

## Laravel Activities

### Activity 1 - Create a Laravel Project using manual process – 20 pts

#### Procedure:

1. Go to terminal of VS Code write the command below.

```
PS C:\Users\Christian Lloyd> cd..  
PS C:\Users> cd..  
PS C:\> cd xampp/htdocs  
PS C:\xampp\htdocs> laravel new laravel_activity
```

2. In next step below, just press enter.

```
Would you like to install a starter kit? [No starter kit]:  
[none ] No starter kit  
[breeze ] Laravel Breeze  
[jetstream] Laravel Jetstream  
> 
```

3. In next step below, enter 1 to select PHPUnit. Then wait for the next step

```
Which testing framework do you prefer? [Pest]:  
[0] Pest  
[1] PHPUnit  
> 
```

4. In next step below, enter mysql to select MySQL.

```
Which database will your application use? [SQLite]:  
[sqlite ] SQLite  
[mysql ] MySQL  
[mariadb] MariaDB  
[pgsql ] PostgreSQL (Missing PDO extension)  
[sqlsrv ] SQL Server (Missing PDO extension)  
> 
```

5. Enter no for the next step below.

```
Default database updated. Would you like to run the default database migrations? (yes/no) [yes]  
> 
```

6. If the Laravel is already installed, just go to project folder using command prompt follow command below.

```
PS C:\xampp\htdocs> cd laravel_activity
```

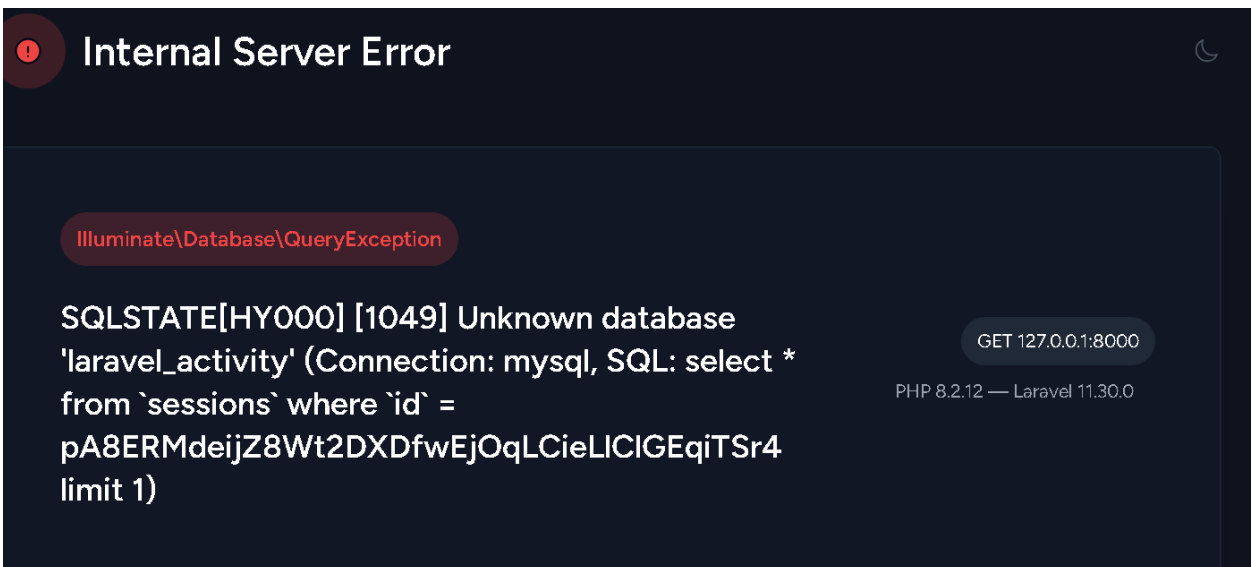
7. If you are inside your project folder you can enter this command, php artisan serve to get your website link.

```
PS C:\xampp\htdocs\laravel_activity> php artisan serve
forking is not supported on this platform
```

**INFO** Server running on [http://127.0.0.1:8000].

**Press Ctrl+C to stop the server**

8. Press control + left-click to open your website project.
9. If you encounter the problem below, just go to [localhost / 127.0.0.1 | phpMyAdmin 5.2.1](http://localhost/127.0.0.1/phpMyAdmin5.2.1), then create database base on your project name.



10. Once you created a database go back to vscode and open your project located at xampp/htdocs.
11. Now open terminal and enter command below.

```
PS C:\xampp\htdocs\laravel_activity> php artisan migrate
```

12. Then Enter again php artisan serve.

## Activity 2 – Create and Configure Model and Controller.

### Procedure:

1. First create a resource controller, follow the command below.

```
PS C:\xampp\htdocs\laravel_activity> php artisan make:controller StudentController --resource
```

2. Then Goto app\controller\StudentController.php then configure the following

- A. Function index – to display all students list.

```
public function index(): Factory|View
{
    $students = Student::all();
    return view('students.index', data: compact('students'));
}
```

- B. Function create – to load the create form.

```
public function create(): Factory|View
{
    return view('students.create');
}
```

