Лабораторная работа №3
по дисциплине «Технологии WEB-программирования»
тема: «Работа с VUE»

Выполнил: ст. группы ПВ-41
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Цель работы: познакомиться с основами backend разработки web-приложений. Научится писать скрипты на языке PHP. Познакомиться с основами работы docker. Познакомиться с фреймворком Laravel Lumen и научиться разворачивать проект, производить его настройку. Научится работать с API в приложении Postman.

<div align="center">

Команды необходимые для выполнения работы

</div>

Docker

Запустить контейнеры => docker-compose up -d

Остановить все контейнеры => docker stop $(docker ps -q)

Laravel

Создать =>

     docker-compose run app composer create-project laravel/laravel example-app

Очистить кэш =>

     docker-compose run app php artisan optimize

     docker-compose run app php artisan cache:clear

Для того чтобы данные команды работали, были установлены:

- Docker Desktop
- Php 8.1
- Composer

Выполнение

Для запуска проекта необходимо:

1. Запустить докер контейнеры
   docker-compose up -d
2. Запустить php сервер
   php artisan serve
3. Запустить фронтенд
   cd frontend
   npm run serve

Код программы

Dockerfile

```dockerfile
FROM php:7.4-fpm
ENV NODE_OPTIONS=--openssl-legacy-provider
# Copy composer.lock and composer.json
COPY composer.json /var/www/
# Set working directory
WORKDIR /var/www

# Install dependencies
RUN apt-get update && apt-get install -y \
    build-essential \
    libpng-dev \
    libjpeg62-turbo-dev \
    libfreetype6-dev \
    locales \
    libzip-dev \
    zip \
    jpegoptim optipng pngquant gifsicle \
    vim \
    unzip \
    git \
    curl

# Clear cache
RUN apt-get clean && rm -rf /var/lib/apt/lists/*

# Install extensions
RUN docker-php-ext-install pdo_mysql zip exif pcntl
RUN docker-php-ext-configure gd --with-freetype=/usr/include/ --with-jpeg=/usr/include/
RUN docker-php-ext-install gd

# Install composer
RUN curl -sS https://getcomposer.org/installer | php -- --install-dir=/usr/local/bin --filename=composer

# Add user for laravel application
RUN groupadd -g 1000 www
RUN useradd -u 1000 -ms /bin/bash -g www www

# Copy existing application directory contents
COPY . /var/www

# Copy existing application directory permissions
COPY --chown=www:www . /var/www

# Change current user to www
USER www

# Expose port 9000 and start php-fpm server
EXPOSE 9000
CMD ["php-fpm"]
```

.env

```
APP_NAME=Laravel
APP_ENV=local
APP_KEY=base64:BiKahezUMsxtmuLpKv3rEsbsq205SusjeFk6xOneNhc=
APP_DEBUG=true
APP_URL=http://localhost

LOG_CHANNEL=stack
LOG_DEPRECATIONS_CHANNEL=null
LOG_LEVEL=debug

DB_CONNECTION=mysql
DB_HOST=127.0.0.1
DB_PORT=3306
DB_DATABASE=laravel
DB_USERNAME=root
DB_PASSWORD=

BROADCAST_DRIVER=log
CACHE_DRIVER=file
FILESYSTEM_DRIVER=local
QUEUE_CONNECTION=sync
SESSION_DRIVER=file
SESSION_LIFETIME=120

MEMCACHED_HOST=127.0.0.1

REDIS_HOST=127.0.0.1
REDIS_PASSWORD=null
REDIS_PORT=6379

MAIL_MAILER=smtp
MAIL_HOST=mailhog
MAIL_PORT=1025
MAIL_USERNAME=null
MAIL_PASSWORD=null
MAIL_ENCRYPTION=null
MAIL_FROM_ADDRESS=null
MAIL_FROM_NAME="${APP_NAME}"

AWS_ACCESS_KEY_ID=
AWS_SECRET_ACCESS_KEY=
AWS_DEFAULT_REGION=us-east-1
AWS_BUCKET=
AWS_USE_PATH_STYLE_ENDPOINT=false

PUSHER_APP_ID=
PUSHER_APP_KEY=
PUSHER_APP_SECRET=
PUSHER_APP_CLUSTER=mt1

MIX_PUSHER_APP_KEY="${PUSHER_APP_KEY}"
MIX_PUSHER_APP_CLUSTER="${PUSHER_APP_CLUSTER}"
```

