Отчёт по лабораторной 2

Предмет: Технологии ИИ

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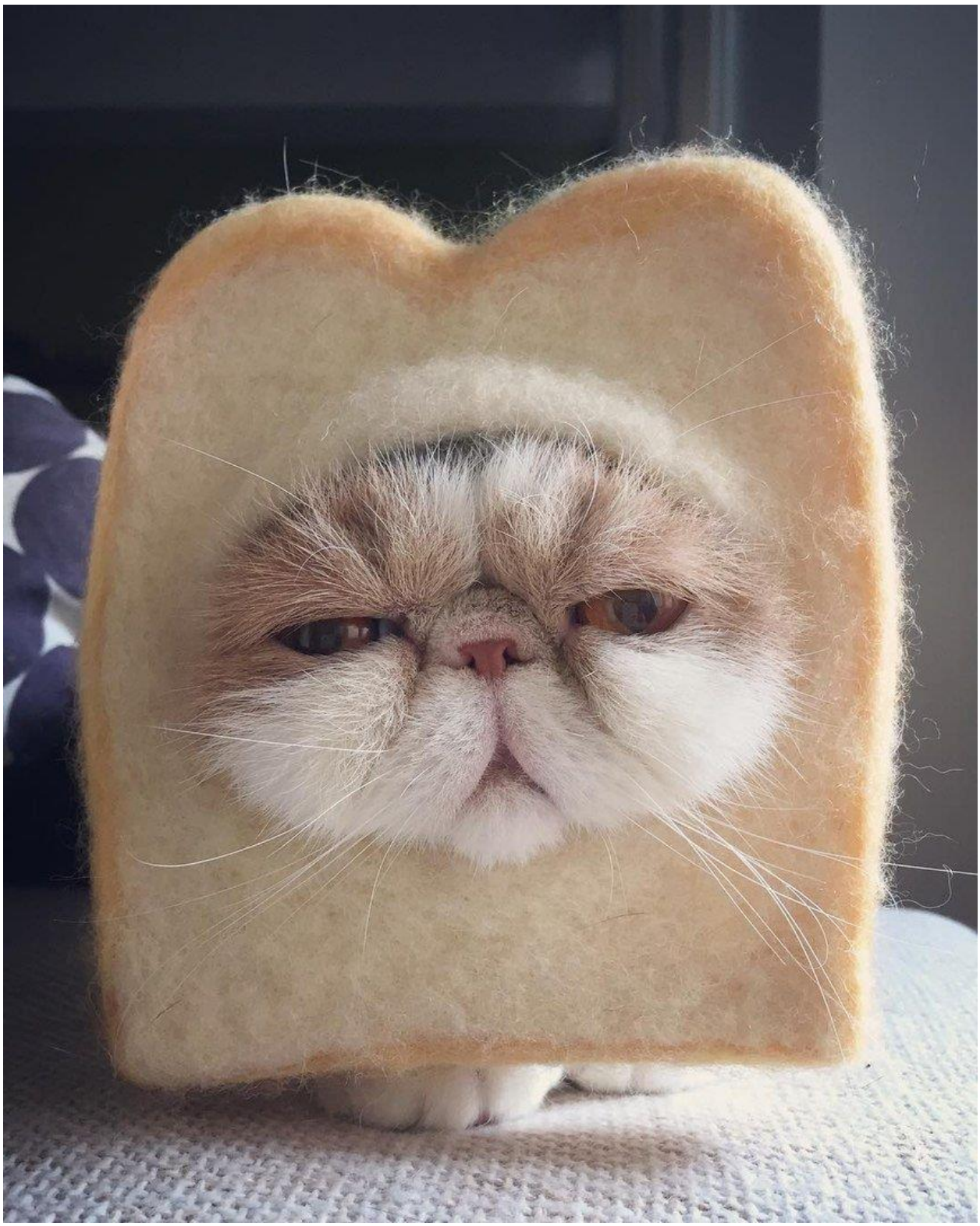
ЧАСТЬ 1

