

Web Development with PHP

Practical - 11

Introduction to Laravel

Example-01:

Use the following steps to create a crud operation app in laravel as follows:

Step 1 – Download Laravel App

composer create-project laravel/laravel sample-crud

Step 2 – Setup Database with App

Setup database with your downloaded/installed laravel app. So, you need to find the .env file and setup database details as follows:

```
DB_CONNECTION=mysql
DB_HOST=127.0.0.1
DB_PORT=3308
DB_DATABASE=database-name
DB_USERNAME=database-user-name
DB_PASSWORD=database-password
```

Step 3 – Create Company Model & Migration For CRUD App

To create model and migration file for form:

php artisan make:model Company -m

After that, open the company migration file inside sample-crud/database/migrations/ directory. And then update the function up() with the following code:

```
public function up()
{
    Schema::create('companies', function (Blueprint $table) {
        $table->id();
        $table->string('name');
        $table->string('email');
        $table->string('address');
        $table->timestamps();
    });
}
```

app/Models/Company.php

```
<?php

namespace App\Models;

use Illuminate\Database\Eloquent\Factories\HasFactory;
use Illuminate\Database\Eloquent\Model;

class Company extends Model
{
    use HasFactory;

    protected $fillable = ['name', 'email', 'address'];
}
```

Then, open again command prompt and run the following command to create tables in the database:

php artisan migrate

Step 4 – Create Company Controller By Artisan Command

Create a controller by using the following command on the command prompt to create a controller file:

php artisan make:controller CompanyController

After that, visit app/Http/controllers and open the CompanyController.php file. And update the following code into it:

```
<?php

namespace App\Http\Controllers;

use App\Models\Company;
use Illuminate\Http\Request;

class CompanyController extends Controller
{
    /**
     * Display a listing of the resource.
     *
     * @return \Illuminate\Http\Response
     */
    public function index()
    {
        $companies =
```

```

Company::orderBy('id','desc')->paginate(5);
    return view('companies.index', compact('companies'));
}

/**
 * Show the form for creating a new resource.
 *
 * @return \Illuminate\Http\Response
 */
public function create()
{
    return view('companies.create');
}

/**
 * Store a newly created resource in storage.
 *
 * @param  \Illuminate\Http\Request  $request
 * @return \Illuminate\Http\Response
 */
public function store(Request $request)
{
    $request->validate([
        'name' => 'required',
        'email' => 'required',
        'address' => 'required',
    ]);

    Company::create($request->post());

    return
    redirect()->route('companies.index')->with('success','Company
has been created successfully.');
```

```

}

/**
 * Display the specified resource.
 *
 * @param  \App\company  $company
 * @return \Illuminate\Http\Response
 */
public function show(Company $company)
{
    return view('companies.show',compact('company'));
}

/**
 * Show the form for editing the specified resource.

```

```

*
* @param \App\Company $company
* @return \Illuminate\Http\Response
*/
public function edit(Company $company)
{
    return view('companies.edit',compact('company'));
}

/**
 * Update the specified resource in storage.
 *
 * @param \Illuminate\Http\Request $request
 * @param \App\company $company
 * @return \Illuminate\Http\Response
 */
public function update(Request $request, Company $company)
{
    $request->validate([
        'name' => 'required',
        'email' => 'required',
        'address' => 'required',
    ]);

    $company->fill($request->post())->save();

    return
    redirect()->route('companies.index')->with('success','Company
Has Been updated successfully');
}

/**
 * Remove the specified resource from storage.
 *
 * @param \App\Company $company
 * @return \Illuminate\Http\Response
 */
public function destroy(Company $company)
{
    $company->delete();
    return
    redirect()->route('companies.index')->with('success','Company
has been deleted successfully');
}
}

```

Step 5 – Create Routes

Then create routes for the laravel crud app. So, open the web.php file from the routes directory of laravel CRUD app. And update the following routes into the web.php file:

```
use App\Http\Controllers\CompanyController;
```

```
Route::resource('companies', CompanyController::class);
```

Step 6 – Create Blade Views File

Create directory name companies inside the resources/views directory.