Контроллеры

CartController.php

```php
<?php

namespace App\Http\Controllers;

use Illuminate\Routing\Controller;
use Illuminate\Http\Request;
/**
* Контроллер для управления корзиной
*/
class CartController extends Controller
{

    /**
    * Добавляет товар в корзину
    * @param Request request
    * @return array
    */

    public function addToCart(Request $request)
    {
        $id = $request->get('id');
        $count = $request->get('count', 1);

        // добавили товар в бд

        return [
            'inCart'=> true
        ];
    }
}
```

ProductController.php

```php
<?php

namespace App\Http\Controllers;

use Illuminate\Routing\Controller;

/**
 * Контроллер для управления товарами
 */
class ProductController extends Controller
{

    public $arr = array(
    [
                                                'id' => 1,
                                                'title' => 'EvA, portrait.',
                                                'author' => 'EvilPasta',
                                                'description' => 'The first portrait of EvA. You
are ordering a 50x50 cm high quality color printed picture. Additionally you will be
rewarded with an avatar to use in our upcoming game.',
                                                'price' => 499,
                                                'type' =>'Framed picture'
                                        ],
                                        [
                                                'id' => 2,
                                                'title' => 'Subjugator.',
                                                'author' => 'EvilPasta',
                                                'description' => 'High quality retraced picture
of a Vault Boy - Subjugator. You are ordering a 50x50 cm high quality color printed
picture. Additionally you will be rewarded with an avatar to use in our upcoming game.',
                                                'price' => 399,
                                                'type' =>'Framed picture'
                                        ],
                                        [
                                                'id' => 3,
                                                'title' => 'EvilPasta and MurpXP.',
                                                'author' => 'EvilPasta',
                                                'description' => 'Initially made as a gift to
MurpXP, now available for everyone! You are ordering a 50x50 cm high quality color printed
picture. Additionally you will be rewarded with an avatar to use in our upcoming game.',
                                                'price' => 499,
                                                'type' =>'Framed picture'
                                        ],
                                        [
                                                'id' => 4,
                                                'title' => 'Impim the Detective.',
                                                'author' => 'EvilPasta',
                                                'description' => 'Town of Salem hero! You are
ordering a 50x50 cm high quality color printed picture. Additionally you will be rewarded
with an avatar to use in our upcoming game.',
                                                'price' => 439,
                                                'type' =>'Framed picture'
```

```php
        ],
        [
            'id' => 5,
            'title' => 'Giggly Impim.',
            'author' => 'EvilPasta',
            'description' => 'That Impim is up to something.
You are ordering a 50x50 cm high quality color printed picture. Additionally you will be
rewarded with an avatar to use in our upcoming game.',
            'price' => 399,
            'type' =>'Framed picture'
        ],
        [
            'id' => 6,
            'title' => 'Bonked Ice.',
            'author' => 'EvilPasta',
            'description' => 'You were not supposed to say
that Ice! :D You are ordering a high quality color printed set of 5 stickers. Additionally
you will be rewarded with an avatar to use in our upcoming game.',
            'price' => 99,
            'type' =>'Sticker'
        ],
        [
            'id' => 7,
            'title' => 'Angel Skye.',
            'author' => 'EvilPasta',
            'description' => 'She is so precious and
innocent! You are ordering a high quality color printed set of 5 stickers. Additionally
you will be rewarded with an avatar to use in our upcoming game.',
            'price' => 99,
            'type' =>'Sticker'
        ],
        [
            'id' => 8,
            'title' => 'Pika Pickle',
            'author' => 'EvilPasta',
            'description' => 'Adorable mash up between a
pickle and a Pikachu! You are ordering a high quality color printed set of 5 stickers.
Additionally you will be rewarded with an avatar to use in our upcoming game.',
            'price' => 99,
            'type' =>'Sticker'
        ],
        [
            'id' => 9,
            'title' => 'Tiny boi Black',
            'author' => 'EvilPasta',
            'description' => 'Adorable Tiny Boi of your
preffered color! You are ordering a high quality color printed set of 5 stickers.
Additionally you will be rewarded with an avatar to use in our upcoming game.',
            'price' => 99,
            'type' =>'Sticker'
        ],
        [
            'id' => 10,
```

```php
                                                'title' => 'Tiny boi Blue',
                                                'author' => 'EvilPasta',
                                                'description' => 'Adorable Tiny Boi of your
preffered color! You are ordering a high quality color printed set of 5 stickers.
Additionally you will be rewarded with an avatar to use in our upcoming game.',
                                                'price' => 99,
                                                'type' =>'Sticker'
                                        ],
                                        [
                                                'id' => 11,
                                                'title' => 'Tiny boi Brown',
                                                'author' => 'EvilPasta',
                                                'description' => 'Adorable Tiny Boi of your
