Московский государственный технический университет им. Н.Э. Баумана
Факультет «Информатика и системы управления»
Кафедра «Автоматизированные системы обработки информации и управления»

Отчет по лабораторной работе No 3 по курсу «Разработка интернет приложений»

Студент группы ИУ5 -54 Астанов З.Т.

Преподаватель Гапанюк Ю.Е.

Москва 2016

Листинг

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
)
```

Main_Prog.py:

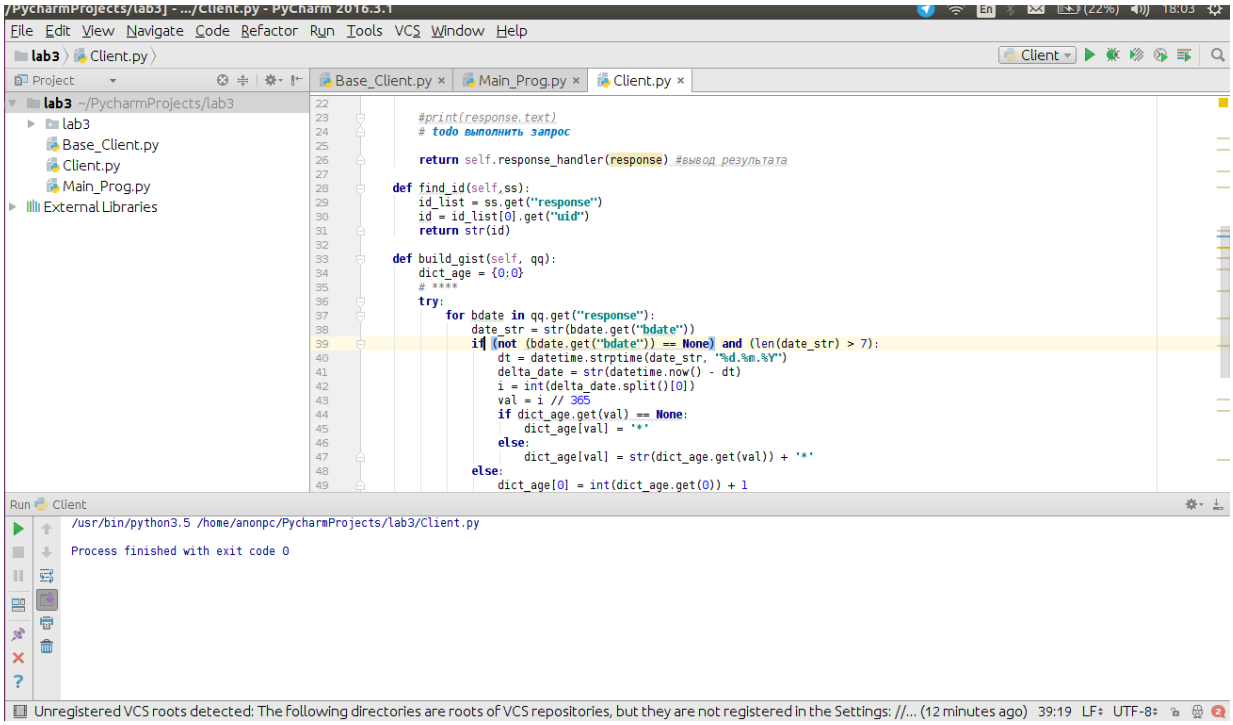
```
import Client
user = Client.Client ("http://api.vk.com/method","users.get")
user.params="user_ids="+input('Введите username или vk_id пользователя: ')
resp_user=user.execute()
id=user.find_id(resp_user.json())
print("Ваш id: ",id)
friends=Client.Client("http://api.vk.com/method","friends.get")
friends.params="user_id="+id+"&fields=bdate"
resp_friends = friends.execute()
friends.build_gist(resp_friends.json())
