

R of CRUD – Reading Single Entity Data from Database Table using Laravel

Perform the following steps.

1) Creating Model and Migration

- i) Run the following command in the VSCode Terminal

```
php artisan make:model Student6A -m
```

As a result, the following takes place.

- a) Model file `Student6A.php` will be created in the folder `Models` at
`C:/xampp/htdocs/SP23_Student_MIS/app/Models/`
- b) Migration file `2023_04_04_034833_create_student6_a_s_table.php` will be created in the folder `migrations` at
`C:/xampp/htdocs/SP23_Student_MIS/database/migrations`

- ii) Make the following changes in the up function of migration file

```
public function up()
{
    Schema::create('students', function (Blueprint $table) {
        $table->id();

        // Adding Student related attributes
        // *****
        $table->string('name', 35);
        $table->string('dob', 12);
        $table->string('registration_no', 15);
        $table->string('primary_email', 25);
        $table->string('address', 50);
        $table->string('mobile_no', 15);
        // *****

        $table->timestamps();
    });
}
```

- iii) Run one of the following commands to export migrations

```
php artisan migrate      or      php artisan migrate:fresh
```

As a result, as many tables would be created in the Database of your MySQL as many are the number of migrations in the [migrations](#) folder.

2) Create folder (and read file) for the entity type 'Student'

Do the following.

- a) Create a sub-folder [student](#) in the folder [views](#) at
C:/xampp/htdocs/SP23_Student_MIS/resources/views/
- b) Create a new file [read.blade.php](#) in the newly created sub-folder [student](#). Keep this file blank. We shall write the contents of the file later in [Step #6](#).

3) Create Controller for the entity type 'Student'

Run the following command in the VSCode terminal

```
php artisan make:controller Student6A_Controller
```

As a result, controller file [Student6A_Controller.php](#) shall be created in the folder [Controllers](#) at C:/xampp/htdocs/SP23_Student_MIS/app/Http/Controllers/

4) Set Route for the page 'read.blade.php'

To load the this page in the browser, let's First set its route. Write the following code in the file [web.php](#) located in the folder [routes](#) at C:/xampp/htdocs/SP23_Student_MIS/routes/

```
Route::get('student6A/read',  
    [Student6A_Controller::class, 'readStudents6A']);
```

5) Writing read function in the Controller

To fetch data from the database table of students6A and pass this data to the [read.blade.php](#) web page for showing to user, write the function, [readStudent6A](#) as stated in the route of [web.php](#)

```
public function readStudents6A()  
{  
    // Fetch table contents, then  
    // pass to the web page  
    $stdHandler = Student6A::all();  
  
    // In the with statement below, the array name  
    // 'students' is being passed to the web page (view),  
    // where we shall use it in the foreach loop there.  
    return view ("student6A/read")
```

```

        ->with(['students' => $stdHandler]);
    }

```

It is important to note here that the controller function `readStudent6A` is passing an array 'students' to the web page `views/student6A/read.blade.php` (see step #2). However, the contents of the web page are empty. So, let's write code inside `views/student6A/read.blade.php` so that it can receive the 'students' array and shows all its records in the HTML/CSS table.

6) Writing read code for the entity type 'Student'

```

<!DOCTYPE html>
<html lang="en">
    <head>
        <title>Read Students</title>
    </head>
    <body>
        <h3 style="background-color:lightgrey; color:blue; width:50%;>
            Reading the Student Data
        </h3>

        <table>
            <thead>
                <tr>
                    <th>Name</th>
                    <th>Date of Birth</th>
                    <th>Registration No</th>
                    <th>Email</th>
                    <th>Address</th>
                    <th>Cell No.</th>
                </tr>
            </thead>

            <tbody>
                <!-- Using Blade Loop. -->
                <!-- From controller, the values have been
                received in the array 'students'. -->
                @foreach ($students as $student)
                    <tr>
                        <td>{{$student->name}}</td>
                        <td>{{$student->dob}}</td>
                        <td>{{$student->registration_no}}</td>
                        <td>{{$student->primary_email}}</td>
                        <td>{{$student->address}}</td>

