OTP GENERATOR

OBJECTIVE:

To generate OTP (One Time Password) using random and string function in Python and delivering the OTP via a telegram using user id.

ABSTRACT:

Random function module implements pseudo-random number generators for various distributions.

For integers, there is uniform selection from a range. For sequences, there is uniform selection of a random element, a function to generate a random permutation of a list in-place, and a function for random sampling without replacement.

INTRODUCTION:

In this program we import the random function module to generate mixed string of random alphabets and number

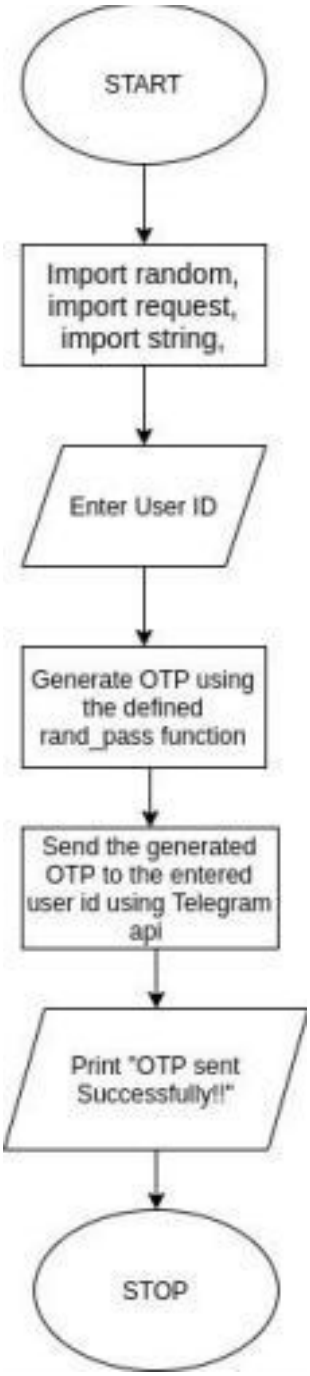
Python requests module has several built-in methods to make Http requests to specified URI using GET, POST, PUT, PATCH or HEAD requests. A Http request is meant to either retrieve data from a specified URI or to push data to a server. It works as a request-response protocol between a client and a server.

HARDWARE/SOFTWARE REQUIREMENTS:

Anaconda Navigator, Jupyter Notebook, Laptop, Mobile phone, Telegram (user id and Bot Api)

CONCEPTS/WORKING PRINCIPLE

FLOWCHART :



APPROACH/METHODOLOGY/PROGRAMS:

- Import string module
- Import random function module to generate random strings ● Import request module
- Get user id as input from the user and save it as chat_id 3