Note that, create index.blade.php, create.blade.php, and edit.blade.php inside the companies directory. And update the following code into the following files:

- **index.blade.php**

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Laravel 9 CRUD Tutorial Example</title>
    <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/c
ss/bootstrap.min.css" >
</head>
<body>
    <div class="container mt-2">
        <div class="row">
            <div class="col-lg-12 margin-tb">
                <div class="pull-left">
                    <h2>Laravel 9 CRUD Example
Tutorial</h2>
                </div>
                <div class="pull-right mb-2">
                    <a class="btn btn-success" href="{{
route('companies.create') }}"> Create Company</a>
                </div>
            </div>
        </div>
        @if ($message = Session::get('success'))
            <div class="alert alert-success">
                <p>{{ $message }}</p>
            </div>
        @endif
        <table class="table table-bordered">
```

```

<thead>
    <tr>
        <th>S.No</th>
        <th>Company Name</th>
        <th>Company Email</th>
        <th>Company Address</th>
        <th width="280px">Action</th>
    </tr>
</thead>
<tbody>
    @foreach ($companies as $company)
        <tr>
            <td>{{ $company->id }}</td>
            <td>{{ $company->name }}</td>
            <td>{{ $company->email }}</td>
            <td>{{ $company->address }}</td>
            <td>
                <form action="{{
route('companies.destroy',$company->id) }}" method="Post">
                    <a class="btn btn-primary"
href="{{ route('companies.edit',$company->id) }}">Edit</a>
                    @csrf
                    @method('DELETE')
                    <button type="submit"
class="btn btn-danger">Delete</button>
                </form>
            </td>
        </tr>
    @endforeach
</tbody>
</table>
{!! $companies->links() !!}
</div>
</body>
</html>

```

- **create.blade.php**

```

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <title>Add Company Form - Laravel 9 CRUD</title>
    <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/c
ss/bootstrap.min.css">

```

```

</head>

<body>
  <div class="container mt-2">
    <div class="row">
      <div class="col-lg-12 margin-tb">
        <div class="pull-left mb-2">
          <h2>Add Company</h2>
        </div>
        <div class="pull-right">
          <a class="btn btn-primary" href="{{
route('companies.index') }}"> Back</a>
        </div>
      </div>
    </div>
    @if(session('status'))
    <div class="alert alert-success mb-1 mt-1">
      {{ session('status') }}
    </div>
    @endif
    <form action="{{ route('companies.store') }}"
method="POST" enctype="multipart/form-data">
      @csrf
      <div class="row">
        <div class="col-xs-12 col-sm-12
col-md-12">
          <div class="form-group">
            <strong>Company Name:</strong>
            <input type="text" name="name"
class="form-control" placeholder="Company Name">
            @error('name')
            <div class="alert alert-danger
mt-1 mb-1">{{ $message }}</div>
            @enderror
          </div>
        </div>
        <div class="col-xs-12 col-sm-12
col-md-12">
          <div class="form-group">
            <strong>Company Email:</strong>
            <input type="email" name="email"
class="form-control" placeholder="Company Email">
            @error('email')
            <div class="alert alert-danger
mt-1 mb-1">{{ $message }}</div>
            @enderror
          </div>
        </div>
      </div>
    </form>
  </div>

```

```

        <div class="col-xs-12 col-sm-12
col-md-12">
            <div class="form-group">
                <strong>Company Address:</strong>
                <input type="text" name="address"
class="form-control" placeholder="Company Address">
                @error('address')
                <div class="alert alert-danger
mt-1 mb-1">{{ $message }}</div>
                @enderror
            </div>
        </div>
        <button type="submit" class="btn
btn-primary ml-3">Submit</button>
    </div>
</form>
</div>
</body>

</html>

```

- **edit.blade.php**

```

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <title>Edit Company Form - Laravel 9 CRUD
Tutorial</title>
    <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/c
ss/bootstrap.min.css">
</head>

<body>
    <div class="container mt-2">
        <div class="row">
            <div class="col-lg-12 margin-tb">
                <div class="pull-left">
                    <h2>Edit Company</h2>
                </div>
                <div class="pull-right">
                    <a class="btn btn-primary" href="{{
route('companies.index') }}"
enctype="multipart/form-data">
                        Back</a>

```



