

## **Demisto home assignment - VirusTotal API**

VirusTotal is a platform which allows you to check if some IP, file or URL are malicious. A malicious url, for example, is a url that pretends to be a service provider in order to steal the customer's credit card information.

For more data about VirusTotal: <https://developers.virustotal.com/>.

For data about VirusTotal's REST API:

<https://developers.virustotal.com/reference#getting-started>

### **Assignment**

Implement a function that receives a hash representation of a file (MD5, SHA-1 or SHA-256), and returns a markdown table of the data that returns from VirusTotal on that file.

The table should be of the following format (further instructions - on the next page):

#### **Scanned File**

<i>MD5</i>	<i>SHA-1</i>	<i>SHA-256</i>
<file SHA-1>	<file SHA-1>	<file SHA-256>

#### **Results**

<i>Total Scans</i>	<i>Positive Scans</i>
<file total scans>	<file positive scans>

#### **Scans**

<i>Scan Origin</i>	<i>Scan Result</i>
<scan #1 origin>	<scan #1 result>
<scan #2 origin>	<scan #2 result>
<scan #3 origin>	<scan #3 result>
And so on...	

## **Implementation Details**

Please use Python to solve this exercise.

Your solution should be a Python script, that includes one function (at least, you may use helper functions).

That function should receive one file hash, and return the requested markdown table.

When the output markdown table of that function is entered into <https://dillinger.io/>, it should look exactly like the table example above.

## **Important notes:**

- Fields marked in <> should be populated with data received from VirusTotal.
- You can use the following file hash for testing:
- Don't use any virustotal python package. Specifically, you may not import virustotal, virustotal-python, virustotal-api etc.  
**You may only use core packages and the 'requests' package.**
- The third table should contain the information of all the scans that return from VirusTotal, and is not limited to 3 scans.
- Your script must include one function that receives a file's hash and returns the requested markdown table.  
However, it may include as many helper functions as you'd like.
- We remind you to **test your output string** on <https://dillinger.io/> to verify it matches the requested format.
- Test your code before submitting your exercise, and be sure to handle errors gracefully.
- To obtain your free VirusTotal API key, follow the steps described in the getting started section here: <https://developers.virustotal.com/reference#getting-started>
- You can use the following file hash to test your code:  
**84c82835a5d21bbcf75a61706d8ab549**

## **Additional Resources**

A tutorial for Markdown syntax: <https://www.markdowntutorial.com/>

An online markdown parser: <https://dillinger.io/>

Good luck!