

Other service: API from DATA.GOV..HK

About: Latest situation of reported cases of COVID-19 in Hong Kong

Reference: API specification in the web

Link: <https://data.gov.hk/en/help/api-spec#historicalAPI>

2. Historical Archive File Version API

API endpoint:

`https://api.data.gov.hk/v1/historical-archive/list-file-versions`

HTTP Request Method: GET

Retrieves the list of historical version of a file (given in `url`) within a date period (given in `start` and `end`). Only the first 10,000 results will be returned.

Status code `200` will be returned along with a list of historical version timestamps, total count and the total size in bytes in JSON format if it is a successful call.
Status code `400` will be returned along with a list of error in JSON format if the request contains syntax error(s) such as missing required parameter.

Parameter	Description	Required
url	URL of a file, the URL can be found from the Historical Archive File List API result above.	Yes
start	Start data of a period (inclusive) in YYYYMMDD format, e.g.: 20160101	Yes
end	End data of a period (inclusive) in YYYYMMDD format, e.g.: 20161231	Yes

3. Historical Archive File Download API

API endpoint:

`https://api.data.gov.hk/v1/historical-archive/get-file`

HTTP Request Method: GET

Retrieves a historical version of a specific file (given in `url`) based on the given `time`.

Status code `302` will be returned if it is a successful call, the requester should then follow the redirection and receive a Status code `200` along with the requesting file.
Status code `400` will be returned along with a list of error in JSON format if the request contains syntax error(s) such as missing required parameter.
Status code `404` will be returned along with a list of error in JSON format if the requesting historical version of the file is not available.

Parameter	Description	Required
url	URL of a file, the URL can be found in the Historical Archive File List API result.	Yes
time	Exact date and time of an archived file in YYYYMMDD-hhmm format, e.g.: 20160101-0000.	Yes

Supplementary information:

- All time is based on GMT+8 time zone.
- The latest available Historical Data are from yesterday.

Why selected:

After comparing API with such function, this one is free and easy to access in. The frequency it is updated is about once a day.

Aim:

We want to get the latest and past situation of reported cases of this virus

and put it into the robot as a function to inform a general situation. Here we have written a simple code to connect it and get some data. Temporarily it only get data in Hong Kong and further we may use it to get data in more countries and regions.

Code Demo:

We find the time form needed for getting file is combined by data: YYYYMMDD and real time:HHMM. However for one day the time is a certain special number. We need to use another API port to get past file version by inputting data period and get a complete time parameter. Just as is shown in the code below. The function is composed of two part, one for get history version time, and one for our satisfying data.

```
1  #!/usr/bin/python
2  # -*- coding: UTF-8 -*-
3  import requests
4  def get_hk_num(start_time,end_time):
5      file_version = "https://api.data.gov.hk/v1/historical-archive/list-file-versions"
6
7      url = "http://www.chp.gov.hk/files/misc/latest_situation_of_reported_cases_wuhan_eng.csv"
8      start = start_time #YYYYMMDD
9      end = end_time
10
11      data = {'url': url, 'start': start, 'end': end}
12
13      req = requests.get(file_version, data)
14      version = req.json()['timestamps'][0]
15
16      api_terminal = "https://api.data.gov.hk/v1/historical-archive/get-file"
17
18      data = {'url':url,'time':version}
19
20      req = requests.get(api_terminal,data)
21      dict = req.text
22      return dict
23
24  api_res = get_hk_num("20200326","20200326")
```