

INTEGRATING SENDGRID SERVICE

SENDGRID INTEGRATION WITH PYTHON

Date	25 September 2022
Team ID	PNT2022TMID54057
Project Name	Nutrition Assistant Application
Maximum Marks	4 Marks

SENDGRID INTEGRATION WITH PYTHON:

SendGrid's cloud-based email infrastructure relieves businesses of the cost and complexity of maintaining custom email systems. SendGrid provides reliable delivery, scalability and real-time analytics along with flexible APIs that make custom integration simple.

In Nutrition Assistant Application, SendGrid has been used for Register / Login Process.

STEP 1: Create API Key in SendGrid

Before sending your first email, you'll need to create a sender identity. [Click here to learn more.](#)

Create API Key

API Key Name *

API Key Permissions *

- ☒ **Full Access**
Allows the API key to access GET, PATCH, PUT, DELETE, and POST endpoints for all parts of your account, excluding billing and Email Address Validation.
- ☐ **Restricted Access**
Customize levels of access for all parts of your account, excluding billing and Email Address Validation.
- ☐ **Billing Access**
Allows the API key to access billing endpoints for the account. (This is especially useful for Enterprise or Partner customers looking for more advanced account management.)

[Cancel](#) [Create & View](#)

Finish your account setup in order to select a paid plan and unlock the full potential of Twilio SendGrid. [Let's do it!](#)

API Keys

[Create API Key](#)

NAME	API KEY	ACTION
Purple_Sparks API Key ID: pNMSbU1LQEWIMt6KSLDXeg	••••••••••••••••••••	Settings

STEP 2: Install SendGrid using PIP

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.22000.1279]
(c) Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>pip install sendgrid
Collecting sendgrid
  Downloading sendgrid-6.9.7-py3-none-any.whl (101 kB)
----- 101.1/101.1 kB 726.5 kB/s eta 0:00:00
Collecting starkbank-ecdsa>=2.0.1
  Downloading starkbank-ecdsa-2.2.0.tar.gz (14 kB)
  Preparing metadata (setup.py) ... done
Collecting python-http-client>=3.2.1
  Downloading python_http_client-3.3.7-py3-none-any.whl (8.4 kB)
Building wheels for collected packages: starkbank-ecdsa
  Building wheel for starkbank-ecdsa (setup.py) ... done
  Created wheel for starkbank-ecdsa: filename=starkbank_ecdsa-2.2.0-py3-none-any.whl size=15969 sha256=5a70b4d4b6d7b85de66314038c47c11fe3586cd9763b9eb368c3f0ad12133a59
  Stored in directory: c:\users\dell\appdata\local\pip\cache\wheels\e9\b3\71\c283da154561249f4c574e3caa32e4cbdc66355591cc8618d5
Successfully built starkbank-ecdsa
Installing collected packages: starkbank-ecdsa, python-http-client, sendgrid
Successfully installed python-http-client-3.3.7 sendgrid-6.9.7 starkbank-ecdsa-2.2.0

