LARAVEL - CONFIGURE DATABASE CONNECTION

1. Create your database on mysql command line:

```
$  mysql -u root -p
```

2. Insert your database password and on mysql prompt, use this to create database:

```
$  create schema database_name;
```

3. Open the "*.env*" file and change it according to your environment:

```
DB_CONNECTION=mysql

DB_HOST=127.0.0.1

DB_PORT=3306

DB_DATABASE=<database_name>

DB_USERNAME=<username_name>

DB_PASSWORD=<database_user_password>
```

4. After that let's try to execute the database migration:

```
$  php artisan migrate
```

LARAVEL – MODEL

1. To create model on console, use:

```
$  php artisan make:model Image -m
```

The command will generate 2 files, 1 model file and 1 migration file.

2. Now, open up the migration file at ***database/migrations/some_date_time_create_images_table.php***, and modify the functions as below:

```
public function up()
{
    Schema::create('images', function(Blueprint $table)
    {
        $table->increments('id');
        $table->string('file');
        $table->string('caption');
        $table->text('description');
        $table->timestamps();
    });
}

/**
    * Reverse the migrations.
    *
    * @return void
    */
public function down()
{
    Schema::dropIfExists('images');
}
```

LARAVEL – CONTROLLER

To create controller on console, use:

```
$  php artisan make:controller ImageController --resource
```

The command will generate ***ImageController.php*** with 7 methods automatically.

Now, open up the file at ***app/Http/Controllers/ImageController.php***, and modify the functions as below:

```
<?php

namespace App\Http\Controllers;

use Illuminate\Http\Request;
use Illuminate\Support\Facades\Validator;
use App\Image;

class ImageController extends Controller
```

```
{
    /* 1. This method relates to the "images list" view */
    public function index()
    {
        $images = Image::paginate(10);
        return view('image_upload.images-list')->with('images', $images);
    }

    /* 2. This method relates to the "add new image" view */
    public function create()
    {
        return view('image_upload.add-new-image');
    }

    /* 3. This method relates to the "image detail" view */
    public function show($id)
    {
        $image = Image::findorfail($id);
        return view('image_upload.image-detail')->with('image', $image);
    }

    /* 4. This method relates to the "edit image" view */
    public function edit($id)
    {
        $image = Image::find($id);
        return view('image_upload.edit-image')->with('image', $image);
    }

    public function store(Request $request)
    {
        // Validation //
        $validation = Validator::make($request->all(), [
            'caption'     => 'required|regex:/^[A-Za-z ]+$/',
            'description' => 'required',
            'userfile'     => 'required|image|mimes:jpeg,png|min:1|max:250'
        ]);

        // Check if it fails //
        if( $validation->fails() ){
            return redirect()->back()->withInput()
                ->with('errors', $validation->errors() );
        }

        $image = new Image;

        // upload the image //
        $file = $request->file('userfile');
        $destination_path = 'uploads/';
        $filename = str_random(6).'_'.$file->getClientOriginalName();
        $file->move($destination_path, $filename);

        // save image data into database //
        $image->file = $destination_path . $filename;
        $image->caption = $request->input('caption');
        $image->description = $request->input('description');
        $image->save();

        return redirect('/')-
>with('message','You just uploaded an image!');
    }

    public function update(Request $request, $id)
    {
        // Validation //
        $validation = Validator::make($request->all(), [
            'caption'     => 'required|regex:/^[A-Za-z ]+$/',
            'description' => 'required',
            'userfile'    => 'sometimes|image|mimes:jpeg,png|min:1|max:
250'
        ]);

        // Check if it fails //
        if( $validation->fails() ){
            return redirect()->back()->withInput()
                ->with('errors', $validation->errors() );
        }

        // Process valid data & go to success page //
        $image = Image::find($id);
        // if user choose a file, replace the old one //
        if( $request->hasFile('userfile') ){
            $file = $request->file('userfile');
            $destination_path = 'uploads/';
            $filename = str_random(6).'_'.$file-
>getClientOriginalName();
            $file->move($destination_path, $filename);
            $image->file = $destination_path . $filename;
        }

        // replace old data with new data from the submitted form //
        $image->caption = $request->input('caption');
        $image->description = $request->input('description');
        $image->save();

        return redirect('/')-
>with('message','You just updated an image!');
    }

    public function destroy($id)
    {
        $image = Image::find($id);
        $image->delete();
        return redirect('/')-
>with('message','You just delete an image!');
    }
}
```

LARAVEL - VIEW

1. Now let’s do the layout. We’ll use Bootstrap, place the downloaded bootstrap and jQuery inside these folders structure according to the file extensions:

```
public/

-- js/jquery-min.js

-- js/bootstrap/bootstrap-min.js

-- fonts/
```

```
    -- css/bootstrap/bootstrap-min.css
```

Laravel well known to use blade template engine for its view. Blade is the simple, yet powerful template engine provided with Laravel.

