



Foreign Key

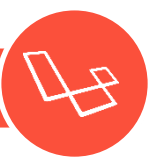
Laravel Notes

| Foreign Key Laravel DB



Steps

- Create New Project
- DB Connection



Note

- In Laravel Migration will done by DateTime Stamp wise.
- Example :
 - 2014_10_12_product_table.php
 - 2015_01_12_category_table.php

How Migration will work ?

First it will create Product Table and then it will create category table.

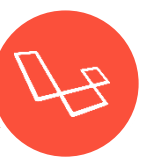
What is Problem?

Category Id will be foreign key in Product table

First delete all table from phpmyadmin then

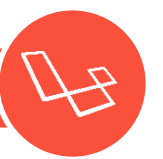
We need to change sequence of table datetime stamp (Rename manually)

- 2015_10_12_product_table.php
- 2014_01_12_category_table.php
- Run migration command

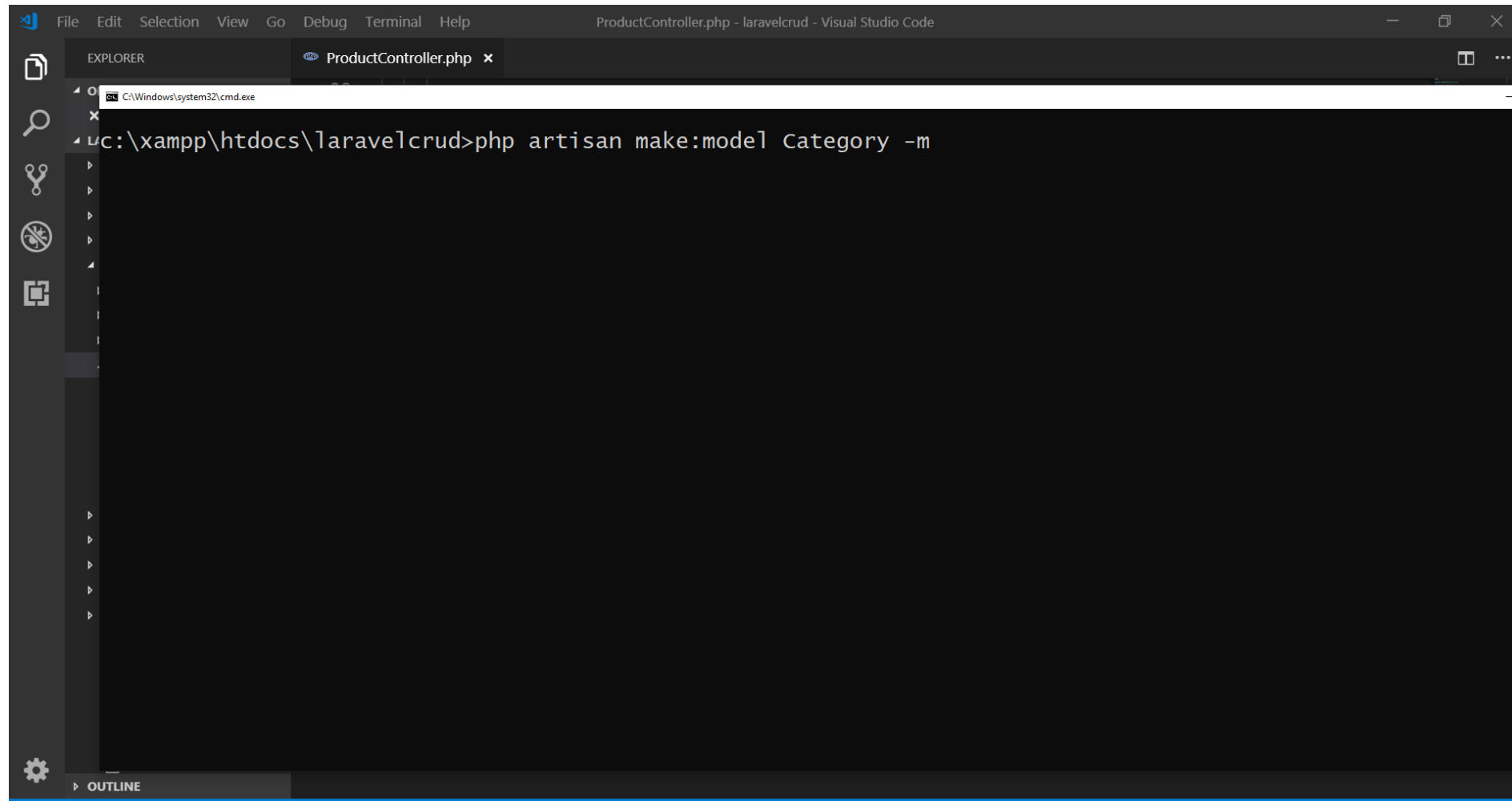


Note:

- First Always make Master table and then Create Transaction table
- Example :
 - **Category**
 - CategoryID
 - CategoryName
 - **Product**
 - ProductID
 - ProductName
 - ProductPrice
 - Category ID
- If you face any error delete all tables from phpmyadmin and then use migrate command

