



SETUP & CONFIG

```
composer create-project
codeigniter4/appstarter myapp
php spark serve
.env: CI_ENVIRONMENT = development
.env: database.default.hostname =
localhost
app/Config/Routes.php for routing
configuration
```

ROUTING

```
$routes->get('/users',
'UserController::index');
$routes->post('/users',
'UserController::create');
$routes->resource('users'); // RESTful
resource routes
$routes->get('/users/{:num}',
'UserController::show/$1');
$routes->group('api', function($routes)
{ ... });
```

CONTROLLERS

```
class UserController extends
BaseController {
public function index(): string {
$model = new UserModel();
$data = ['users' => $model->findAll()];
return view('users/index', $data);
}
public function show(int $id):
ResponseInterface {
return
$this->response->setJSON(model(UserModel::class)->find($id))
}
}
```

MODELS

```
class UserModel extends Model {
protected $table = 'users';
protected $allowedFields = ['name',
'email'];
protected $useTimestamps = true;
protected $validationRules = ['email' =>
'required|valid_email'];
}
$user = $model->find(1);
$model->save(['name'=>'Alice','email'=>'a@b.com']);
$model->where('active', 1)->findAll();
```

VIEWS

```
// In controller: return
view('users/index', $data);
<?= esc($user->name) ?>
<?php foreach ($users as $user): ?>
<li><?= esc($user->name) ?></li>
<?php endforeach ?>
<?= view('partials/header') ?>
<?= form_open('users/create') ?>
<?= form_input('name', '',
[class'=>'form-control']) ?>
```

QUERY BUILDER

```
$builder = $db->table('users');
$query = $builder->select('name,email')
->where('active', 1)
->orderBy('name')
->get(10, 0); // limit 10, offset 0
$results = $query->getResultArray();
$builder->insert(['name'=>'Alice','email'=>'a@b.com']);
$db->transStart(); ...
$db->transComplete();
```

FORM VALIDATION

```
$rules = [
'name' =>
'required|min_length[2]|max_length[100]',
'email' =>
'required|valid_email|is_unique[users.email]',
];
if (!$this->validate($rules)) {
return redirect()->back()->withInput()
->with('errors',
$this->validator->getErrors());
}
```

LIBRARIES & HELPERS

```
$email = \Config\Services::email();
$email->setTo('a@b.com');
$email->send();
// Load helper functions:
helper(['url', 'form', 'text']);
base_url('assets/css/main.css')
site_url('users') // includes index.php
if needed
```

SESSIONS

```
$session = session();
$session->set('user_id', $user->id);
$session->get('user_id');
$session->remove('user_id');
$session->destroy();
// Flash data (one-time):
$session->setFlashdata('success',
'Saved!');
$session->getFlashdata('success');
```

COMMON HELPERS

```
url_title($str) // 'My Article'
'my-article'
word_wrap($str, 76)
excerpt($str, $phrase, $radius)
character_limiter($str, 100)
number_to_currency($n, 'USD')
php spark
make:controller/model/migration/entity
```

COMMON GOTCHAS

\$allowedFields prevents mass assignment vulnerabilities
esc() everything from user input
prevent XSS
CSRF protection enabled by default for POST requests
Remove index.php from URL: configure RewriteBase in .htaccess
Config files in app/Config don't edit vendor files