```

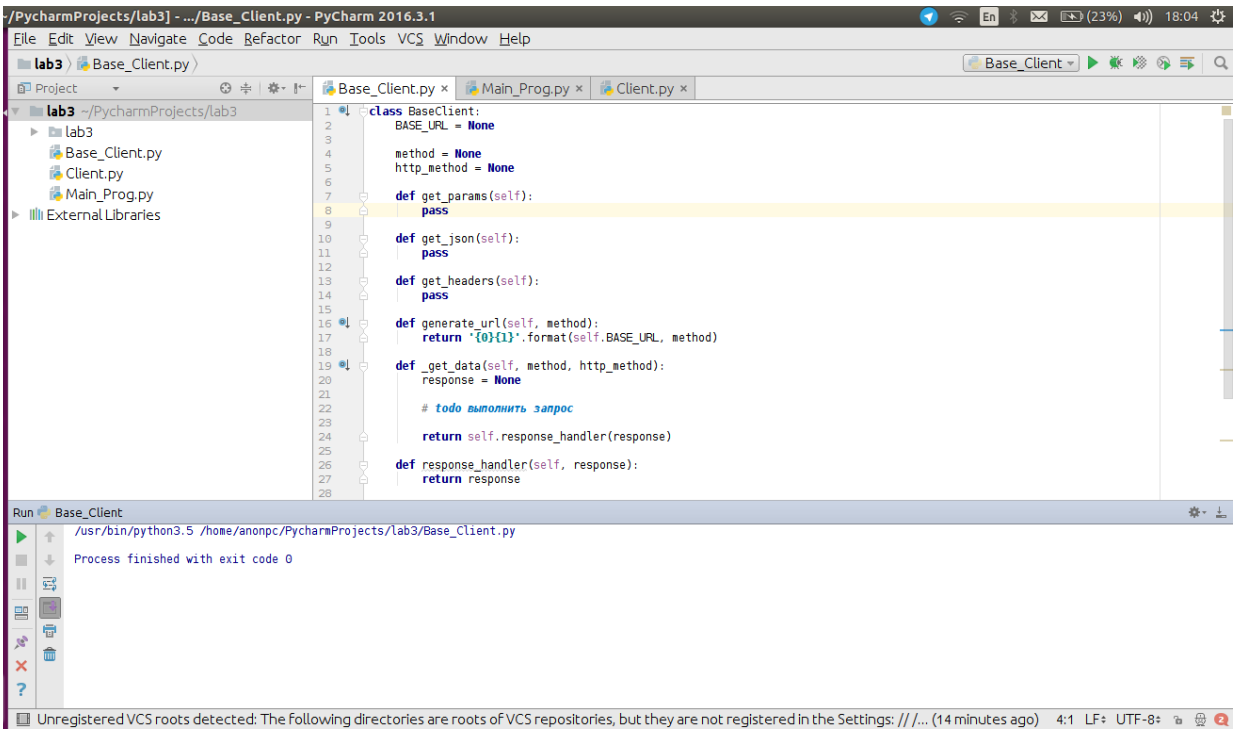
Client.py:

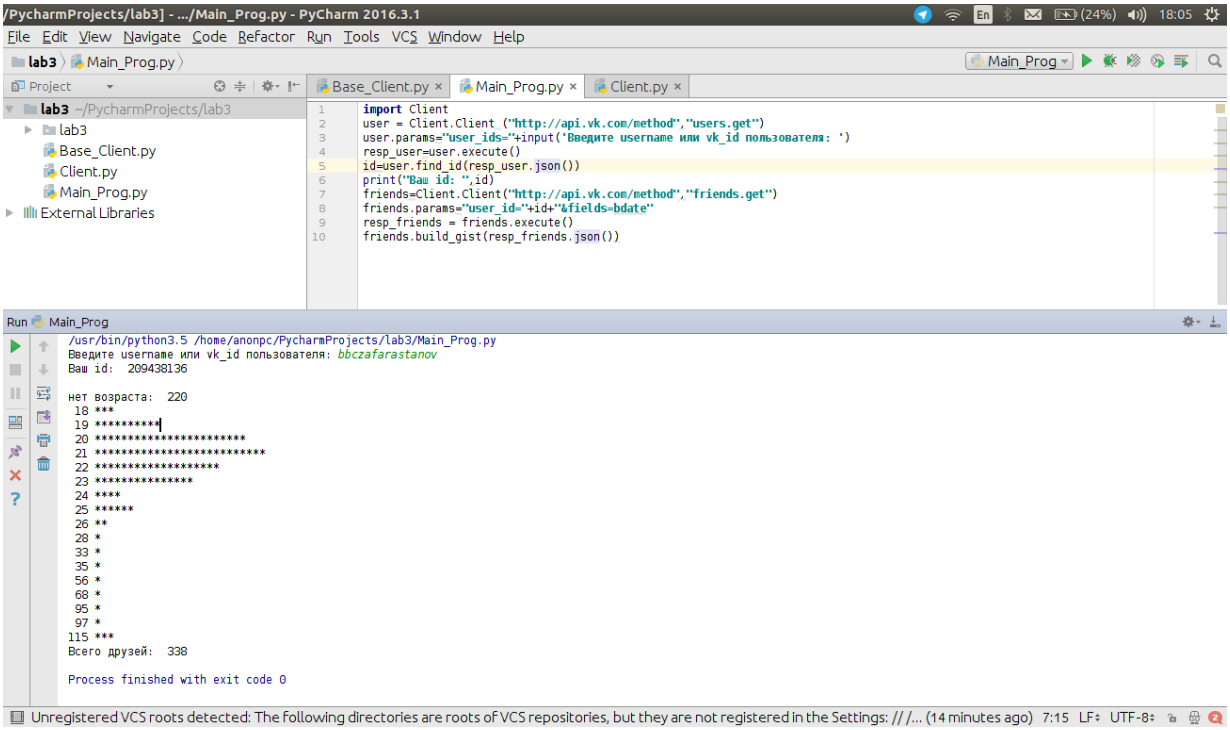
```
import Base_Client
from datetime import datetime
import requests
import requests.exceptions
class Client (Base_Client.BaseClient):
    params = None
    def __init__(self, u, m):
        self.BASE_URL = u
        self.method = m
    def generate_url(self, method): #получить URL
        return '{0}/{1}'.format(self.BASE_URL, method)
    def _get_data(self, method, http_method): #Получить данные (реализация запроса)
        try:
            response = requests.get(self.generate_url(self.method), self.params)
        except requests.RequestException:
            print("Не удалось выполнить запрос!")
            exit(0)
        #print(response.text)
        # todo выполнить запрос
        return self.response_handler(response) #вывод результата
    def find_id(self,ss):
```

