Лабораторная работа 5

Установка docker

```
root@art-labs:~# # Add Docker's official GPG key:
sudo apt-get update
sudo apt-get install ca-certificates curl
sudo install -m 0755 -d /etc/apt/keyrings
sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc
sudo chmod a+r /etc/apt/keyrings/docker.asc

# Add the repository to Apt sources:
echo \
  "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc] https://download.docker.com/linux/ubuntu \
  $(. /etc/os-release && echo "${UBUNTU_CODENAME:-$VERSION_CODENAME}") stable" | \
  sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
sudo apt-get update
Hit:1 http://mirror.selectel.ru/ubuntu jammy InRelease
Hit:2 http://mirror.selectel.ru/ubuntu jammy-updates InRelease
Hit:3 http://mirror.selectel.ru/ubuntu jammy-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]
Hit:5 http://repo.os.selectel.org jammy InRelease
Get:6 https://download.docker.com/linux/ubuntu jammy InRelease [48.8 kB]
Hit:7 https://deb.nodesource.com/node_18.x nodistro InRelease
Fetched 178 kB in 1s (136 kB/s)
Reading package lists... Done
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
ca-certificates is already the newest version (20240203~22.04.1).
curl is already the newest version (7.81.0-1ubuntu1.20).
0 upgraded, 0 newly installed, 0 to remove and 2 not upgraded.
Hit:1 http://mirror.selectel.ru/ubuntu jammy InRelease
Hit:2 http://mirror.selectel.ru/ubuntu jammy-updates InRelease
Hit:3 http://mirror.selectel.ru/ubuntu jammy-backports InRelease
Hit:4 http://repo.os.selectel.org jammy InRelease
Hit:5 http://security.ubuntu.com/ubuntu jammy-security InRelease
Hit:6 https://download.docker.com/linux/ubuntu jammy InRelease
Hit:7 https://deb.nodesource.com/node_18.x nodistro InRelease
Reading package lists... Done
root@art-labs:~# sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
containerd.io is already the newest version (1.7.27-1).
docker-buildx-plugin is already the newest version (0.24.0-1~ubuntu.22.04~jammy).
docker-ce-cli is already the newest version (5:28.2.2-1~ubuntu.22.04~jammy).
docker-ce is already the newest version (5:28.2.2-1~ubuntu.22.04~jammy).
docker-compose-plugin is already the newest version (2.36.2-1~ubuntu.22.04~jammy).
0 upgraded, 0 newly installed, 0 to remove and 2 not upgraded.
root@art-labs:~#
```

Пушим Docker image в Docker Hub

```
PS C:\Users\Ольга\Documents\3 курс\ПИТ\ЛР_%> docker build -t vasiliza2002/vasilizalr2:latest .
[+] Building 0.5s (1/1) FINISHED                                                            doc
 => [internal] load build definition from Dockerfile
 => => transferring dockerfile: 2B
ERROR: failed to solve: failed to read dockerfile: open Dockerfile: no such file or directory

View build details: docker-desktop://dashboard/build/default/default/25nxh4jbr0rpieo77ct79bs53
PS C:\Users\Ольга\Documents\3 курс\ПИТ\ЛР_%> docker build -t vasiliza2002/vasilizalr2:latest .
[+] Building 44.3s (15/15) FINISHED                                                         doc
 => [internal] load build definition from dockerfile
 => => transferring dockerfile: 282B
 => [internal] load metadata for docker.io/library/golang:1.24.2-alpine
 => [internal] load metadata for docker.io/library/alpine:latest
 => [auth] library/alpine:pull token for registry-1.docker.io
 => [auth] library/golang:pull token for registry-1.docker.io
 => [internal] load .dockerignore
 => => transferring context: 2B
```
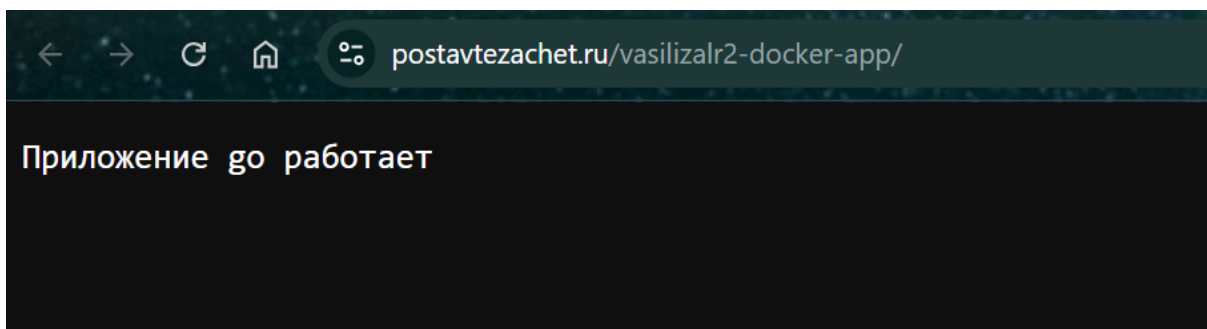
```
   View a summary of image vulnerabilities and recommendations → docker scout quickview
PS C:\Users\Ольга\Documents\3 курс\ПИТ\ЛР_%> docker images
REPOSITORY                     TAG      IMAGE ID       CREATED          SIZE
vasiliza2002/vasilizalr2       latest   e3be9ed560bd   15 seconds ago   16.5MB
vasilizalr2                    latest   eafc1c23f15c   10 minutes ago   16.5MB
flask-bonus-main-flask-app     latest   77d12f68b8c1   6 months ago     181MB
PS C:\Users\Ольга\Documents\3 курс\ПИТ\ЛР_%> docker push vasiliza2002/vasilizalr2:latest
The push refers to repository [docker.io/vasiliza2002/vasilizalr2]
7684fce70b7d: Pushed
f60f6b9e8f30: Pushed
fd2758d7a50e: Mounted from library/alpine
latest: digest: sha256:8d1fd2e64c490a15948f46634c0de1d1efb194642d3fa66c7c9f0c6ff7aa029d size: 945
```

