**МИНОБРНАУКИ РОССИИ**ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ  
ВЫСШЕГО ОБРАЗОВАНИЯ  
**«БЕЛГОРОДСКИЙ ГОСУДАРСТВЕННЫЙ  
ТЕХНОЛОГИЧЕСКИЙ УНИВЕРСИТЕТ им. В.Г.ШУХОВА»  
(БГТУ им. В.Г.Шухова)**

Кафедра программного обеспечения вычислительной техники и автоматизированных систем

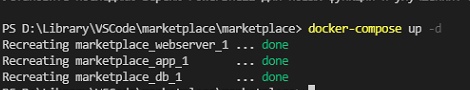
Лабораторная работа №3

Тема: «Серверное программирование»  
Дисциплина: «Технологии web-программирования»

Выполнил: ст. группы ВТ-41  
Сафронов Даниил Николаевич

Белгород 2021 г.

# Серверное программирование.

В ходе выполнения познакомились с основами backend разработки web-приложений. Научились писать скрипты. Познакомились с основами работы docker Установим сам docker с сайта docker.com

Затем добавим в проект следующие файлы из репозитория:

docker-compose.yml

|  |
| --- |
| version: '3' |
|  | services: |
|  |  |
|  | app: |
|  | build: |
|  | context: . |
|  | dockerfile: docker/Dockerfile |
|  | image: digitalocean.com/php |
|  | restart: unless-stopped |
|  | tty: true |
|  | environment: |
|  | SERVICE\_NAME: app |
|  | SERVICE\_TAGS: dev |
|  | working\_dir: /var/www |
|  | volumes: |
|  | - ./:/var/www |
|  | - ./php/local.ini:/usr/local/etc/php/conf.d/local.ini |
|  | networks: |
|  | - app-network |
|  |  |
|  | webserver: |
|  | image: nginx:alpine |
|  | restart: unless-stopped |
|  | tty: true |
|  | ports: |
|  | - "80:80" |
|  | - "443:443" |
|  | volumes: |
|  | - ./:/var/www |
|  | - ./nginx/conf.d/:/etc/nginx/conf.d/ |
|  | networks: |
|  | - app-network |
|  |  |
|  | db: |
|  | image: mysql:5.7 |
|  | restart: unless-stopped |
|  | tty: true |
|  | ports: |
|  | - "3306:3306" |
|  | environment: |
|  | MYSQL\_ROOT\_PASSWORD: 'superpass321!' |
|  | MYSQL\_DATABASE: 'web' |
|  | MYSQL\_USER: 'user' |
|  | MYSQL\_PASSWORD: 'pass321!' |
|  | networks: |
|  | - app-network |
|  |  |
|  | networks: |
|  | app-network: |
|  | driver: bridge |

docker/Dockerfile

|  |
| --- |
| FROM php:7.4-fpm |
|  |  |
|  | # 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"] |

nginx/conf.d/app.conf

|  |
| --- |
| server { |
|  | listen 80; |
|  | index index.php index.html; |
|  | error\_log /var/log/nginx/error.log; |
|  | access\_log /var/log/nginx/access.log; |
|  | root /var/www/public; |
|  | location ~ \.php$ { |
|  | try\_files $uri =404; |
|  | fastcgi\_split\_path\_info ^(.+\.php)(/.+)$; |
|  | fastcgi\_pass app:9000; |
|  | fastcgi\_index index.php; |
|  | include fastcgi\_params; |
|  | fastcgi\_param SCRIPT\_FILENAME $document\_root$fastcgi\_script\_name; |
|  | fastcgi\_param PATH\_INFO $fastcgi\_path\_info; |
|  | } |
|  | location / { |
|  | try\_files $uri $uri/ /index.php?$query\_string; |
|  | gzip\_static on; |
|  | } |
|  | } |