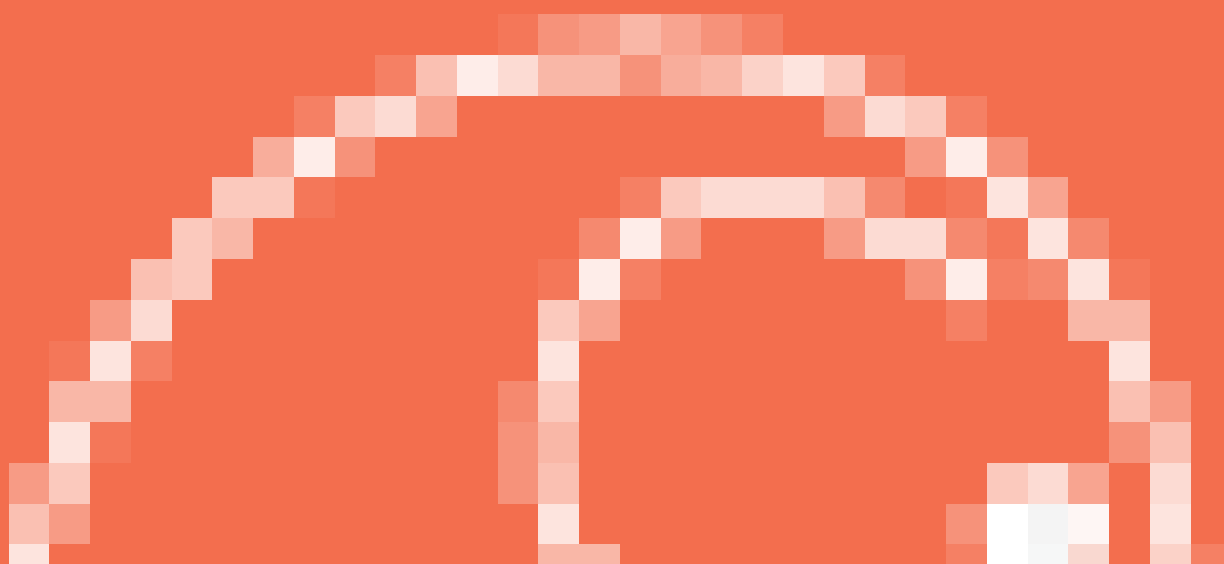


# LEARNING





## Laravel 5 Cheat Sheet

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Learning Laravel  
Laravel 5.1 Docs  
by The EST Group



## Artisan

```
// Added in 5.1.11:http://laravel.com/docs/5.1/authorization#creating-policies
php artisan make:policy PostPolicy
// Displays help for a given command
php artisan --help OR -h
// Do not output any message
php artisan --quiet OR -q
// Display this application version
php artisan --version OR -V
// Do not ask any interactive question
php artisan --no-interaction OR -n
// Force ANSI output
php artisan --ansi
// Disable ANSI output
php artisan --no-ansi
// The environment the command should run under
php artisan --env
// -v|vv|vvv Increase the verbosity of messages: 1 for normal output, 2 for more verbose output and 3 for debug
php artisan --verbose
// Remove the compiled class file
php artisan clear-compiled
// Display the current framework environment
php artisan env
// Displays help for a command
php artisan help
// Lists commands
php artisan list
// Interact with your application
```

```
php artisan tinker
// Put the application into maintenance mode
php artisan down
// Bring the application out of maintenance mode
php artisan up
// Optimize the framework for better performance
// --force    Force the compiled class file to be written.
// --psr      Do not optimize Composer dump-autoload.
php artisan optimize [--force] [--psr]
// Serve the application on the PHP development server
php artisan serve
// Change the default port
php artisan serve --port 8080
// Get it to work outside localhost
php artisan serve --host 0.0.0.0
// Set the application namespace
php artisan app:name namespace
// Flush expired password reset tokens
php artisan auth:clear-resets
// Flush the application cache
php artisan cache:clear
// Create a migration for the cache database table
php artisan cache:table
// Create a cache file for faster configuration loading
php artisan config:cache
// Remove the configuration cache file
php artisan config:clear
// In program
$exitCode = Artisan::call('config:cache');
// Seed the database with records
// --class      The class name of the root seeder (default: "DatabaseSeeder")
// --database    The database connection to seed
```

```
// --force      Force the operation to run when in production.
php artisan db:seed [--class= "..."] [--database= "..."] [--force]

// Generate the missing events and handlers based on registration
php artisan event:generate

// Create a new command handler class
// --command     The command class the handler handles.
php artisan handler:command [--command= "..."] name
// Create a new event handler class
// --event       The event class the handler handles.
// --queued      Indicates the event handler should be queued.
php artisan handler:event [--event= "..."] [--queued] name

// Set the application key
php artisan key:generate

// By default, this creates a self-handling command that isn't pushed to the queue.
// Pass this the --handler flag to generate a handler, and the --queued flag to make it queued.
php artisan make:command [--handler] [--queued] name
// Create a new Artisan command
// --command     The terminal command that should be assigned. (default: "command:name")
make:console [--command= "..."] name
// Create a new resourceful controller
// --plain       Generate an empty controller class.
php artisan make:controller [--plain] name
php artisan make:controller App\Admin\Http\Controllers\DashboardController
// Create a new event class
php artisan make:event name
// Create a new middleware class
php artisan make:middleware name
// Create a new migration file
```

```
// --create      The table to be created.
// --table       The table to migrate.
php artisan make:migration [--create="..."] [--table="..."] name
// Create a new Eloquent model class
php artisan make:model name
// Create a new service provider class
php artisan make:provider name
// Create a new form request class
php artisan make:request name
// Database migrations
// --database     The database connection to use.
// --force        Force the operation to run when in production.
// --path         The path of migrations files to be executed.
// --pretend      Dump the SQL queries that would be run.
// --seed         Indicates if the seed task should be re-run.
php artisan migrate [--database="..."] [--force] [--path="..."] [--pretend] [--seed]
// Create the migration repository
php artisan migrate:install [--database="..."]
// Create a new migration file
// --seeder       The class name of the root seeder.
php artisan migrate:refresh [--database="..."] [--force] [--seed] [--seeder="..."]
// Rollback all database migrations
// --pretend      Dump the SQL queries that would be run.
php artisan migrate:reset [--database="..."] [--force] [--pretend]
// Rollback the last database migration
php artisan migrate:rollback [--database="..."] [--force] [--pretend]
// Show a list of migrations up/down
php artisan migrate:status
// Create a migration for the queue jobs database table
php artisan queue:table
// Listen to a given queue
// --queue        The queue to listen on
```

```
// --delay      Amount of time to delay failed jobs (default: 0)
// --memory     The memory limit in megabytes (default: 128)
// --timeout    Seconds a job may run before timing out (default: 60)
// --sleep      Seconds to wait before checking queue for jobs (default: 3)
// --tries      Number of times to attempt a job before logging it failed (default: 0)
php artisan queue:listen [--queue=["..."]] [--delay=["..."]] [--memory=["..."]] [--timeout=["..."]] [--sleep=["..."]] [--tries=["..."]] [connection]
// List all of the failed queue jobs
php artisan queue:failed
// Create a migration for the failed queue jobs database table
php artisan queue:failed-table
// Flush all of the failed queue jobs
php artisan queue:flush
// Delete a failed queue job
php artisan queue:forget
// Restart queue worker daemons after their current job
php artisan queue:restart
// Retry a failed queue job(id: The ID of the failed job)
php artisan queue:retry id
// Subscribe a URL to an Iron.io push queue
// queue: The name of Iron.io queue.
// url: The URL to be subscribed.
// --type       The push type for the queue.
php artisan queue:subscribe [--type=["..."]] queue url
// Process the next job on a queue
// --queue      The queue to listen on
// --daemon     Run the worker in daemon mode
// --delay      Amount of time to delay failed jobs (default: 0)
// --force      Force the worker to run even in maintenance mode
// --memory     The memory limit in megabytes (default: 128)
// --sleep      Number of seconds to sleep when no job is available (default: 3)
// --tries      Number of times to attempt a job before logging it failed (default: 0)
```

```
php artisan queue:work [--queue=["..."]] [--daemon] [--delay=["..."]] [--force] [--memory=["..."]] [--sleep=["..."]] [--tries=["..."]] [connection]

// Create a route cache file for faster route registration
php artisan route:cache
// Remove the route cache file
php artisan route:clear
// List all registered routes
php artisan route:list

// Run the scheduled commands
php artisan schedule:run

// Create a migration for the session database table
php artisan session:table

// Publish any publishable assets from vendor packages
// --force          Overwrite any existing files.
// --provider       The service provider that has assets you want to publish.
// --tag            The tag that has assets you want to publish.
php artisan vendor:publish [--force] [--provider=["..."]] [--tag=["..."]]
php artisan tail [--path=["..."]] [--lines=["..."]] [connection]
```