C:\WINDOWS\system32>
```

STEP 3: Create Single Sender on SendGrid

Pradeepa S

Dashboard

Email API

Marketing

Design Library

Stats

Activity

Suppressions

Settings

Account Details

Alert Settings

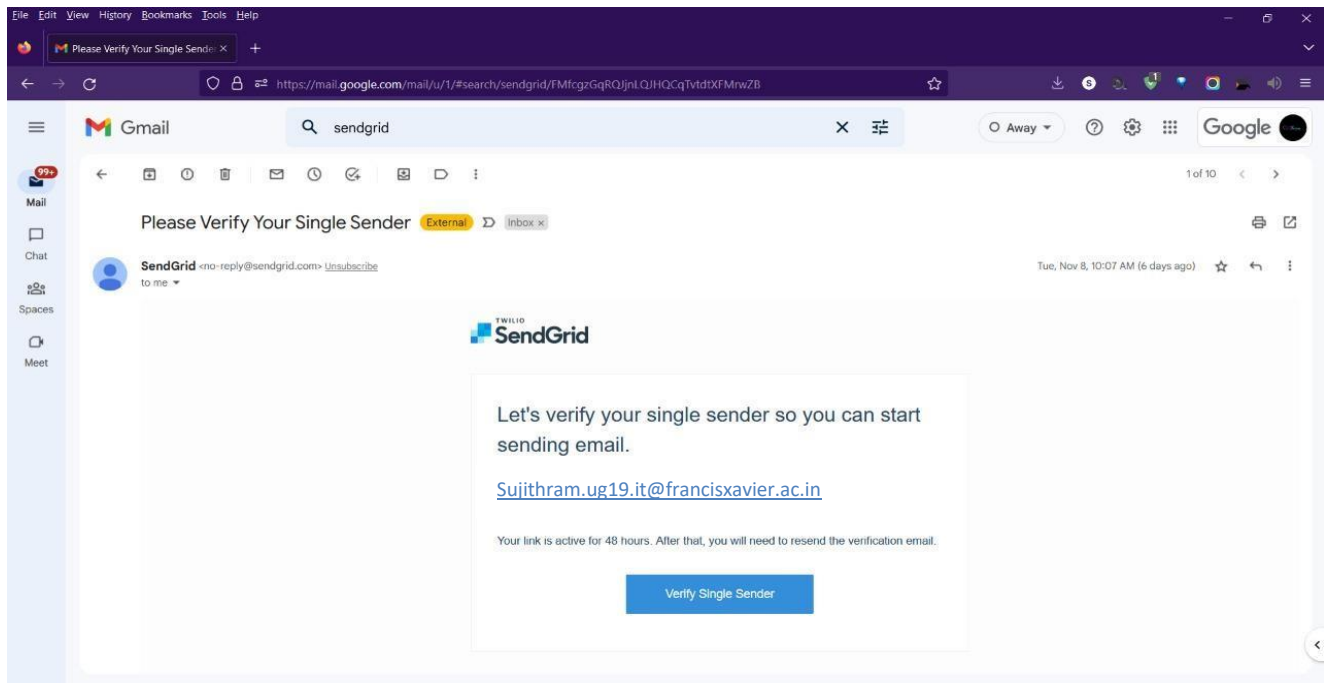
Sender Authentication /

Single Sender Verification ⓘ

Create New Sender

SENDERS	ADDRESS	NICKNAME	VERIFIED	ACTIONS
<div>Pradeepa S</div> <div><div>FROM</div>Pradeepas.ug19.it@francisxavier.ac.in</div> <div><div>REPLY</div>Suiithram.ug19.it@francisxavier.ac.in</div>	Francis Xavier Engineering College Tirunelveli, IND	Pradeepa	×	⋮

STEP 4: Single Sender Verification



STEP 5: SendGrid Integration with Python Code

```
*S\Nalaiya Thiran\demo.py - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
demo.py
1 import os
2 from sendgrid import SendGridAPIClient
3 from sendgrid.helpers.mail import Mail
4
5 message = Mail(
6     from_email=Sujithram.ug19.it@franciscxavier.ac.in
7     to_emails=pradeepaS@gmail.com
8     subject='Successfully Registered',
9     html_content='<strong>Welcome to Purple Sparks...<br>Your account has been successfully registered...</strong>')
10
11 try:
12     sg = SendGridAPIClient(os.environ.get('SENDGRID_API_KEY'))
13     response = sg.send(message)
14     print(response.status_code)
15     print(response.body)
16     print(response.headers)
17 except Exception as e:
18     print(e.message)
```

Python file length: 611 lines: 17 Ln: 17 Col: 21 Pos: 612 Windows (CR LF) UTF-8 INS

STEP 6: Run Python Code on Command Prompt

```
C:\Windows\System32\cmd.exe

S:\Walaia Thiran>python demo.py
202 b'' Server: nginx
Date: Mon, 14 Nov 2022 14:49:40 GMT
Content-Length: 0
Connection: close
X-Message-Id: EF9kPIhKT0WrBpY6Mxfj5w
Access-Control-Allow-Origin: https://sendgrid.api-docs.io
Access-Control-Allow-Methods: POST
Access-Control-Allow-Headers: Authorization, Content-Type, On-behalf-of, x-sg-elias-acl
Access-Control-Max-Age: 600
X-No-CORS-Reason: https://sendgrid.com/docs/Classroom/Basics/API/cors.html
Strict-Transport-Security: max-age=600; includeSubDomains

S:\Walaia Thiran>
```

STEP 7: Output as Mail Successfully Send

