Assignment-16

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Task 1:

Create a new Laravel project named "MigrationAssignment" using the Laravel command-line interface.

```
composer create-project laravel/laravel MigrationAssignment
```

Task 2:

Within the project, create a new migration file named "create_products_table" that will be responsible for creating a table called "products" in the database. The "products" table should have the following columns:
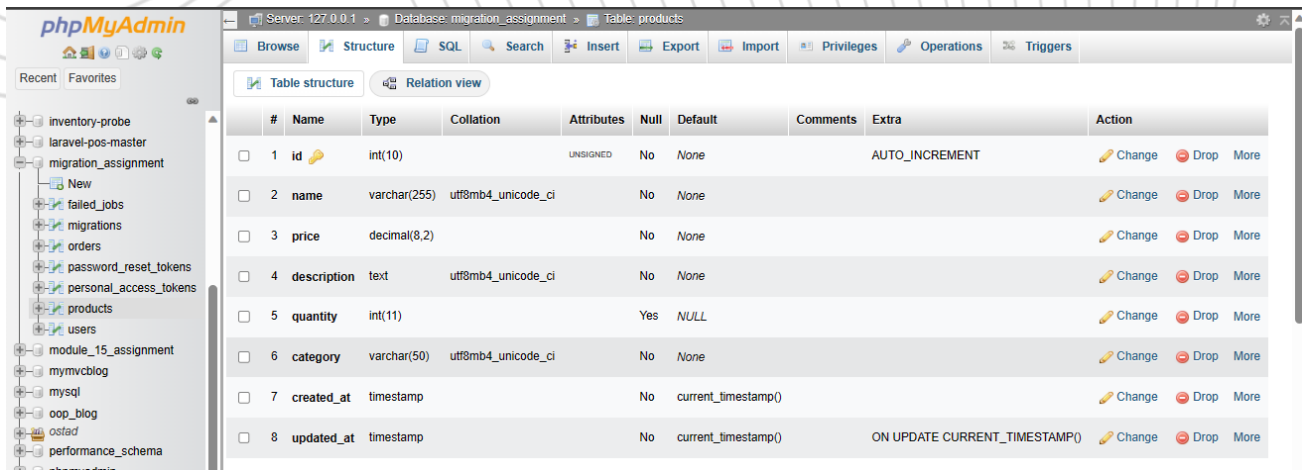
id: an auto-incrementing integer and primary key.
name: a string column to store the product name.
price: a decimal column to store the product price.
description: a text column to store the product description.
created_at: a timestamp column to store the creation date and time.
updated_at: a timestamp column to store the last update date and time.

```php
 7   return new class extends Migration
 8   {
 9       /**
10        * Run the migrations.
11        */
12       public function up(): void
13       {
14           Schema::create('products', function (Blueprint $table) {
15               $table->increments('id');
16               $table->string('name');
17               $table->decimal('price', 8, 2);
18               $table->text('description');
19               $table->timestamp('created_at')->useCurrent();
20               $table->timestamp('updated_at')->useCurrent()->useCurrentOnUpdate();
21           });
22       }
23
24       /**
25        * Reverse the migrations.
26        */
27       public function down(): void
28       {
29           Schema::dropIfExists('products');
30       }
31   };
32
```

Task 3:

After creating the migration file, run the migration to create the "products" table in the database.
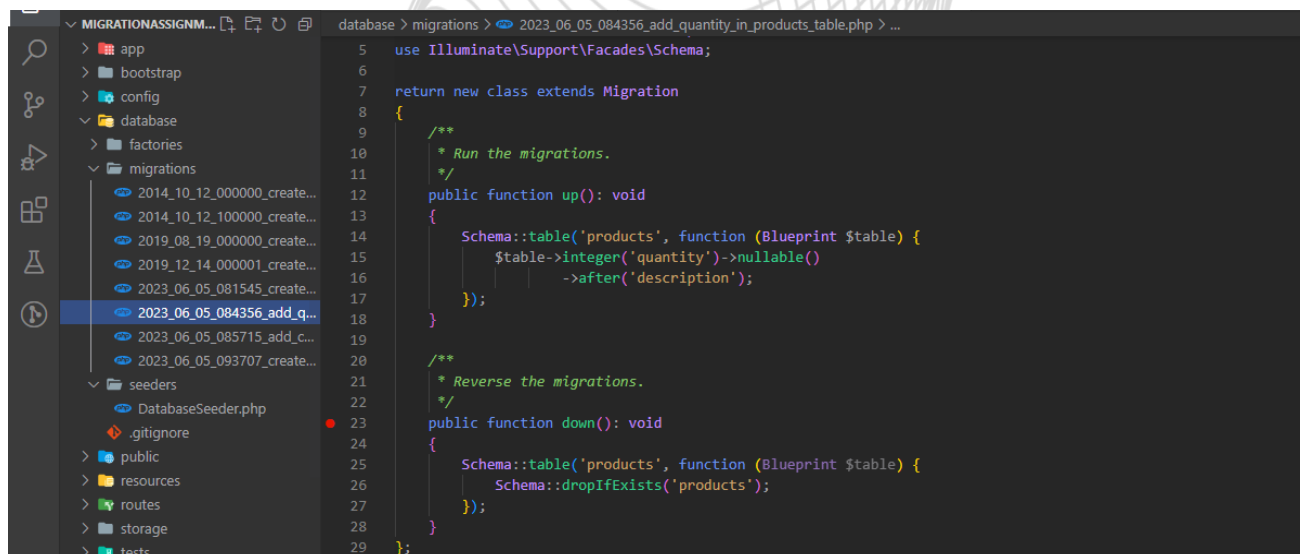
```
php artisan migrate
```


