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Final Project Report (Reuters)

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Introduction:

This project is about creating an application on the Reuters NoSQL database.

This application has to fulfill the following requirements:

- Connection features;
- Dataset Importation;
- Minimum 3 different interactions in order to show the result of queries (preformatted queries)
- A form to try queries (maybe with params) on the dataset

Technology Stack chosen:

We have chosen Elasticsearch because the possibility to visualize on Kibana would inspire us to create our own chart on our application.

Moreover, we have chosen to create a web application with Node.js and React.js. Indeed this semester, we have learnt how to code in React.js.

It is a good way to link our Web application course in which we code in JavaScript to this course with Elasticsearch. Furthermore, Elasticsearch gives the opportunity to use their JavaScript API for Elasticsearch.

Usage

- Initial step:

If you do not have node.js installed in your computer, download it on https://nodejs.org/en/

If you do not have npm installed in your computer, download it on https://www.npmjs.com/get-npm

- First step:

Launch the Elasticsearch.bat file.

- Second step:

With the command prompt, use the command line 'npm install' into:

- The server folder.
- The client folder.

- Third step:

With a command prompt use the command line:

- 'node index.js' into the server folder.

Then on a webpage, go to the http://localhost:3001/article/populate link. It will import all the data and do the mappings.

- Fourth step:

With a command prompt use the command line:

- ' npm start' into the client folder.

- Fifth step:

The web application is now launching.

Importation of data

The data is imported using the reuters_elastic.json file. It is imported automatically when the application is launched.

Contents

There are two pages:

- Search page
- Analysis page

Search page

In this page, you can do simple queries by filling the following parameters:

- Date.
- Title.
- Body.
- Places.
- Topics.
- People.

For each parameter, you can choose if the field has to be into a **should** or **must** bracket.

Here is an example:

Depending on the length of the article, the label of an article can be green (small article), blue (average size article) or red (long article).

If you click on one of those buttons, you can get details about that article:

BAHIA COCOA REVIEW
SALVADOR, Feb 26 -

Showers continued throughout the week in the Bahia cocoa zone, alleviating the drought since early January and improving prospects for the coming temporao, although normal humidity levels have not been restored, Comissaria Smith said in its weekly review. The dry period means the temporao will be late this year. Arrivals for the week ended February 22 were 155,221 bags of 60 kilos making a cumulative total for the season of 5.93 mln against 5.81 at the same stage last year. Again it seems that cocoa delivered earlier on consignment was included in the arrivals figures. Comissaria Smith said there is still some doubt as to how much old crop cocoa is still available as harvesting has practically come to an end. With total Bahia crop estimates around 6.4 mln bags and sales standing at almost 6.2 mln there are a few hundred thousand bags still in the hands of farmers, middlemen, exporters and processors. There are doubts as to how much of this cocoa would be fit for export as shippers are now experiencing dificulties in obtaining +Bahia superior+ certificates. In view of the lower quality over recent weeks farmers have sold a good part of their cocoa held on consignment. Comissaria Smith said spot bean prices rose to 340 to 350 cruzados per arroba of 15 kilos. Bean shippers were reluctant to offer nearby shipment and only limited sales were booked for March shipment at 1,750 to 1,780 dlrs per tonne to ports to be named. New crop sales were also light and all to open ports with June/July going at 1,850 and 1,880 dlrs and at 35 and 45 dlrs under New York july, Aug/Sept at 1,870, 1,875 and 1,880 dlrs per tonne FOB. Routine sales of butter were made. March/April sold at 4,340, 4,345 and 4,350 dlrs. April/May butter went at 2.27 times New York May, June/July at 4,400 and 4,415 dlrs, Aug/Sept at 4,351 to 4,450 dlrs and at 2.27 and 2.28 times New York Sept and Oct/Dec at 4,480 dlrs and 2.27 times New York Dec, Comissaria Smith said. Destinations were the U.S., Covertible currency areas, Uruguay and open ports. Cake sales were registered at 785 to 995 dlrs for March/April, 785 dlrs for May, 753 dlrs for Aug and 0.39 times New York Dec for Oct/Dec. Buyers were the U.S., Argentina, Uruguay and convertible currency areas. Liquor sales were limited with March/April selling at 2,325 and 2,380 dlrs, June/July at 2,375 dlrs and at 1.25 times New York July, Aug/Sept at 2,400 dlrs and at 1.25 times New York Sept and Oct/Dec at 1.25 times New York Dec, Comissaria Smith said. Total Bahia sales are currently estimated at 6.13 mln bags against the 1986/87 crop and 1.06 mln bags against the 1987/88 crop. Final figures for the period to February 28 are expected to be published by the Brazilian Cocoa Trade Commission after carnival which ends midday on February 27. Reuter

Analysis page
Our aim is to show you that we can plot graphs using queries from Elasticsearch (visualisation like in Kibana).

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In this page, you have two graphs. When you select a country, it would count the number of articles group by the people column (for the first graph) and by the topics (for the second graph) if there are articles. Depending on the number of articles, there is a host of colours.

Here is an example with the country UK:
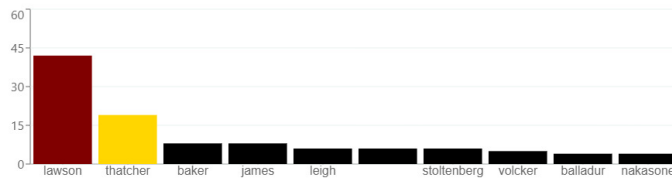
Here is an example with the country Iceland:
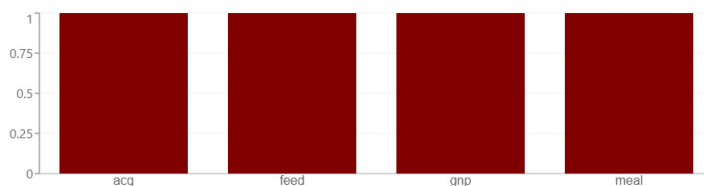
Conclusion

This project was a great experience for us as we had the chance to work on a real project combining skills that we learned this semester. We enjoyed working on this project.

Conclusion