## Composer

```
composer create-project laravel/laravel folder_name
composer install
composer update
```



```
composer dump-autoload [--optimize]
composer self-update
composer require [options] [--] [vender/packages]...
```

## Config

```
Config::get('app.timezone');
//get with Default value
Config::get('app.timezone', 'UTC');
//set Configuration
Config::set('database.default', 'sqlite');
```

## Route

```
Route::get('foo', function(){});
Route::get('foo', 'ControllerName@function');
Route::controller('foo', 'FooController');
```

### RESTful Controllers

```
Route::resource('posts', 'PostsController');
//Specify a subset of actions to handle on the route
Route::resource('photo', 'PhotoController', ['only' => ['index', 'show']]);
Route::resource('photo', 'PhotoController', ['except' => ['update', 'destroy']]);
```

### Triggering Errors

```
App::abort(404);
$handler->missing(...) in ErrorServiceProvider::boot();
```

```
throw new NotFoundException;
```

## Route Parameters

```
Route::get('foo/{bar}', function($bar){});  
Route::get('foo/{bar?}', function($bar = 'bar'){});
```

## HTTP Verbs

```
Route::any('foo', function(){});  
Route::post('foo', function(){});  
Route::put('foo', function(){});  
Route::patch('foo', function(){});  
Route::delete('foo', function(){});  
// RESTful actions  
Route::resource('foo', 'FooController');  
// Registering A Route For Multiple Verbs  
Route::match(['get', 'post'], '/', function(){});
```

## Secure Routes(TBD)

```
Route::get('foo', array('https', function(){}));
```

## Route Constraints

```
Route::get('foo/{bar}', function($bar){})  
->where('bar', '[0-9]+');  
Route::get('foo/{bar}/{baz}', function($bar, $baz){})  
->where(array('bar' => '[0-9]+', 'baz' => '[A-Za-z]'))  
  
// Set a pattern to be used across routes
```

```
Route::pattern('bar', '[0-9]+')
```

## HTTP Middleware

```
// Assigning Middleware To Routes
```

```
Route::get('admin/profile', ['middleware' => 'auth', function(){}]);
```

## Named Routes

```
Route::currentRouteName();
```

```
Route::get('foo/bar', array('as' => 'foobar', function(){}));
```

```
Route::get('user/profile', [  
    'as' => 'profile', 'uses' => 'UserController@showProfile'  
]);  
$url = route('profile');  
$redirect = redirect()->route('profile');
```

## Route Prefixing

```
Route::group(['prefix' => 'admin'], function()  
{  
    Route::get('users', function(){  
        return 'Matches The "/admin/users" URL';  
    });  
});
```

## Route Namespacing

```
// This route group will carry the namespace 'Foo\Bar'  
Route::group(array('namespace' => 'Foo\Bar'), function(){})
```

## Sub-Domain Routing

```
// {sub} will be passed to the closure
```

```
Route::group(array('domain' => '{sub}.example.com'), function(){});
```

## Environment

```
$environment = app()->environment();
```

```
$environment = App::environment();
```

```
$environment = $app->environment();
```

```
// The environment is local
```

```
if ($app->environment('local')){}
```

```
// The environment is either local OR staging...
```

```
if ($app->environment('local', 'staging')){}
```

## Log

```
// The logger provides the seven logging levels defined in RFC 5424:
```

```
// debug, info, notice, warning, error, critical, and alert.
```

```
Log::info('info');
```

```
Log::info('info',array('context'=>'additional info'));
```

```
Log::error('error');
```

```
Log::warning('warning');
```

```
// get monolog instance
```

```
Log::getMonolog();
```

```
// add listener
```

```
Log::listen(function($level, $message, $context) {});
```

## Query Logging

```
// enable the log
```

```
DB::connection()->enableQueryLog();
```

```
// get an array of the executed queries
```

```
DB::getQueryLog();
```