```

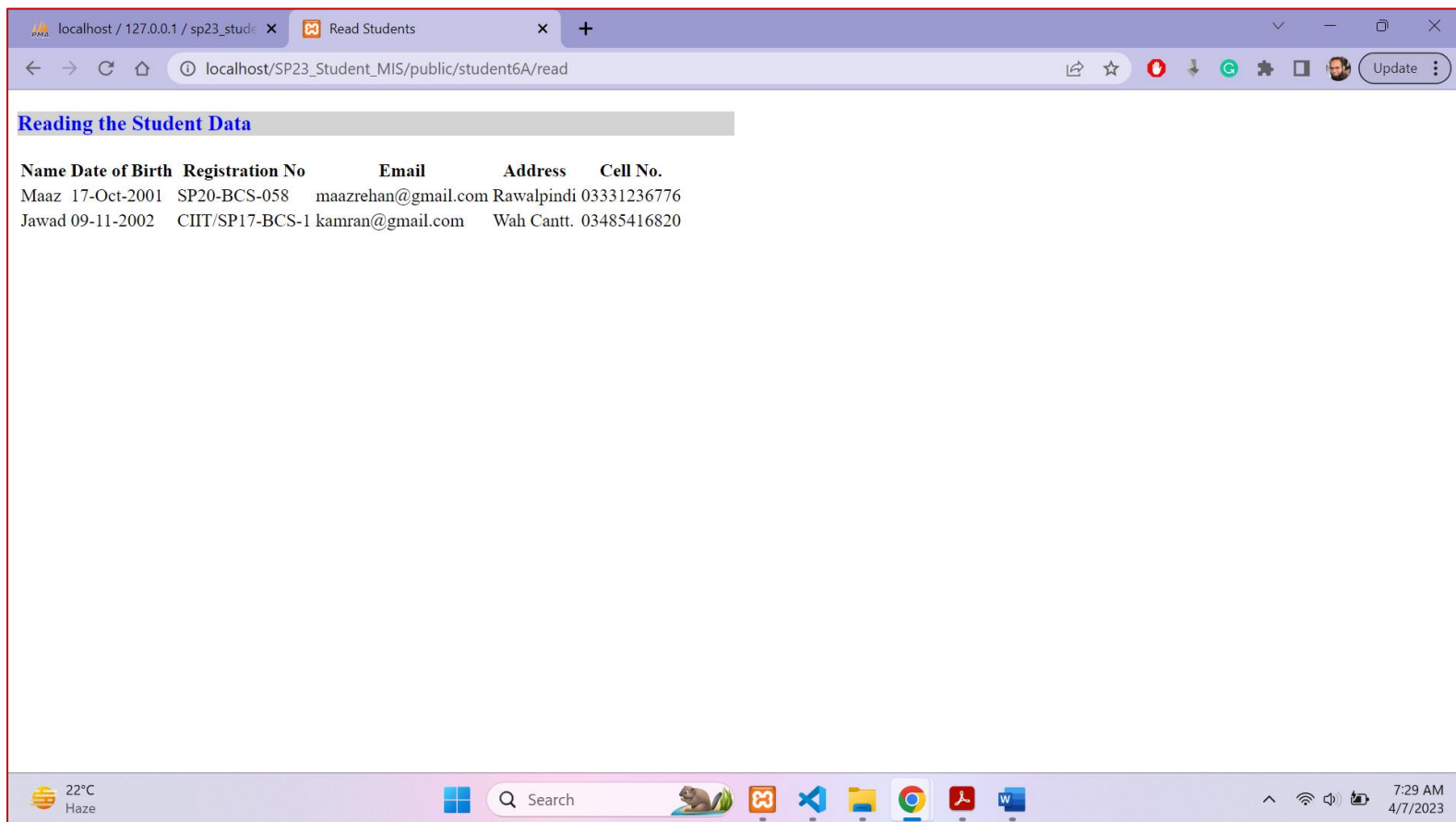
```
        <td>{{$student->mobile_no}}</td>
      </tr>
    @endforeach
  </tbody>
</table>
</body>
</html>
```

7) Running the read page in the browser

Write the following URL called route in the browser to open the read page that shows all data stored in the students6A table.

localhost/SP23_Student_MIS/public/student6A/read

Below is my output.



The screenshot shows a web browser window with the address bar displaying `localhost/SP23_Student_MIS/public/student6A/read`. The page title is "Reading the Student Data". Below the title, there is a table with the following data:

| Name | Date of Birth | Registration No | Email | Address | Cell No. |
|-------|---------------|-----------------|---------------------|------------|-------------|
| Maaz | 17-Oct-2001 | SP20-BCS-058 | maazrehan@gmail.com | Rawalpindi | 03331236776 |
| Jawad | 09-11-2002 | CIIT/SP17-BCS-1 | kamran@gmail.com | Wah Cantt. | 03485416820 |

*** End ***