

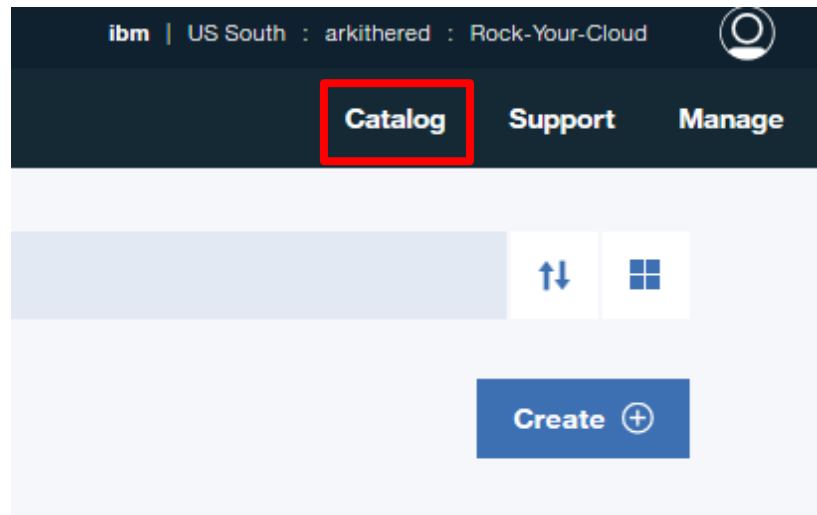


## Part 2 - Create a Watson Discovery Service

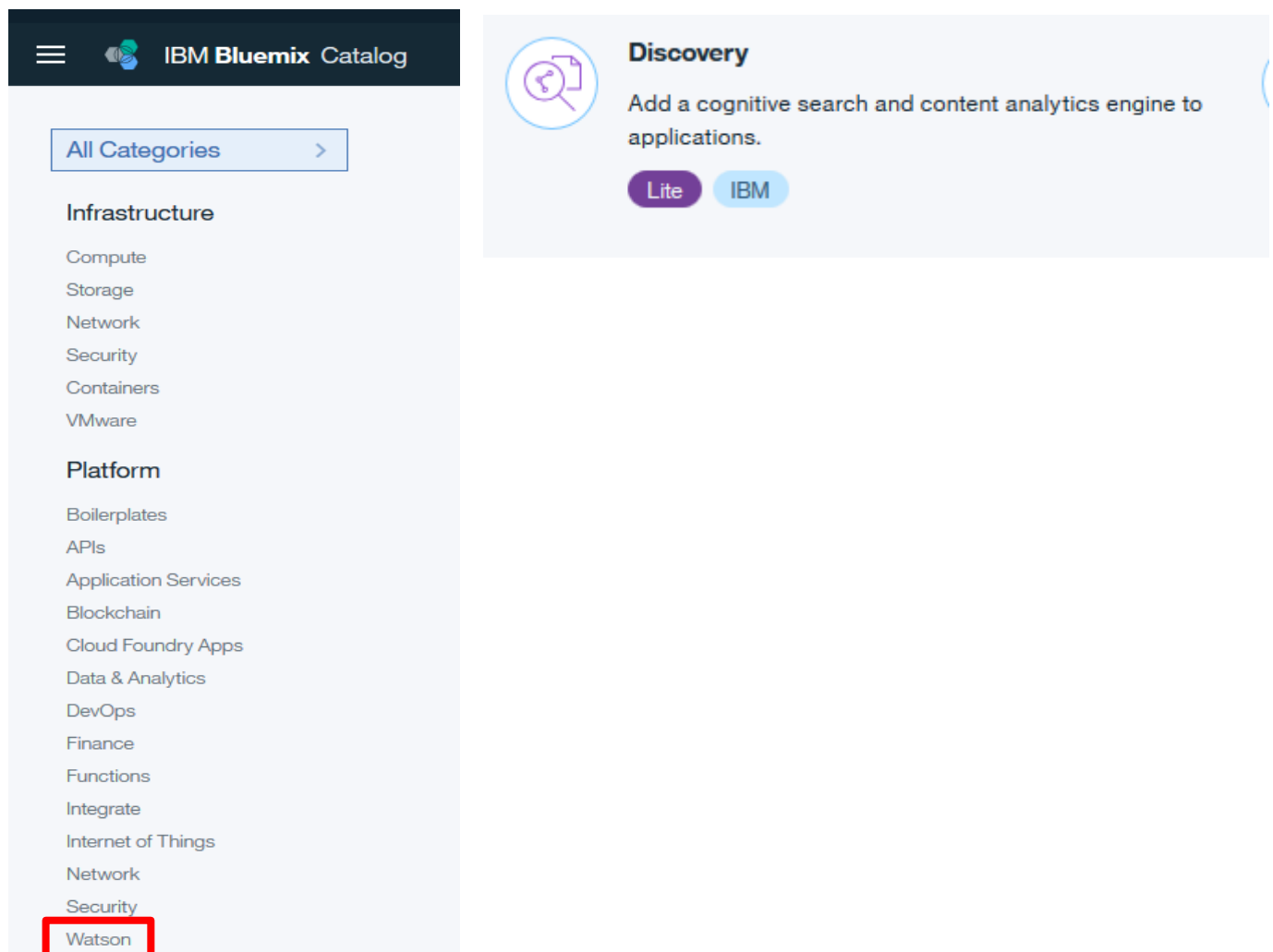
Watson Discovery is a cognitive search and content analytics engine that enables you to quickly find value from any data. Whether you want to find answers, surface patterns, or monitor trends, Watson Discovery allows you to quickly extract the most relevant information from your own data.