В ходе работы обрабатывается изображение cat.jpg



Билд проекта
Docker image build -t catboy:0.1 .

```
C:\artificial_intelligence\lab_2\lab_task_1>Docker image build -t catopreter:0.1 .
[+] Building 2.2s (24/24) FINISHED                                                                       docker:default
 => [internal] load build definition from Dockerfile                                                              0.0s
 => => transferring dockerfile: 2.09kB                                                                            0.0s
 => [internal] load .dockerignore                                                                                 0.0s
 => => transferring context: 2B                                                                                   0.0s
 => [internal] load metadata for docker.io/library/ubuntu:22.04                                                   2.1s
 => [auth] library/ubuntu:pull token for registry-1.docker.io                                                     0.0s
 => [ 1/20] FROM docker.io/library/ubuntu:22.04@sha256:e6173d4dc55e76b87c4af8db8821b1feae4146dd47341e4d431118c7dd060a74  0.0s
 => CACHED [ 2/20] RUN apt update && apt -y upgrade                                                               0.0s
 => CACHED [ 3/20] RUN mkdir /usr/local/Dev                                                                       0.0s
 => CACHED [ 4/20] RUN apt install -y curl python3-testresources python3-dev wget gnupg2 software-properties-common  0.0s
 => CACHED [ 5/20] WORKDIR /usr/local/Dev/                                                                        0.0s
 => CACHED [ 6/20] RUN curl https://bootstrap.pypa.io/get-pip.py -o get-pip.py &&     python3 get-pip.py         0.0s
 => CACHED [ 7/20] RUN echo ttf-mscorefonts-installer msttcorefonts/accepted-mscorefonts-eula select true | debconf-set-selections  0.0s
 => CACHED [ 8/20] RUN ln -snf /usr/share/zoneinfo/Europe/Samara /etc/localtime && echo Europe/Samara > /etc/timezone  0.0s
 => CACHED [ 9/20] RUN apt -y install libgstreamer1.0-0 gstreamer1.0-plugins-base gstreamer1.0-plugins-good gstreamer1.0-plugins-bad gstreamer1.0-plugins-ugly gstrea  0.0s
 => CACHED [10/20] RUN apt -y install ubuntu-restricted-extras libgstreamer1.0-dev libgstreamer-plugins-base1.0-dev libgstreamer-plugins-bad1.0-dev libgstreamer-plug  0.0s
 => CACHED [11/20] RUN apt -y install build-essential cmake unzip git pkg-config libgtk2.0-dev libavcodec-dev libavformat-dev             libswscale-dev libtb  0.0s
 => CACHED [12/20] RUN apt update                                                                                 0.0s
 => CACHED [13/20] RUN apt install python3-opencv                                                                 0.0s
 => CACHED [14/20] RUN echo $(python3 -c "import cv2 as cv; print(cv.__version__)")                               0.0s
 => CACHED [15/20] RUN pip3 install -U numpy                                                                      0.0s
 => CACHED [16/20] RUN apt update                                                                                 0.0s
 => CACHED [17/20] RUN apt install -y qtcreator qtbase5-dev qt5-qmake cmake                                       0.0s
 => CACHED [18/20] RUN pip3 install -U pyqt5 scipy colour-science scikit-image loguru pandas fast-slic            0.0s
 => CACHED [19/20] RUN pip3 install imageio matplotlib numba oct2py pandas Pillow PyQt5 PyYAML                    0.0s
 => exporting to image                                                                                            0.0s
 => => exporting layers                                                                                           0.0s
 => => writing image sha256:2288fb48b711444f6cbce600ccbdf8de598a927391bb01be8b7100026e14e67e                      0.0s
 => => naming to docker.io/library/catopreter:0.1                                                                 0.0s

C:\artificial_intelligence\lab_2\lab_task_1>
```

Создаём контейнер catainer и копируем в него файлы
Docker run -dit -v .\data/usr/app/src --name catainer catboy

docker cp C:\artificial_intelligence\lab_2\lab_task_1\cat.jpg catainer:/usr/app/src/cat.jpg

docker cp C:\artificial_intelligence\lab_2\lab_task_1\ \catopretator.py catainer:/usr/app/src/catopretator.py

```
C:\artificial_intelligence\lab_2\lab_task_1>Docker run -dit -v .\data/usr/app/src --name catainer catboy:0.1
eb486bfda3289087120f03eecec03eed1feef85bee3bdbf53085f061e809c8fe
```