2. Now we'll create 6 files for our views inside the ***resources/views/*** folder:

- The ***image_upload/layout.blade.php*** view file, is the master template. Create the file according to its folder and file name, and add this code inside:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-
scale=1">
    <meta name="description" content="">
    <meta name="author" content="">
    <link rel="icon" href="/favicon.ico">
    <style>
        html { position: relative; min-height: 100%; }
        body { margin-bottom: 60px; }
        body>.container { padding: 60px 15px 0; }
        .container .text-muted { margin: 20px 0; }
        .footer>.container { padding-right: 15px; padding-
left: 15px; }
        code { font-size: 80%; }
    </style>
    <title>Laravel Gallery</title>
    <!-- Bootstrap core CSS -->
    <link href="/css/bootstrap.min.css" rel="stylesheet">
    <link href="/css/app.css" rel="stylesheet">
</head>

<body>
    <!-- Fixed navbar -->
    <nav class="navbar navbar-default navbar-fixed-top navbar-inverse">
        <div class="container">
            <div class="navbar-header">
```

```
                <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-target="#navbar" aria-expanded="false" aria-controls="navbar">
            <span class="sr-only">Toggle navigation</span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
          </button>
                <a class="navbar-brand" href="#">Laravel Gallery</a>
            </div>
            <!-- nav-collapse -->
            <div id="navbar" class="collapse navbar-collapse">
                <ul class="nav navbar-nav navbar-right">
                    <li class="active"><a href="#">Home</a></li>
                    <li><a href="#about">About</a></li>
                    <li><a href="#contact">Contact</a></li>
                    <li class="dropdown">
                        <a href="#" class="dropdown-toggle" data-toggle="dropdown" role="button" aria-haspopup="true" aria-expanded="false">Dropdown <span class="caret"></span></a>
                        <ul class="dropdown-menu">
                            <li><a href="#">Action</a></li>
                            <li><a href="#">Another action</a></li>
                            <li><a href="#">Something else here</a></li>

                            <li role="separator" class="divider"></li>
                            <li class="dropdown-header">Nav header</li>
                            <li><a href="#">Separated link</a></li>
                            <li><a href="#">One more separated link</a></li>
                        </ul>
                    </li>
                </ul>
            </div> <!--/ End nav-collapse -->
        </div>
    </nav> <!--/ End Fixed navbar -->

    <!-- Begin page content -->
    <div class="container">
        <div class="page-header">
            <h1>Welcome To Laravel Gallery</h1>
        </div>
        @yield('body')
    </div> <!--/ End page content -->

    <!-- Bootstrap core JavaScript
    ================================================== -->
    <!-- Placed at the end of the document so the pages load faster -->
    <script src="/js/jquery.min.js"></script>
    <script src="/js/bootstrap.min.js"></script>
    <script src="/js/app.js"></script>
</body>
</html>
```

- The ***image_upload/images-list.blade.php*** view file, displays all images in the database with a pagination bar. Create the file according to its folder and file name, and add this code inside:

```
@extends('image_upload.layout')

@section('body')
    <div class="row">
        @if(count($images) > 0)
            <div class="col-md-12 text-center" >
                <a href="{{ url('/image/create') }}" class="btn btn-
primary" role="button">
                    Add New Image
                </a>
                <hr />
                @include('image_upload.error-notification')
            </div>
        @endif
        @forelse($images as $image)
            <div class="col-md-3">
                <div class="thumbnail">
                    <a href="{!! route('image.show', $image->id) !!}">
                        <img id="myImg" src="{{asset($image-
>file)}}" class="img-responsive"/>
                    </a>
                    <div class="caption">
                        <h3>{{$image->caption}}</h3>
                        <p>{!! substr($image-
>description, 0,100) !!}</p>
                        <p>
                        <div class="row text-center" style="padding-
left:1em;">
                            <a href="{{ url('/image/'.$image-
>id.'/edit') }}" class="btn btn-warning pull-left">Edit</a>
                            <span class="pull-left">&nbsp;</span>
                            {!! Form::open(['url'=>'/image/'.$image-
>id, 'class'=>'pull-left']) !!}
                            {!! Form::hidden('_method', 'DELETE') !!}
                            {!! Form::submit('Delete', ['class' => 'btn
 btn-danger', 'onclick'=>'return confirm(\'Are you sure?\')']) !!}
                            {!! Form::close() !!}
                        </div>
                        </p>
                    </div>
                </div>
            </div>
        @empty
            <p>No images yet, <a href="{{ url('/image/create') }}">add
a new one</a>?</p>
        @endforelse