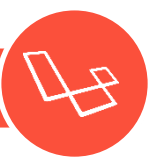


Create Model and migration file of Category

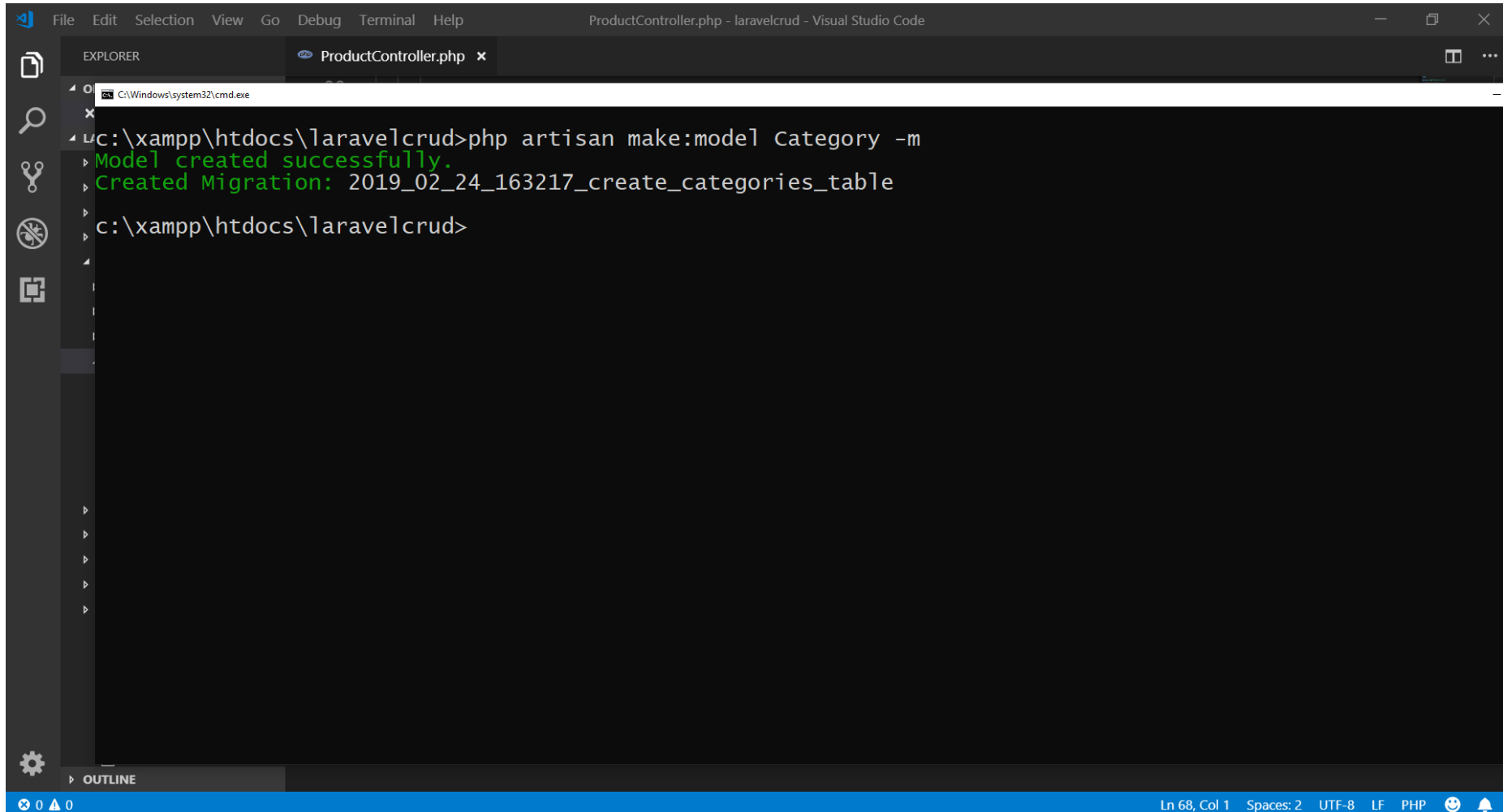


The screenshot shows the Visual Studio Code interface with a terminal window open. The terminal title is 'C:\Windows\system32\cmd.exe'. The command entered in the terminal is `php artisan make:model Category -m`. The terminal output is currently empty. The Visual Studio Code interface includes a menu bar (File, Edit, Selection, View, Go, Debug, Terminal, Help), an Explorer sidebar on the left, and a status bar at the bottom showing 'OUTLINE'.

```
C:\Windows\system32\cmd.exe
C:\xampp\htdocs\laravelcrud>php artisan make:model Category -m
```



File Created

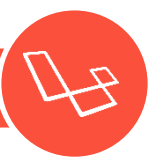


The screenshot shows the Visual Studio Code interface with a terminal window open. The terminal is running a command to create a new Laravel model and migration. The output shows that the model was created successfully and a migration file was generated.

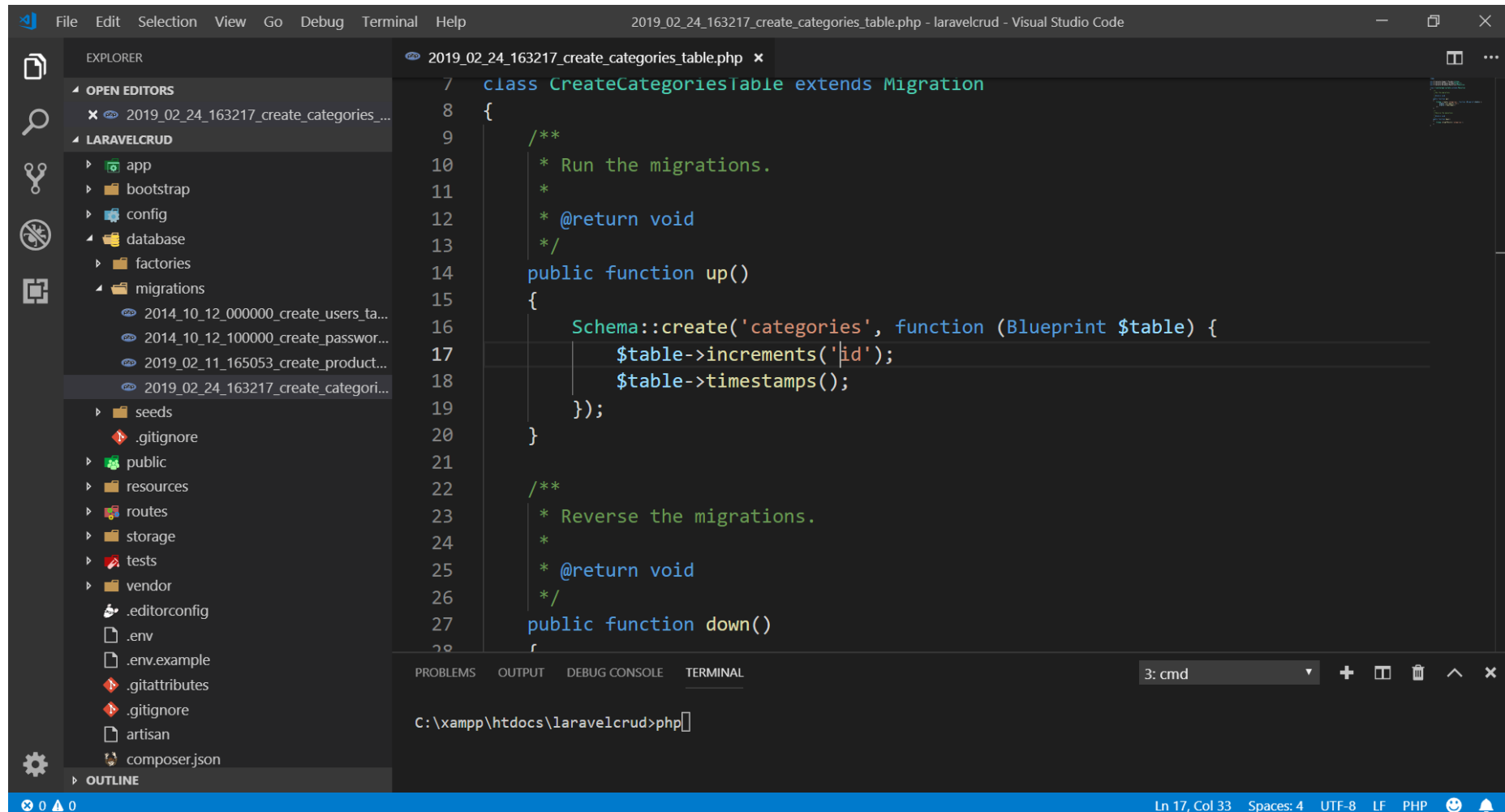
```
ProductController.php - laravelcrud - Visual Studio Code
EXPLORER ProductController.php x
C:\Windows\system32\cmd.exe
c:\xampp\htdocs\laravelcrud>php artisan make:model Category -m
Model created successfully.
Created Migration: 2019_02_24_163217_create_categories_table
c:\xampp\htdocs\laravelcrud>
```

OUTLINE

Ln 68, Col 1 Spaces: 2 UTF-8 LF PHP

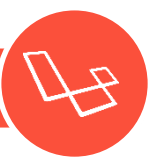


System will rename categories.

