

User Guide To Python Sample Code

CERTIFICATE AUTHENTICATION : PYTHON

About

- This Sample Code is targeted for those who are new in calling API using Certificate Authentication with Python Language
- This Sample Code provides the minimum requirement in calling an “GET” Request API.

Prerequisites

- Python 3
 - Windows -[Download Link](#)
 - MacOS -[Download Link](#)
- Developer Account with Certificate Authentication App*
- Certificate Generated from OpenSSL Command*

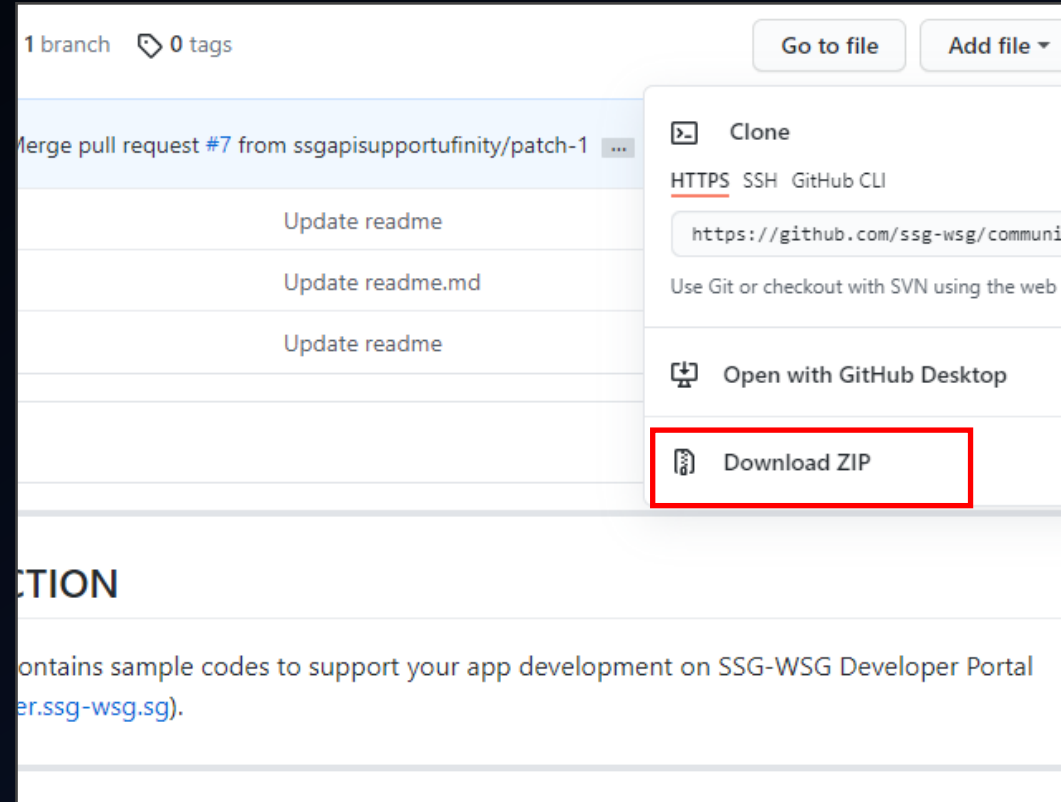
**Ensure the Application is subscribed to the desire API*

**Note that the generated certificate should be in .pem file format.
For more information, refer to https://support.symantec.com/en_US/article.TECH242030.html.*

For creation of account, you may view the Started Guides [here](#)

SETTING UP AND CHECKS

- Download the Sample Code [here](#) and stored it at your desire location
- Check Python program is using Python 3



```
C:\Users\ >python
Python 3.8.10 (tags/v3.8.10:3d8993a, May 3 2021, 11:48:03) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

RUNNING THE APPLICATION

- Install the following libraries

Windows

- sudo apt-get install python3-pip
- pip install requests

- Open CMD and navigate to the sample code file

- cd "*Path to Sample Code*"

- Run the Python File with the following command

- python3 *filename*.py

MacOS

- curl <https://bootstrap.pypa.io/get-pip.py> -o get-pip.py
- python3 get-pip.py
- pip install requests

```
Microsoft Windows [Version 10.0.19042.985]  
(c) Microsoft Corporation. All rights reserved.
```

```
C:\Users\>cd SampleCode
```

```
Microsoft Windows [Version 10.0.19042.985]  
(c) Microsoft Corporation. All rights reserved.
```

```
C:\Users\>cd SampleCode
```

```
C:\Users\>python3 SampleCodePythonOpen.py
```

RUNNING THE APPLICATION

Enter URL to call the API

URL Examples:

- <https://api.ssg-wsg.sg/courses/categories?keyword=Training>
- <https://api.ssg-wsg.sg/courses/directory/SCN-198202248E-01-CRS-N-0027685>
- <https://api.ssg-wsg.sg/courses/tags?sortBy=0>

```
#####  
Simple Program in Python to use certificate generated for Get API  
#####  
Please get ready the GET API URL
```

```
Enter URL to continue: https://public-api.ssg-wsg.sg/courses/directory/SCN-T04SS0109E-01-CRS-N-0035497
```

Results

SUCCESSFUL CALL

```
{
  "data": {
    "categories": [
      {
        "display": true,
        "id": 1,
        "name": "Area of Training",
        "rolodex": {
          "display": false,
          "numberOfLetters": 1
        }
      },
      {
        "display": true,
        "id": 4,
        "name": "Training Partners",
        "rolodex": {
          "display": true,
          "numberOfLetters": 3
        }
      }
    ]
  },
  "error": {},
  "meta": {
    "total": 2
  },
  "status": 200
}
```

UNSUCCESSFUL CALL

```
#####
Simple Program in Python to use certificate generated for Get API
#####
Please get ready the GET API URL
```

```
Enter URL to continue: IncorrectURL
Please check whether input URL or certificate path is valid
```

Upon keying invalid data for URL, Client Id or Secret Key, an error message will be shown to user

```
#####
Simple Program in Python to use certificate generated for Get API
#####
Please get ready the GET API URL
```

```
Enter URL to continue: https://public-api.ssg-wsg.sg/courses/directory/SCN-T04SS0109E-01-CRS-N-0035497
Status Code: 401
{'error': 'Authorization field missing'}
```

Upon keying a valid but unauthorised URL, system will prompt user that Authorization field is missing.

Code Adjustment

```
import requests

print('#####\n'
      'Simple Program in Python to use certificate generated for Get API\n'
      '#####\n'
      'Please get ready the GET API URL\n')

try:
    request_url = input("Enter URL to continue: ")
    response = requests.get(request_url, cert=( '/exampleDirectory/MTLS-Sample/cert.pem', '/exampleDirectory/MTLS-Sample/key.pem' )
    print("Status Code: ", response.status_code)
    print(response.json())
except:
    print("Please check whether input URL or certificate path is valid")
```

- Open the Sample Code using any Editor and make the following changes:
 - Certificate and Key Path Parameter
- Save the changes and close the Editor