- C. Function store – to store the data to database.

```
public function store(Request $request): RedirectResponse
{
    $validate = $request->validate(rules: [
        'name' => 'required|string|max:255',
        'email' => 'required|string|email|max:255|unique:students',
        'age' => 'required|integer|min:1',
    ]);

    Student::create(attributes: $validate);
    return redirect()->route(route: 'students.index')->with(key: 'success', value: 'Student created successfully.');
```

- D. Function show – to show the selected student.

```
public function show(string $id): Factory|View
{
    $student = Student::findOrFail($id);
    return view('students.show', data: compact('student'));
}
```

- E. Function edit – to load the edit form.

```
public function edit(string $id): Factory|View
{
    $student = Student::findOrFail($id);
    return view('students.edit', data: compact('student'));
}
```

**F. Function update – to update the existing data.**

```
public function update(Request $request, string $id): RedirectResponse
{
    $validate = $request->validate(rules: [
        'name' => 'sometimes|required|string|max:255',
        'email' => 'sometimes|required|string|email|max:255|unique:students,email,' . $id,
        'age' => 'sometimes|required|integer|min:1',
    ]);

    $student = Student::findOrFail(id: $id);
    $student->update($validate);
    return redirect()->route(route: 'students.index')->with(key: 'success', value: 'Student updated successfully.');
```

**G. Function delete – to remove the existing data.**

```
public function destroy(string $id): RedirectResponse
{
    $student = Student::findOrFail($id);
    $student->delete();
    return redirect()->route(route: 'students.index')->with(key: 'success', value: 'Student deleted successfully.');
```

**3. Go to terminal and create model and migration ( creating database table ).**

```
PS C:\xampp\htdocs\laravel_activity> php artisan make:model Student -m
```

**4. Go to app\models\Student.php and enter the code below.**

```
use Illuminate\Database\Eloquent\Model;

0 references | 0 implementations
class Student extends Model
{
    0 references
    protected $table = 'students';

    0 references
    protected $fillable = [
        'name',
        'email',
        'age',
    ];
}
```

**5. Then go back to StudentController, import Student.php model to our StudentController, follow code below under namespace App\Http\Controllers;.**

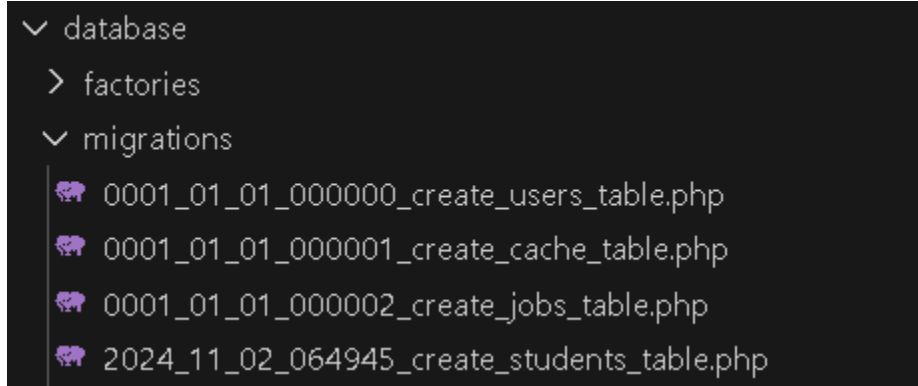
```
namespace App\Http\Controllers;

use App\Models\Student;
```

### Activity 3 – Configure database table and create blades and configure routes.

#### Procedure

1. Go to database/migrations folder and find 2024\_11\_02\_064945\_create\_students\_table.php file and enter the code below. This code is use to create attributes for database table.

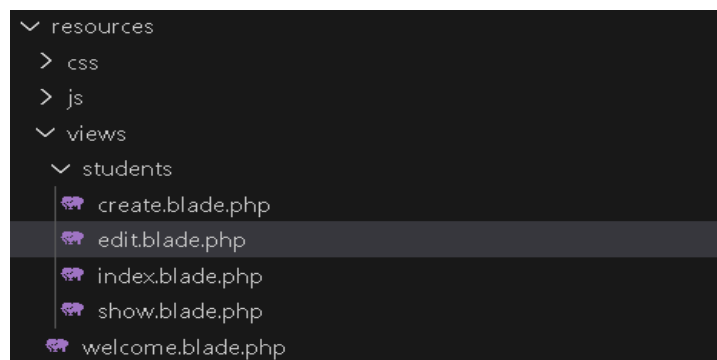


```
public function up(): void
{
    schema::create(table: 'students', callback: function (Blueprint $table): void {
        $table->id();
        $table->string(column: 'name');
        $table->string(column: 'email')->unique();
        $table->integer(column: 'age');
        $table->timestamps();
    });
}
```

2. Then go to terminal and enter command php artisan migrate to update the database table students in localhost.

id	name	email	age	created_at	updated_at
Query results operations					

3. Now go to this path folder and create folder student, index,create,edit,show views. Follow the image below.



#### 4. Now Write this in every view you created in file.

##### A. index.blade.php

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Students</title>
  <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
</head>
<body>
  <div class="container mt-4">
    <h1>Students</h1>
    <a href="{{ route('students.create') }}" class="btn btn-primary mb-3">Add New Student</a>