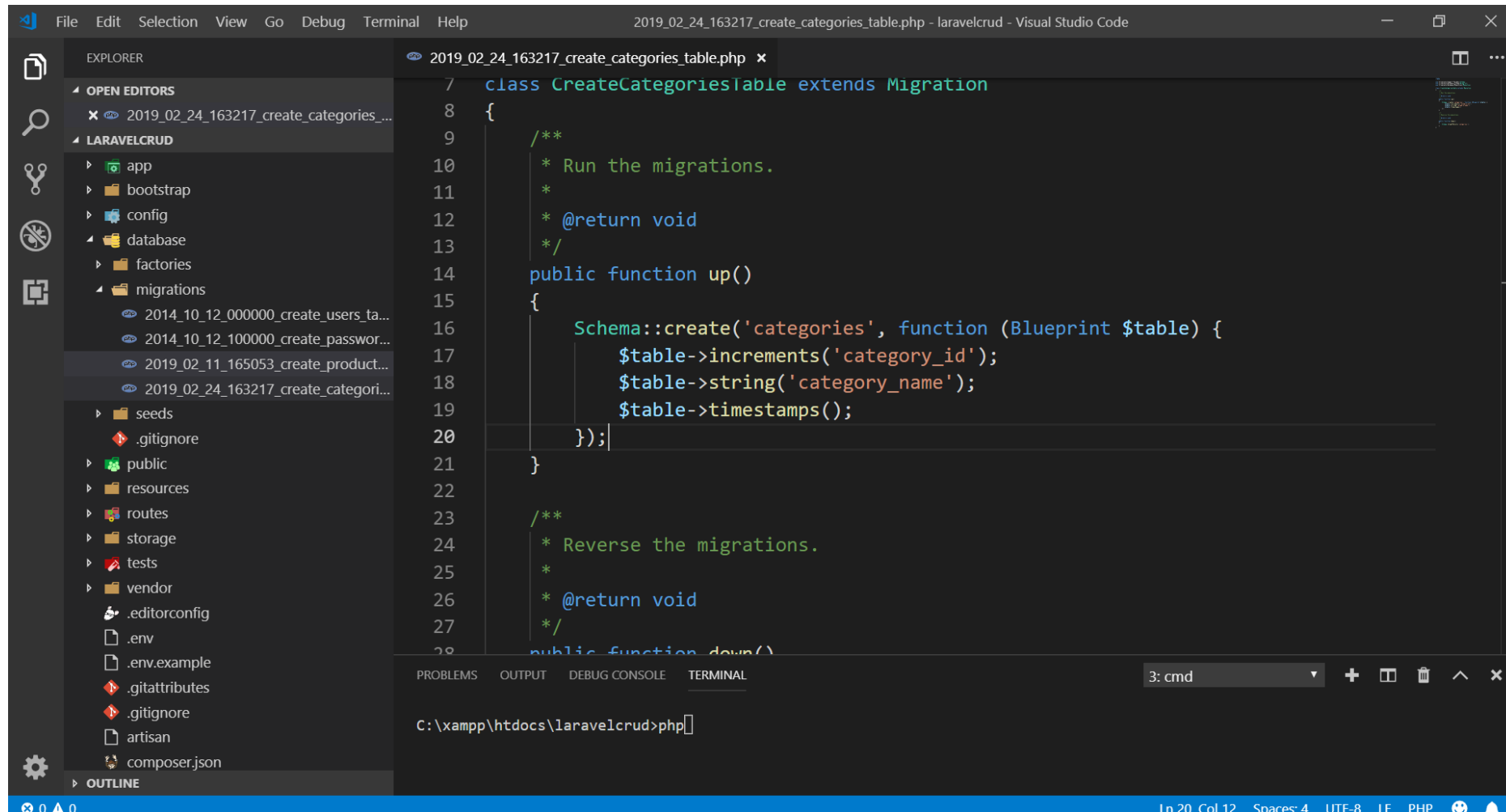


The screenshot shows the Visual Studio Code interface with a Laravel project. The Explorer panel on the left shows the project structure, including the 'migrations' folder. The main editor displays the file '2019_02_24_163217_create_categories_table.php'. The code defines a 'CreateCategoriesTable' migration class that extends 'Migration'. The 'up()' method creates a 'categories' table with an 'id' field and timestamps. The 'down()' method is also present for reversing the migration. The terminal at the bottom shows the command 'C:\xampp\htdocs\laravelcrud>php'.

```
7 class CreateCategoriesTable extends Migration
8 {
9     /**
10      * Run the migrations.
11      *
12      * @return void
13      */
14     public function up()
15     {
16         Schema::create('categories', function (Blueprint $table) {
17             $table->increments('id');
18             $table->timestamps();
19         });
20     }
21
22     /**
23      * Reverse the migrations.
24      *
25      * @return void
26      */
27     public function down()
28     {
```



Define Category table Fields



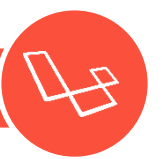
The screenshot shows the Visual Studio Code editor with a file named `2019_02_24_163217_create_categories_table.php` open. The file is a Laravel migration that extends the `Migration` class. The `up()` method contains the code to create the `categories` table with the following fields:

- `category_id`: An integer field with auto-increment.
- `category_name`: A string field.
- `timestamps()`: Adds `created_at` and `updated_at` timestamp fields.

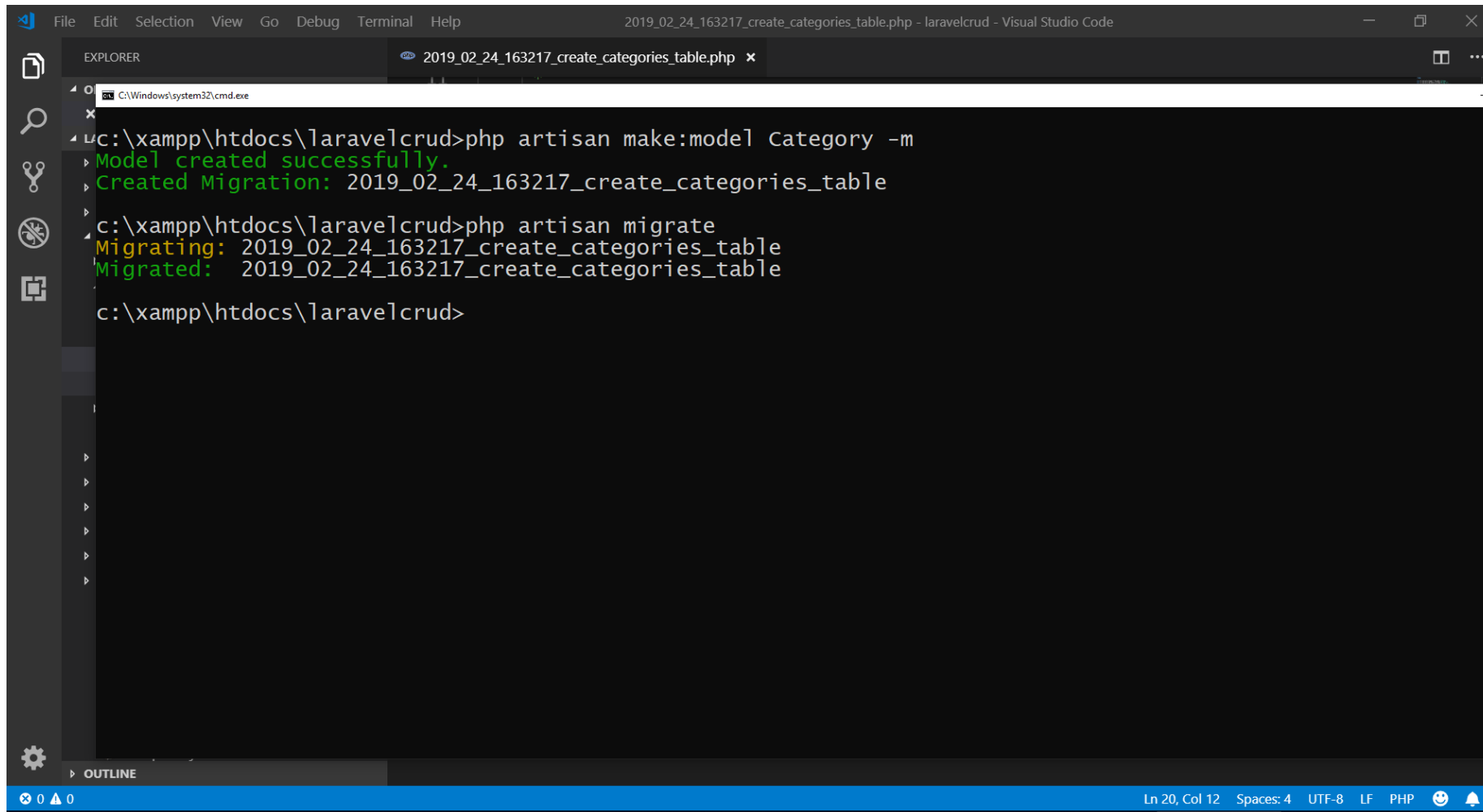
The `down()` method is also present but currently empty, intended for reversing the migration.

```
7 class CreateCategoriesTable extends Migration
8 {
9     /**
10      * Run the migrations.
11      *
12      * @return void
13      */
14     public function up()
15     {
16         Schema::create('categories', function (Blueprint $table) {
17             $table->increments('category_id');
18             $table->string('category_name');
19             $table->timestamps();
20         });
21     }
22
23     /**
24      * Reverse the migrations.
25      *
26      * @return void
27      */
28     public function down()
```

The Explorer sidebar on the left shows the project structure, including the `migrations` folder where this file is located. The terminal at the bottom shows the command prompt at `C:\xampp\htdocs\laravelcrud>php`.



Migrate table



```
File Edit Selection View Go Debug Terminal Help 2019_02_24_163217_create_categories_table.php - laravelcrud - Visual Studio Code
EXPLORER 2019_02_24_163217_create_categories_table.php x
C:\Windows\system32\cmd.exe
c:\xampp\htdocs\laravelcrud>php artisan make:model Category -m
Model created successfully.
Created Migration: 2019_02_24_163217_create_categories_table
c:\xampp\htdocs\laravelcrud>php artisan migrate
Migrating: 2019_02_24_163217_create_categories_table
Migrated: 2019_02_24_163217_create_categories_table
c:\xampp\htdocs\laravelcrud>
```

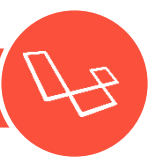


Table Structure in PHPMyAdmin

The screenshot displays the PHPMyAdmin interface for the 'laravelcrud' database, specifically the 'Table structure' view for the 'categories' table. The left sidebar shows the database structure, including 'laravelcrud' and its tables: 'categories', 'migrations', 'password_resets', 'products', 'users', 'mysql', 'performance_schema', 'phpmyadmin', 'pmit', 'pmts_db', 'sample', 'test', 'testlaravel', and 'tours'.