```
        id_list = ss.get("response")
        id = id_list[0].get("uid")
        return str(id)
    def build_gist(self, qq):
        dict_age = {0:0}
        # ****
        try:
            for bdate in qq.get("response"):
                date_str = str(bdate.get("bdate"))
                if (not (bdate.get("bdate")) == None) and (len(date_str) > 7):
                    dt = datetime.strptime(date_str, "%d.%m.%Y")
                    delta_date = str(datetime.now() - dt)
                    i = int(delta_date.split()[0])
                    val = i // 365
                    if dict_age.get(val) == None:
                        dict_age[val] = '*'
                    else:
                        dict_age[val] = str(dict_age.get(val)) + '*'
                else:
                    dict_age[0] = int(dict_age.get(0)) + 1
            self.print_gist(dict_age)
        except TypeError:
            print("Пользователь удален,невозможно построить гистограмму!")
    def print_gist(self, dict_age):
        print()
        sum = 0
        for key in sorted(dict_age):
            if key == 0:
                sum += int(dict_age[0])
                print("нет возраста: ", dict_age[0])
            else:
                sum += int(len(str((dict_age[key]))))
                # print(key, dict_age[key])
                print("%3d %s" % (key, dict_age[key]))
        print("Всего друзей: ", sum)
```

Результаты работы программы




/PycharmProjects/lab3] - .../Base_Client.py - PyCharm 2016.3.1
File Edit View Navigate Code Refactor Run Tools VCS Window Help
lab3 Base_Client.py
Base_Client
Project
Base_Client.py
Main_Prog.py
Client.py
lab3 ~/PycharmProjects/lab3
lab3
Base_Client.py
Client.py
Main_Prog.py
External Libraries
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
Run Base_Client
/usr/bin/python3.5 /home/anonpc/PycharmProjects/lab3/Base_Client.py
Process finished with exit code 0
Unregistered VCS roots detected: The following directories are roots of VCS repositories, but they are not registered in the Settings: //... (14 minutes ago) 4:1 LF UTF-8


/PycharmProjects/lab3] - .../Main_Prog.py - PyCharm 2016.3.1
File Edit View Navigate Code Refactor Run Tools VCS Window Help
lab3 Main_Prog.py
Main_Prog
Project
Base_Client.py
Main_Prog.py
Client.py
lab3 ~/PycharmProjects/lab3
lab3
Base_Client.py
Client.py
Main_Prog.py
External Libraries
import Client
user = Client.Client ("http://api.vk.com/method","users.get")
user.params="user_ids="+input('Введите username или vk_id пользователя: ')
resp_user=user.execute()
id=user.find_id(resp_user.json())
print("Ваш id: ",id)
friends=Client.Client("http://api.vk.com/method","friends.get")
friends.params="user_id="+id+"&fields=bdate"
resp_friends = friends.execute()
friends.build_gist(resp_friends.json())
Run Main_Prog
/usr/bin/python3.5 /home/anonpc/PycharmProjects/lab3/Main_Prog.py
Введите username или vk_id пользователя: bbczafarastanov
Ваш id: 209438136
нет возраста: 220
18 ***
19 **********
20 **********
21 **********
22 **********
23 **********
24 ****
25 ******
26 **
28 *
33 *
35 *
56 *
68 *
95 *
97 *
115 ***
Всего друзей: 338
Process finished with exit code 0
Unregistered VCS roots detected: The following directories are roots of VCS repositories, but they are not registered in the Settings: //... (14 minutes ago) 7:15 LF UTF-8