Московский государственный технический университет им. Н.Э. Баумана

Лабораторная работа №3 по дисциплине
“Разработка интернет приложений”

ИСПОЛНИТЕЛЬ:

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1.

Base_client.py

```
class BaseClient:
    BASE_URL = None

    method = None
    http_method = None

    def get_params(self):
        pass

    def get_json(self):
        pass

    def get_headers(self):
        pass

    def generate_url(self, method):
        return '{0}{1}'.format(self.BASE_URL, method)

    def _get_data(self, method, http_method):
        response = None

        # todo выполнить запрос

        return self.response_handler(response)

    def response_handler(self, response):
        return response

    def execute(self):
        return self._get_data(
            self.method,
            http_method=self.http_method
        )
```

Client.py

```
import requests, json

from base_client import BaseClient


class Client(BaseClient):
    BASE_URL = 'https://api.vk.com/method/'
    user_name = ''
    user_id = ''
    payload = {}

    def __init__(self, user_name):
        self.user_name = user_name
        self.payload = {'v': '5.57', 'user_ids': self.user_name}
        self.user_id = self.get_id()

    def get_id(self):
        resp = self._get_data('users.get', self.payload)
        return resp['response'][0]['id']

    def _get_data(self, method, param):
        response = requests.get(self.generate_url(method), params=param)
        response = response.json()
        return self.response_handler(response)

    def response_handler(self, response):
        if 'error' not in response:
            return response
        else:
            raise NameError
    def execute(self):
        return self.user_id
```

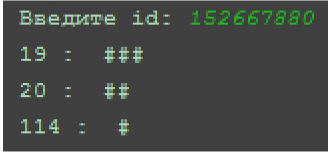
Client_friends.py

```
from client import *
from datetime import datetime


class ClientFriends(Client):
    today = datetime.toordinal(datetime.now())
    age_friends = {}

    def __init__(self, user_id):
        self.user_id = user_id
        self.payload = {'v': '5.57', 'fields': 'bdate', 'order': 'random', 'user_id':
self.user_id}

    def get_friends(self):
        resp = self._get_data('friends.get', self.payload)
        for i in range(len(resp['response']['items'])):
            if 'bdate' in resp['response']['items'][i]:
                if len(resp['response']['items'][i]['bdate']) >= 8:
                    bdate = datetime.strptime(resp['response']['items'][i]['bdate'],
'%d.%m.%Y')
                    bdate = datetime.toordinal(bdate)
                    age = int((self.today - bdate)//365.25)
                    if self.age_friends.get(age) is None:
                        self.age_friends[age] = '#'
                    else:
                        self.age_friends[age] += '#'
        return self.age_friends

    def print_friends(self):
        ages = self.get_friends()
        for i in range(max(ages.keys())+1):
            if ages.get(i) is None:
                continue
            else:
                print(i, ': ', ages.get(i))
```

Main.py

```
from client import Client
from client_friends import ClientFriends

input_id = input('Введите id: ')
user = Client(input_id)
user_friends = ClientFriends(user.execute())
user_friends.print_friends()
```

Результат



```
Введите id: 152667880
19 :  ###
20 :  ##
114 :  #
```