

Quierra

A solution to query your NoSQL Data



By Team Suits

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Overview

Quierra is a fast and simple Browser tool to query our NoSQL data by uploading your JSON file on our website.

The output will be provided to the user in multiple formats, such as via HTML page, CSV/JSON format.

Query Modes

Simple Query Mode

Filters will be provided to avoid taking complex queries from users by selecting dropdown values.

Complex Query Mode

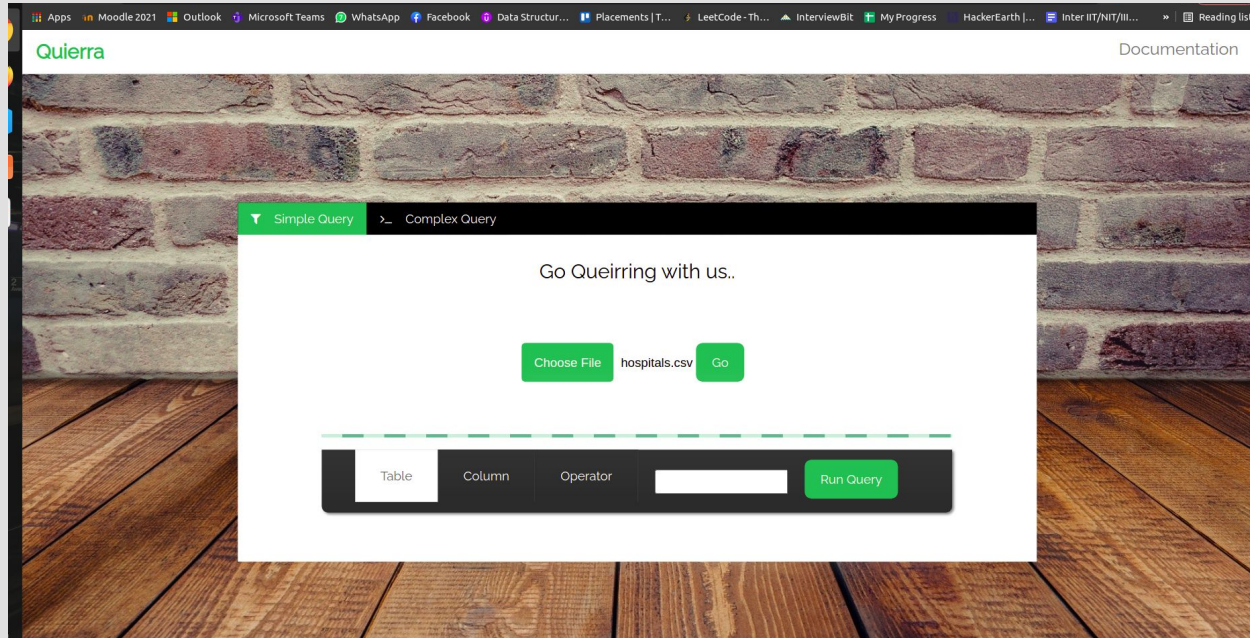
User can enter complex queries in the given text area according to their need.

Progress So Far

- Developed responsive website with the help of HTML, JavaScript and Bootstrap v5.0
- Connected front end i.e. the web pages, with backend where the query processing is done using Flask
- For executing the queries, we have used MongoDB.
- Developed the system for both simple and complex query.