## URL

```
URL::full();
URL::current();
URL::previous();
URL::to('foo/bar', $parameters, $secure);
URL::action('NewsController@item', ['id'=>123]);
// need be in appropriate namespace
URL::action('Auth\AuthController@logout');
URL::action('FooController@method', $parameters, $absolute);
URL::route('foo', $parameters, $absolute);
URL::secure('foo/bar', $parameters);
URL::asset('css/foo.css', $secure);
URL::secureAsset('css/foo.css');
URL::isValidUrl('http://example.com');
URL::getRequest();
URL::setRequest($request);
```

## Event

```
Event::fire('foo.bar', array($bar));
// Register an event listener with the dispatcher.
// void listen(string|array $events, mixed $listener, int $priority)
Event::listen('App\Events\UserSignup', function($bar){});
Event::listen('foo.*', function($bar){});
Event::listen('foo.bar', 'FooHandler', 10);
Event::listen('foo.bar', 'BarHandler', 5);
```

```
// Stopping The Propagation Of An Event
// You may do so using by returning false from your handler.
Event::listen('foo.bar', function($event){ return false; });
Event::subscribe('UserEventHandler');
```

## DB

### Basic Database Usage

```
DB::connection('connection_name');
// Running A Select Query
$results = DB::select('select * from users where id = ?', [1]);
$results = DB::select('select * from users where id = :id', ['id' => 1]);
// Running A General Statement
DB::statement('drop table users');
// Listening For Query Events
DB::listen(function($sql, $bindings, $time){ code_here; });
// Database Transactions
DB::transaction(function()
{
    DB::table('users')->update(['votes' => 1]);
    DB::table('posts')->delete();
});
DB::beginTransaction();
DB::rollback();
DB::commit();
```

### Query Builder

```
// Retrieving All Rows From A Table
DB::table('name')->get();
```

```

// Chunking Results From A Table
DB::table('users')->chunk(100, function($users)
{
    foreach ($users as $user)
    {


//
    }
});
// Retrieving A Single Row From A Table
$user = DB::table('users')->where('name', 'John')->first();
DB::table('name')->first();
// Retrieving A Single Column From A Row
$name = DB::table('users')->where('name', 'John')->pluck('name');
DB::table('name')->pluck('column');
// Retrieving A List Of Column Values
$roles = DB::table('roles')->lists('title');
$roles = DB::table('roles')->lists('title', 'name');
// Specifying A Select Clause
$users = DB::table('users')->select('name', 'email')->get();
$users = DB::table('users')->distinct()->get();
$users = DB::table('users')->select('name as user_name')->get();
// Adding A Select Clause To An Existing Query
$query = DB::table('users')->select('name');
$users = $query->addSelect('age')->get();
// Using Where Operators
$users = DB::table('users')->where('votes', '>', 100)->get();
$users = DB::table('users')
    ->where('votes', '>', 100)
    ->orWhere('name', 'John')
    ->get();
$users = DB::table('users')

```

```

        ->whereBetween('votes', [1, 100])->get();
$users = DB::table('users')
        ->whereNotBetween('votes', [1, 100])->get();
$users = DB::table('users')
        ->whereIn('id', [1, 2, 3])->get();
$users = DB::table('users')
        ->whereNotIn('id', [1, 2, 3])->get();
$users = DB::table('users')
        ->whereNull('updated_at')->get();
DB::table('name')->whereNotNull('column')->get();
// Dynamic Where Clauses
$admin = DB::table('users')->whereId(1)->first();
$john = DB::table('users')
        ->whereIdAndEmail(2, 'john@doe.com')
        ->first();
$jane = DB::table('users')
        ->whereNameOrAge('Jane', 22)
        ->first();
// Order By, Group By, And Having
$users = DB::table('users')
        ->orderBy('name', 'desc')
        ->groupBy('count')
        ->having('count', '>', 100)
        ->get();
DB::table('name')->orderBy('column')->get();
DB::table('name')->orderBy('column', 'desc')->get();
DB::table('name')->having('count', '>', 100)->get();
// Offset & Limit
$users = DB::table('users')->skip(10)->take(5)->get();

```

Joins 



```
// Basic Join Statement
DB::table('users')
    ->join('contacts', 'users.id', '=', 'contacts.user_id')
    ->join('orders', 'users.id', '=', 'orders.user_id')
    ->select('users.id', 'contacts.phone', 'orders.price')
    ->get();

// Left Join Statement
DB::table('users')
    ->leftJoin('posts', 'users.id', '=', 'posts.user_id')
    ->get();

// select * from users where name = 'John' or (votes > 100 and title <> 'Admin')
DB::table('users')
    ->where('name', '=', 'John')
    ->orWhere(function($query)
    {
        $query->where('votes', '>', 100)
            ->where('title', '<>', 'Admin');
    })
    ->get();
```

## Aggregates

```
$users = DB::table('users')->count();
$price = DB::table('orders')->max('price');
$price = DB::table('orders')->min('price');
$price = DB::table('orders')->avg('price');
$total = DB::table('users')->sum('votes');

DB::table('name')->remember(5)->get();
DB::table('name')->remember(5, 'cache-key-name')->get();
DB::table('name')->cacheTags('my-key')->remember(5)->get();
```

```
DB::table('name')->cacheTags(array('my-first-key','my-second-key'))->remember(5)->get();
```

## Raw Expressions

```
$users = DB::table('users')
    ->select(DB::raw('count(*) as user_count, status'))
    ->where('status', '<>', 1)
    ->groupBy('status')
    ->get();

// return rows
DB::select('select * from users where id = ?', array('value'));
// return nr affected rows
DB::insert('insert into foo set bar=2');
DB::update('update foo set bar=2');
DB::delete('delete from bar');
// returns void
DB::statement('update foo set bar=2');
// raw expression inside a statement
DB::table('name')->select(DB::raw('count(*) as count, column2'))->get();
```

## Inserts / Updates / Deletes / Unions / Pessimistic Locking

```
// Inserts
DB::table('users')->insert(
    ['email' => 'john@example.com', 'votes' => 0]
);
$id = DB::table('users')->insertGetId(
    ['email' => 'john@example.com', 'votes' => 0]
);
DB::table('users')->insert([
    ['email' => 'taylor@example.com', 'votes' => 0],
```

```

    ['email' => 'dayle@example.com', 'votes' => 0]
]);
// Updates
DB::table('users')
    ->where('id', 1)
    ->update(['votes' => 1]);
DB::table('users')->increment('votes');
DB::table('users')->increment('votes', 5);
DB::table('users')->decrement('votes');
DB::table('users')->decrement('votes', 5);
DB::table('users')->increment('votes', 1, ['name' => 'John']);
// Deletes
DB::table('users')->where('votes', '<', 100)->delete();
DB::table('users')->delete();
DB::table('users')->truncate();
// Unions
// The unionAll() method is also available, and has the same method signature as union.
$first = DB::table('users')->whereNull('first_name');
$users = DB::table('users')->whereNull('last_name')->union($first)->get();
// Pessimistic Locking
DB::table('users')->where('votes', '>', 100)->sharedLock()->get();
DB::table('users')->where('votes', '>', 100)->lockForUpdate()->get();
Basic Usage