preffered color! You are ordering a high quality color printed set of 5 stickers.
Additionally you will be rewarded with an avatar to use in our upcoming game.',
                                                'price' => 99,
                                                'type' =>'Sticker'
                                        ],
                                        [
                                                'id' => 12,
                                                'title' => 'Tiny boi Cyan',
                                                'author' => 'EvilPasta',
                                                'description' => 'Adorable Tiny Boi of your
preffered color! You are ordering a high quality color printed set of 5 stickers.
Additionally you will be rewarded with an avatar to use in our upcoming game.',
                                                'price' => 99,
                                                'type' =>'Sticker'
                                        ],
                                        [
                                                'id' => 13,
                                                'title' => 'Tiny boi Dark Green',
                                                'author' => 'EvilPasta',
                                                'description' => 'Adorable Tiny Boi of your
preffered color! You are ordering a high quality color printed set of 5 stickers.
Additionally you will be rewarded with an avatar to use in our upcoming game.',
                                                'price' => 99,
                                                'type' =>'Sticker'
                                        ],
                                        [
                                                'id' => 14,
                                                'title' => 'Tiny boi Green',
                                                'author' => 'EvilPasta',
                                                'description' => 'Adorable Tiny Boi of your
preffered color! You are ordering a high quality color printed set of 5 stickers.
Additionally you will be rewarded with an avatar to use in our upcoming game.',
                                                'price' => 99,
                                                'type' =>'Sticker'
                                        ],
                                        [
                                                'id' => 15,
                                                'title' => 'Tiny boi Orange',
                                                'author' => 'EvilPasta',
                                                'description' => 'Adorable Tiny Boi of your
```

```php
preffered color! You are ordering a high quality color printed set of 5 stickers.
Additionally you will be rewarded with an avatar to use in our upcoming game.',
                                        'price' => 99,
                                        'type' =>'Sticker'
                                ],
                                [
                                        'id' => 16,
                                        'title' => 'Tiny boi Pink',
                                        'author' => 'EvilPasta',
                                        'description' => 'Adorable Tiny Boi of your
preffered color! You are ordering a high quality color printed set of 5 stickers.
Additionally you will be rewarded with an avatar to use in our upcoming game.',
                                        'price' => 99,
                                        'type' =>'Sticker'
                                ],
                                [
                                        'id' => 17,
                                        'title' => 'Tiny boi Purple',
                                        'author' => 'EvilPasta',
                                        'description' => 'Adorable Tiny Boi of your
preffered color! You are ordering a high quality color printed set of 5 stickers.
Additionally you will be rewarded with an avatar to use in our upcoming game.',
                                        'price' => 99,
                                        'type' =>'Sticker'
                                ],
                                [
                                        'id' => 18,
                                        'title' => 'Tiny boi Red',
                                        'author' => 'EvilPasta',
                                        'description' => 'Adorable Tiny Boi of your
preffered color! You are ordering a high quality color printed set of 5 stickers.
Additionally you will be rewarded with an avatar to use in our upcoming game.',
                                        'price' => 99,
                                        'type' =>'Sticker'
                                ],
                                [
                                        'id' => 19,
                                        'title' => 'Tiny boi White',
                                        'author' => 'EvilPasta',
                                        'description' => 'Adorable Tiny Boi of your
preffered color! You are ordering a high quality color printed set of 5 stickers.
Additionally you will be rewarded with an avatar to use in our upcoming game.',
                                        'price' => 99,
                                        'type' =>'Sticker'
                                ],
                                [
                                        'id' => 20,
                                        'title' => 'Tiny boi Yellow',
                                        'author' => 'EvilPasta',
                                        'description' => 'Adorable Tiny Boi of your
preffered color! You are ordering a high quality color printed set of 5 stickers.
Additionally you will be rewarded with an avatar to use in our upcoming game.',
                                        'price' => 99,
```

```php
                                    'type' =>'Sticker'
                                ]
                            );
    /**
    * Список товаров.
    * @return array[]
    */
    public function list()
    {
        return $this->arr;
    }

    /**
    * Информация о товаре
    * @param $id
    * @return array
    */
    public function info($id)
    {
        return  $this->arr[$id-1];
    }
}
```