Task 4:

Modify the existing migration file "create_products_table" to add a new column called "quantity" to the "products" table. The "quantity" column should be an integer column and allow null values.
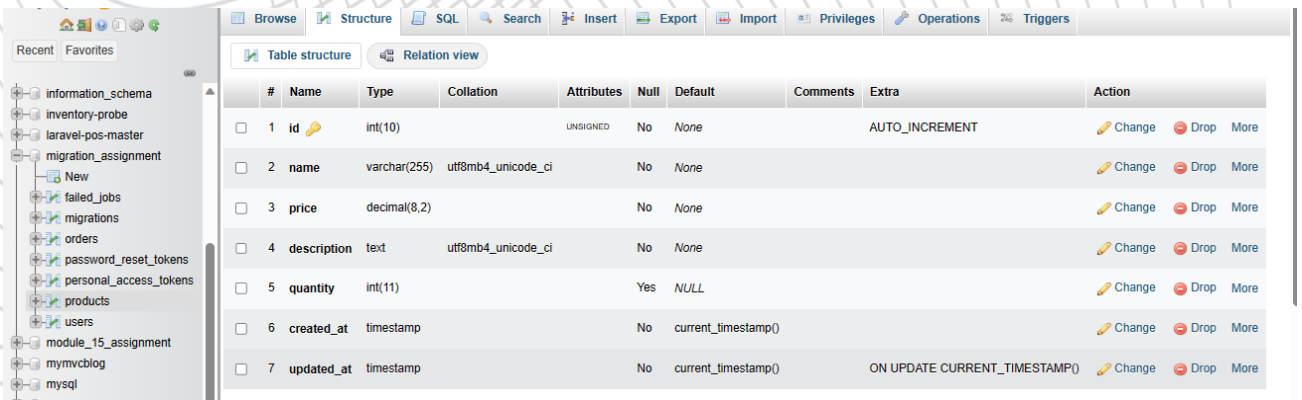
```
php artisan make:mgration add_quantity_in_products_table  –table=products
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action		
☐	1	id 🔑	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	🖉 Change	⊘ Drop	More
☐	2	name	varchar(255)	utf8mb4_unicode_ci		No	None			🖉 Change	⊘ Drop	More
☐	3	price	decimal(8,2)			No	None			🖉 Change	⊘ Drop	More
☐	4	description	text	utf8mb4_unicode_ci		No	None			🖉 Change	⊘ Drop	More
☐	5	quantity	int(11)			Yes	NULL			🖉 Change	⊘ Drop	More
☐	6	created_at	timestamp			No	current_timestamp()			🖉 Change	⊘ Drop	More
☐	7	updated_at	timestamp			No	current_timestamp()		ON UPDATE CURRENT_TIMESTAMP()	🖉 Change	⊘ Drop	More

Task 5:

Create a new migration file named "add_category_to_products_table" that will be responsible for adding a new column called "category" to the "products" table. The "category" column should be a string column with a maximum length of 50 characters.

php artisan make:mgration add_category_in_products_table –table=products

```php
return new class extends Migration
{
    /**
     * Run the migrations.
     */
    public function up(): void
    {
        Schema::table('products', function (Blueprint $table) {
            $table->string('category', 50)
                    ->after('quantity');
        });
    }