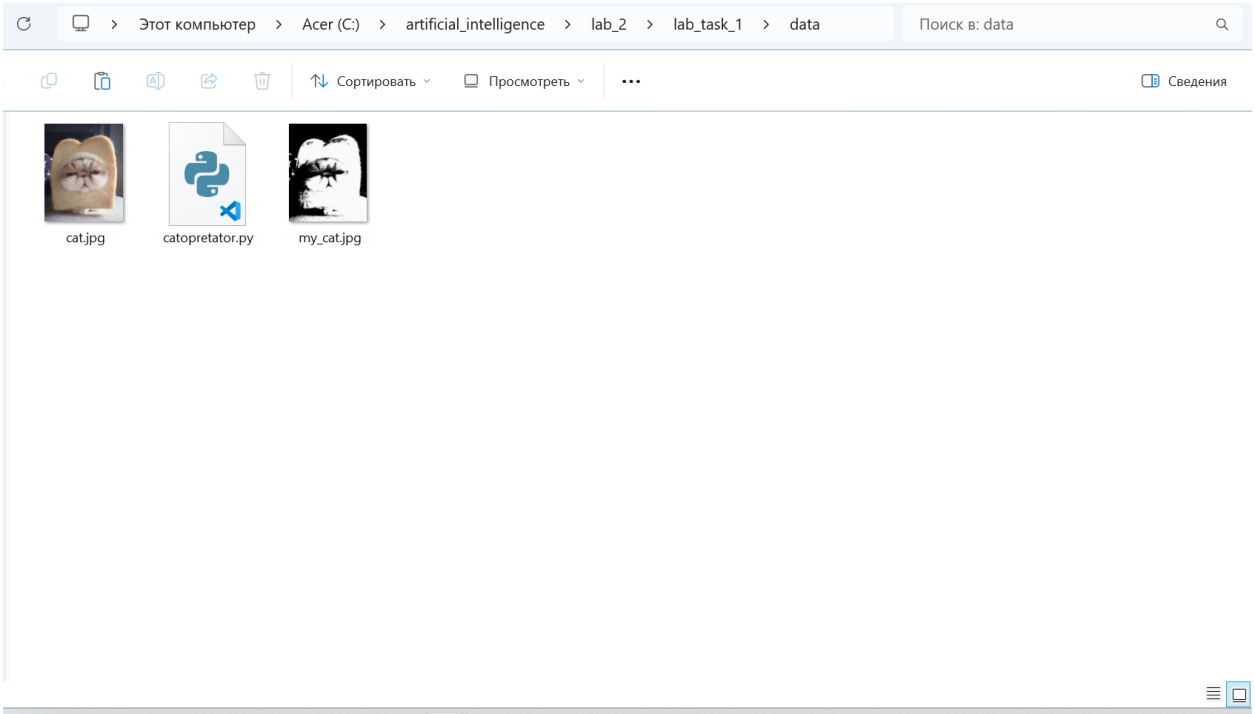
```
C:\artificial_intelligence\lab_2\lab_task_1>docker cp C:\artificial_intelligence\lab_2\lab_task_1\cat.jpg catainer:/usr/app/src/cat.jpg
Successfully copied 167kB to catainer:/usr/app/src/cat.jpg
```

```
C:\artificial_intelligence\lab_2\lab_task_1>docker cp C:\artificial_intelligence\lab_2\lab_task_1\catopretator.py catainer:/usr/app/src/catopretator.py
Successfully copied 2.56kB to catainer:/usr/app/src/catopretator.py
```

Для активации скрипта используется команда
docker exec -it catainer python3 /usr/app/src/ catopretator.py

```
C:\artificial_intelligence\lab_2\lab_task_1>docker exec -it catainer python3 /usr/app/src/ catopretator.py
```

Как видно, в папке появилась папка data и в ней обработанное изображение


Этот компьютер
Acer (C:)
artificial_intelligence
lab_2
lab_task_1
data
Поиск в: data
Сортировать
Просмотреть
Сведения
cat.jpg
catopretator.py
my_cat.jpg

ЧАСТЬ 2

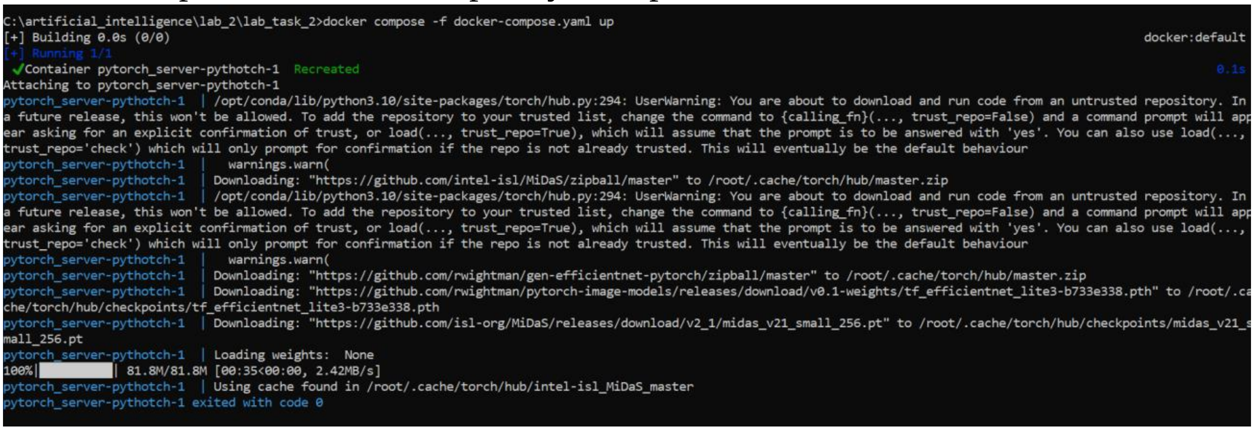
Билд проекта

docker image build -t cat2:0.1 .

Запускаем проект

Запуск yaml

docker compose -f docker-compose.yaml up



Теперь в папке с проектом новое изображение кота