

## Ajax Filter

### Ajax Product Filter Using Model in LARAVEL

#### MIGRATION Page –

Command :

```
php artisan make:model Category -m
```

```
php artisan make:model Product -m
```

```
php artisan migrate
```

#### Categories table

```
<?php

use Illuminate\Database\Migrations\Migration;
use Illuminate\Database\Schema\Blueprint;
use Illuminate\Support\Facades\Schema;

return new class extends Migration
{
    /**
     * Run the migrations.
     */
    public function up(): void
    {
        Schema::create('categories', function (Blueprint $table) {
            $table->id();
            $table->string('name');
            $table->timestamps();
        });
    }

    /**
     * Reverse the migrations.
     */
    public function down(): void
    {
        Schema::dropIfExists('categories');
    }
};
```

## products table

```
<?php

use Illuminate\Database\Migrations\Migration;
use Illuminate\Database\Schema\Blueprint;
use Illuminate\Support\Facades\Schema;

return new class extends Migration
{
    /**
     * Run the migrations.
     */
    public function up(): void
    {
        Schema::create('products', function (Blueprint $table) {
            $table->id();
            $table->string('name');
            $table->integer('price');
            $table->string('description');
            $table->unsignedBigInteger('category_id');
            $table->foreign('category_id')->references('id')-
on('categories');
            $table->timestamps();
        });
    }

    /**
     * Reverse the migrations.
     */
    public function down(): void
    {
        Schema::dropIfExists('products');
    }
};
```

## Controller Page –

Command:

php artisan make:controller ProductController

```
<?php

namespace App\Http\Controllers;

use App\Models\Product;
use App\Models\Category;
use Illuminate\Http\Request;

class ProductController extends Controller
{
    public function filterProduct(Request $request)
    {
        $query = Product::query();
        $categories = Category::all();

        if($request->ajax())
        {
            if(empty($request->category))
            {
                $products = $query->get();
            }
            else
            {
                $products = $query->where(['category_id' => $request->category])->get();
            }
            return response()->json(['products' => $products]);
        }
        $products = $query->get();
        return view('product', compact('categories','products'));
    }
}
```

## ROUTE Page –

```
<?php

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

/*
|-----
| Web Routes
|-----
|
| Here is where you can register web routes for your application. These
| routes are loaded by the RouteServiceProvider and all of them will
| be assigned to the "web" middleware group. Make something great!
|
*/

Route::get('/', function () {
    return view('welcome');
});

Route::get('filter',[ProductController::class, 'filterProduct'])->name('filter');
```

## View page –

### product.blade.php

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <meta http-equiv="X-UA-Compatible" content="ie=edge">
    <title>Product Filter</title>
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
</head>
<body align="center">
```

```

<h1>Products Filter</h1>

<select name="category" id="category">
    <option value="">Select Category</option>
    @if(count($categories) > 0)
        @foreach ($categories as $category )
            <option value="{{ $category['id'] }}">{{ $category->name }}</option>
        @endforeach
    @endif
</select>
<br><br><br>

<table border="1" width="50%" align="center">
    <tr>
        <td>S.No</td>
        <td>Name</td>
        <td>Price</td>
        <td>Description</td>
    </tr>
    <tbody id="tbody">
        @if(count($products) > 0)
            @foreach ($products as $product)
                <tr>
                    <td>{{ $product['id'] }}</td>
                    <td>{{ $product['name'] }}</td>
                    <td>{{ $product['price'] }}</td>
                    <td>{{ $product['description'] }}</td>
                </tr>
            @endforeach
        @endif
    </tbody>
</table>

