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Лабораторная работа по курсу РИП №3

«Классы»

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Исходный код:

base_client.py:

```
class BaseClient:

    BASE_URL = None
    method = None
    http_method = None
    def get_params(self):
        return None

    def get_json(self):
        return None

    def get_headers(self):
        return None

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

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

        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
        )
```

id_from_username.py:

```
from base_client import *
import requests
import json

class IdFromUsername(BaseClient):
    BASE_URL = 'https://api.vk.com/method/'
    method = 'users.get'
    http_method = 'POST'

    def __init__(self, username):
        self.username = username

    def get_params(self):
        return 'user_ids=' + self.username

    def _get_data(self, method, http_method):
        response = requests.get(self.generate_url(self.method) + '?' + self.get_params())
        return self.response_handler(response)
```

```

def response_handler(self, response):
    try:
        string = json.loads(response.text)
        return string['response'][0]['uid']
    except:
        print('Error(DARUDE SANDSTORM) ')

```

get_friends.py:

```

from base_client import *
import requests
import json
from datetime import datetime, date, time, timedelta

class GetFriends(BaseClient):
    BASE_URL = https://api.vk.com/method/
    method = 'friends.get'
    http_method = 'POST'

    def __init__(self, uid):
        self.uid = uid

    def get_params(self):
        return 'user_id=' + str(self.uid) + '&fields=bdate'

    def _get_data(self, method, http_method):
        response = requests.get(self.generate_url(self.method) + '?' + self.get_params())
        return self.response_handler(response)

    def response_handler(self, response):
        try:
            friends = json.loads(response.text)['response']
            dates = {}
            i = 0
            for d in friends:
                try:
                    bdate = datetime.strptime(d['bdate'], '%d.%m.%Y')
                except:
                    continue
                cur_date = datetime.now()
                time_delta = (cur_date - bdate).days
                years = time_delta // 365.25
                if (years not in dates):
                    dates[years] = ""
                dates[years] += '#'
            return dates
        except:
            print('Error')

```

vk_api.py:

```

from id_from_username import IdFromUsername
from get_friends import GetFriends

```

```
user = IdFromUsername('4taaa')
uid = user.execute()

friends = GetFriends(uid)
statistic = friends.execute()
statistic = sorted(statistic.items(), key = lambda x:x[0])
for i in statistic:
    print( '{ } => { }'.format(i[0], i[1]))
```

Результат:

```
14.0 => #
18.0 => #
19.0 => #####
20.0 => #####
21.0 => ###
22.0 => ##
24.0 => #
26.0 => #
28.0 => #
29.0 => #
```