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Module: 18

### Task 1:

Create a new migration file to add a new table named "categories" to the database. The table should have the following columns:

```
id (primary key, auto-increment)
name (string)
created_at (timestamp)
updated_at (timestamp)
```

**Artisan Command for creating file:** 

php artisan make:migration create\_Categories\_table

# Migration file:

```
*/
public function up(): void
{
    Schema::create('categories', function (Blueprint $table) {
        $table->id();
        $table->string('name',50);
        $table->timestamp('created_at')->useCurrent();
        $table->timestamp('updated_at')->useCurrent()->useCurrentOnUpdate();
    });
}
```

### 2. Task 2:

Create a new model named "Category" associated with the "categories" table. Define the necessary properties and relationships.

## **Defining Relationship:**

```
<?php

namespace App\Models;

use App\Models\Post;
use Illuminate\Database\Eloquent\Model;
use Illuminate\Database\Eloquent\Factories\HasFactory;
</pre>
```

```
class Category extends Model
{
   use HasFactory;
   protected $fillable = ['name'];

   public function posts(){
      return $this->hasMany(Post::class);
   }
}
```

### Task 3:

Write a migration file to add a foreign key constraint to the "posts" table. The foreign key should reference the "categories" table on the "category\_id" column.

### **Posts table Migration file:**

### Task 4:

Create a relationship between the "Post" and "Category" models. A post belongs to a category, and a category can have multiple posts.

### **Post Model:**

```
<?php
namespace App\Models;
use App\Models\Category;</pre>
```

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

class Post extends Model
{
    use HasFactory, SoftDeletes;
    protected $fillable = ['name', 'description', 'category_id'];
    public function category()
    {
        return $this->belongsTo(Category::class);
    }
}
```

### Task 5:

Write a query using Eloquent ORM to retrieve all posts along with their associated categories. Make sure to eager load the categories to optimize the query.

### **Controller method:**

```
//Task 5
public function postData()
{
     $postdata = Post::with('category')->get();
     return $postdata;
}
```

### Task 6

Implement a method in the "Post" model to get the total number of posts belonging to a specific category. The method should accept the category ID as a parameter and return the count.

### Route:

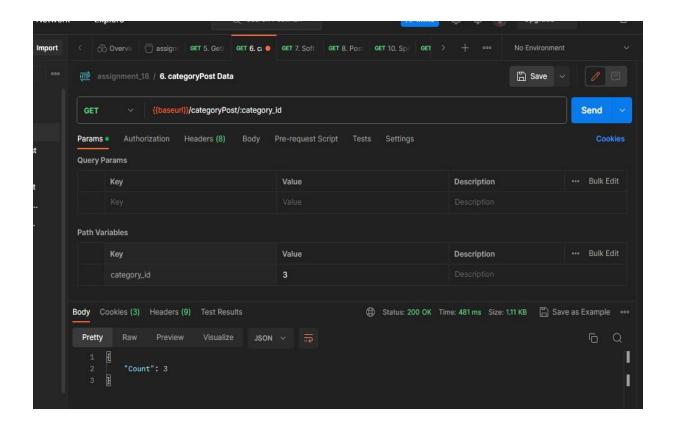
```
Route::controller(ActionController::class)->group(function () {
    Route::get('/categoryPost/{category_id}', 'categoryPost');
});
```

## **Implemented Method in Post Model:**

```
public static function totalPostsCountByCategory($categoryId)
{
    return self::where('category_id', $categoryId)->count();
}
```

### **Controller method for testing In Postman:**

### **Postman Output:**



### Task 7:

Create a new route in the web.php file to handle the following URL pattern: "/posts/{id}/delete". Implement the corresponding controller method to delete a post by its ID. Soft delete should be used.

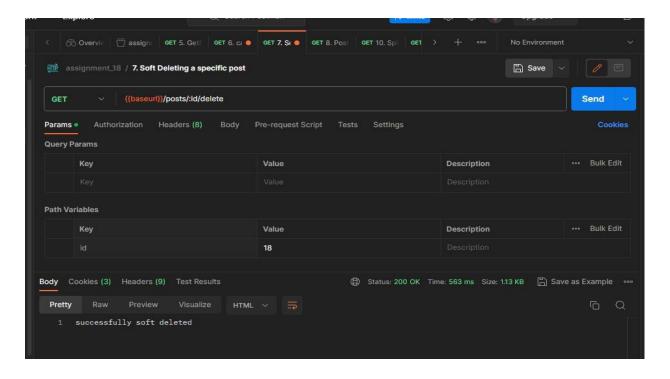
### **Route:**

```
Route::controller(ActionController::class)->group(function () {
    Route::get('/posts/{id}/delete', 'softDelete');
});
```

### **Controller method:**