    <?php if (session('success')): ?>
      <div class="alert alert-success"><?= htmlspecialchars(session('success')) ?></div>
    <?php endif; ?>

    <table class="table">
      <thead>
        <tr>
          <th>Name</th>
          <th>Email</th>
          <th>Age</th>
          <th>Actions</th>
        </tr>
      </thead>
      <tbody>
        <?php foreach ($students as $student): ?>
          <tr>
            <td><?= htmlspecialchars($student->name) ?></td>
            <td><?= htmlspecialchars($student->email) ?></td>
            <td><?= htmlspecialchars($student->age) ?></td>
            <td>
              <a href="{{ route('students.show', $student->id) }}" class="btn btn-info">View</a>
              <a href="{{ route('students.edit', $student->id) }}" class="btn btn-warning">Edit</a>
              <form action="{{ route('students.destroy', $student->id) }}" method="POST" style="display:inline;">
                <input type="hidden" name="_method" value="DELETE">
                <input type="hidden" name="_token" value="{{ csrf_token() }}">
                <button type="submit" class="btn btn-danger">Delete</button>
              </form>
            </td>
          </tr>
        <?php endforeach; ?>
      </tbody>
    </table>
  </div>
</body>
</html>
```

##### B. create.blade.php

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Add New Student</title>
  <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
</head>
<body>
  <div class="container mt-4">
    <h1>Add New Student</h1>

    <form action="{{ route('students.store') }}" method="POST">
      <input type="hidden" name="_token" value="{{ csrf_token() }}">
      <div class="form-group">
        <label for="name">Name</label>
        <input type="text" name="name" class="form-control" required>
      </div>
      <div class="form-group">
        <label for="email">Email</label>
        <input type="email" name="email" class="form-control" required>
      </div>
      <div class="form-group">
        <label for="age">Age</label>
        <input type="number" name="age" class="form-control" required min="1">
      </div>
      <button type="submit" class="btn btn-primary">Add Student</button>
      <a href="{{ route('students.index') }}" class="btn btn-secondary">Cancel</a>
    </form>
  </div>
</body>
</html>
```

## C. show.blade.php

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Student Details</title>
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
</head>
<body>
    <div class="container mt-4">
        <h1><?= htmlspecialchars($student->name) ?></h1>

        <p><strong>Email:</strong> <?= htmlspecialchars($student->email) ?></p>
        <p><strong>Age:</strong> <?= htmlspecialchars($student->age) ?></p>

        <a href="{{ route('students.edit', $student->id) }}" class="btn btn-warning">Edit</a>
        <form action="{{ route('students.destroy', $student->id) }}" method="POST" style="display:inline;">
            <input type="hidden" name="_method" value="DELETE">
            <input type="hidden" name="_token" value="{{ csrf_token() }}">
            <button type="submit" class="btn btn-danger">Delete</button>
        </form>
        <a href="{{ route('students.index') }}" class="btn btn-secondary">Back to List</a>
    </div>
</body>
</html>
```

## D. edit.blade.php

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Edit Student</title>
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
</head>
<body>
    <div class="container mt-4">
        <h1>Edit Student</h1>

        <form action="{{ route('students.update', $student->id) }}" method="POST">
            <input type="hidden" name="_method" value="PUT">
            <input type="hidden" name="_token" value="{{ csrf_token() }}">
            <div class="form-group">
                <label for="name">Name</label>
                <input type="text" name="name" class="form-control" value="{{ htmlspecialchars($student->name) }}" required>
            </div>
            <div class="form-group">
                <label for="email">Email</label>
                <input type="email" name="email" class="form-control" value="{{ htmlspecialchars($student->email) }}" required>
            </div>
            <div class="form-group">
                <label for="age">Age</label>
                <input type="number" name="age" class="form-control" value="{{ htmlspecialchars($student->age) }}" required min="1">
            </div>
            <button type="submit" class="btn btn-primary">Update Student</button>
            <a href="{{ route('students.index') }}" class="btn btn-secondary">Cancel</a>
        </form>
    </div>
</body>
</html>
```

## 5. Go to routes/web.php then configure it and follow the code below.

```
<?php

use App\Http\Controllers\StudentController;
use Illuminate\Support\Facades\Route;

Route::get(uri: '/', action: [StudentController::class, 'index'])->name(name: 'students.index');

Route::get(uri: '/create', action: [StudentController::class, 'create'])->name(name: 'students.create');

Route::post(uri: '/store', action: [StudentController::class, 'store'])->name(name: 'students.store');

Route::get(uri: '/{id}', action: [StudentController::class, 'show'])->name(name: 'students.show');

Route::get(uri: '/{id}/edit', action: [StudentController::class, 'edit'])->name(name: 'students.edit');

Route::put(uri: '/{id}', action: [StudentController::class, 'update'])->name(name: 'students.update');

Route::delete(uri: '/{id}', action: [StudentController::class, 'destroy'])->name(name: 'students.destroy');
```