

```
In [1]: pip install vk-api

Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: vk-api in c:\users\task\appdata\roaming\python\python39\site-packages (11.9.9)
Requirement already satisfied: requests in c:\programdata\anaconda3\lib\site-packages (from vk-api) (2.28.1)
Requirement already satisfied: idna<4,>=2.5 in c:\programdata\anaconda3\lib\site-packages (from requests->vk-api) (3.3)
Requirement already satisfied: charset-normalizer<3,>=2 in c:\programdata\anaconda3\lib\site-packages (from requests->vk-api) (2.0.4)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\programdata\anaconda3\lib\site-packages (from requests->vk-api) (1.26.11)
Requirement already satisfied: certifi>=2017.4.17 in c:\programdata\anaconda3\lib\site-packages (from requests->vk-api) (2022.9.14)
Note: you may need to restart the kernel to use updated packages.

In [2]: import pandas as pd
import datetime
import vk_api
import os
import requests
import json
import random

import matplotlib.pyplot as plt
import seaborn as sns
import sys

In [3]: token = 'vk1.a.fVkc0D0hRtHNgQx9UwpkBDyUKoEKKJsgzg7HFxiP_-_-AyZRvw0aPSXZm2qFvfCkADH67vjwEA_DFCZe1Trmh6fW6te19cSv93VmwVTymGuXKAsaysq1XNAQAqXodoIy23n7Z

In [4]: vk_session = vk_api.VkApi(token=token)
vk = vk_session.get_api()

In [5]: vk.messages.send(chat_id=1,
                        random_id=1,
                        message='Not too bad.')
```

```
Out[5]: 0
```

Google doc API

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In [6]: pip install gspread

Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: gspread in c:\users\task\appdata\roaming\python\python39\site-packages (5.10.0)
Requirement already satisfied: google-auth>=1.12.0 in c:\users\task\appdata\roaming\python\python39\site-packages (from gspread) (2.22.0)
Requirement already satisfied: google-auth-oauthlib>=0.4.1 in c:\users\task\appdata\roaming\python\python39\site-packages (from gspread) (1.0.0)
Requirement already satisfied: pyasn1-modules>=0.2.1 in c:\programdata\anaconda3\lib\site-packages (from google-auth>=1.12.0->gspread) (0.2.8)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in c:\users\task\appdata\roaming\python\python39\site-packages (from google-auth>=1.12.0->gspread) (5.3.1)
Requirement already satisfied: rsa<5,>=3.1.4 in c:\users\task\appdata\roaming\python\python39\site-packages (from google-auth>=1.12.0->gspread) (4.9)
Requirement already satisfied: six>=1.9.0 in c:\programdata\anaconda3\lib\site-packages (from google-auth>=1.12.0->gspread) (1.16.0)
Requirement already satisfied: urllib3<2.0 in c:\programdata\anaconda3\lib\site-packages (from google-auth>=1.12.0->gspread) (1.26.11)
Requirement already satisfied: requests-oauthlib>=0.7.0 in c:\users\task\appdata\roaming\python\python39\site-packages (from google-auth-oauthlib>=0.4.1->gspread) (1.3.1)
Requirement already satisfied: pyasn1<0.5.0,>=0.4.6 in c:\programdata\anaconda3\lib\site-packages (from pyasn1-modules>=0.2.1->google-auth>=1.12.0->gspread) (0.4.8)
Requirement already satisfied: requests>=2.0.0 in c:\programdata\anaconda3\lib\site-packages (from requests-oauthlib>=0.7.0->google-auth-oauthlib>=0.4.1->gspread) (2.28.1)
Requirement already satisfied: oauthlib>=3.0.0 in c:\users\task\appdata\roaming\python\python39\site-packages (from requests-oauthlib>=0.7.0->google-auth-oauthlib>=0.4.1->gspread) (3.2.2)
Requirement already satisfied: charset-normalizer<3,>=2 in c:\programdata\anaconda3\lib\site-packages (from requests>=2.0.0->requests-oauthlib>=0.7.0->google-auth-oauthlib>=0.4.1->gspread) (2.0.4)
Requirement already satisfied: idna<4,>=2.5 in c:\programdata\anaconda3\lib\site-packages (from requests>=2.0.0->requests-oauthlib>=0.7.0->google-auth-oauthlib>=0.4.1->gspread) (3.3)
Requirement already satisfied: certifi>=2017.4.17 in c:\programdata\anaconda3\lib\site-packages (from requests>=2.0.0->requests-oauthlib>=0.7.0->google-auth-oauthlib>=0.4.1->gspread) (2022.9.14)
Note: you may need to restart the kernel to use updated packages.