```

```

// Defining An Eloquent Model
class User extends Model {}
// generate Eloquent models
php artisan make:model User
// specify a custom table name
class User extends Model {
    protected $table = 'my_users';
}

```

More

```
Model::create(array('key' => 'value'));
// Find first matching record by attributes or create
Model::firstOrCreate(array('key' => 'value'));
// Find first record by attributes or instantiate
Model::firstOrCreate(array('key' => 'value'));
// Create or update a record matching attributes, and fill with values
Model::updateOrCreate(array('search_key' => 'search_value'), array('key' => 'value'));
// Fill a model with an array of attributes, beware of mass assignment!
Model::fill($attributes);
Model::destroy(1);
Model::all();
Model::find(1);
// Find using dual primary key
Model::find(array('first', 'last'));
// Throw an exception if the lookup fails
Model::findOrFail(1);
// Find using dual primary key and throw exception if the lookup fails
Model::findOrFail(array('first', 'last'));
Model::where('foo', '=', 'bar')->get();
Model::where('foo', '=', 'bar')->first();
// dynamic
Model::whereFoo('bar')->first();
// Throw an exception if the lookup fails
Model::where('foo', '=', 'bar')->firstOrFail();
Model::where('foo', '=', 'bar')->count();
Model::where('foo', '=', 'bar')->delete();
//Output raw query
Model::where('foo', '=', 'bar')->toSql();
Model::whereRaw('foo = bar and cars = 2', array(20))->get();
Model::remember(5)->get();
```

```
Model::remember(5, 'cache-key-name')->get();
Model::cacheTags('my-tag')->remember(5)->get();
Model::cacheTags(array('my-first-key', 'my-second-key'))->remember(5)->get();
Model::on('connection-name')->find(1);
Model::with('relation')->get();
Model::all()->take(10);
Model::all()->skip(10);
// Default Eloquent sort is ascendant
Model::all()->orderBy('column');
Model::all()->orderBy('column', 'desc');
```

### Soft Delete

```
Model::withTrashed()->where('cars', 2)->get();
// Include the soft deleted models in the results
Model::withTrashed()->where('cars', 2)->restore();
Model::where('cars', 2)->forceDelete();
// Force the result set to only included soft deletes
Model::onlyTrashed()->where('cars', 2)->get();
```

### Events

```
Model::creating(function($model){});
Model::created(function($model){});
Model::updating(function($model){});
Model::updated(function($model){});
Model::saving(function($model){});
Model::saved(function($model){});
Model::deleting(function($model){});
Model::deleted(function($model){});
Model::observe(new FooObserver);
```

## Eloquent Configuration

```
// Disables mass assignment exceptions from being thrown from model inserts and updates
Eloquent::unguard();
// Renables any ability to throw mass assignment exceptions
Eloquent::reguard();
```

## Pagination

```
// Auto-Magic Pagination
Model::paginate(15);
Model::where('cars', 2)->paginate(15);
// "Next" and "Previous" only
Model::where('cars', 2)->simplePaginate(15);
// Manual Paginator
Paginator::make($items, $totalItems, $perPage);
// Print page navigators in view
$variable->links();
```

## Lang

```
App::setLocale('en');
Lang::get('messages.welcome');
Lang::get('messages.welcome', array('foo' => 'Bar'));
Lang::has('messages.welcome');
Lang::choice('messages.apples', 10);
// Lang::get alias
trans('messages.welcome');
```

## File

```
File::exists('path');
File::get('path');
File::getRemote('path');
// Get a file's contents by requiring it
File::getRequire('path');
// Require the given file once
File::requireOnce('path');
// Write the contents of a file
File::put('path', 'contents');
// Append to a file
File::append('path', 'data');
// Delete the file at a given path
File::delete('path');
// Move a file to a new location
File::move('path', 'target');
// Copy a file to a new location
File::copy('path', 'target');
// Extract the file extension from a file path
File::extension('path');
// Get the file type of a given file
File::type('path');
// Get the file size of a given file
File::size('path');
// Get the file's last modification time
File::lastModified('path');
// Determine if the given path is a directory
File::isDirectory('directory');
// Determine if the given path is writable
File::isWritable('path');
```

```
// Determine if the given path is a file
File::isFile('file');
// Find path names matching a given pattern.
File::glob($patterns, $flag);
// Get an array of all files in a directory.
File::files('directory');
// Get all of the files from the given directory (recursive).
File::allFiles('directory');
// Get all of the directories within a given directory.
File::directories('directory');
// Create a directory
File::makeDirectory('path', $mode = 0777, $recursive = false);
// Copy a directory from one location to another
File::copyDirectory('directory', 'destination', $options = null);
// Recursively delete a directory
File::deleteDirectory('directory', $preserve = false);
// Empty the specified directory of all files and folders
File::cleanDirectory('directory');
```

## UnitTest

Install and run

```
// add to composer and update:
"phpunit/phpunit": "4.0.*"
// run tests (from project root)
./vendor/bin/phpunit
```

Asserts

```
$this->assertTrue(true);
$this->assertEquals('foo', $bar);
```



```
$this->assertCount(1,$times);  
$this->assertResponseOk();  
$this->assertResponseStatus(403);  
$this->assertRedirectedTo('foo');  
$this->assertRedirectedToRoute('route.name');  
$this->assertRedirectedToAction('Controller@method');  
$this->assertViewHas('name');  
$this->assertViewHas('age', $value);  
$this->assertSessionHasErrors();  
// Asserting the session has errors for a given key...  
$this->assertSessionHasErrors('name');  
// Asserting the session has errors for several keys...  
$this->assertSessionHasErrors(array('name', 'age'));  
$this->assertHasOldInput();
```

#### Calling routes

```
$response = $this->call($method, $uri, $parameters, $files, $server, $content);  
$response = $this->callSecure('GET', 'foo/bar');  
$this->session(['foo' => 'bar']);  
$this->flushSession();  
$this->seed();  
$this->seed($connection);
```

## SSH

#### Executing Commands

```
SSH::run(array $commands);  
SSH::into($remote)->run(array $commands);  
// specify remote, otherwise assumes default
```

```
SSH::run(array $commands, function($line)
{
    echo $line.PHP_EOL;
});
```