```

        </div>
    </div>
</div>
@if(session('status'))
<div class="alert alert-success mb-1 mt-1">
    {{ session('status') }}
</div>
@endif
<form action="{{
route('companies.update',$company->id) }}" method="POST"
enctype="multipart/form-data">
    @csrf
    @method('PUT')
    <div class="row">
        <div class="col-xs-12 col-sm-12
col-md-12">
            <div class="form-group">
                <strong>Company Name:</strong>
                <input type="text" name="name"
value="{{ $company->name }}" class="form-control"
                placeholder="Company name">
                @error('name')
                <div class="alert alert-danger
mt-1 mb-1">{{ $message }}</div>
                @enderror
            </div>
        </div>
        <div class="col-xs-12 col-sm-12
col-md-12">
            <div class="form-group">
                <strong>Company Email:</strong>
                <input type="email" name="email"
class="form-control" placeholder="Company Email"
                value="{{ $company->email }}">
                @error('email')
                <div class="alert alert-danger
mt-1 mb-1">{{ $message }}</div>
                @enderror
            </div>
        </div>
        <div class="col-xs-12 col-sm-12
col-md-12">
            <div class="form-group">
                <strong>Company Address:</strong>
                <input type="text" name="address"
value="{{ $company->address }}" class="form-control"
                placeholder="Company Address">
                @error('address')

```

```

                                <div class="alert alert-danger
mt-1 mb-1">{{ $message }}</div>
                                @enderror
                                </div>
                                </div>
                                <button type="submit" class="btn
btn-primary ml-3">Submit</button>
                                </div>
                                </form>
                                </div>
</body>

</html>

```

If you submit the add or edit form blank. So the error message will be displayed with the help of the code given below:

```

@error('name')
    <div class="alert alert-danger mt-1 mb-1">{{ $message
}}</div>
@enderror

```

Step 7 – Run Laravel CRUD App on Development Server

In the last step, open a command prompt and run the following command to start the development server:

php artisan serve

Then open your browser and hit the following URL on it:

http://127.0.0.1:8000/companies

Exercise

1. Implement simple employee information management functionality using Laravel.

Manage Employee Data like Employee ID, name, department. Provide insert, view, update and delete functionality using appropriate design

Example-02:

Create a table

php artisan make:migration create_users_table --create table

Now open the migration file and add the code given below

```
<?php
use Illuminate\Database\Migrations\Migration;
use Illuminate\Database\Schema\Blueprint;
use Illuminate\Support\Facades\Schema;

class CreateUsersTable extends Migration{
    /**
     * Run the migrations.
     *
     * @return void
     */
    public function up(){
        Schema::create('users', function (Blueprint
$table) {
            $table->id();
            $table->string('name');
            $table->string('email')->unique();
            $table->timestamps();
        });
    }

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

Now you have to run migration using the below command

php artisan migrate

Add Resource Route

We need to add a resource route for the user crud application. So open your “routes/web.php” file and add the following route.

```
use App\Http\Controllers\UserController;
Route::resource('users', UserController::class);
```

Add Controller and Model

```
php artisan make:controller UserController --resource
--model=User
```

After the above command, you will find a new file in this path

“app/Http/Controllers/UserController.php”

In this controller will create seven methods by default as given below:

- index()
- create()
- store()
- show()
- edit()
- update()
- destroy()