In [7]: pip install df2gspread

Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: df2gspread in c:\users\task\appdata\roaming\python\python39\site-packages (1.0.4)
Requirement already satisfied: pandas in c:\programdata\anaconda3\lib\site-packages (from df2gspread) (1.4.4)
Requirement already satisfied: gspread>=2.1.1 in c:\users\task\appdata\roaming\python\python39\site-packages (from df2gspread) (5.10.0)
Requirement already satisfied: google-api-python-client==1.6.7 in c:\users\task\appdata\roaming\python\python39\site-packages (from df2gspread) (1.6.7)
Collecting argparse>=1.3.0
  Using cached argparse-1.4.0-py2.py3-none-any.whl (23 kB)
Requirement already satisfied: oauth2client<5.0.0dev,>=1.5.0 in c:\users\task\appdata\roaming\python\python39\site-packages (from df2gspread) (4.1.3)
Requirement already satisfied: httplib2<1dev,>=0.9.2 in c:\users\task\appdata\roaming\python\python39\site-packages (from google-api-python-client==1.6.7->df2gspread) (0.22.0)
Requirement already satisfied: uritemplate<4dev,>=3.0.0 in c:\users\task\appdata\roaming\python\python39\site-packages (from google-api-python-client==1.6.7->df2gspread) (3.0.1)
Requirement already satisfied: six<2dev,>=1.6.1 in c:\programdata\anaconda3\lib\site-packages (from google-api-python-client==1.6.7->df2gspread) (1.16.0)
Requirement already satisfied: google-auth>=1.12.0 in c:\users\task\appdata\roaming\python\python39\site-packages (from gspread>=2.1.1->df2gspread) (2.22.0)
Requirement already satisfied: google-auth-oauthlib>=0.4.1 in c:\users\task\appdata\roaming\python\python39\site-packages (from gspread>=2.1.1->df2gspread) (1.0.0)
Requirement already satisfied: rsa>=3.1.4 in c:\users\task\appdata\roaming\python\python39\site-packages (from oauth2client<5.0.0dev,>=1.5.0->df2gspread) (4.9)
Requirement already satisfied: pyasn1-modules>=0.0.5 in c:\programdata\anaconda3\lib\site-packages (from oauth2client<5.0.0dev,>=1.5.0->df2gspread) (0.2.8)
Requirement already satisfied: pyasn1>=0.1.7 in c:\programdata\anaconda3\lib\site-packages (from oauth2client<5.0.0dev,>=1.5.0->df2gspread) (0.4.8)
Requirement already satisfied: pytz>=2020.1 in c:\programdata\anaconda3\lib\site-packages (from pandas->df2gspread) (2022.1)
Requirement already satisfied: numpy>=1.18.5 in c:\programdata\anaconda3\lib\site-packages (from pandas->df2gspread) (1.21.5)
Requirement already satisfied: python-dateutil>=2.8.1 in c:\programdata\anaconda3\lib\site-packages (from pandas->df2gspread) (2.8.2)
Requirement already satisfied: urllib3<2.0 in c:\programdata\anaconda3\lib\site-packages (from google-auth>=1.12.0->gspread>=2.1.1->df2gspread) (1.26.11)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in c:\users\task\appdata\roaming\python\python39\site-packages (from google-auth>=1.12.0->gspread>=2.1.1->df2gspread) (5.3.1)
Requirement already satisfied: requests-oauthlib>=0.7.0 in c:\users\task\appdata\roaming\python\python39\site-packages (from google-auth-oauthlib>=0.4.1->gspread>=2.1.1->df2gspread) (1.3.1)
Requirement already satisfied: pyparsing!=3.0.0,!=3.0.1,!=3.0.2,!=3.0.3,<4,>=2.4.2 in c:\programdata\anaconda3\lib\site-packages (from httplib2<1dev,>=0.9.2->google-api-python-client==1.6.7->df2gspread) (3.0.0)
Requirement already satisfied: oauthlib>=3.0.0 in c:\users\task\appdata\roaming\python\python39\site-packages (from requests-oauthlib>=0.7.0->google-auth-oauthlib>=0.4.1->gspread>=2.1.1->df2gspread) (3.2.2)
Requirement already satisfied: requests>=2.0.0 in c:\programdata\anaconda3\lib\site-packages (from requests-oauthlib>=0.7.0->google-auth-oauthlib>=0.4.1->gspread>=2.1.1->df2gspread) (2.28.1)
Requirement already satisfied: idna<4,>=2.5 in c:\programdata\anaconda3\lib\site-packages (from requests>=2.0.0->requests-oauthlib>=0.7.0->google-auth-oauthlib>=0.4.1->gspread>=2.1.1->df2gspread) (3.3)
Requirement already satisfied: certifi>=2017.4.17 in c:\programdata\anaconda3\lib\site-packages (from requests>=2.0.0->requests-oauthlib>=0.7.0->google-auth-oauthlib>=0.4.1->gspread>=2.1.1->df2gspread) (2022.9.14)
Requirement already satisfied: charset-normalizer<3,>=2 in c:\programdata\anaconda3\lib\site-packages (from requests>=2.0.0->requests-oauthlib>=0.7.0->google-auth-oauthlib>=0.4.1->gspread>=2.1.1->df2gspread) (2.0.4)
Installing collected packages: argparse
Successfully installed argparse-1.4.0
Note: you may need to restart the kernel to use updated packages.

