

LAPORAN 8

Integratif Programming

Authors



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PROGRAM STUDI S.TR TEKNOLOGI REKAYASA KOMPUTER


JURUSAN TEKNIK ELEKTRO

POLITEKNIK NEGERI SEMARANG

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PRAKTEK

I. Lembar Kerja

No	Praktik	Hasil Program
1	Pembuatan relasi antar tabel	<p>Pembuatan file migrasi Authors dengan comand “php artisan make:migration create_authors_table --create=authors”</p> <p>Lalu pada file migrasi yang telah dibuat isi dengan kode berikut</p>  <pre> 1 public function up() 2 { 3 Schema::create('authors', function (Blueprint \$table) { 4 \$table->increments('id'); 5 \$table->string('name'); 6 \$table->enum('gender', ['male', 'female']); 7 \$table->text('biography'); 8 \$table->timestamps(); 9 }); 10 } 11 12 /** 13 * Reverse the migrations. 14 * 15 * @return void 16 */ 17 public function down() 18 { 19 Schema::drop('authors'); 20 } </pre> <p>Pembuatan file migrasi untuk membuat Associate buku dengan author dengan menggunakan comand “php artisan make:migration \ associate_books_with_authors --table=books”</p> <p>Lalu pada yang file tersebut isikan dengan kode berikut</p>

```

1 public function up()
2 {
3     Schema::table('books', function (Blueprint $table) {
4
5         // Create the author_id column as an unsigned integer
6         $table->integer('author_id')->after('id')->unsigned();
7
8         // Create a basic index for the author_id column
9         $table->index('author_id');
10
11        // Create a foreign key constraint and cascade on delete.
12        $table
13            ->foreign('author_id')
14            ->references('id')
15            ->on('authors')
16            ->onDelete('cascade');
17    });
18 }
19
20 /**
21  * Reverse the migrations.
22  *
23  * @return void
24  */
25 public function down()
26 {
27     Schema::table('books', function (Blueprint $table) {
28         // Drop the foreign key first
29         $table->dropForeign('books_author_id_foreign');
30
31         // Now drop the basic index
32         $table->dropIndex('books_author_id_index');
33
34         // Lastly, now it's safe to drop the column
35         $table->dropColumn('author_id');
36     });
37 }

```

Lalu buat file migrasi untuk menghapus kolom author pada tabel buku dengan comand “php artisan make:migration \ remove_books_authors_column --table=books” lalu pada file yang telah terbuat isi dengan kode berikut

```

1  public function up()
2  {
3      Schema::table('books', function (Blueprint $table) {
4          $table->dropColumn('author');
5      });
6  }
7
8  /**
9   * Reverse the migrations.
10   *
11   * @return void
12   */
13  public function down()
14  {
15      Schema::table('books', function (Blueprint $table) {
16          $table->string('author');
17      });
18  }

```

Buat file models untuk author bisa di copy paste dari models book

Lalu isi dengan kode berikut

```

1  class Author extends Model
2  {
3      use HasFactory;
4      protected $table = 'authors';
5      protected $fillable = ['name', 'biography', 'gender'];
6
7      public function books()
8      {
9          return $this->hasMany(Book::class);
10     }
11 }

```

Lalu ganti isi file model book untuk mengganti kolom author menjadi author_id dan penambahan relasinya seperti berikut

```

1 class Book extends Model
2 {
3     use HasFactory;
4     protected $table = 'books';
5     protected $fillable = ['title', 'description', 'author_id'];
6
7     public function author()
8     {
9         return $this->belongsTo(Author::class);
10    }
11 }

```

Bikin file Author Factory bisa di copy paste dari file BookFactory sebelumnya lalu isi dengan kode berikut

```

1 public function definition()
2 {
3     $title = $this->faker->sentence(rand(3, 10));
4     return [
5         'title' => substr($title, 0, strlen($title) - 1),
6         // 'author' => $this->faker->name,
7         'description' => $this->faker->text,
8     ];
9 }

```

Lalu edit juga file bookFactory untuk menghapus settingan seeder author menjadi seperti berikut

```

1 public function definition()
2 {
3     // $title = $this->faker->sentence(rand(3, 10));
4     return [
5         'name' => $this->faker->name,
6         'biography' => join(" ", $this->faker->sentences(rand(3, 5))),
7         'gender' => rand(1, 6) % 2 === 0 ? 'male' : 'female'
8     ];
9 }