The main panel shows the table structure for 'categories' with the following columns:

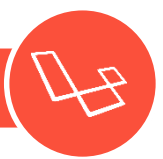
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	category_id	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	Change Drop
2	category_name	varchar(191)	utf8mb4_unicode_ci		No	None			Change Drop
3	created_at	timestamp			Yes	NULL			Change Drop
4	updated_at	timestamp			Yes	NULL			Change Drop

Below the table structure, there are options to 'Check all', 'With selected', 'Browse', 'Change', 'Drop', 'Primary', 'Unique', 'Index', and 'Fulltext'. There are also buttons for 'Add to central columns' and 'Remove from central columns'.

At the bottom, there is a section for 'Indexes' with a table showing the primary index:

Action	Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
Edit Drop	PRIMARY	BTREE	Yes	No	category_id	0	A	No	

Below the index table, there is a form to 'Create an index on' with a dropdown for '1' column(s) and a 'Go' button.



Add some data

localhost / 127.0.0.1 / laravelcrud x

localhost/phpmyadmin/tbl_change.php?db=laravelcrud&table=categories

phpMyAdmin

Recent Favorites

- New
- 111
- devicefinder
- information_schema
- laravelcrud
 - New
 - categories
 - migrations
 - password_resets
 - products
 - users
- mysql
- performance_schema
- phpmyadmin
- pmit
- pmts_db
- sample
- test
- testlaravel
- tours

Server: 127.0.0.1 » Database: laravelcrud » Table: categories

Browse Structure SQL Search Insert Export Import Privileges More

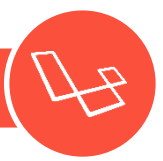
Column	Type	Function	Null	Value
category_id	int(10) unsigned			
category_name	varchar(191)			Mobile
created_at	timestamp		<input checked="" type="checkbox"/>	
updated_at	timestamp		<input checked="" type="checkbox"/>	

Go

☐ Ignore

Column	Type	Function	Null	Value
category_id	int(10) unsigned			
category_name	varchar(191)			Laptop
created_at	timestamp		<input checked="" type="checkbox"/>	
updated_at	timestamp		<input checked="" type="checkbox"/>	

Console



Display Data

The screenshot shows the phpMyAdmin web interface. The left sidebar displays a database structure tree with 'laravelcrud' selected, and 'categories' highlighted. The main panel shows the 'categories' table with two rows of data. The table has columns: category_id, category_name, created_at, and updated_at. The first row has values 1, Mobile, NULL, and NULL. The second row has values 2, Laptop, NULL, and NULL. The interface includes various navigation tabs (Browse, Structure, SQL, Search, Insert, Export, Import, Privileges, More) and a 'Query results operations' section at the bottom.

Server: 127.0.0.1 » Database: laravelcrud » Table: categories

Showing rows 0 - 1 (2 total, Query took 0.0104 seconds.)

```
SELECT * FROM `categories`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

	category_id	category_name	created_at	updated_at
<input type="checkbox"/> Edit Copy Delete	1	Mobile	NULL	NULL
<input type="checkbox"/> Edit Copy Delete	2	Laptop	NULL	NULL

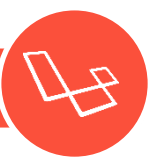
Check all | With selected: Edit Copy Delete Export

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

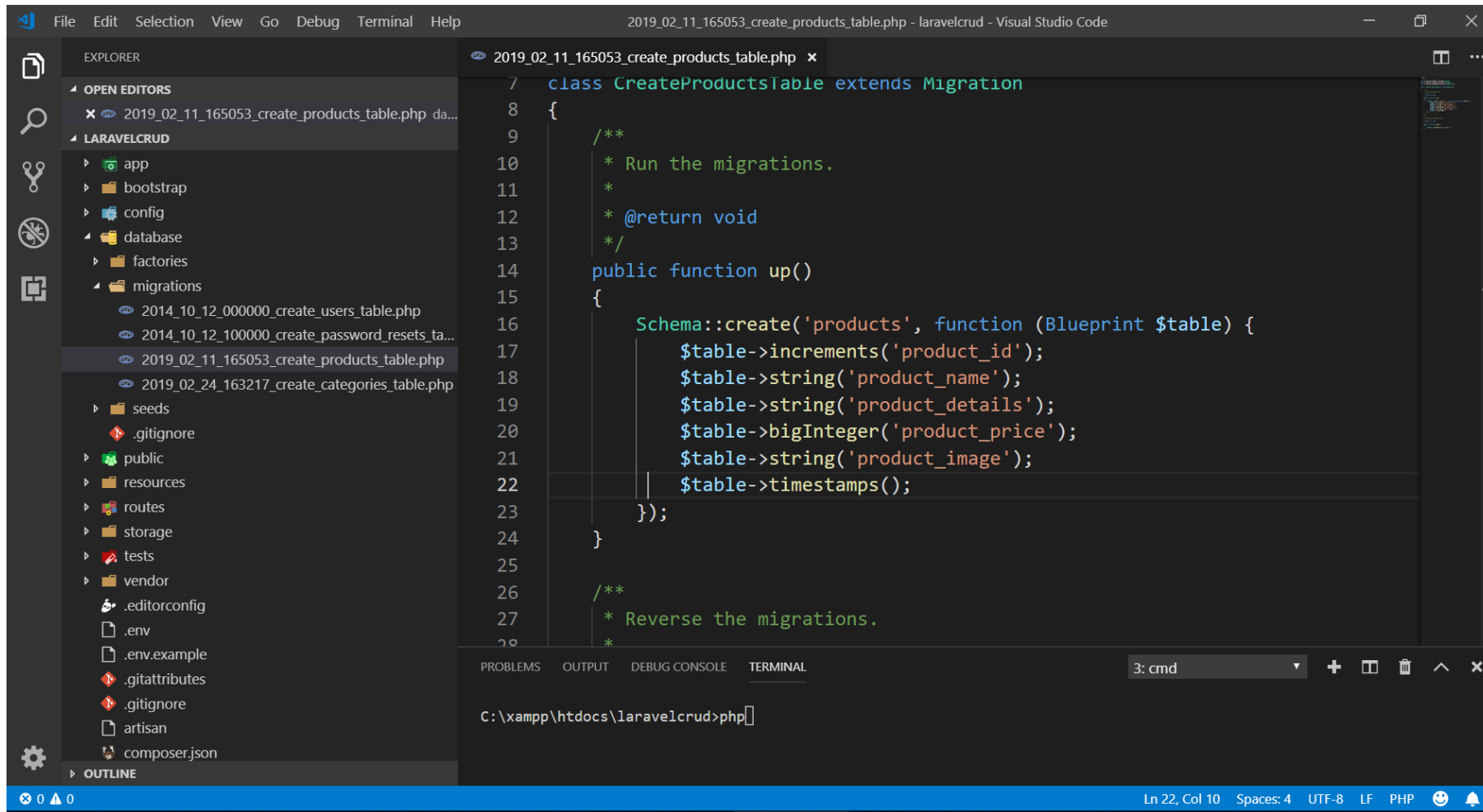
Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query



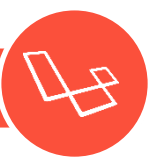
Define product table fields.



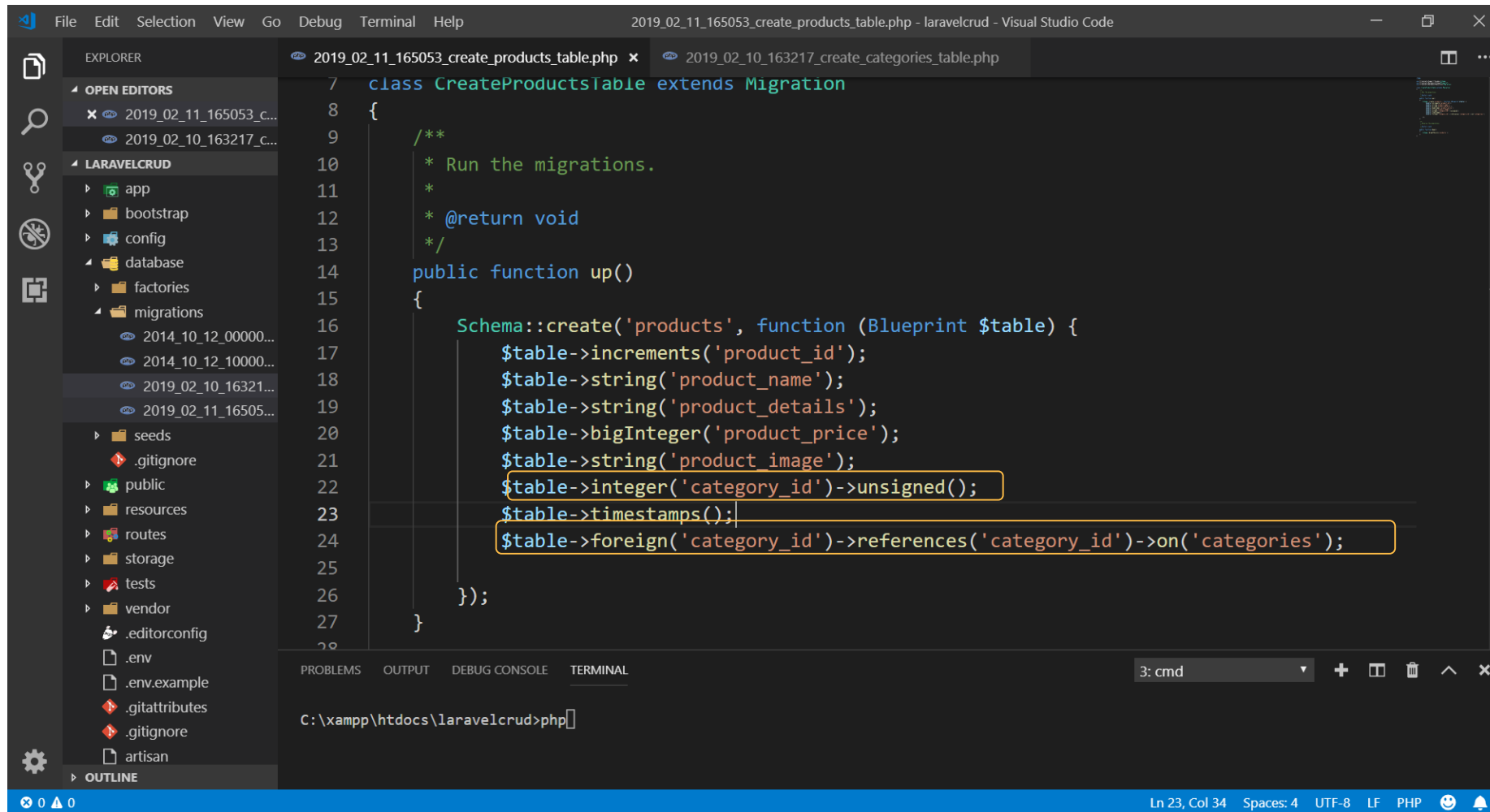
The screenshot shows the Visual Studio Code editor with a Laravel project open. The Explorer panel on the left shows the project structure, including the migrations folder. The active file is `2019_02_11_165053_create_products_table.php`. The code defines a `CreateProductsTable` class extending `Migration`. The `up()` method uses `Schema::create` to create a table named 'products' with the following fields: `product_id` (increments), `product_name` (string), `product_details` (string), `product_price` (bigInteger), `product_image` (string), and `timestamps`. The `down()` method is commented out.

