

SENDGRID INTEGRATION WITH PYTHON

Team ID : PNT2022TMID01737

Project Name : Nutrition Assistant Application

Create An Account In SendGrid:

In IBM Project workspace there is a website link is there to create an account in the SendGrid using those resources we have created an account in SendGrid.

Here is a Screenshot given Below:

IBM - jais36168@gmail.com · X | IBM | X | IBM-Project-31453-1660200521 | X | Project Templates - Nalaya Thi | X | Obtain an IBM Cloud Feature C | X | IBM Cloud | X | New Account | SendGrid | X

← → ↻ | signup.sendgrid.com

✓ Your account has been created. Welcome to Twilio SendGrid—we're happy to have you! ✕

SendGrid

Let's Get Started

Sign up for free. No credit card required.

Email Address •
jais36168@gmail.com

This email address is already used as a username. Try a different email address or create a unique username.

☒ Use email address as username

Password •
.....

Must have at least 16 characters.

✓ I'm not a robot

☒ I accept the [Terms of Service](#) and have read the [Privacy Notice](#)

Create Account

Try it out!
Send email for free.

- ✓ Automated drip campaigns
- ✓ Password resets
- ✓ Newsletters
- ✓ Receipts
- ✓ Delivery notifications and links
- ✓ Promoted emails

← → ↻

app.sendgrid.com/guide?from=profile&integrate=true

⚠ **Review.** Your account is under review and we'd like to know a little more about you and how you intend to use Twilio SendGrid. [Contact Us](#)

JAISRI Velusamy ▾

Dashboard

Email API ▾

Marketing ▾

Design Library

Stats ▾

Activity

Suppressions ▾

Settings ▾

Twilio SMS ^{NEW}

Welcome, JAISRI!

To get up and running quickly, please follow the steps outlined below.

Send your first emails with Twilio SendGrid

Create a sender identity

Before sending email, you'll need to create a sender identity. There are [two ways](#) to do this, but we recommend creating a Single Sender to get set up quickly and test your email integration.

Create a Single Sender

Authenticate a domain instead

Your sender identity is the "from" email recipients will see in their inbox. [Learn](#)

Your Business <jane.doe@your_business.com>

2

C:\Users\HP> Downloads > sendgrid.py > ...

```
1 import sendgrid
2 import os
3 from sendgrid.helpers.mail
4 import Mail, Email, To, Content
5 sg = sendgrid.SendGridAPIClient(api_keys=os.environ.get(''))
6 from_email = Email("jais36168@gmail.com")
7 to_email = To("jaisri.ec19@bitsathy.ac.in")
8 subject = "sending with sendgrid is fun"
9 content = Content("text/plain", "and easy to do anywhere, even with python")
10 mail_json = mail.get()
11 response = sg.client.mail.send.post(request_body = mail_json)
12 print(response.status_code)
13 print(response.headers)
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

Python Debug

Windows PowerShell

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Install the latest PowerShell for new features and improvements! <https://aka.ms/PSWindows>

```
1 import os
2 from sendgrid import SendGridAPIClient
3 from sendgrid.helpers.mail import Mail
4
5 message = Mail(
6     from_email='from_email@example.com',
7     to_emails='to@example.com',
8     subject='Sending with Twilio SendGrid is Fun',
9     html_content='<strong>and easy to do anywhere, even with
10 Python</strong>')
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)
```

```
1  """HTTP Client library"""
2  import json
3  import logging
4  from .exceptions import handle_error
5
6  try:
7      # Python 3
8      import urllib.request as urllib
9      from urllib.parse import urlencode
10     from urllib.error import HTTPError
11 except ImportError:
12     # Python 2
```

```

13     import urllib2 as urllib
14     from urllib2 import HTTPError
15     from urllib import urlencode
16
17     _logger = logging.getLogger(__name__)
18
19
20     class Response(object):
21         """Holds the response from an API call."""
22
23         def __init__(self, response):
24             """
25             :param response: The return value from a open call
26                             on a urllib.build_opener()
27             :type response: urllib response object
28             """
29             self._status_code = response.getcode()
30             self._body = response.read()
31             self._headers = response.info()
32
33         @property
34         def status_code(self):
35             """
36             :return: integer, status code of API call
37             """
38             return self._status_code
39
40         @property
41         def body(self):
42             """
43             :return: response from the API
44             """
45             return self._body
46
47         @property

```

```

48     def headers(self):
49         """
50         :return: dict of response headers
51         """
52         return self._headers
53
54     @property
55     def to_dict(self):
56         """
57         :return: dict of response from the API
58         """
59         if self.body:
60             return json.loads(self.body.decode('utf-8'))
61         else:
62             return None
63
64
65 class Client(object):
66     """Quickly and easily access any REST or REST-like API."""
67
68     # These are the supported HTTP verbs
69     methods = ('delete', 'get', 'patch', 'post', 'put')
70
71     def __init__(self,
72                 host,
73                 request_headers=None,
74                 version=None,
75                 url_path=None,
76                 append_slash=False,
77                 timeout=None):
78         """
79         :param host: Base URL for the api. (e.g.
80                     https://api.sendgrid.com)
81         :type host: string
82         :param request_headers: A dictionary of the headers you want

```