```

Pembuatan metode seeder terbaru dengan mengedit BooksTableSeeder menjadi seperti berikut

		<div><pre>1 public function run(): void 2 { 3 // Create 10 authors and attach random books to each author 4 Author::factory(10)->create()->each(function (\$author) { 5 \$author->books()->saveMany(Book::factory(rand(1, 5))->make()); 6 }); 7 }</pre></div> <p>Setelah itu jalankan comand “php artisan migrate:refresh” dan “php artisan db:seed” dan lihat hasilnya di database</p> <div><div>Showing rows 0 - 24 (31 total. Query took 0.0009 seconds.)</div><div>SELECT * FROM `books`</div><div>Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]</div><div>1 > >> Show all Number of rows: 25 Filter rows: Search this table Sort by key: None</div><div>Extra options</div><table><thead><tr><th></th><th></th><th></th><th>id</th><th>author_id</th><th>title</th><th>description</th><th>created_at</th><th>updated_at</th></tr></thead><tbody><tr><td></td><td>Edit</td><td>Copy</td><td>Delete</td><td>1</td><td>1</td><td>Non est qui quisquam iure</td><td>Consequuntur minima deleniti modi queraat. Magni q...</td><td>2024-05-14 14:22:52</td></tr><tr><td></td><td>Edit</td><td>Copy</td><td>Delete</td><td>2</td><td>1</td><td>Omnis sed qui et consequatur recusandae veniam cup...</td><td>Praesentium qui itaque dolore nemo corporis quibus...</td><td>2024-05-14 14:22:52</td></tr><tr><td></td><td>Edit</td><td>Copy</td><td>Delete</td><td>3</td><td>2</td><td>Minima sequi provident et</td><td>Eum alias laboriosam in quia numquam voluptatem. Q...</td><td>2024-05-14 14:22:52</td></tr><tr><td></td><td>Edit</td><td>Copy</td><td>Delete</td><td>4</td><td>3</td><td>Fugit voluptatum quis facilis dolore debitis fuga...</td><td>Est quis aliquam accusantium ut cumque qui impedit...</td><td>2024-05-14 14:22:53</td></tr><tr><td></td><td>Edit</td><td>Copy</td><td>Delete</td><td>5</td><td>3</td><td>Iusto et autem necessitatibus eos</td><td>Ut et sed officia maiores. Laudantium cupiditate n...</td><td>2024-05-14 14:22:53</td></tr><tr><td></td><td>Edit</td><td>Copy</td><td>Delete</td><td>6</td><td>3</td><td>Magnum aliquam molestiae fugit maiores repellat re...</td><td>Nihil veniam ducomus hic sed quidem nostrum at is...</td><td>2024-05-14 14:22:53</td></tr><tr><td></td><td>Edit</td><td>Copy</td><td>Delete</td><td>7</td><td>4</td><td>Recusandae ducomus labore et autem qui deserunt</td><td>Quidem exeritationem vel et delectus incidunt. Pa...</td><td>2024-05-14 14:22:53</td></tr></tbody></table></div>				id	author_id	title	description	created_at	updated_at		Edit	Copy	Delete	1	1	Non est qui quisquam iure	Consequuntur minima deleniti modi queraat. Magni q...	2024-05-14 14:22:52		Edit	Copy	Delete	2	1	Omnis sed qui et consequatur recusandae veniam cup...	Praesentium qui itaque dolore nemo corporis quibus...	2024-05-14 14:22:52		Edit	Copy	Delete	3	2	Minima sequi provident et	Eum alias laboriosam in quia numquam voluptatem. Q...	2024-05-14 14:22:52		Edit	Copy	Delete	4	3	Fugit voluptatum quis facilis dolore debitis fuga...	Est quis aliquam accusantium ut cumque qui impedit...	2024-05-14 14:22:53		Edit	Copy	Delete	5	3	Iusto et autem necessitatibus eos	Ut et sed officia maiores. Laudantium cupiditate n...	2024-05-14 14:22:53		Edit	Copy	Delete	6	3	Magnum aliquam molestiae fugit maiores repellat re...	Nihil veniam ducomus hic sed quidem nostrum at is...	2024-05-14 14:22:53		Edit	Copy	Delete	7	4	Recusandae ducomus labore et autem qui deserunt	Quidem exeritationem vel et delectus incidunt. Pa...	2024-05-14 14:22:53
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2	Fixing Test Unit	<p>Pada file TestCase tambahkan function untuk pembuatan buku yang telah ada authornya , berikut kodenya</p> <div><pre>1 protected function bookFactory(\$count = 1) 2 { 3 \$author = Author::factory()->create(); 4 \$books = Book::factory(\$count)->create(['author_id' => \$author->id]); 5 6 return \$count === 1 ? \$books->first() : \$books; 7 }</pre></div> <p>Pada BookTransformer ganti author menjadi kode seperti berikut</p> <div><pre>1 'author' => \$book->author->name,</pre></div>																																																																								