```
7 class CreateProductsTable extends Migration
8 {
9     /**
10      * Run the migrations.
11      *
12      * @return void
13      */
14     public function up()
15     {
16         Schema::create('products', function (Blueprint $table) {
17             $table->increments('product_id');
18             $table->string('product_name');
19             $table->string('product_details');
20             $table->bigInteger('product_price');
21             $table->string('product_image');
22             $table->timestamps();
23         });
24     }
25
26     /**
27      * Reverse the migrations.
28      *
29      */
30     public function down()
31     {
32         //
33     }
34 }
```

The terminal at the bottom shows the command `C:\xampp\htdocs\laravelcrud>php`.



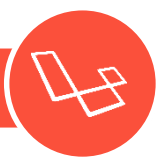
Define Reference of Category Table



The screenshot shows the Visual Studio Code editor with a file explorer on the left and a code editor in the center. The file explorer shows a project structure with folders like 'app', 'bootstrap', 'config', 'database', 'factories', 'migrations', 'seeds', 'public', 'resources', 'routes', 'storage', 'tests', 'vendor', and files like '.editorconfig', '.env', '.env.example', '.gitattributes', '.gitignore', and 'artisan'. The code editor shows a PHP file named '2019_02_11_165053_create_products_table.php' with the following code:

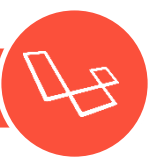
```
7 class CreateProductsTable extends Migration
8 {
9     /**
10      * Run the migrations.
11      *
12      * @return void
13      */
14     public function up()
15     {
16         Schema::create('products', function (Blueprint $table) {
17             $table->increments('product_id');
18             $table->string('product_name');
19             $table->string('product_details');
20             $table->bigInteger('product_price');
21             $table->string('product_image');
22             $table->integer('category_id')->unsigned();
23             $table->timestamps();
24             $table->foreign('category_id')->references('category_id')->on('categories');
25         });
26     }
27 }
```

The terminal at the bottom shows the command 'C:\xampp\htdocs\laravelcrud>php'.



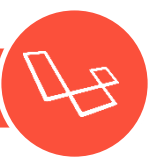
Reset Migration

```
C:\Windows\system32\cmd.exe
c:\xampp\htdocs\laravelcrud>php artisan migrate:reset
Rolling back: 2014_10_12_100000_create_password_resets_table
Rolled back: 2014_10_12_100000_create_password_resets_table
Rolling back: 2014_10_12_000000_create_users_table
Rolled back: 2014_10_12_000000_create_users_table
c:\xampp\htdocs\laravelcrud>
```

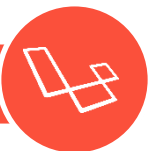


Migrate Table