    /**
     * Reverse the migrations.
     */
    public function down(): void
    {
        Schema::table('products', function (Blueprint $table) {
            $table->dropColumn('category');
        });
    }
};
```
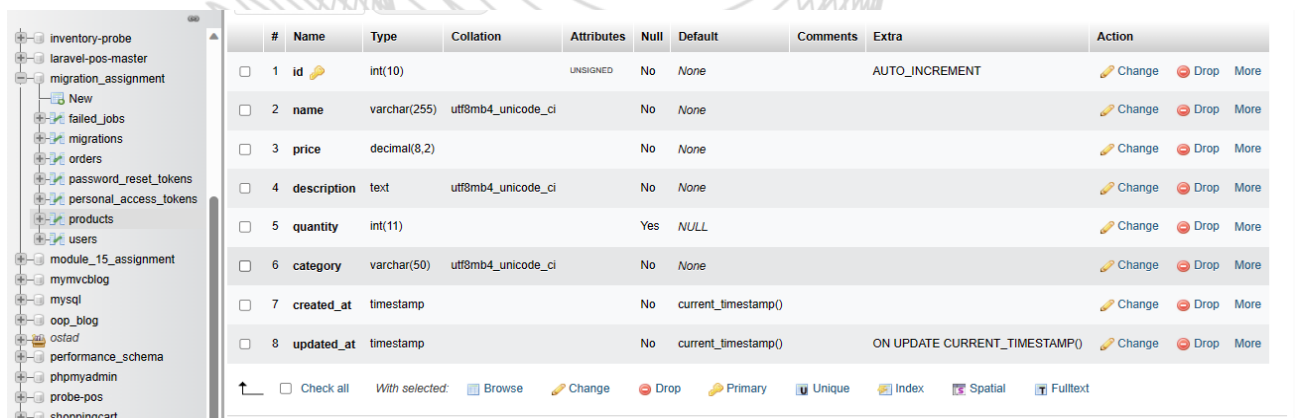
Task 6:

After creating the new migration file, run the migration to add the "category" column to the "products" table.

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action		
☐	1	id 🔑	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	🖉 Change	⊘ Drop	More
☐	2	name	varchar(255)	utf8mb4_unicode_ci		No	None			🖉 Change	⊘ Drop	More
☐	3	price	decimal(8,2)			No	None			🖉 Change	⊘ Drop	More
☐	4	description	text	utf8mb4_unicode_ci		No	None			🖉 Change	⊘ Drop	More
☐	5	quantity	int(11)			Yes	NULL			🖉 Change	⊘ Drop	More
☐	6	category	varchar(50)	utf8mb4_unicode_ci		No	None			🖉 Change	⊘ Drop	More
☐	7	created_at	timestamp			No	current_timestamp()			🖉 Change	⊘ Drop	More
☐	8	updated_at	timestamp			No	current_timestamp()		ON UPDATE CURRENT_TIMESTAMP()	🖉 Change	⊘ Drop	More

↑_ ☐ Check all With selected: 🔳 Browse 🖉 Change ⊘ Drop 🔑 Primary 🔟 Unique 🔳 Index 🔳 Spatial 🔟 Fulltext

Task 7:

Create a new migration file named "create_orders_table" that will be responsible for creating a table called "orders" in the database. The "orders" table should have the following columns:

id: an auto-incrementing integer and primary key.
product_id: an unsigned integer column to establish a foreign key relationship with the "id" column of the "products" table.
quantity: an integer column to store the quantity of products ordered.
created_at: a timestamp column to store the creation date and time.
updated_at: a timestamp column to store the last update date and time.

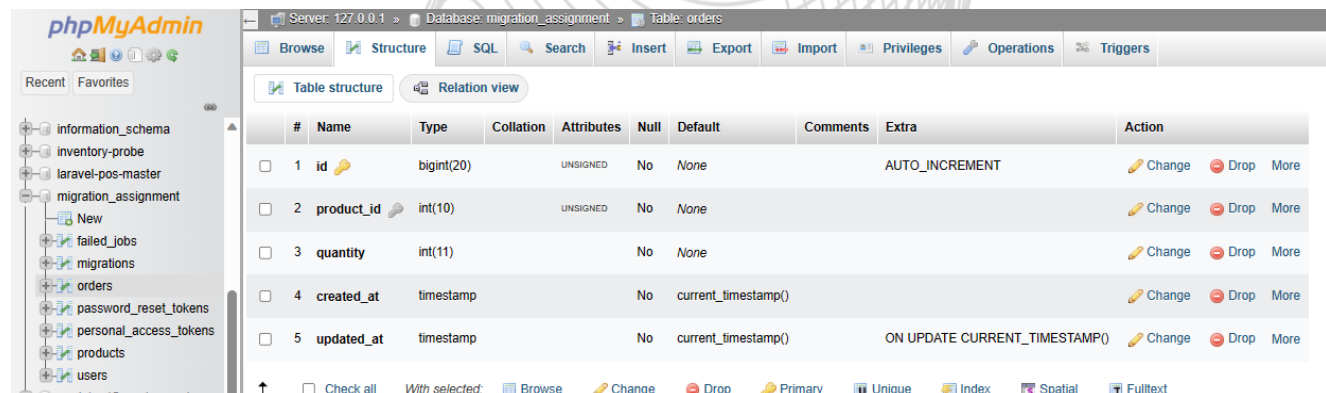**php artisan make:mgration create_orders_table**


```php
 * Run the migrations.
 */
public function up(): void
{
    Schema::create('orders', function (Blueprint $table) {
        // $table->increments('id');
        $table->id();
        $table->unsignedInteger('product_id');

        // relation between orders and products tables
        $table->foreign('product_id')->references('id')->on('products')
            ->restrictOnDelete()
            ->cascadeOnUpdate()
            ;


        $table->integer('quantity');
        // $table->timestamps();
        $table->timestamp('created_at')->useCurrent();
        // $table->timestamp('updated_at')->useCurrent();
        $table->timestamp('updated_at')->useCurrent()->useCurrentOnUpdate();
    });
}
```

Task 8:

After creating the migration file for the "orders" table, run the migration to create the "orders" table in the database.

php artisan migrate