```
//Task 7
public function softDelete($id)
{
    $softDelete = Post::findOrFail($id)->delete();
    if ($softDelete) {
       return 'successfully soft deleted';
    } else {
       return 'failed to softdelete';
    }
}
```

### **Postman Output:**



### Task 8:

Implement a method in the "Post" model to get all posts that have been soft deleted. The method should return a collection of soft deleted posts.

### **Route:**

```
Route::controller(ActionController::class)->group(function () {
    Route::get('/softData', 'softData');
});
```

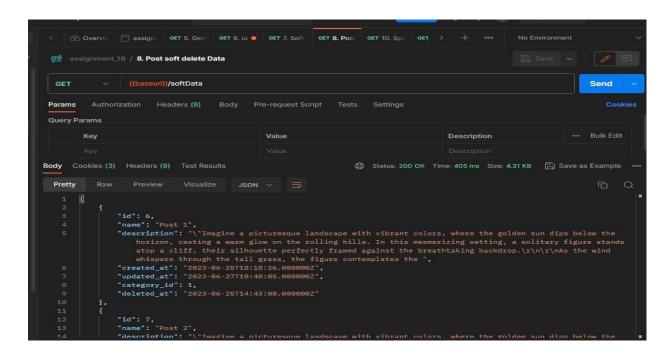
### **Implemented Method in Post Model:**

```
public static function softDeletedData()
{
    return self::onlyTrashed()->get();
}
```

### **Controller method for testing In Postman:**

```
public function softData()
{
    $softData = Post::softDeletedData();;
    return $softData;
}
```

### **Postman output:**



### Task 9:

Write a Blade template to display all posts and their associated categories. Use a loop to iterate over the posts and display their details.

### **Blade File:**

```
<section class="py-5">
   <div class="container px-5 mb-5" >
       <div class="text-center mb-5">
           <h1 class="display-5 fw-bolder mb-0"><span class="text-gradient d-inline">All Post With Category</span></h1>
       <div class="row gx-5 justify-content-center">
           <div id="project-list" class="col-lg-11 col-xl-9 col-xxl-8">
               @foreach ( $postdata as $data )
                <div class="card overflow-hidden shadow rounded-4 border-0 mb-5">
                    <div class="card-body p-0">
                        <div class="d-flex align-items-center">
                            <div class="p-5">
                               <h2 class="fw-bolder"> {{ $data->name}}</h2>
                               <h4 class="fw-bolder"> {{ $data->category['name']}}</h4>
                               {p>{{ $data->description }}
               @endforeach
```

SRZ

### **All Post With Category**

### Post 3

Technology

Timsgline a picturesque landscape with vibrant colors, where the golden sun dips below the
horizon, casting a warm glow on the rolling hills. In this meamorizing setting, a solitary figure
standards part of the alliturative proceeding language the threathfailing backdrap. As the
wind whippers through the sail grazs, the figure contemplates the

Post 4
Food
Theogen a picture-spie landscape with vibrant colors, where the golden sun dips below the horizon, casting a warm glow on the rolling hills. In this meamerising setting, a solitary figure stands atop a clift, their silhouette perfectly framed against the breathaking backdrop. As the wind whispers through the tall grass; the figure contemplates the

Post 5
Sports

"Imagine a pictureaque landscape with vibrant colors, where the golden sun dips below the colors are provided to the colors of the colors of

Post 6
Sports
Tradition picturesque landscape with vibrant colors, where the golden sun digs below the stands atop a different profiling fills, in this meamerizing setting, a solitary figure stands atop a cliff, their sillhowette perfectly framed against the breathstaking backdrop. As the wind whispers through the tail grass, the figure contemplates the

Post 7
Food
Tinsgline a pleturesque landscape with vibrant colors, where the golden sun dips below the tentions cooling is own given or the certifier plife for this measure long writing in the landscape with vibrant colors, where the golden sun dips below the tention could be a sun of the color of the c

Post 8
Food
Timsgline a picturesque landscape with vibrant colors, where the golden sun dips below the horizon, casting a warm glow on the rolling hills, in this meamerizing setting, a solitary figure wind whispers through the tall grass, the figure contemplates the

Post 13

Fashion

Transpin a picture spin broke an will stimm rather, where the golden can digs index the spin and spin

Post 14

Travel

Timagine a picturesque landscape with vibrant colors, where the golden sun dips below the horizon, routing a worm glow on the rolling hills. In this manuscring setting, a softiary figure standard steps a clift, their all-power percetty trained against the breathtaking backdrop. As the world obliques through the full glong, the figure contemplates the

Post 15
Fashion
Timsgine a picturesque landscape with vibrant colors, where the golden sun dips below the horizon, costing a warm glow on the rolling hills. In this measurerizing setting, a solitary figure stands atop a cliff, their althoughte perfectly farmed against the breathtaking backdrop. As the wind whispers through the call groups, the figure contemplates the

Post 16
Travel
Trangine a picture-spie land-scape with vibrant colors, where the golden sun-dips below the horizon, casting a warm glow on the rolling fills; in this meamerizing setting, a solitary figure wind whispers through the tall grass, the figure contemplates the

### **Task 10:**

Create a new route in the web.php file to handle the following URL pattern: "/categories/{id}/posts". Implement the corresponding controller method to retrieve all posts belonging to a specific category. The category ID should be passed as a parameter to the method.

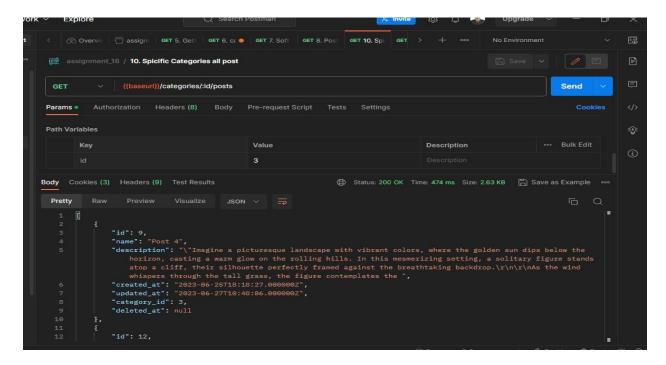
### Route:

```
Route::controller(ActionController::class)->group(function () {
    Route::get('/categories/{id}/posts', 'specificCatPost');
});
```

### **Controller method:**

```
//Task 10
public function specificCatPost($id)
{
    try {
        $category = Category::findOrFail($id);
        return $category->posts;
    } catch (\Exception $e) {
        return 'Category not found.';
    }
}
```

## **Postman output:**



### **Task 11:**

Implement a method in the "Category" model to get the latest post associated with the category. The method should return the post object.

### Route:

```
Route::controller(ActionController::class)->group(function () {
    Route::get('/categories/{id}/latestpost', 'latestPost');
});
```

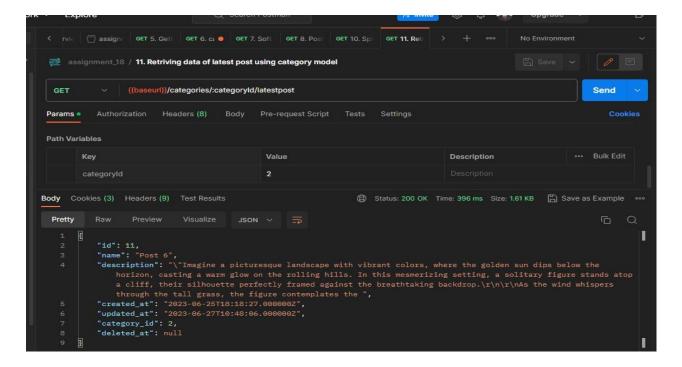
**Implemented Method in Category Model:** 

```
public function LatestPost()
{
    return $this->posts()->orderBy('id', 'desc')->first();
}
```

**Controller method for testing In Postman:** 

```
public function latestPost($id)
{
     $category = Category::findOrFail($id)->LatestPost();
     return $category;
}
```

# **Postman output:**



### **Task 12:**

Write a Blade template to display the latest post for each category. Use a loop to iterate over the categories and display the post details.

### **Output:**

SRZ postData categories

# **Latest Post For Each Category**

# Technology

### Post 3

"Imagine a picturesque landscape with vibrant colors, where the golden sun dips below the horizon, casting a warm glow on the rolling hills, in this mesmerizing setting, a solitary figure stands atop a cliff, their silhouette perfectly framed against the breathtaking backdrop. As the wind whispers through the tall grass, the figure contemplates the

### Sports

### Post 6

"Imagine a picturesque landscape with vibrant colors, where the golden sun dips below the horizon, casting a warm glow on the rolling hills, in this mesmerizing setting, a solitary figure stands atop a cliff, their silhouette perfectly framed against the breathtaking backdrop. As the wind whispers through the tall grass, the figure contemplates the

### Food

### Post 8

"Imagine a picturesque landscape with vibrant colors, where the golden sun dips below the horizon, casting a warm glow on the rolling hills. In this mesmerizing setting, a solitary figure stands atop a cliff, their silhouette perfectly framed against the breathtaking backdrop. As the wind whispers through the tall grass, the figure contemplates the

### Fashion

### Post 15

"Imagine a picturesque landscape with vibrant colors, where the golden sun dips below the horizon, casting a warm glow on the rolling hills. In this mesmerizing setting, a solitary figure stands atop a cliff, their silhouette perfectly framed against the breathtaking backdrop. As the wind whispers through the tall grass, the figure contemplates the

# Travel

"Imagine a picturesque landscape with vibrant colors, where the golden sun dips below the horizon, casting a warm glow on the rolling hills. In this mesmerizing setting, a solitary figure stands atop a cliff, their silhouette perfectly framed against the breathtaking backdrop. As the wind whispers through the tall grass, the figure contemplates the