```
C:\Windows\system32\cmd.exe
c:\xampp\htdocs\laravelcrud>php artisan migrate
Migrating: 2014_10_12_000000_create_users_table
Migrated: 2014_10_12_000000_create_users_table
Migrating: 2014_10_12_100000_create_password_resets_table
Migrated: 2014_10_12_100000_create_password_resets_table
Migrating: 2019_02_10_163217_create_categories_table
Migrated: 2019_02_10_163217_create_categories_table
Migrating: 2019_02_11_165053_create_products_table
Migrated: 2019_02_11_165053_create_products_table
c:\xampp\htdocs\laravelcrud>
```



- 
- Enjoy 😊
 - First Phase Done



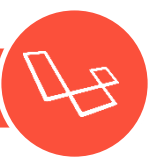
Check Table

The screenshot shows the phpMyAdmin interface for a MySQL database named 'laravelcrud'. The 'products' table is selected, and its structure is displayed in 'Table structure' view. The table has 8 columns: product_id (int(10), UNSIGNED, AUTO_INCREMENT), product_name (varchar(191), utf8mb4_unicode_ci), product_details (varchar(191), utf8mb4_unicode_ci), product_price (bigint(20)), product_image (varchar(191), utf8mb4_unicode_ci), category_id (int(10), UNSIGNED), created_at (timestamp), and updated_at (timestamp). The left sidebar shows the database structure, and the bottom section shows the 'Indexes' table.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	product_id	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	Change Drop
2	product_name	varchar(191)	utf8mb4_unicode_ci		No	None			Change Drop
3	product_details	varchar(191)	utf8mb4_unicode_ci		No	None			Change Drop
4	product_price	bigint(20)			No	None			Change Drop
5	product_image	varchar(191)	utf8mb4_unicode_ci		No	None			Change Drop
6	category_id	int(10)		UNSIGNED	No	None			Change Drop
7	created_at	timestamp			Yes	NULL			Change Drop
8	updated_at	timestamp			Yes	NULL			Change Drop

Below the table structure, there are options to 'Check all', 'With selected', 'Browse', 'Change', 'Drop', 'Primary', 'Unique', 'Index', and 'Fulltext'. There are also buttons for 'Add to central columns' and 'Remove from central columns'. At the bottom, there is a section for 'Indexes' with a table showing the primary key for 'product_id'.

Action	Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
Drop	PRIMARY	BTREE	Yes	No	product_id	0	A	No	

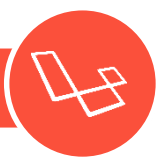


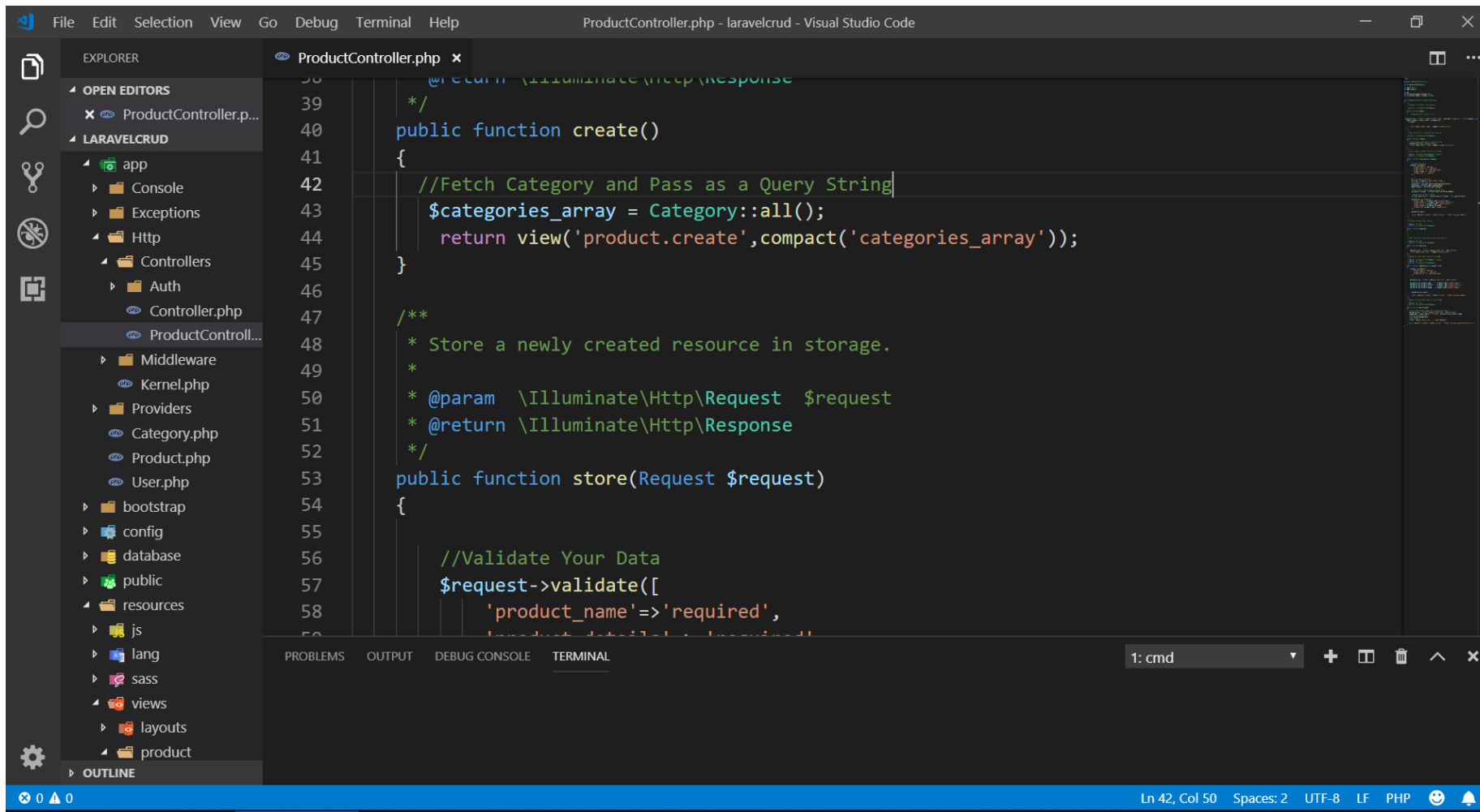
```
Category.php - laravelcrud - Visual Studio Code

1  <?php
2
3  namespace App;
4
5  use Illuminate\Database\Eloquent\Model;
6
7  class Category extends Model
8  {
9      protected $primaryKey = 'category_id';
10
11     protected $fillable = [
12         'category_name'
13     ];
14
15 }
16
```

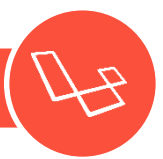



```
1 <?php
2
3 namespace App\Http\Controllers;
4
5 use Illuminate\Http\Request;
6
7 use App\Product;
8 use App\Category;
9
10 use DB;
11 use Illuminate\Support\Facades\File;
12 use Illuminate\Support\Facades\Storage;
13
14
15 class ProductController extends Controller
16 {
17     /**
18      * Display a listing of the resource.
19      *
20      * @return \Illuminate\Http\Response
21      */
```





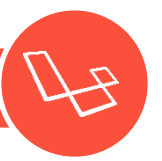
```
ProductController.php
39
40
41
42 //Fetch Category and Pass as a Query String
43 $categories_array = Category::all();
44 return view('product.create',compact('categories_array'));
45
46
47
48 /**
49  * Store a newly created resource in storage.
50  *
51  * @param \Illuminate\Http\Request $request
52  * @return \Illuminate\Http\Response
53  */
54 public function store(Request $request)
55 {
56
57     //Validate Your Data
58     $request->validate([
59         'product_name'=>'required',
60         'product_data'=>'required',
61     ]);
62
63     //Store the product data in the database
64     $product = new Product;
65     $product->product_name = $request->product_name;
66     $product->product_data = $request->product_data;
67     $product->save();
68
69     //Redirect to the product page
70     return redirect('/product');
71 }
72
```





```
18 <table>
19   <tr>
20     <td>Name</td>
21     <td><input type='text' name='product_name' placeholder='Enter Product Name' required></td>
22   </tr>
23   <tr>
24     <td>Name</td>
25     <td>
26       <select name="category_id" >
27         <option value="" selected disabled>Select</option>
28         @foreach($categories_array as $categories)
29           <option value="{{ $categories->category_id }}"> {{ $categories->category_name }}</option>
30         @endforeach
31       </select>
32     </td>
33   </tr>
34   <tr>
35     <td>Details</td>
36     <td><input type='text' name='product_details' placeholder='Enter Product Details' required > </td>
37   </tr>
38   <tr>
39     <td>Price</td>
40     <td><input type='text' name='product_price' placeholder='Enter Product Price' required> </td>
41   </tr>
42   <tr>
43     <td></td>
44     <td></td>
45   </tr>
46 </table>
```

Ln 32, Col 9 Spaces: 4 UTF-8 CRLF PHP



localhost / 127.0.0.1 / laravelcrud x

localhost/phpmyadmin/sql.php?db=laravelcrud&table=categories&pos=0

phpMyAdmin

Recent Favorites

- New
- 111
- devicefinder
- information_schema
- laravelcrud
 - New
 - categories
 - migrations
 - password_resets
 - products
 - users
- mysql
- performance_schema
- phpmyadmin
- pmit
- pmts_db
- sample
- test
- testlaravel
- tours

Server: 127.0.0.1 » Database: laravelcrud » Table: categories

Browse Structure SQL Search Insert Export Import Privileges More

Showing rows 0 - 1 (2 total, Query took 0.0009 seconds.)