UserController.php

```php
<?php

namespace App\Http\Controllers;

use Illuminate\Routing\Controller;
use Illuminate\Http\Request;

class UserController extends Controller
{
    public $arr = array(
        [
        'id' => 1,
        'username' => 'admin',
        'password' => 'password'
         ],
        [
        'id' => 2,
        'username' => 'user',
        'password' => '1234'
        ],
        [
        'id' => 3,
        'username' => '1',
        'password' => '1'
        ]
        );

    /**
     * Список пользователей.
     * @return array[]
     */
    public function list()
    {
        return $this->arr;
    }

    /**
     * Информация о пользователе
     * @param $id
     * @return array
     */
    public function info($id)
    {
        return  $this->arr[$id-1];
    }

    public function authorization(Request $request)
    {
        foreach ($this->arr as $value) {
            if ($value['username'] == $request->get('username') && $value['password']==
$request->get('password')){
                return [
```

```php
                'userId'=> $value['id']
            ];
        }
    }
        return [
            'userId'=> -1
        ];
    }
}
```

Результат выполнения программы

File Edit View Help

Home Workspaces ⌄ Reports Explore 🔍 Search Postman Sign In **Create Account**

GET http://localhost/ap... ● + ∘∘∘ No Environment ⌄

http://localhost/api/products 💾 Save ⌄ ✏ 🗨 ⟨/⟩

GET ⌄ http://localhost/api/products **Send** ⌄

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Body Cookies Headers (10) Test Results ⊕ Status: 200 OK Time: 9.14 s Size: 17.48 KB Save Response ⌄

Pretty Raw Preview Visualize JSON ⌄

```json
1   [
2       {
3           "id": 1,
4           "title": "EvA, portrait.",
5           "author": "EvilPasta",
6           "description": "The first portrait of EvA. You are ordering a 50x50 cm high quality color printed picture. Additionally you will be rewarded
                with an avatar to use in our upcoming game.",
7           "price": 499,
8           "type": "Framed picture"
9       },
10      {
11          "id": 2,
12          "title": "Subjugator.",
13          "author": "EvilPasta",
14          "description": "High quality retraced picture of a Vault Boy - Subjugator. You are ordering a 50x50 cm high quality color printed picture.
                Additionally you will be rewarded with an avatar to use in our upcoming game.",
15          "price": 399,
16          "type": "Framed picture"
17      },
18      {
19          "id": 3,
20          "title": "EvilPasta and MurpXP.",
21          "author": "EvilPasta",
```

