Using Sessions online: <https://riptutorial.com/codeigniter/topic/5793/using-sessions>

Credits

S. No	Chapters	Contributors
1	Getting started with codeigniter	Abdulla Nilam , Ariful Islam , BIBIN JOHN , Bilal Ahmad , cfnerd , Community , emstawicki , gabe3886 , karel , Mitul , Prakash , Shiva127 , zur4ik
2	Array Helper	Abdulla Nilam , Rana Ghosh
3	Authentication	Ahmet Can Boyraz
4	Base url in Codeigniter	Abdulla Nilam , Adrian P. , Ariful Islam , Blubberguy22 , sudopower , wolfgang1983
5	Calling a model method in a view	Saul
6	CAPTCHA Helper	Abdulla Nilam , Rana Ghosh
7	CodeIgniter - Internationalization	ImBS
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16	How to use the CI	Abdulla Nilam , Adrian P. , karel , Mitul , NAW_AB , shantanu

	libraries and helper	
17	How to use the CI libraries and helper?	Abdulla Nilam , karel , Yaseen Ahmad
18	Image/File Uploader In CodeIgniter	Andrey , Hanthony Tagam , Naresh Kumar .P
19	Let's start: Hello World	Abdulla Nilam , clami219 , David , KuroKo3 , Shiva127 , Vishal
20	Make API in CodeIgniter	Kundan Prasad
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22	Query Structure	abdurRahaman , anju , DogeAmazed , Fabio Widmer , Hemant Sankhla , kishor10d , MAZux , Rahmat
23	Removing index.php using WAMP and CodeIgniter	Ali , Ariful Islam , Gaurav , wolfgang1983
24	Securing your web application	ankit suthar , BIBIN JOHN , ImBS , moopet
25	Sending Email	gabe3886 , Lucifer MorningStar , Miles , Rahamathullah MK
26	session set flashdata	Gopal Bhuva
27	url suffix	Muhamad Riyan
28	Use of hooks	Abdulla Nilam , ankit suthar , kishor10d , liamja , Mitul , Rafiqul Islam
29	Using Model in codeigniter	Abdulla Nilam , anju , gabe3886 , Lucifer MorningStar , MAZux , Russ_AB
30	Using Sessions	Abdulla Nilam , ElmerCat , Prakash