```
SELECT * FROM `categories`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

	category_id	category_name	created_at	updated_at
<input type="checkbox"/> Edit Copy Delete	1	Mobile	NULL	NULL
<input type="checkbox"/> Edit Copy Delete	2	Laptop	NULL	NULL

Check all | With selected: Edit Copy Delete Export

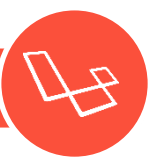
Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

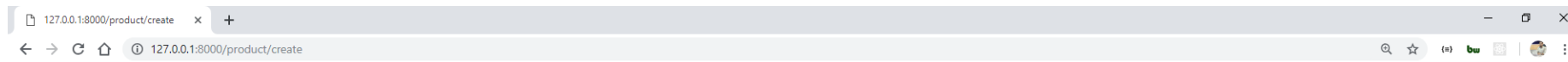
Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Console



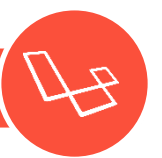


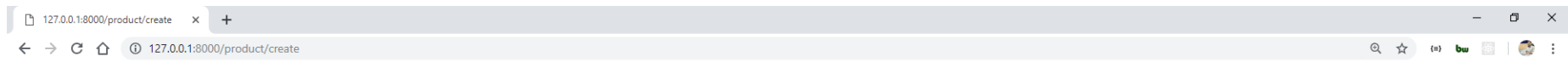
Laravel CURD

[Add](#) | [View](#)

Add Product

Name	<input type="text" value="iPhone"/>
Name	<div>Select ▼</div>
Details	<div>Select</div> uct Details
Price	<div>Mobile</div> uct Price
Image	<div>Laptop</div>
	<div>Choose File</div> No file chosen
	<div>Submit</div> <div>Reset</div>



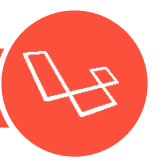


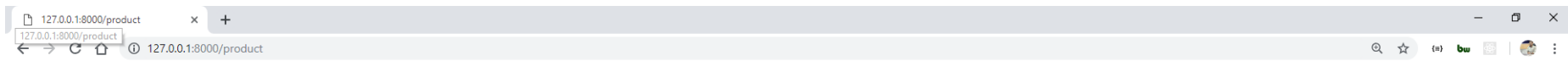
Laravel CURD

[Add](#) | [View](#)

Add Product


Name	<input type="text" value="iPhone"/>
Name	<input type="text" value="Mobile"/>
Details	<input type="text" value="iPhoneXR"/>
Price	<input type="text" value="85000"/>
Image	<input type="button" value="Choose File"/> <input type="text" value="iphonexr.jpg"/>
	<input type="button" value="Submit"/> <input type="button" value="Reset"/>

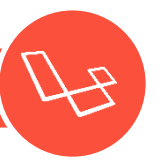


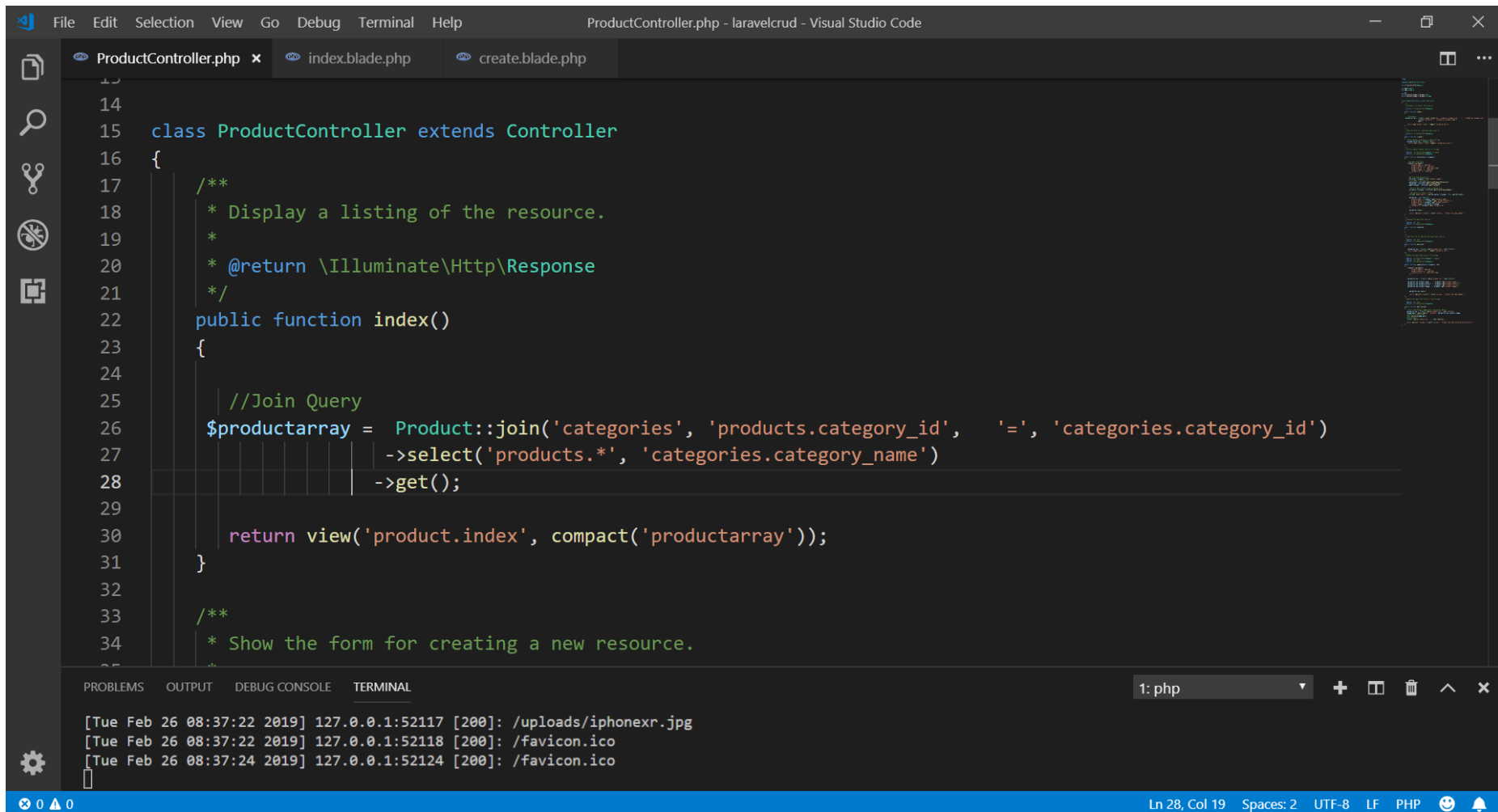


Laravel CURD

[Add](#) | [View](#)

ID	Product Name	Product Price	Product Quantity	Product Image	Category	Action	
2	iPhone	iPhoneXR	85000		Mobile	Edit	<button>Delete</button>





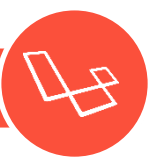
```
14
15 class ProductController extends Controller
16 {
17     /**
18      * Display a listing of the resource.
19      *
20      * @return \Illuminate\Http\Response
21      */
22     public function index()
23     {
24
25         //Join Query
26         $productarray = Product::join('categories', 'products.category_id', '=', 'categories.category_id')
27             ->select('products.*', 'categories.category_name')
28             ->get();
29
30         return view('product.index', compact('productarray'));
31     }
32
33     /**
34      * Show the form for creating a new resource.
```