## Tasks

```
// define
SSH::define($taskName, array $commands);
// execute
SSH::task($taskName, function($line)
{
    echo $line.PHP_EOL;
});
```

## SFTP Uploads

```
SSH::put($localFile, $remotePath);
SSH::putString($string, $remotePath);
```

## Schema

```
// Indicate that the table needs to be created
Schema::create('table', function($table)
{
    $table->increments('id');
});
// Specify a Connection
Schema::connection('foo')->create('table', function($table){});
// Rename the table to a given name
Schema::rename($from, $to);
```

```
// Indicate that the table should be dropped
Schema::drop('table');
// Indicate that the table should be dropped if it exists
Schema::dropIfExists('table');
// Determine if the given table exists
Schema::hasTable('table');
// Determine if the given table has a given column
Schema::hasColumn('table', 'column');
// Update an existing table
Schema::table('table', function($table){});
// Indicate that the given columns should be renamed
$table->renameColumn('from', 'to');
// Indicate that the given columns should be dropped
$table->dropColumn(string|array);
// The storage engine that should be used for the table
$table->engine = 'InnoDB';
// Only work on MySQL
$table->string('name')->after('email');
```

## Indexes

```
$table->string('column')->unique();
$table->primary('column');
// Creates a dual primary key
$table->primary(array('first', 'last'));
$table->unique('column');
$table->unique('column', 'key_name');
// Creates a dual unique index
$table->unique(array('first', 'last'));
$table->unique(array('first', 'last'), 'key_name');
$table->index('column');
$table->index('column', 'key_name');
```

```
// Creates a dual index
$table->index(array('first', 'last'));
$table->index(array('first', 'last'), 'key_name');
$table->dropPrimary('table_column_primary');
$table->dropUnique('table_column_unique');
$table->dropIndex('table_column_index');
```

## Foreign Keys

```
$table->foreign('user_id')->references('id')->on('users');
$table->foreign('user_id')->references('id')->on('users')->onDelete('cascade'|'restrict'|'set null'|'no action');
$table->foreign('user_id')->references('id')->on('users')->onUpdate('cascade'|'restrict'|'set null'|'no action');
$table->dropForeign('posts_user_id_foreign');
```

## Column Types

```
// Increments
$table->increments('id');
$table->bigIncrements('id');

// Numbers
$table->integer('votes');
$table->tinyInteger('votes');
$table->smallInteger('votes');
$table->mediumInteger('votes');
$table->bigInteger('votes');
$table->float('amount');
$table->double('column', 15, 8);
$table->decimal('amount', 5, 2);
```

```
//String and Text
$table->char('name', 4);
$table->string('email');
$table->string('name', 100);
$table->text('description');
$table->mediumText('description');
$table->longText('description');

//Date and Time
$table->date('created_at');
$table->dateTime('created_at');
$table->time('sunrise');
$table->timestamp('added_on');
// Adds created_at and updated_at columns
$table->timestamps();
$table->nullableTimestamps();

// Others
$table->binary('data');
$table->boolean('confirmed');
// Adds deleted_at column for soft deletes
$table->softDeletes();
$table->enum('choices', array('foo', 'bar'));
// Adds remember_token as VARCHAR(100) NULL
$table->rememberToken();
// Adds INTEGER parent_id and STRING parent_type
$table->morphs('parent');
->nullable()
->default($value)
->unsigned()
```

## Input

```
Input::get('key');  
// Default if the key is missing  
Input::get('key', 'default');  
Input::has('key');  
Input::all();  
// Only retrieve 'foo' and 'bar' when getting input  
Input::only('foo', 'bar');  
// Disregard 'foo' when getting input  
Input::except('foo');  
Input::flush();
```

### Session Input (flash)

```
// Flash input to the session  
Input::flash();  
// Flash only some of the input to the session  
Input::flashOnly('foo', 'bar');  
// Flash only some of the input to the session  
Input::flashExcept('foo', 'baz');  
// Retrieve an old input item  
Input::old('key', 'default_value');
```

### Files

```
// Use a file that's been uploaded  
Input::file('filename');  
// Determine if a file was uploaded  
Input::hasFile('filename');  
// Access file properties
```

```
Input::file('name')->getRealPath();
Input::file('name')->getClientOriginalName();
Input::file('name')->getClientOriginalExtension();
Input::file('name')->getSize();
Input::file('name')->getMimeType();
// Move an uploaded file
Input::file('name')->move($destinationPath);
// Move an uploaded file
Input::file('name')->move($destinationPath, $fileName);
```

## Cache

```
Cache::put('key', 'value', $minutes);
Cache::add('key', 'value', $minutes);
Cache::forever('key', 'value');
Cache::remember('key', $minutes, function(){ return 'value' });
Cache::rememberForever('key', function(){ return 'value' });
Cache::forget('key');
Cache::has('key');
Cache::get('key');
Cache::get('key', 'default');
Cache::get('key', function(){ return 'default'; });
Cache::tags('my-tag')->put('key', 'value', $minutes);
Cache::tags('my-tag')->has('key');
Cache::tags('my-tag')->get('key');
Cache::tags('my-tag')->forget('key');
Cache::tags('my-tag')->flush();
Cache::increment('key');
Cache::increment('key', $amount);
Cache::decrement('key');
Cache::decrement('key', $amount);
Cache::section('group')->put('key', $value);
Cache::section('group')->get('key');
```

```
Cache::section('group')->flush();
```

## Cookie

```
Cookie::get('key');  
Cookie::get('key', 'default');  
// Create a cookie that lasts for ever  
Cookie::forever('key', 'value');  
// Create a cookie that lasts N minutes  
Cookie::make('key', 'value', 'minutes');  
// Set a cookie before a response has been created  
Cookie::queue('key', 'value', 'minutes');  
// Forget cookie  
Cookie::forget('key');  
// Send a cookie with a response  
$response = Response::make('Hello World');  
// Add a cookie to the response  
$response->withCookie(Cookie::make('name', 'value', $minutes));
```

## Session

```
Session::get('key');  
// Returns an item from the session  
Session::get('key', 'default');  
Session::get('key', function(){ return 'default'; });  
// Get the session ID  
Session::getId();  
// Put a key / value pair in the session  
Session::put('key', 'value');
```



```
// Push a value into an array in the session
Session::push('foo.bar','value');
// Returns all items from the session
Session::all();
// Checks if an item is defined
Session::has('key');
// Remove an item from the session
Session::forget('key');
// Remove all of the items from the session
Session::flush();
// Generate a new session identifier
Session::regenerate();
// Flash a key / value pair to the session
Session::flash('key', 'value');
// Reflash all of the session flash data
Session::reflash();
// Reflash a subset of the current flash data
Session::keep(array('key1', 'key2'));
```