🔲 Find and Replace 🖥 Console ▶ Runner 🗑 Trash

🔧 Applications 💬 EvilPasta - Discord 🦊 Firefox Header.vue - web_la... Xfce Terminal 📶 EN 23:04 EvilPasta

frontend — Mozilla Firefox

frontend +

← → C 192.168.1.37:8080

Enter the Merch Store

Username
user

Password
●●●●

Enter

frontend | +

192.168.1.37:8080/MainPage

PASTA MERCH

search

Cabinet My cart About

Artwork, made by EvilPasta

EvA, portrait.
EvilPasta

The first portrait of EvA. You are ordering a 50x50 cm high quality color printed picture. Additionally you will be

Subjugator.
EvilPasta

High quality retraced picture of a Vault Boy - Subjugator. You are ordering a 50x50 cm high quality color printed picture.

EvilPasta and MurpXP.
EvilPasta

Initially made as a gift to MurpXP, now available for everyone! You are ordering a 50x50 cm high quality color

Impim the Detective.
EvilPasta

Town of Salem hero! You are ordering a 50x50 cm high quality color printed picture. Additionally you will be

---

frontend | +

192.168.1.37:8080/MainPage

Giggly Impim.
EvilPasta

That Impim is up to something. You are ordering a 50x50 cm high quality color printed picture. Additionally you will be

399 ₽

Bonked Ice.
EvilPasta

You were not supposed to say that Ice! :D You are ordering a high quality color printed set of 5 stickers. Additionally you will

99 ₽

Angel Skye.
EvilPasta

She is so precious and innocent! You are ordering a high quality color printed set of 5 stickers. Additionally you will

99 ₽

Pika Pickle
EvilPasta

Adorable mash up between a pickle and a Pikachu! You are ordering a high quality color printed set of 5 stickers.

99 ₽

Tiny boi Black
EvilPasta

Adorable Tiny Boi of your preffered color! You are ordering a high quality color printed set of 5 stickers.
99 ₽

Tiny boi Blue
EvilPasta

Adorable Tiny Boi of your preffered color! You are ordering a high quality color printed set of 5 stickers.
99 ₽

Tiny boi Brown
EvilPasta

Adorable Tiny Boi of your preffered color! You are ordering a high quality color printed set of 5 stickers.
99 ₽

Tiny boi Cyan
EvilPasta

Adorable Tiny Boi of your preffered color! You are ordering a high quality color printed set of 5 stickers.
99 ₽

Tiny boi Purple
EvilPasta

Adorable Tiny Boi of your preffered color! You are ordering a high quality color printed set of 5 stickers.
99 ₽

Tiny boi Red
EvilPasta

Adorable Tiny Boi of your preffered color! You are ordering a high quality color printed set of 5 stickers.
99 ₽

Tiny boi White
EvilPasta

Adorable Tiny Boi of your preffered color! You are ordering a high quality color printed set of 5 stickers.
99 ₽

Tiny boi Yellow
EvilPasta

Adorable Tiny Boi of your preffered color! You are ordering a high quality color printed set of 5 stickers.
99 ₽