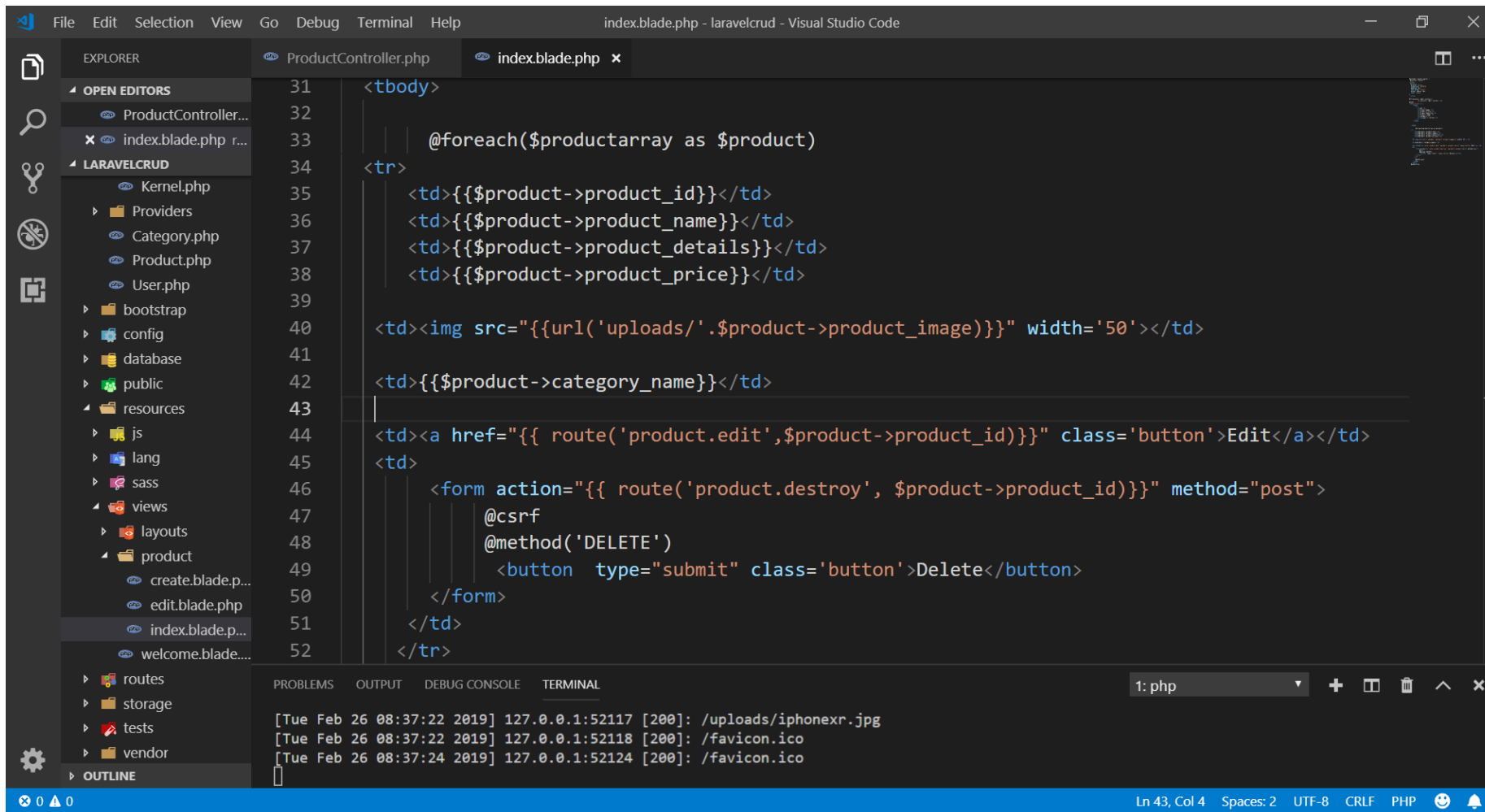
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: php

[Tue Feb 26 08:37:22 2019] 127.0.0.1:52117 [200]: /uploads/iphonexr.jpg
[Tue Feb 26 08:37:22 2019] 127.0.0.1:52118 [200]: /favicon.ico
[Tue Feb 26 08:37:24 2019] 127.0.0.1:52124 [200]: /favicon.ico

Ln 28, Col 19 Spaces: 2 UTF-8 LF PHP





```
File Edit Selection View Go Debug Terminal Help index.blade.php - laravelcrud - Visual Studio Code

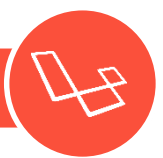
EXPLORER
├─ OPEN EDITORS
│   └─ index.blade.php
├─ LARAVELCRUD
│   ├── Kernel.php
│   ├── Providers
│   │   ├── Category.php
│   │   ├── Product.php
│   │   └─ User.php
│   ├── bootstrap
│   ├── config
│   ├── database
│   ├── public
│   └─ resources
│       ├── js
│       ├── lang
│       ├── sass
│       ├── views
│       │   ├── layouts
│       │   └─ product
│       │       ├── create.blade.p...
│       │       ├── edit.blade.php
│       │       └─ index.blade.p...
│       └─ welcome.blade...
│   ├── routes
│   ├── storage
│   ├── tests
│   └─ vendor
└─ OUTLINE

ProductController.php
index.blade.php x

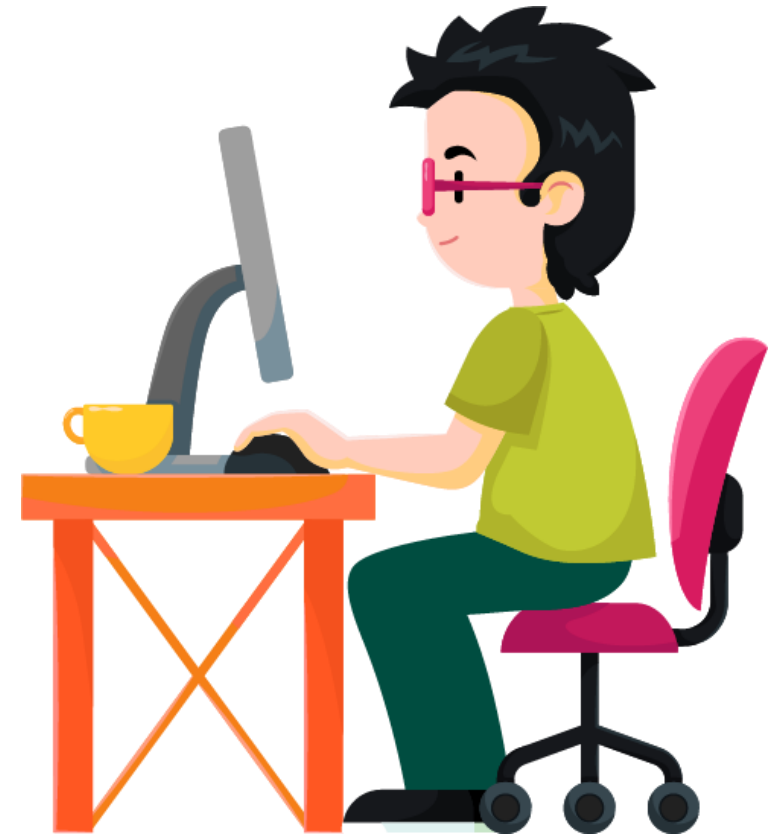
31 <tbody>
32 |
33 |     @foreach($productarray as $product)
34 |     <tr>
35 |         <td>{{ $product->product_id }}</td>
36 |         <td>{{ $product->product_name }}</td>
37 |         <td>{{ $product->product_details }}</td>
38 |         <td>{{ $product->product_price }}</td>
39 |
40 |         <td></td>
41 |
42 |         <td>{{ $product->category_name }}</td>
43 |
44 |         <td><a href="{{ route('product.edit', $product->product_id) }}" class='button'>Edit</a></td>
45 |         <td>
46 |             <form action="{{ route('product.destroy', $product->product_id) }}" method="post">
47 |                 @csrf
48 |                 @method('DELETE')
49 |                 <button type="submit" class='button'>Delete</button>
50 |             </form>
51 |         </td>
52 |     </tr>

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: php
[Tue Feb 26 08:37:22 2019] 127.0.0.1:52117 [200]: /uploads/iphonexr.jpg
[Tue Feb 26 08:37:22 2019] 127.0.0.1:52118 [200]: /favicon.ico
[Tue Feb 26 08:37:24 2019] 127.0.0.1:52124 [200]: /favicon.ico

Ln 43, Col 4 Spaces: 2 UTF-8 CRLF PHP
```



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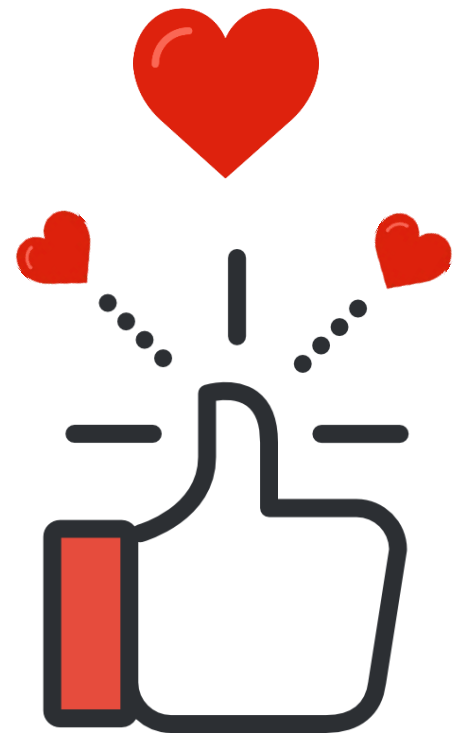
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