## Request

```
// url: http://xx.com/aa/bb
Request::url();
// path: /aa/bb
Request::path();
// getRequestId: /aa/bb/?c=d
Request::getRequestUri();
// Returns user's IP
Request::getClientIp();
// getUri: http://xx.com/aa/bb/?c=d
```

```
Request::getUri();
// getQueryString: c=d
Request::getQueryString();
// Get the port scheme of the request (e.g., 80, 443, etc.)
Request::getPort();
// Determine if the current request URI matches a pattern
Request::is('foo/*');
// Get a segment from the URI (1 based index)
Request::segment(1);
// Retrieve a header from the request
Request::header('Content-Type');
// Retrieve a server variable from the request
Request::server('PATH_INFO');
// Determine if the request is the result of an AJAX call
Request::ajax();
// Determine if the request is over HTTPS
Request::secure();
// Get the request method
Request::method();
// Checks if the request method is of specified type
Request::isMethod('post');
// Get raw POST data
Request::instance()->getContent();
// Get requested response format
Request::format();
// true if HTTP Content-Type header contains */json
Request::isJson();
// true if HTTP Accept header is application/json
Request::wantsJson();
```

## Response

```
return Response::make($contents);
return Response::make($contents, 200);
return Response::json(array('key' => 'value'));
return Response::json(array('key' => 'value'))
->setCallback(Input::get('callback'));
return Response::download($filepath);
return Response::download($filepath, $filename, $headers);
// Create a response and modify a header value
$response = Response::make($contents, 200);
$response->header('Content-Type', 'application/json');
return $response;
// Attach a cookie to a response
return Response::make($content)
->withCookie(Cookie::make('key', 'value'));
```

## Redirect

```
return Redirect::to('foo/bar');
return Redirect::to('foo/bar')->with('key', 'value');
return Redirect::to('foo/bar')->withInput(Input::get());
return Redirect::to('foo/bar')->withInput(Input::except('password'));
return Redirect::to('foo/bar')->withErrors($validator);
// Create a new redirect response to the previous location
return Redirect::back();
// Create a new redirect response to a named route
return Redirect::route('foobar');
return Redirect::route('foobar', array('value'));
return Redirect::route('foobar', array('key' => 'value'));
```

```
// Create a new redirect response to a controller action
return Redirect::action('FooController@index');
return Redirect::action('FooController@baz', array('value'));
return Redirect::action('FooController@baz', array('key' => 'value'));
// If intended redirect is not defined, defaults to foo/bar.
return Redirect::intended('foo/bar');
```

## Container

```
App::bind('foo', function($app){ return new Foo; });
App::make('foo');
// If this class exists, it's returned
App::make('FooBar');
// Register a shared binding in the container
App::singleton('foo', function(){ return new Foo; });
// Register an existing instance as shared in the container
App::instance('foo', new Foo);
// Register a binding with the container
App::bind('FooRepositoryInterface', 'BarRepository');
// Register a service provider with the application
App::register('FooServiceProvider');
// Listen for object resolution
App::resolving(function($object){});
```

## Security

### Hashing

```
Hash::make('secretpassword');
Hash::check('secretpassword', $hashedPassword);
```

```
Hash::needsRehash($hashedPassword);
```

## Encryption

```
Crypt::encrypt('secretstring');  
Crypt::decrypt($encryptedString);  
Crypt::setMode('ctr');  
Crypt::setCipher($cipher);
```

## Auth

### Authentication

```
// Determine if the current user is authenticated  
Auth::check();  
// Get the currently authenticated user  
Auth::user();  
// Get the ID of the currently authenticated user  
Auth::id();  
// Attempt to authenticate a user using the given credentials  
Auth::attempt(array('email' => $email, 'password' => $password));  
// 'Remember me' by passing true to Auth::attempt()  
Auth::attempt($credentials, true);  
// Log in for a single request  
Auth::once($credentials);  
// Log a user into the application  
Auth::login(User::find(1));  
// Log the given user ID into the application  
Auth::loginUsingId(1);  
// Log the user out of the application  
Auth::logout();
```

```
// Validate a user's credentials
Auth::validate($credentials);
// Attempt to authenticate using HTTP Basic Auth
Auth::basic('username');
// Perform a stateless HTTP Basic login attempt
Auth::onceBasic();
// Send a password reminder to a user
Password::remind($credentials, function($message, $user){});
```

## Authorization

```
// Define abilities
Gate::define('update-post', 'Class@method');
Gate::define('update-post', function ($user, $post) {...});
// Passing multiple argument
Gate::define('delete-comment', function ($user, $post, $comment) {});

// Check abilities
Gate::denies('update-post', $post);
Gate::allows('update-post', $post);
Gate::check('update-post', $post);
// Specified a user for checking
Gate::forUser($user)->allows('update-post', $post);
// Through User model, using Authorizable trait
User::find(1)->can('update-post', $post);
User::find(1)->cannot('update-post', $post);

// Intercepting Authorization Checks
Gate::before(function ($user, $ability) {});
Gate::after(function ($user, $ability) {});

// Checking in Blade template
```

```
@can('update-post', $post)
@endcan
// with else
@can('update-post', $post)
@else
@endcan

// Generate a Policy
php artisan make:policy PostPolicy
// `policy` helper function
policy($post)->update($user, $post)

// Controller Authorization
$this->authorize('update', $post);
// for $user
$this->authorizeForUser($user, 'update', $post);
```

## Mail

```
Mail::send('email.view', $data, function($message){});
Mail::send(array('html.view', 'text.view'), $data, $callback);
Mail::queue('email.view', $data, function($message){});
Mail::queueOn('queue-name', 'email.view', $data, $callback);
Mail::later(5, 'email.view', $data, function($message){});
// Write all email to logs instead of sending
Mail::pretend();
```

## Messages

```
// These can be used on the $message instance passed into Mail::send() or Mail::queue()
```

```
$message->from('email@example.com', 'Mr. Example');
$message->sender('email@example.com', 'Mr. Example');
$message->returnPath('email@example.com');
$message->to('email@example.com', 'Mr. Example');
$message->cc('email@example.com', 'Mr. Example');
$message->bcc('email@example.com', 'Mr. Example');
$message->replyTo('email@example.com', 'Mr. Example');
$message->subject('Welcome to the Jungle');
$message->priority(2);
$message->attach('foo\bar.txt', $options);
// This uses in-memory data as attachments
$message->attachData('bar', 'Data Name', $options);
// Embed a file in the message and get the CID
$message->embed('foo\bar.txt');
$message->embedData('foo', 'Data Name', $options);
// Get the underlying Swift Message instance
$message->getSwiftMessage();
```