In this lab we will learn how to create a Watson Discovery service, and upload a document to the service:

1. **Go to IBM cloud homepage in [bluemix.net](https://bluemix.net) and press on catalog.**



2. **On the menu on the left side, click Watson and choose Discovery.**



3. You will see the following window:

**Service name:**  
Discovery-r4

**Select region to deploy in:** US South **Choose an organization:** arkithered **Choose a space:** Rock-Your-Cloud

**Pricing Plans** Monthly prices shown are for country or region: [Israel](#)

PLAN	FEATURES	PRICING
✓ Lite	0 - 2,000 documents (or 200 MB) per month 1,000 news queries per month 1 custom model See documentation for plan details	Free

The Lite plan gets you started with 2,000 documents, 1,000 news queries, and 1 custom model per month at no cost. Assumes average document size. Storage limits may also apply. When you upgrade to a paid plan, you'll keep any content you have ingested. See documentation for details.

Lite plan services are deleted after 30 days of inactivity.

Create

- In the field **service name** choose a meaningful name for your service.
- Select the region your app is running on.
- Choose your organization and your space.
- Choose your pricing plan, **Lite is the default**, choose it.
- Click **Create**.

4. If you are inside the service page go to the next step ,**Scroll down** to see the services and **click** on the "Discovery" service.

**Services (7)** 20/320 Used

20 Items per page | 1-7 of 7 items

NAME	SERVICE OFFERING
Cloudant NoSQL DB-ryc-pa	Cloudant NoSQL DB
Conversation-ryc-pa	Conversation
Discovery-ryc-pa	Discovery

5. On the left menu **click** on "Service credentials".

Getting started

Manage

**Service credentials**

Plan

Connections

6. If you don't have default credentials so make new by **clicking** on the "New credentials" button located at the right side of your screen.

New credential +

7. **Click** on "Add" button.