Запуск контейнера на сервере

```
[root@art-labs:~# docker run -d -p 8089:8089 --name go-echo vasiliza2002/vasilizalr2
Unable to find image 'vasiliza2002/vasilizalr2:latest' locally
latest: Pulling from vasiliza2002/vasilizalr2
fe07684b16b8: Already exists
59b536c823c2: Pull complete
aec9c20eb7f0: Pull complete
Digest: sha256:8d1fd2e64c490a15948f46634c0de1d1efb194642d3fa66c7c9f0c6ff7aa029d
Status: Downloaded newer image for vasiliza2002/vasilizalr2:latest
dc220ee7991b49411aafe9ecec66f9bee54159f3549e10c8ae91bf89b4da2754
[root@art-labs:~# docker ps
CONTAINER ID   IMAGE                      COMMAND    CREATED         STATUS         PORTS                                            NAMES
dc220ee7991b   vasiliza2002/vasilizalr2   "./app"    6 seconds ago   Up 5 seconds   0.0.0.0:8089->8089/tcp, [::]:8089->8089/tcp      go-echo
root@art-labs:~#
```

Настройка nginx

```
# Docker-приложение (порт 8089) по пути /docker-app/
location /vasilizalr2-docker-app/ {
    proxy_pass            http://127.0.0.1:8089/;
    proxy_http_version 1.1;
    proxy_set_header      Upgrade              $http_upgrade;
    proxy_set_header      Connection           keep-alive;
    proxy_set_header      Host                 $host;
    proxy_set_header      X-Real-IP            $remote_addr;
    proxy_set_header      X-Forwarded-For      $proxy_add_x_forwarded_for;
    proxy_set_header      X-Forwarded-Proto $scheme;
    proxy_redirect        http://127.0.0.1:8089/    /docker-app/;

}
```

postavtezachet.ru/vasilizalr2-docker-app/

Приложение go работает

https://hub.docker.com/r/vasiliza2002/vasilizalr2

HTTP https://postavtezachet.ru/vasilizalr2-docker-app/echo

POST ⌄ | https://postavtezachet.ru/vasilizalr2-docker-app/echo

Params Authorization Headers (8) **Body** ● Scripts Tests Settings

○ none ○ form-data ○ x-www-form-urlencoded ● raw ○ binary ○ GraphQL JSON ⌄

```
1  {
2  |    "message": "POST работает"
3  }
```

Body Cookies Headers (5) Test Results 🕘

📋 Raw ⌄   ✨ Visualize | ⌄

```
1  {
2  |    "message": "POST работает"
3  }
```