## Queue

```
Queue::push('SendMail', array('message' => $message));
Queue::push('SendEmail@send', array('message' => $message));
Queue::push(function($job) use $id {});
// Same payload to multiple workers
Queue::bulk(array('SendEmail', 'NotifyUser'), $payload);
// Starting the queue listener
php artisan queue:listen
php artisan queue:listen connection
php artisan queue:listen --timeout=60
// Process only the first job on the queue
php artisan queue:work
```



```
// Start a queue worker in daemon mode
php artisan queue:work --daemon
// Create migration file for failed jobs
php artisan queue:failed-table
// Listing failed jobs
php artisan queue:failed
// Delete failed job by id
php artisan queue:forget 5
// Delete all failed jobs
php artisan queue:flush
```

## Validation

```
Validator::make(
    array('key' => 'Foo'),
    array('key' => 'required|in:Foo')
);
Validator::extend('foo', function($attribute, $value, $params){});
Validator::extend('foo', 'FooValidator@validate');
Validator::resolver(function($translator, $data, $rules, $msgs)
{
    return new FooValidator($translator, $data, $rules, $msgs);
});
```

### Rules

```
accepted
active_url
after:YYYY-MM-DD
before:YYYY-MM-DD
alpha
```

```
alpha_dash
alpha_num
array
between:1,10
confirmed
date
date_format:YYYY-MM-DD
different:fieldname
digits:value
digits_between:min,max
boolean
email
exists:table,column
image
in:foo,bar,...
not_in:foo,bar,...
integer
numeric
ip
max:value
min:value
mimes:jpeg,png
regex:[0-9]
required
required_if:field,value
required_with:foo,bar,...
required_with_all:foo,bar,...
required_without:foo,bar,...
required_without_all:foo,bar,...
same:field
size:value
timezone
```

```
unique:table,column,except,idColumn  
url
```

## View

```
View::make('path/to/view');  
View::make('foo/bar')->with('key', 'value');  
View::make('foo/bar')->withKey('value');  
View::make('foo/bar', array('key' => 'value'));  
View::exists('foo/bar');  
// Share a value across all views  
View::share('key', 'value');  
// Nesting views  
View::make('foo/bar')->nest('name', 'foo/baz', $data);  
// Register a view composer  
View::composer('viewname', function($view){});  
//Register multiple views to a composer  
View::composer(array('view1', 'view2'), function($view){});  
// Register a composer class  
View::composer('viewname', 'FooComposer');  
View::creator('viewname', function($view){});
```

## Blade

```
// Show a section in a template  
@yield('name')  
@extends('layout.name')  
// Begin a section
```

```
@section('name')
// End a section
@stop
// End a section and yield
@section('sidebar')
@show
@parent

@include('view.name')
@include('view.name', array('key' => 'value'));
@lang('messages.name')
@choice('messages.name', 1);

@if
@else
@elseif
@endif

@unless
@endunless

@for
@endfor

@foreach
@endforeach

@while
@endwhile

//forelse 4.2 feature
```

```

@forelse($users as $user)
@empty
@endforelse

// Echo content
{{ $var }}
// Echo escaped content
{{{ $var }}}
// Echo unescaped content; 5.0 feature
{!! $var !!}
{{-- Blade Comment --}}
// Echoing Data After Checking For Existence
{{{ $name or 'Default' }}}
// Displaying Raw Text With Curly Braces
@{{ This will not be processed by Blade }}

```

## Form

```

Form::open(array('url' => 'foo/bar', 'method' => 'PUT'));
Form::open(array('route' => 'foo.bar'));
Form::open(array('route' => array('foo.bar', $parameter)));
Form::open(array('action' => 'FooController@method'));
Form::open(array('action' => array('FooController@method', $parameter)));
Form::open(array('url' => 'foo/bar', 'files' => true));
Form::close();
Form::token();
Form::model($foo, array('route' => array('foo.bar', $foo->bar)));

```

Form Elements

```
Form::label('id', 'Description');
Form::label('id', 'Description', array('class' => 'foo'));
Form::text('name');
Form::text('name', $value);
Form::text('name', $value, array('class' => 'name'));
Form::textarea('name');
Form::textarea('name', $value);
Form::textarea('name', $value, array('class' => 'name'));
Form::hidden('foo', $value);
Form::password('password');
Form::password('password', array('placeholder' => 'Password'));
Form::email('name', $value, array());
Form::file('name', array('class' => 'name'));
Form::checkbox('name', 'value');
// Generating a checkbox that is checked
Form::checkbox('name', 'value', true, array('class' => 'name'));
Form::radio('name', 'value');
// Generating a radio input that is selected
Form::radio('name', 'value', true, array('class' => 'name'));
Form::select('name', array('key' => 'value'));
Form::select('name', array('key' => 'value'), 'key', array('class' => 'name'));
Form::selectRange('range', 1, 10);
Form::selectYear('year', 2011, 2015);
Form::selectMonth('month');
Form::submit('Submit!', array('class' => 'name'));
Form::button('name', array('class' => 'name'));
Form::macro('fooField', function()
{
    return '<input type="custom"/>';
});
Form::fooField();
```

# HTML

```
HTML::macro('name', function(){});  
// Convert an HTML string to entities  
HTML::entities($value);  
// Convert entities to HTML characters  
HTML::decode($value);  
// Generate a link to a JavaScript file  
HTML::script($url, $attributes);  
// Generate a link to a CSS file  
HTML::style($url, $attributes);  
// Generate an HTML image element  
HTML::image($url, $alt, $attributes);  
// Generate a HTML link  
HTML::link($url, 'title', $attributes, $secure);  
// Generate a HTTPS HTML link  
HTML::secureLink($url, 'title', $attributes);  
// Generate a HTML link to an asset  
HTML::linkAsset($url, 'title', $attributes, $secure);  
// Generate a HTTPS HTML link to an asset  
HTML::linkSecureAsset($url, 'title', $attributes);  
// Generate a HTML link to a named route  
HTML::linkRoute($name, 'title', $parameters, $attributes);  
// Generate a HTML link to a controller action  
HTML::linkAction($action, 'title', $parameters, $attributes);  
// Generate a HTML link to an email address  
HTML::mailto($email, 'title', $attributes);  
// Obfuscate an e-mail address to prevent spam-bots from sniffing it  
HTML::email($email);  
// Generate an ordered list of items  
HTML::ol($list, $attributes);
```

```
// Generate an un-ordered list of items
HTML::ul($list, $attributes);
// Create a listing HTML element
HTML::listing($type, $list, $attributes);
// Create the HTML for a listing element
HTML::listingElement($key, $type, $value);
// Create the HTML for a nested listing attribute
HTML::nestedListing($key, $type, $value);
// Build an HTML attribute string from an array
HTML::attributes($attributes);
// Build a single attribute element
HTML::attributeElement($key, $value);
// Obfuscate a string to prevent spam-bots from sniffing it
HTML::obfuscate($value);
```