Selanjutnya pada BooksControllerValidationTest.php hapus seluruh

```
1 $this->assertArrayHasKey('author', $body);
```

Dan

```
1 $this->assertEquals(["The author field is required."], $body['author']);
```

Lalu ubah nama function

```
1 public function it_validates_validates_passed_fields_when_updating_a_book()
```

Menjadi

```
1 public function it_validates_required_fields_when_updating_a_book()
```

Lalu ganti seluruh \$book yang semula

```
1 $book = Book::factory()->create();
```

Menjadi



```
1 $book = $this->bookFactory();
```

Setelah itu ganti seluruh author yang seperti kode dibawah



```
1 'author' => $book->author,
```

Menjadi



```
1 'author_id' => $book->author->id,
```

Selanjutnya buka file BookTransformerTest.php

Ganti \$book menjadi seperti berikut



```
1 $book = $this->bookFactory();
```


Terakhir pada file BooksControllerTest.php tambahkan use model author

```
1 use App\Models\Author;
```

Ganti \$books / \$book yang awalnya

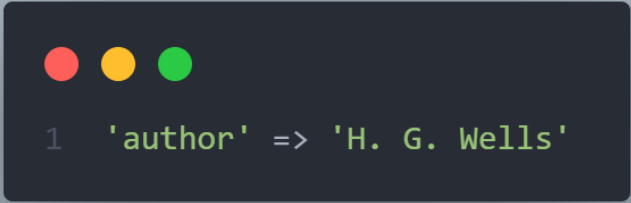

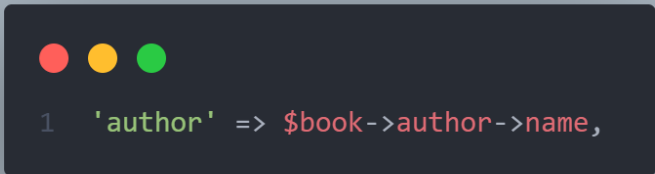
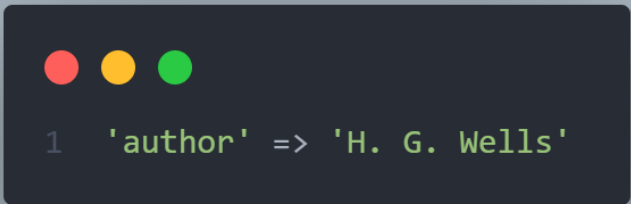
```
1 $books = $this->bookFactory(2);
```


```
1 $book = Book::factory()->create([
2     'title' => 'War of the Worlds',
3     'description' => 'A science fiction masterpiece about Martians invading London',
4     'author' => 'H. G. Wells',
5 ]);
```

Menjadi seperti

```
1 $book = $this->bookFactory();
```

Ganti juga seluruh author yang

		<div>  <pre>1 'author' => 'H. G. Wells'</pre> </div> <p>Menjadi seperti kode berikut</p> <div>  <pre>1 'author' => \$book->author->name,</pre> </div> <p>Pada function show_should_return_a_valid_book() Ubah assert author menjadi seperti kode berikut</p> <div>  <pre>1 'author' => \$book->author->name,</pre> </div> <p>Lalu ganti seluruh kode yang seperti</p> <div>  <pre>1 'author' => 'H. G. Wells'</pre> </div> <p>Menjadi kode berikut</p>
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		 <p>Kecuali pada function update_should_only_change_fillable_fields() kita tinggal menghapus nya tidak perlu diganti</p>
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TEORI

I. Lembar Soal

N/A

II. Lembar Kerja

N/A