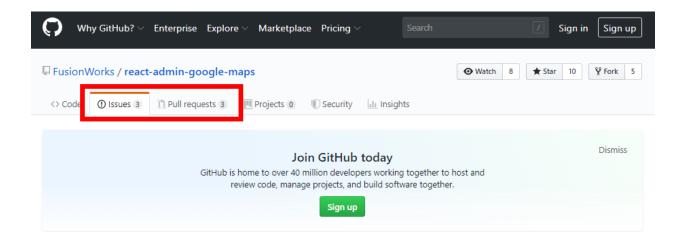


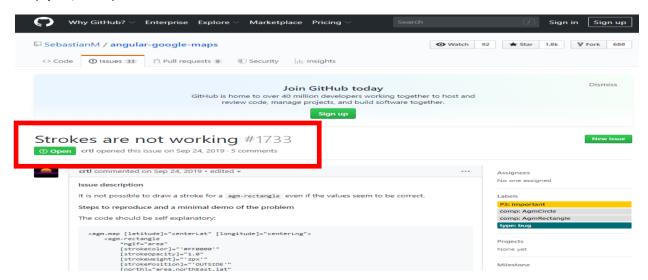
# Part 1 (Due Feb 17, 2020)

## Introduction:

In this task, we are looking to extract detailed information about specific GitHub repositories. The repositories will be filtered by using the name of the repository. Then, you should extract each repository that have issues /pull requests and their comments.



Those Issues and pull requests may contain posts, we need to collect those posts for each issue/pull request with their timeline, number of likes for each post and the status of the issue ex.(open/close).



### **How to process this project:**

There is two ways to extract GitHub information.

- Using GitHub API.
- Using BigQuery public dataset for GitHub.
   https://bigquery.cloud.google.com/table/githubarchive:year.2019?pli=1&tab=details

The list of APIs name can be found in **APIsName.CSV** the file attached.

The <u>First</u> step to identify all repositories related to APIs. Using public Dataset from Google BigQuery **githubarchive**: year (2019) and other years.

#### For example:

We can know how many repositories for Google Maps API by applying this query in 2019

SELECT repo.name FROM [githubarchive:year.2019] where repo.name

CONTAINS 'googlemaps' or repo.name CONTAINS 'google-maps' OR repo.name

CONTAINS 'google-maps-api' or repo.name CONTAINS "googlemapsapi" Group by

repo.name



We are looking to extract repositories information

● Watch 113 ★ Star 1.3k ¥ Fork 783

first generated files would include the list of repositories and their # of Watch, Stat and Fork. You should save this file in CSV format and name each file by their index number ex. (Google Maps API ---- > 1.CSV).

### The list of required information for each repository:

- 1- API ID
- 2- API name
- 3- repo.name
- 4- # watch
- 5- # star
- 6- # fork
- 7- #Subscribers

https://api.github.com/repos/googlemaps/google-maps-services-java

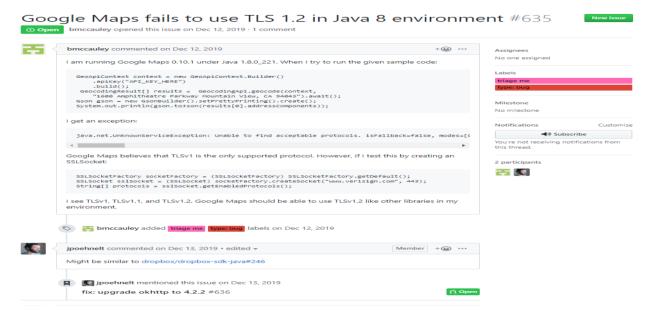
The **Second** step is to extract the repositories activity information (Issues and Pull requests) Example:

https://github.com/googlemaps/google-maps-services-java/issues

https://github.com/googlemaps/google-maps-services-java/pulls

We can get that information from GitHub API

https://api.github.com/repos/googlemaps/google-maps-services-java/issues



https://api.github.com/repos/googlemaps/google-maps-services-java/issues/635

https://api.github.com/repos/googlemaps/google-maps-services-java/issues/635/comments

https://api.github.com/repos/googlemaps/google-maps-services-java/pulls/627

https://api.github.com/repos/googlemaps/google-maps-services-java/issues/627/comments

### The list of required information:

- 1- Repository name
- 2- Issue title
- 3- Issue Body
- 4- Issue ID
- 5- Issue state (open/close)
- 6- Issue Date/Time
- 7- Issue Comments Body
- 8- Issue Comments Date/Time
- 9- Issue Labels: (bug ..)
- 10- Pull request title
- 11- Pull request Body
- 12- Pull request ID
- 13- Pull request State
- 14- Pull request Commit message
- 15- Pull request Commit message Date/Time
- 16- The number of like and dislike for each Issue / Pull request comment.

The above information should be only plain text (Please remove pictures, URLs and Code Fragment) and store it in a single CSV file and name of the file with API index. (Ex. 1.csv for Google Maps API)

# **Useful links:**

https://developer.github.com/v3/

Please feel free to contact me for any clarification:

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