```

82             applied on all calls
83         :type request_headers: dictionary
84         :param version: The version number of the API.
85             Subclass _build_versioned_url for custom
behavior.
86             Or just pass the version as part of the URL
87             (e.g. client._("/v3"))
88         :type version: integer
89         :param url_path: A list of the url path segments
90         :type url_path: list of strings
91     """
92     self.host = host
93     self.request_headers = request_headers or {}
94     self._version = version
95     # _url_path keeps track of the dynamically built url
96     self._url_path = url_path or []
97     # APPEND SLASH set
98     self.append_slash = append_slash
99     self.timeout = timeout
100
101     def _build_versioned_url(self, url):
102         """Subclass this function for your own needs.
103             Or just pass the version as part of the URL
104             (e.g. client._('/v3'))
105         :param url: URI portion of the full URL being requested
106         :type url: string
107         :return: string
108         """
109         return '{}{}/v{}{}'.format(self.host, str(self._version),
url)
110
111     def _build_url(self, query_params):
112         """Build the final URL to be passed to urllib
113
114         :param query_params: A dictionary of all the query

```

```

parameters
115         :type query_params: dictionary
116         :return: string
117         """
118         url = ''
119         count = 0
120         while count < len(self._url_path):
121             url += '/{}'.format(self._url_path[count])
122             count += 1
123
124         # add slash
125         if self.append_slash:
126             url += '/'
127
128         if query_params:
129             url_values = urlencode(sorted(query_params.items()),
True)
130             url = '{}?{}'.format(url, url_values)
131
132         if self._version:
133             url = self._build_versioned_url(url)
134         else:
135             url = '{}{}'.format(self.host, url)
136         return url
137
138     def _update_headers(self, request_headers):
139         """Update the headers for the request
140
141         :param request_headers: headers to set for the API call
142         :type request_headers: dictionary
143         :return: dictionary
144         """
145         self.request_headers.update(request_headers)
146
147     def _build_client(self, name=None):

```



```

148         """Make a new Client object
149
150         :param name: Name of the url segment
151         :type name: string
152         :return: A Client object
153         """
154         url_path = self._url_path + [name] if name else
            self._url_path
155         return Client(host=self.host,
156                       version=self._version,
157                       request_headers=self.request_headers,
158                       url_path=url_path,
159                       append_slash=self.append_slash,
160                       timeout=self.timeout)
161
162     def _make_request(self, opener, request, timeout=None):
163         """Make the API call and return the response. This is
            separated into
164             it's own function, so we can mock it easily for testing.
165
166         :param opener:
167         :type opener:
168         :param request: url payload to request
169         :type request: urllib.Request object
170         :param timeout: timeout value or None
171         :type timeout: float
172         :return: urllib response
173         """
174         timeout = timeout or self.timeout
175         try:
176             return opener.open(request, timeout=timeout)
177         except HTTPError as err:
178             exc = handle_error(err)
179             exc.__cause__ = None
180             _logger.debug('{method} Response: {status}

```

```

        {body}'.format(
181             method=request.get_method(),
182             status=exc.status_code,
183             body=exc.body))
184         raise exc
185
186     def _(self, name):
187         """Add variable values to the url.
188         (e.g. /your/api/{variable_value}/call)
189         Another example: if you have a Python reserved word,
        such as global,
190         in your url, you must use this method.
191
192         :param name: Name of the url segment
193         :type name: string
194         :return: Client object
195         """
196         return self._build_client(name)
197
198     def __getattr__(self, name):
199         """Dynamically add method calls to the url, then call a
        method.
200         (e.g. client.name.name.method())
201         You can also add a version number by using
        .version(<int>)
202
203         :param name: Name of the url segment or method call
204         :type name: string or integer if name == version
205         :return: mixed
206         """
207         if name == 'version':
208             def get_version(*args, **kwargs):
209                 """
210                 :param args: dict of settings
211                 :param kwargs: unused

```

```

212         :return: string, version
213         """
214         self._version = args[0]
215         return self._build_client()
216     return get_version
217
218     # We have reached the end of the method chain, make the API
    call
219     if name in self.methods:
220         method = name.upper()
221
222         def http_request(
223             request_body=None,
224             query_params=None,
225             request_headers=None,
226             timeout=None,
227             **_):
228             """Make the API call
229             :param timeout: HTTP request timeout. Will be
    propagated to
230                 urllib client
231             :type timeout: float
232             :param request_headers: HTTP headers. Will be
    merged into
233                 current client object state
234             :type request_headers: dict
235             :param query_params: HTTP query parameters
236             :type query_params: dict
237             :param request_body: HTTP request body
238             :type request_body: string or json-serializable
    object
239             :param kwargs:
240             :return: Response object
241             """
242             if request_headers:

```