In [8]: pip install oauth2client

Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: oauth2client in c:\users\task\appdata\roaming\python\python39\site-packages (4.1.3)
Requirement already satisfied: pyasn1-modules>=0.0.5 in c:\programdata\anaconda3\lib\site-packages (from oauth2client) (0.2.8)
Requirement already satisfied: httplib2>=0.9.1 in c:\users\task\appdata\roaming\python\python39\site-packages (from oauth2client) (0.22.0)
Requirement already satisfied: six>=1.6.1 in c:\programdata\anaconda3\lib\site-packages (from oauth2client) (1.16.0)
Requirement already satisfied: rsa>=3.1.4 in c:\users\task\appdata\roaming\python\python39\site-packages (from oauth2client) (4.9)
Requirement already satisfied: pyasn1>=0.1.7 in c:\programdata\anaconda3\lib\site-packages (from oauth2client) (0.4.8)
Requirement already satisfied: pyparsing!=3.0.0,!=3.0.1,!=3.0.2,!=3.0.3,<4,>=2.4.2 in c:\programdata\anaconda3\lib\site-packages (from httplib2>=0.9.1->oauth2client) (3.0.0)
Note: you may need to restart the kernel to use updated packages.

In [9]: import gspread
from df2gspread import df2gspread as d2g
from oauth2client.service_account import ServiceAccountCredentials

In [10]: # Set up credentials
scope = ['https://spreadsheets.google.com/feeds', 'https://www.googleapis.com/auth/drive']
my_mail = 'staskv2000@gmail.com'
credentials = ServiceAccountCredentials.from_json_keyfile_name('manifest-verve-392606-1884b94a438f.json', scope)
gs = gspread.authorize(credentials)
# Access a specific spreadsheet
table_name = 'api'
work_sheet = gs.open(table_name)
sheet1 = work_sheet.sheet1

# Get data in python lists format
data = sheet1.get_all_values()

In [11]: data

Out[11]: [['group_id', 'price'],
          ['1', '20'],
          ['3', '40'],
          ['10', '6'],
          ['22', '6'],
          ['stas', '15'],
          ['stas', '15'],
          ['stas', '15']]

In [12]: headers = data.pop(0)

In [13]: df = pd.DataFrame(data, columns=headers)
df

Out[13]:
```

	group_id	price
0	1	20
1	3	40
2	10	6
3	22	6
4	stas	15
5	stas	15
6	stas	15

```
In [14]: sheet1.append_row(['stas', 15])

Out[14]: {'spreadsheetId': '1j1RKDojjARrY6z0ymbZPCaXckspLb7v7K3q6vFr5-ic',
          'tableRange': 'Sheet1!A1:B8',
          'updates': {'spreadsheetId': '1j1RKDojjARrY6z0ymbZPCaXckspLb7v7K3q6vFr5-ic',
                      'updatedRange': 'Sheet1!A9:B9',
                      'updatedRows': 1,
                      'updatedColumns': 2,
                      'updatedCells': 2}}
```

```
In [15]: # let's upload this df to new sheet
sheet = 'New'
d2g.upload(df, work_sheet.id, sheet, credentials=credentials, row_names=False)

Out[15]: <Worksheet 'New' id:1859085648>
```

API Yandex metrica

```
In [24]: url = 'https://api-metrica.yandex.net/stat/v1/data?'
visits = 'metrics=ym:s:visits&dimensions=ym:s:date&id=44147844'

In [25]: visits_url = url + visits
visits_request = requests.get(visits_url)
visits_request

Out[25]: <Response [200]>

In [27]: json_data = json.loads(visits_request.text)
json_data['data']

Out[27]: [{'dimensions': [{'name': '2023-07-14'}], 'metrics': [800.0]},
          {'dimensions': [{'name': '2023-07-13'}], 'metrics': [750.0]},
          {'dimensions': [{'name': '2023-07-12'}], 'metrics': [700.0]},
          {'dimensions': [{'name': '2023-07-11'}], 'metrics': [570.0]},
          {'dimensions': [{'name': '2023-07-10'}], 'metrics': [530.0]},
          {'dimensions': [{'name': '2023-07-15'}], 'metrics': [260.0]},
          {'dimensions': [{'name': '2023-07-16'}], 'metrics': [60.0]}]

In [28]: y_df = pd.DataFrame([([i['dimensions']][0][ 'name'],
                             i['metrics'][0]) for i in json_data['data']],
                             columns=['date', 'visits'])
y_df

Out[28]:
```

	date	visits
0	2023-07-14	800.0
1	2023-07-13	750.0
2	2023-07-12	700.0
3	2023-07-11	570.0
4	2023-07-10	530.0
5	2023-07-15	260.0
6	2023-07-16	60.0

```
In [29]: sheet = 'Yandex Metrica'
d2g.upload(y_df, work_sheet.id, sheet, credentials=credentials, row_names=False)

Out[29]: <Worksheet 'Yandex Metrica' id:1397604895>
```