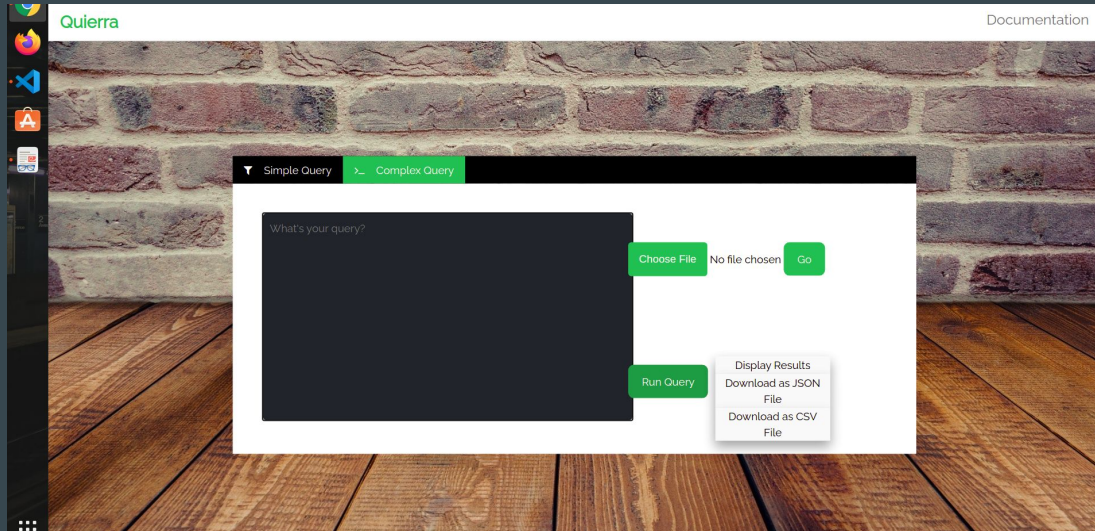
Screenshots

Simple Query Page



- This is a simple query page that we made.
- At first Table name, Column name are selected then middle drop down gives options like $>$, $<$, $=$, etc. and the last a text-field for input value.

Complex Query page



- We can enter the query that we want to run in the black textbox.
- On clicking 'Run Query', A dropdown will appear with 3 options to display or download results.

```

1  [
2  {
3    "Facility.Name": "Southeast Alabama Medical Center",
4    "Facility.City": "Dothan",
5    "Facility.State": "AL",
6    "Facility.Type": "Government",
7    "Rating.Overall": 2,
8    "Rating.Mortality": "Below",
9    "Rating.Safety": "Above",
10   "Rating.Readmission": "Below",
11   "Rating.Experience": "Below",
12   "Rating.Effectiveness": "Same",
13   "Rating.Timeliness": "Above",
14   "Rating.Imaging": "Same",
15   "Procedure.Heart Attack.Cost": 23394,
16   "Procedure.Heart Attack.Quality": "Average",
17   "Procedure.Heart Attack.Value": "Average",
18   "Procedure.Heart Failure.Cost": 17041,
19   "Procedure.Heart Failure.Quality": "Average",
20   "Procedure.Heart Failure.Value": "Average",
21   "Procedure.Pneumonia.Cost": 18281,
22   "Procedure.Pneumonia.Quality": "Average",
23   "Procedure.Pneumonia.Value": "Average",
24   "Procedure.Hip Knee.Cost": 25812,
25   "Procedure.Hip Knee.Quality": "Average",
26   "Procedure.Hip Knee.Value": "Higher"
27 },
28 {
29   "Facility.Name": "Flowers Hospital",
30   "Facility.City": "Dothan",
31   "Facility.State": "AL",
32   "Facility.Type": "Proprietary",
33   "Rating.Overall": 3,
34   "Rating.Mortality": "Below",
35   "Rating.Safety": "Above",
36   "Rating.Readmission": "Below",
37   "Rating.Experience": "Same",
38   "Rating.Effectiveness": "Same",
39   "Rating.Timeliness": "Above",
40   "Rating.Imaging": "Above",
41   "Procedure.Heart Attack.Cost": 21779,
42   "Procedure.Heart Attack.Quality": "Average",
43   "Procedure.Heart Attack.Value": "Lower",
44   "Procedure.Heart Failure.Cost": 16007,
45   "Procedure.Heart Failure.Quality": "Worse",
46   "Procedure.Heart Failure.Value": "Average",
47   "Procedure.Pneumonia.Cost": 16796,
48   "Procedure.Pneumonia.Quality": "Average",
49   "Procedure.Pneumonia.Value": "Average",
50   "Procedure.Hip Knee.Cost": 24056,
51   "Procedure.Hip Knee.Quality": "Average",
52   "Procedure.Hip Knee.Value": "Higher"
53 }
54 ]

```

Output json file for the given query

Individual Contribution

Ayush Khasgiwala

- ★ Searching Dataset for this project
- ★ Web Page and Database connectivity using Flask.

Naman Jain

- ★ Searching Dataset for this project
- ★ UI Design and Development

Somya Lalwani

- ★ Searching Dataset for this project
- ★ Query Execution using MongoDB

Apart from these individual tasks, all 3 of us helped each other in debugging and merging code

Work Remaining

- Final integration and testing of code with all the updated changes in the modules.
- Deployment of project on intranet.
- Creating a static webpage regarding the documentation of the project.

Thank You !