app/Http/Controllers/UserController.php

```
<?php
```

```
namespace App\Http\Controllers;
```

```
use App\Models\User;
```

```
use Illuminate\Http\Request;
```

```
class UserController extends Controller
{
```

```
    /**
```

```
     * Display a listing of the resource.
```

```
     *
```

```
     * @return \Illuminate\Http\Response
```

```
     */
```

```
    public function index()
```

```
    {
```

```
        $users = User::latest()->paginate(5);
```

```
        return view('user.index',compact('users'))
```

```

        ->with('i', (request()->input('page', 1) - 1) *
5);
    }

    /**
     * Show the form for creating a new resource.
     *
     * @return \Illuminate\Http\Response
     */
    public function create()
    {
        return view('user.create');
    }

    /**
     * Store a newly created resource in storage.
     *
     * @param \Illuminate\Http\Request $request
     * @return \Illuminate\Http\Response
     */
    public function store(Request $request)
    {
        $request->validate([
            'name' => 'required',
            'email' => 'required',
        ]);

        User::create($request->all());

        return redirect()->route('user.index')
            ->with('success','User created
successfully.');
```

```

    }

    /**
     * Display the specified resource.
     *
     * @param \App\User $user
     * @return \Illuminate\Http\Response
     */
    public function show(User $user)
    {
        return view('user.show',compact('user'));
    }

    /**
     * Show the form for editing the specified resource.
     *

```

```

    * @param \App\User $user
    * @return \Illuminate\Http\Response
    */
public function edit(User $user)
{
    return view('user.edit',compact('user'));
}

/**
 * Update the specified resource in storage.
 *
 * @param \Illuminate\Http\Request $request
 * @param \App\User $user
 * @return \Illuminate\Http\Response
 */
public function update(Request $request, User $user)
{
    $request->validate([
        'name' => 'required',
        'email' => 'required',
    ]);

    $user->update($request->all());

    return redirect()->route('users.index')
        ->with('success','User updated
successfully');
}

/**
 * Remove the specified resource from storage.
 *
 * @param \App\User $user
 * @return \Illuminate\Http\Response
 */
public function destroy(User $user)
{
    $user->delete();

    return redirect()->route('user.index')
        ->with('success','User deleted
successfully');
}
}

```

Now find “app/Models/User.php” and put the below content in User.php file:

```
<?php

namespace App\Models;

use Illuminate\Contracts\Auth\MustVerifyEmail;
use Illuminate\Database\Eloquent\Factories\HasFactory;
use Illuminate\Foundation\Auth\User as Authenticatable;
use Illuminate\Notifications\Notifiable;
use Laravel\Sanctum\HasApiTokens;

class User extends Authenticatable
{
    use HasApiTokens, HasFactory, Notifiable;

    /**
     * The attributes that are mass assignable.
     *
     * @var array<int, string>
     */
    protected $fillable = [
        'name',
        'email',
        'password',
    ];

    /**
     * The attributes that should be hidden for
    serialization.
     *
     * @var array<int, string>
     */
    protected $hidden = [
        'password',
        'remember_token',
    ];

    /**
     * The attributes that should be cast.
     *
     * @var array<string, string>
     */
    protected $casts = [
        'email_verified_at' => 'datetime',
    ];
}
```


Add Blade Files

layout.blade.php

Path – resources/views/users/layout.blade.php

```
<!DOCTYPE html>
<html>
<head>
    <title>Laravel 8 CRUD Application </title>
</head>
<body>

<div class="container">
    @yield('content')
</div>

</body>
</html>
index.blade.php
```

index.blade.php

Path – resources/views/users/index.blade.php

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

@section('content')
    <div class="row">
        <div class="col-lg-12 margin-tb">
            <div class="pull-left">
                <h2>Laravel 8 CRUD Example f</h2>
            </div>
            <div class="pull-right">
                <a class="btn btn-success" href="{{
route('users.create') }}"> Create New user</a>
            </div>
        </div>
    </div>

    @if ($message = Session::get('success'))
        <div class="alert alert-success">
            <p>{{ $message }}</p>
        </div>
    @endif

    <table class="table table-bordered">
        <tr>
            <th>No</th>
            <th>Name</th>
            <th>Email</th>
            <th width="280px">Action</th>
        </tr>
        @foreach ($users as $user)
            <tr>
                <td>{{ ++$i }}</td>
                <td>{{ $user->name }}</td>
                <td>{{ $user->email }}</td>
                <td>
                    <form action="{{
route('users.destroy',$user->id) }}" method="POST">

                        <a class="btn btn-info" href="{{
route('users.show',$user->id) }}">Show</a>

                        <a class="btn btn-primary" href="{{
route('users.edit',$user->id) }}">Edit</a>

                    </form>
                </td>
            </tr>
        @endforeach
    </table>

    @csrf
```

```
                @method('DELETE')

