Я выбрал тему NST, так как все ресурсы заняты под обучение edvanced super resultion GAN, которую я выбрал как нейросеть для проекта. Кроме того, так как GAN выбран для проекта, хотелось бы в домашней работе посмотреть что-то другое.

```
!pip3 install torch torchvision
!pip3 install pillow
```

```
Requirement already satisfied: torch in /usr/local/lib/python3.6/dist-packa
Requirement already satisfied: torchvision in /usr/local/lib/python3.6/dist
Requirement already satisfied: typing-extensions in /usr/local/lib/python3.
Requirement already satisfied: dataclasses in /usr/local/lib/python3.6/dist
Requirement already satisfied: future in /usr/local/lib/python3.6/dist-pack
Requirement already satisfied: numpy in /usr/local/lib/python3.6/dist-packa
Requirement already satisfied: pillow>=4.1.1 in /usr/local/lib/python3.6/di
Requirement already satisfied: pillow in /usr/local/lib/python3.6/dist-pack
```

```
%matplotlib inline
from PIL import Image


import torch
import torch.nn as nn
import torch.nn.functional as F
import torch.optim as optim

import matplotlib.pyplot as plt


import torchvision.transforms as transforms
import torchvision.models as models

import copy
```

Класс для загрузки изображений

```
device = torch.device("cuda" if torch.cuda.is_available() else "cpu")

class Images:

    def __init__(self, content, style1, style2, size = 128):
      self.transorms = transforms.Compose([
          transforms.Resize(size),
          transforms.CenterCrop(size),
          transforms.ToTensor()])

      self.style1 = self.image_loader(style1)
      self.style2 = self.image_loader(style2)
      self.content = self.image_loader(content)
```