frontend
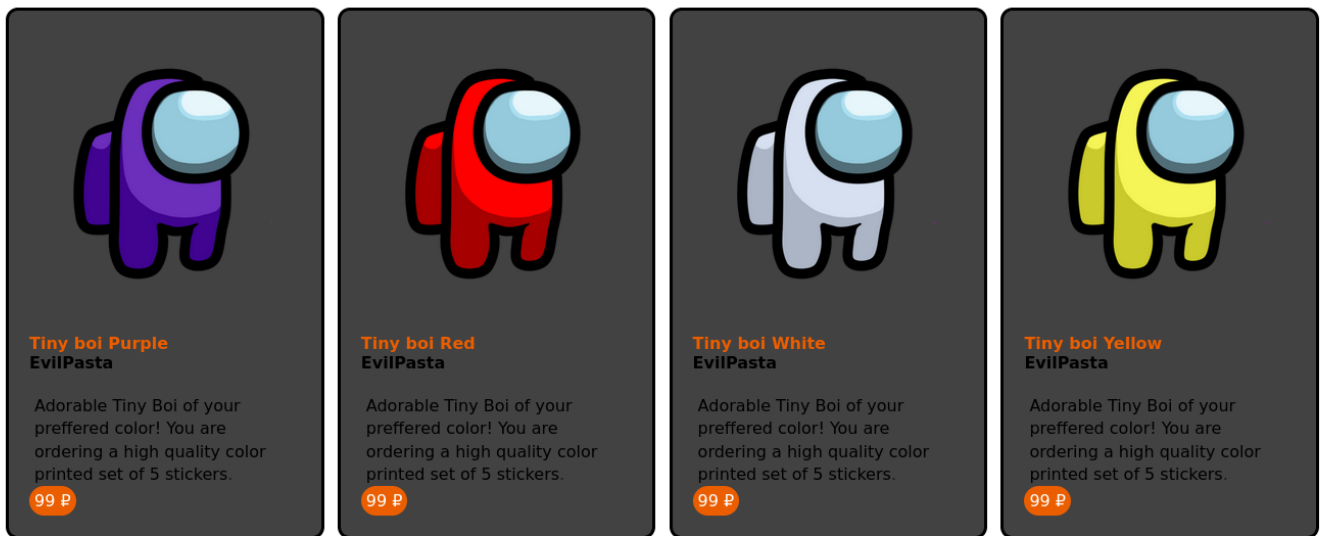192.168.1.37:8080/content/7
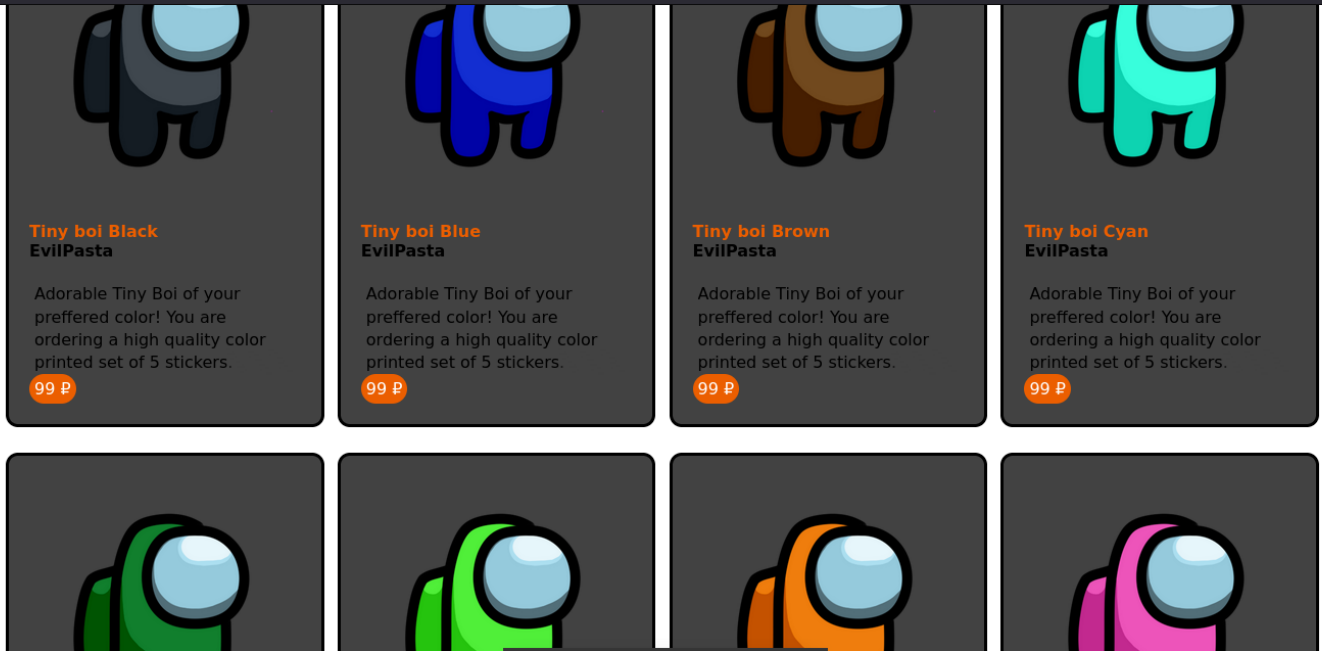
PASTA MERCH