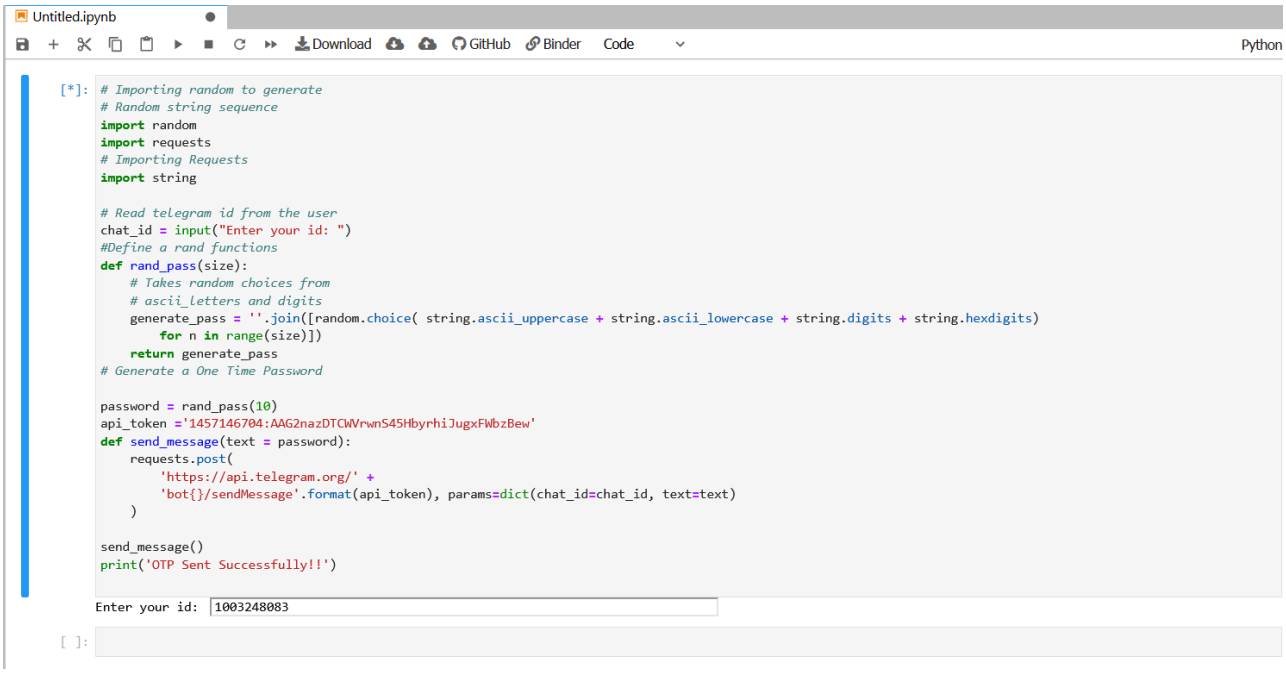
    - Define a func rand_pass which generates a random 10 char OTP from upper/lower case alphabet, numbers and hex digits
    - Define a func send_message to send messages to telegram using telegram api ● Generate a random One Time Password and send it to given user id and print “OTP Sent Successfully!!” message

CODE:

```
# Importing random to generate
# Random string sequence
import random
import requests # Importing Requests
import string

# Read telegram id from the user
chat_id = input("Enter your id: ")

#Define a rand functions

def rand_pass(size):
 # Takes random choices from
 # ascii_letters and digits
 generate_pass = ''.join([random.choice( string.ascii_uppercase + string.ascii_lowercase +
string.digits + string.hexdigits)
 for n in range(size)])

 return generate_pass

# Generate a One Time Password

password = rand_pass(10)
api_token =
'1457146704:AAG2nazDTCWVrwnS45HbyrhiJugxFWbzBew' def
send_message(text = password):
 requests.post(
 'https://api.telegram.org/' +
 'bot{}/sendMessage'.format(api_token),
 params=dict(chat_id=chat_id, text=text)
 )

send_message()
print('OTP Sent Successfully!!')
```

OUTPUT:

Before entering the user id:



After entering user id:

Untitled.ipynb

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```
import requests
# Importing Requests
import string

# Read telegram id from the user
chat_id = input("Enter your id: ")
#Define a rand functions
def rand_pass(size):
    # Takes random choices from
    # ascii_letters and digits
    generate_pass = ''.join([random.choice( string.ascii_uppercase + string.ascii_lowercase + string.digits + string.hexdigits)
        for n in range(size)])
    return generate_pass
# Generate a One Time Password

password = rand_pass(10)
api_token ='1457146704:AAG2nazDTCWVrwnS45HbyrhiJugxFWbzBew'
def send_message(text = password):
    requests.post(
        'https://api.telegram.org/' +
        'bot{}/sendMessage'.format(api_token), params=dict(chat_id=chat_id, text=text)
    )

send_message()
print('OTP Sent Successfully!!')
```

```
Enter your id:  1003248083
OTP Sent Successfully!!
```

```
[ ]:
```

Snap shot of OTP received in Telegram:

CONCLUSIONS:

A random One Time Password has been generated and sent to entered user id Successfully.