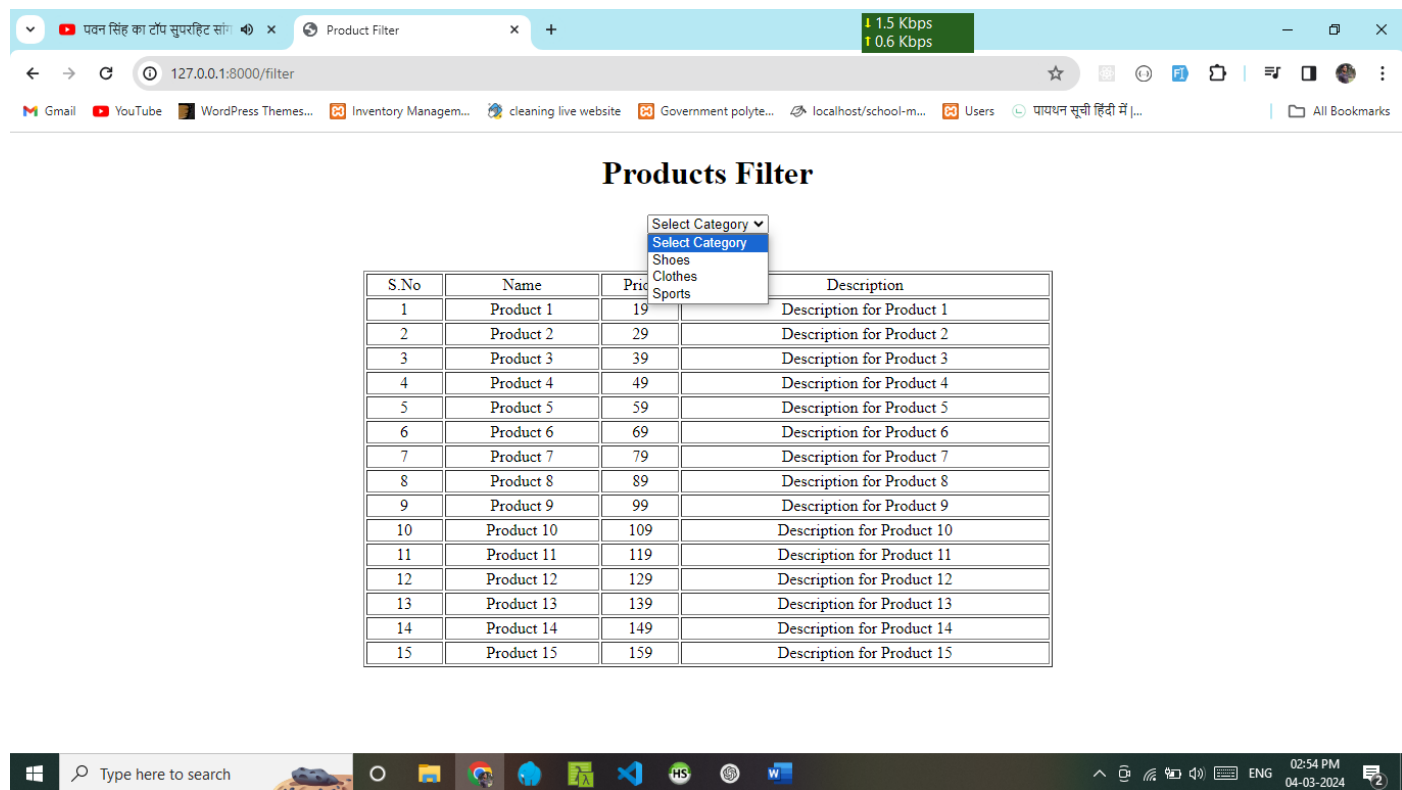
<script>
    $(document).ready(function(){
        $("#category").on('change', function(){
            var category = $(this).val();
            $.ajax({
                url:"{{ route('filter') }}",
                type:"GET",
                data: {'category' : category},
            })
        })
    })

```

```
    success: function(data){
        var products = data.products;
        var html = '';
        if(products.length > 0)
        {
            for(let i = 0; i < products.length; i++)
            {
                html += '<tr>\n
                    <td>'+(i+1)+'</td>\n
                    <td>'+products[i]['name']+'</td>\n
                    <td>'+products[i]['price']+'</td>\n
                    <td>'+products[i]['description']+'</td>\n
                    </tr>';
            }
        }
        else
        {
            html += '<tr>\n
                <td>No products found</td>\n
                </tr>';
        }

        $("#tbody").html(html);
    }
});
});
});
</script>
</body>
</html>
```

# Frontend



Products Filter

Select Category ▼  
Select Category  
Shoes  
Clothes  
Sports

S.No	Name	Price	Description
1	Product 1	19	Description for Product 1
2	Product 2	29	Description for Product 2
3	Product 3	39	Description for Product 3
4	Product 4	49	Description for Product 4
5	Product 5	59	Description for Product 5
6	Product 6	69	Description for Product 6
7	Product 7	79	Description for Product 7
8	Product 8	89	Description for Product 8
9	Product 9	99	Description for Product 9
10	Product 10	109	Description for Product 10
11	Product 11	119	Description for Product 11
12	Product 12	129	Description for Product 12
13	Product 13	139	Description for Product 13
14	Product 14	149	Description for Product 14
15	Product 15	159	Description for Product 15

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