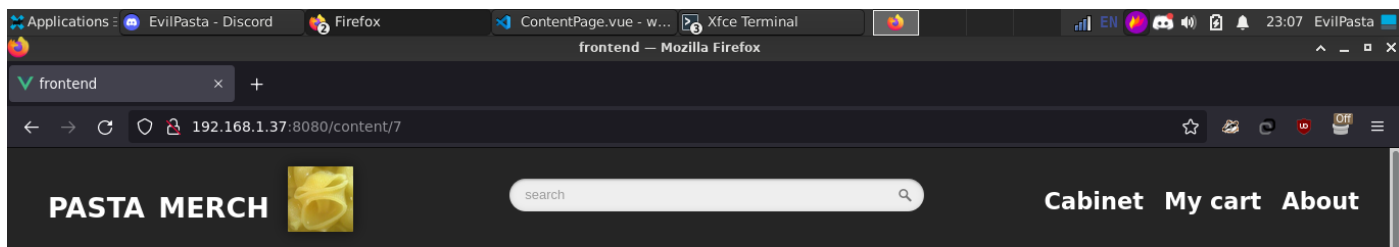search   Cabinet My cart About

Angel Skye.
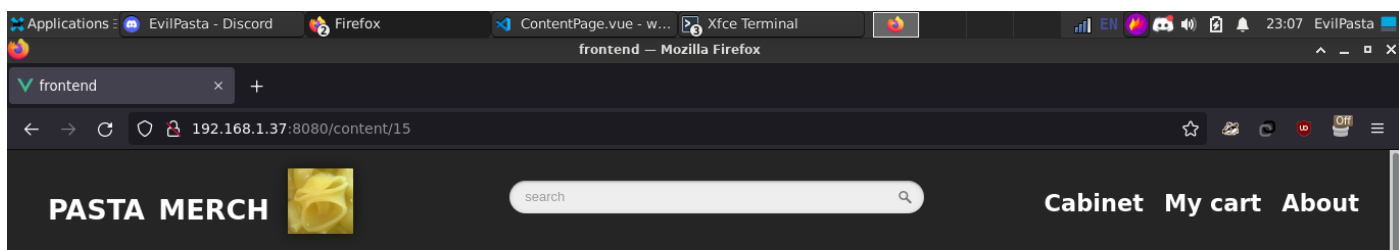

Author: EvilPasta

Type: Sticker

Price:

99p.

Add to cart

EvilPasta: "Angel Skye."

She is so precious and innocent! You are ordering a high quality color printed set of 5 stickers. Additionally you will be rewarded with an avatar to use in our upcoming game.

frontend
192.168.1.37:8080/content/15

PASTA MERCH

search   Cabinet My cart About

Tiny boi Orange

Author: EvilPasta

Type: Sticker

Price:

99p.

Add to cart

EvilPasta: "Tiny boi Orange"

Adorable Tiny Boi of your preffered color! You are ordering a high quality color printed set of 5 stickers. Additionally you will be rewarded with an avatar to use in our upcoming game.

Github: https://github.com/EvilPasta/WebLab