    </div>
    <div align="center">{!! $images->render() !!}</div>
@stop
```

- The ***image_upload/add-new-image.blade.php*** view file, display a form for user to add a new image. Create the file according to its folder and file name, and add this code inside:

```
@extends('image_upload.layout')

@section('body')
    @include('image_upload.error-notification')
    {!! Form::open(['url'=>'/image', 'method'=>'POST', 'files'=>'true']
) !!}

    <div class="form-group">
        <label for="userfile">Image File</label>
        <input type="file" class="form-control" name="userfile">
    </div>

    <div class="form-group">
        <label for="caption">Caption</label>
        <input type="text" class="form-
control" name="caption" value="">
    </div>

    <div class="form-group">
        <label for="description">Description</label>
        <textarea class="form-control" name="description"></textarea>
    </div>

    <button type="submit" class="btn btn-primary">Upload</button>
    <a href="{{ url('/image') }}" class="btn btn-warning">Cancel</a>

    {!! Form::close() !!}
@stop
```

- The ***image_upload/image-detail.blade.php*** view file, displays one individual image with an edit button. Create the file according to its folder and file name, and add this code inside:

```
@extends('image_upload.layout')

@section('body')
    <form class="form-horizontal">

        <img src="{{ asset($image->file) }}" height="150" />
        <div class="form-group">
            <label class="col-sm-2 control-label">Caption</label>
            <div class="col-sm-10">
                <p class="form-control-static">{{ $image-
>caption }}</p>
            </div>
        </div>

        <div class="form-group">
            <label class="col-sm-2 control-label">Description</label>
            <div class="col-sm-10">
                <p class="form-control-static">{{ $image->description }}</p>
            </div>
        </div>

        <a href="{{ url('/image/'.$image->id.'/edit') }}" class="btn btn-warning">Edit</a>
        <a href="{{ url('/image') }}" class="btn btn-warning">Back</a>

    </form>
@stop
```

- The ***image_upload/edit-image.blade.php*** view file, displays a form for user to edit an existing image. Create the file according to its folder and file name, and add this code inside:

```
@extends('image_upload.layout')

@section('body')
    @include('image_upload.error-notification')
    {!! Form::model($image,['url' => '/image/'.$image->id, 'method' => 'PUT', 'files'=>true]) !!}

    <img src="{{ asset($image->file) }}" height="150" />
    <div class="form-group">
        <label for="userfile">Image File</label>
        {!! Form::file('userfile',null,['class'=>'form-control']) !!}
    </div>

    <div class="form-group">
        <label for="caption">Caption</label>
        {!! Form::text('caption',null,['class'=>'form-control']) !!}
    </div>

    <div class="form-group">
        <label for="description">Description</label>
        {!! Form::textarea('description',null,['class'=>'form-control']) !!}
    </div>
    <button type="submit" class="btn btn-primary">Save</button>
    <a href="{{ url('/image') }}" class="btn btn-warning">Cancel</a>

    {!! Form::close() !!}
@stop
```

- The ***image_upload/error-notification.blade.php*** view file, is a widget to display error messages or success notifications if there is any. Create the file according to its folder and file name, and add this code inside:

```
@if( Session::has('errors') )
    <div class="alert alert-danger" role="alert" align="center">
        <ul>
            @foreach($errors->all() as $error)
                <li>{{$error}}</li>
            @endforeach
        </ul>
    </div>
@endif
@if( Session::has('message') )
    <div class="alert alert-success" role="alert" align="center">
        {{ Session::get('message') }}
    </div>
@endif
```

LARAVEL – ROUTE

Open the ***routes/web.php*** and modify as follows:

```
<?php

Route::get('/', function(){
    return redirect('image');
});

Route::resource('image', 'ImageController');
```

FINISH – TEST YOUR APP

Run your app using:

```
$  php artisan serve
```

Try your application by testing all the design features.

USEFUL RESOURCES

VERSION CONTROL

www.github.com

www.git-scm.com

WEB SERVER

www.apachefriends.org

www.nginx.org

PHP

www.php.net

BASIC VARIOUS TUTORIAL

www.w3schools.com

www.sitepoint.com

LARAVEL

www.laravel.com

CSS FRAMEWORK

www.getbootstrap.com

www.materializecss.com

www.getdml.io

www.foundation.zurb.com

DATABASE

www.mysql.com

www.mariadb.org