**Московский государственный технический университет им. Н.Э. Баумана**

Факультет «Информатика и системы управления» Кафедра ИУ5 «Системы обработки информации и управления»

Курс «Парадигмы и конструкции языков программирования» Лаб ДЗ+Бот

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| Подпись и дата: | Подпись и дата: |

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Задание:

Разработать теграмм бота

Домашним заданием являлось доработка телеграмм бота

Согласовано с преподавателем лабораторных работ

Текст программы

import telebot  
from telebot import types  
from PIL import Image  
from PIL import ImageFilter  
from PIL import ImageOps  
import os  
import time  
  
  
bot = telebot.TeleBot('6974578088:AAE-qBT6FVPesqpH6WcDTa61TJaXwTyyO\_o')  
project\_folder = "/Users/Fedor/PycharmProjects/2kurs"  
  
global ind  
ind = 0  
  
  
def delete\_jpg\_files(folder\_path):  
 try:  
 files = os.listdir(folder\_path)  
  
 jpg\_files = [file for file in files if file.endswith(".jpg")]  
  
 for jpg\_file in jpg\_files:  
 file\_path = os.path.join(folder\_path, jpg\_file)  
 os.remove(file\_path)  
 print(f"Удален файл: {file\_path}")  
  
 except Exception as e:  
 print(f"Произошла ошибка при удалении файлов: {e}")  
  
  
@bot.message\_handler(commands=['start'])  
def start\_message(message):  
 keyboard = types.ReplyKeyboardMarkup(resize\_keyboard=True)  
 btn1 = types.KeyboardButton(text='/start')  
 btn2 = types.KeyboardButton(text='/help')  
 keyboard.add(btn1, btn2)  
 bot.send\_message(message.chat.id, text='выберите функцию', reply\_markup=keyboard)  
  
  
  
@bot.message\_handler(commands=['help'])  
def help(message):  
 k\_b = types.ReplyKeyboardMarkup(resize\_keyboard=True)  
 btn3 = types.KeyboardButton(text='/reverse\_photo')  
 btn4 = types.KeyboardButton(text='/blur\_photo')  
 btn5 = types.KeyboardButton(text='/negative\_photo')  
 k\_b.add(btn3)  
 k\_b.add(btn4)  
 k\_b.add(btn5)  
 bot.send\_message(message.chat.id, text='Выберите обработку', reply\_markup=k\_b)  
  
  
@bot.message\_handler(commands=['reverse\_photo'])  
def reverse(message):  
 msg = bot.send\_message(message.chat.id, "Send photo")  
 bot.register\_next\_step\_handler(msg, r\_photo)  
  
  
def r\_photo(message):  
 global ind  
 ind += 1  
 file\_id = message.photo[-1].file\_id  
 file\_info = bot.get\_file(file\_id)  
 file\_path = file\_info.file\_path  
 downloaded\_file = bot.download\_file(file\_path)  
  
 with open('saved\_photo' + str(ind) + '.jpg', 'wb') as new\_file:  
 new\_file.write(downloaded\_file)  
  
 im = Image.open('saved\_photo' + str(ind) + '.jpg')  
 im = im.transpose(Image.FLIP\_LEFT\_RIGHT)  
  
 bot.send\_photo(message.chat.id, im)  
  
 time.sleep(10)  
 delete\_jpg\_files(project\_folder)  
  
  
  
  
@bot.message\_handler(commands=['blur\_photo'])  
def blur(message):  
 msg = bot.send\_message(message.chat.id, "Send photo")  
 bot.register\_next\_step\_handler(msg, b\_photo)  
  
  
def b\_photo(message):  
 global ind  
 ind += 1  
 file\_id = message.photo[-1].file\_id  
 file\_info = bot.get\_file(file\_id)  
 file\_path = file\_info.file\_path  
 downloaded\_file = bot.download\_file(file\_path)  
  
 with open('saved\_photo' + str(ind) + '.jpg', 'wb') as new\_file:  
 new\_file.write(downloaded\_file)  
  
 im = Image.open('saved\_photo' + str(ind) + '.jpg')  
  
 for i in range(100):  
 im = im.filter(ImageFilter.BLUR)  
  
 bot.send\_photo(message.chat.id, im)  
  
 time.sleep(10)  
 delete\_jpg\_files(project\_folder)  
  
  
  
  
  
  
  
@bot.message\_handler(commands=['negative\_photo'])  
def negative(message):  
 msg = bot.send\_message(message.chat.id, "Send photo")  
 bot.register\_next\_step\_handler(msg, n\_photo)  
  
  
def n\_photo(message):  
 global ind  
 ind += 1  
 file\_id = message.photo[-1].file\_id  
 file\_info = bot.get\_file(file\_id)  
 file\_path = file\_info.file\_path  
 downloaded\_file = bot.download\_file(file\_path)  
  
 with open('saved\_photo' + str(ind) + '.jpg', 'wb') as new\_file:  
 new\_file.write(downloaded\_file)  
  
 im = Image.open('saved\_photo' + str(ind) + '.jpg')  
  
 im = ImageOps.invert(im)  
  
 bot.send\_photo(message.chat.id, im)  
  
 time.sleep(10)  
 delete\_jpg\_files(project\_folder)  
  
  
bot.polling(none\_stop=True, interval=0)

Результаты