## String

```
// Transliterate a UTF-8 value to ASCII
Str::ascii($value)
Str::camel($value)
Str::contains($haystack, $needle)
Str::endsWith($haystack, $needles)
// Cap a string with a single instance of a given value.
Str::finish($value, $cap)
Str::is($pattern, $value)
Str::length($value)
Str::limit($value, $limit = 100, $end = '...')
Str::lower($value)
Str::words($value, $words = 100, $end = '...')
Str::plural($value, $count = 2)
// Generate a more truly "random" alpha-numeric string.
```



```
Str::random($length = 16)
// Generate a "random" alpha-numeric string.
Str::quickRandom($length = 16)
Str::upper($value)
Str::title($value)
Str::singular($value)
Str::slug($title, $separator = '-')
Str::snake($value, $delimiter = '_')
Str::startsWith($haystack, $needles)
// Convert a value to studly caps case.
Str::studly($value)
Str::macro($name, $macro)
```

## Helper

### Arrays

```
// adds a given key / value pair to the array if the
// given key doesn't already exist in the array
array_add($array, 'key', 'value');
// collapse an array of arrays into a single array
array_collapse($array);
// Divide an array into two arrays. One with keys and the other with values
array_divide($array);
// Flatten a multi-dimensional associative array with dots
array_dot($array);
// Get all of the given array except for a specified array of items
array_except($array, array('key'));
// Return the first element in an array passing a given truth test
array_first($array, function($key, $value){}, $default);
// Strips keys from the array
array_flatten($array);
```

```
// Remove one or many array items from a given array using "dot" notation
array_forget($array, 'foo');
// Dot notation
array_forget($array, 'foo.bar');
// Get an item from an array using "dot" notation
array_get($array, 'foo', 'default');
array_get($array, 'foo.bar', 'default');
// Checks that a given item exists in an array using "dot" notation
array_has($array, 'products.desk');
// Get a subset of the items from the given array
array_only($array, array('key'));
// Return array of key => values
array_pluck($array, 'key');
// Return and remove 'key' from array
array_pull($array, 'key');
// Set an array item to a given value using "dot" notation
array_set($array, 'key', 'value');
// Dot notation
array_set($array, 'key.subkey', 'value');
// Sorts the array by the results of the given Closure
array_sort($array, function(){});
// Recursively sorts the array using the sort function
array_sort_recursive();
// Filters the array using the given Closure
array_where();
// First element of an array
head($array);
// Last element of an array
last($array);
```

Paths

```
// Fully qualified path to the app directory
app_path();
// Get the path to the public folder
base_path();
// Fully qualified path to the application configuration directory
config_path();
// Fully qualified path to the application's database directory
database_path();
// Gets the path to the versioned Elixir file:
elixir();
// Fully qualified path to the public directory
public_path();
// Get the path to the storage folder
storage_path();
```

## Strings

```
// Convert a value to camel case
camel_case($value);
// Get the class "basename" of the given object / class
class_basename($class);
// Escape a string
e('<html>');
// Determine if a given string starts with a given substring
starts_with('Foo bar.', 'Foo');
// Determine if a given string ends with a given substring
ends_with('Foo bar.', 'bar.');
```

## Strings

```
// Convert a string to snake case
snake_case('fooBar');
// Limits the number of characters in a string
str_limit();
// Determine if a given string contains a given substring
```

```
str_contains('Hello foo bar.', 'foo');  
// Result: foo/bar/  
str_finish('foo/bar', '/');  
str_is('foo*', 'foobar');  
str_plural('car');  
str_random(25);  
str_singular('cars');  
str_slug("Laravel 5 Framework", "-");  
// Result: FooBar  
studly_case('foo_bar');  
trans('foo.bar');  
trans_choice('foo.bar', $count);
```

#### URLs and Links

```
action('FooController@method', $parameters);  
// HTML Link  
asset('img/photo.jpg', $title, $attributes);  
// HTTPS link  
secure_asset('img/photo.jpg', $title, $attributes);  
route($route, $parameters, $absolute = true);  
url('path', $parameters = array(), $secure = null);
```

#### Miscellaneous

```
// Authenticator instance (Auth)  
auth()->user();  
// Generates a redirect response to the user's previous location  
back();  
// Hashes the given value using Bcrypt (Hash)  
bcrypt('my-secret-password');  
// Creates a collection instance from the supplied items
```

```
collect(['taylor', 'abigail']);
// Gets the value of a configuration variable
config('app.timezone', $default);
// Generates an HTML hidden input field containing the value of the CSRF token
{!! csrf_field() !!}
// Retrieves the value of the current CSRF token
$token = csrf_token();
// Dumps the given variable and ends execution of the script
dd($value);
// Gets the value of an environment variable or returns a default value
$env = env('APP_ENV');
$env = env('APP_ENV', 'production');
// Dispatches the given event to its listeners:
event(new UserRegistered($user));
// Creates a model factory builder for a given class
$user = factory(App\User::class)->make();
// Generates an HTML hidden input field containing the spoofed value of the form's HTTP verb
{!! method_field('delete') !!}
// Retrieves an old input value flashed into the session
$value = old('value');
$value = old('value', 'default');
// Returns an instance of the redirector to do redirects:
return redirect('/home');
// Returns the current request instance or obtains an input item
$value = request('key', $default = null)
// Creates a response instance or obtains an instance of the response factory
return response('Hello World', 200, $headers);
// Used to get / set a session value
$value = session('key');
$value = session()->get('key');
session()->put('key', $value);
// Will simply return the value it is given.
```

```
value(function(){ return 'bar'; });  
// Retrieves a view instance  
return view('auth.login');  
// Returns the value it is given  
$value = with(new Foo)->work();
```