

Student Management System - Setup & Code Overview

Laravel Student Management System Setup Guide

Requirements

- PHP 8.1 or higher
- Composer
- MySQL or MariaDB

Installation

1. Clone the Repository:

```
git clone https://github.com/ranim122004/student_management_system.git  
cd student_management_system
```

2. Install PHP Dependencies:

```
composer install
```

3. Set Up Environment:

```
cp .env.example .env  
php artisan key:generate
```

4. Configure Database:

Edit the .env file with DB_DATABASE, DB_USERNAME, and DB_PASSWORD

5. Run Migrations and Seeders:

```
php artisan migrate --seed
```

Running the App

Run:

```
php artisan serve
```

Then visit: <http://localhost:8000>

Notes

- Tailwind CSS and Bootstrap are included via CDN
- No Node.js or npm setup is required

Code Overview

StudentController

Handles student CRUD operations:

- index() List all students
- create() Show form to add a student
- store() Save student to database
- edit() Show form to edit a student
- update() Update student details
- destroy() Delete student record

CourseController

Handles course operations:

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

GradeController

Handles grade operations:

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

Models

- Student hasMany Courses, hasMany Grades

- Course belongsTo Student, hasMany Grades

- Grade belongsTo Student, belongsTo Course