                <button type="submit" class="btn
btn-danger">Delete</button>
            </form>
        </td>
    </tr>
@endforeach
</table>

{!! $users->links() !!}

@endsection
```

create.blade.php

Path – resources/views/users/create.blade.php

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

@section('content')
<div class="row">
    <div class="col-lg-12 margin-tb">
        <div class="pull-left">
            <h2>Add New User</h2>
        </div>
        <div class="pull-right">
            <a class="btn btn-primary" href="{{
route('users.index') }}"> Back</a>
        </div>
    </div>
</div>

@if ($errors->any())
    <div class="alert alert-danger">
        There were some problems with your input.<br><br>
        <ul>
            @foreach ($errors->all() as $error)
                <li>{{ $error }}</li>
            @endforeach
        </ul>
    </div>
@endif

<form action="{{ route('users.store') }}" method="POST">
    @csrf

    <div class="row">
        <div class="col-xs-12 col-sm-12 col-md-12">
            <div class="form-group">
                <strong>Name:</strong>
                <input type="text" name="name"
class="form-control" placeholder="Name">
            </div>
        </div>
        <div class="col-xs-12 col-sm-12 col-md-12">
            <div class="form-group">
                <strong>email:</strong>
                <textarea class="form-control"
style="height:150px" name="email"
placeholder="Email"></textarea>
            </div>
        </div>
    </div>
</form>
```

```
        </div>
        <div class="col-xs-12 col-sm-12 col-md-12
text-center">
            <button type="submit" class="btn
btn-primary">Submit</button>
        </div>
    </div>

</form>
@endsection
```

edit.blade.php

Path – resources/views/users/edit.blade.php

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

@section('content')
    <div class="row">
        <div class="col-lg-12 margin-tb">
            <div class="pull-left">
                <h2>Edit User</h2>
            </div>
            <div class="pull-right">
                <a class="btn btn-primary" href="{{
route('users.index') }}"> Back</a>
            </div>
        </div>
    </div>

    @if ($errors->any())
        <div class="alert alert-danger">
            There were some problems with your input.<br><br>
            <ul>
                @foreach ($errors->all() as $error)
                    <li>{{ $error }}</li>
                @endforeach
            </ul>
        </div>
    @endif

    <form action="{{ route('users.update',$user->id) }}"
method="POST">
        @csrf
        @method('PUT')

        <div class="row">
            <div class="col-xs-12 col-sm-12 col-md-12">
                <div class="form-group">
                    <strong>Name:</strong>
                    <input type="text" name="name" value="{{
$user->name }}" class="form-control" placeholder="Name">
                </div>
            </div>
            <div class="col-xs-12 col-sm-12 col-md-12">
                <div class="form-group">
                    <strong>Email:</strong>
                    <textarea class="form-control"
style="height:150px" name="email" placeholder="Email">{{
```

```
$user->email }}</textarea>
    </div>
</div>
<div class="col-xs-12 col-sm-12 col-md-12
text-center">
    <button type="submit" class="btn
btn-primary">Submit</button>
</div>
</div>

</form>
@endsection
```

show.blade.php

Path – resources/views/users/show.blade.php

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

@section('content')
    <div class="row">
        <div class="col-lg-12 margin-tb">
            <div class="pull-left">
                <h2> Show User</h2>
            </div>
            <div class="pull-right">
                <a class="btn btn-primary" href="{{
route('users.index') }}"> Back</a>
            </div>
        </div>
    </div>

    <div class="row">
        <div class="col-xs-12 col-sm-12 col-md-12">
            <div class="form-group">
                <strong>Name:</strong>
                {{ $user->name }}
            </div>
        </div>
        <div class="col-xs-12 col-sm-12 col-md-12">
            <div class="form-group">
                <strong>Email:</strong>
                {{ $user->email }}
            </div>
        </div>
    </div>
@endsection
```


Run CRUD application

Now the final step in Laravel tutorial CRUD you need to run the CRUD application using this command

php artisan serve

Now you can open the below URL on your browser:

<http://127.0.0.1:8000/users>