Add

8. To see the credentials your just added **click** on the "view credentials".

<input type="checkbox"/> KEY NAME	DATE CREATED	ACTIONS
<input type="checkbox"/> Credentials-1	Sep 4, 2017 - 09:14:46	<b>View credentials</b> ▼

9. **Copy** the "Username" and "Password" and **save** them inside the CheatSheet.txt file that mentioned in part 1 under "discoveryUsername" and "discoveryPassword".

```
"username": "XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX",  
"password": "XXXXXXXXXX"
```

10. Now **Click** on the "Manage" option on the left menu.

Getting started

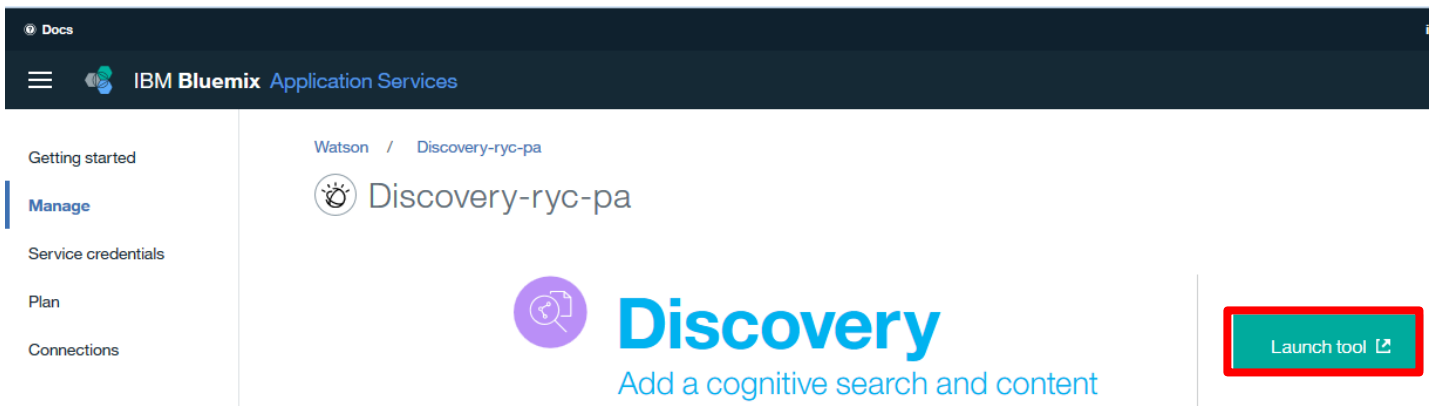
**Manage**

Service credentials

Plan

Connections

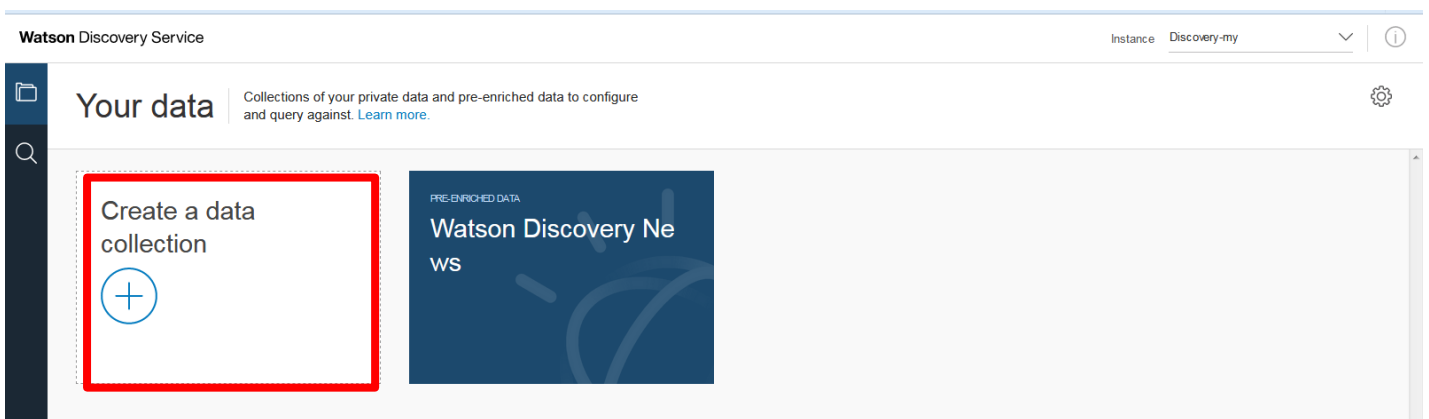
## 11. Click on **Launch tool**:



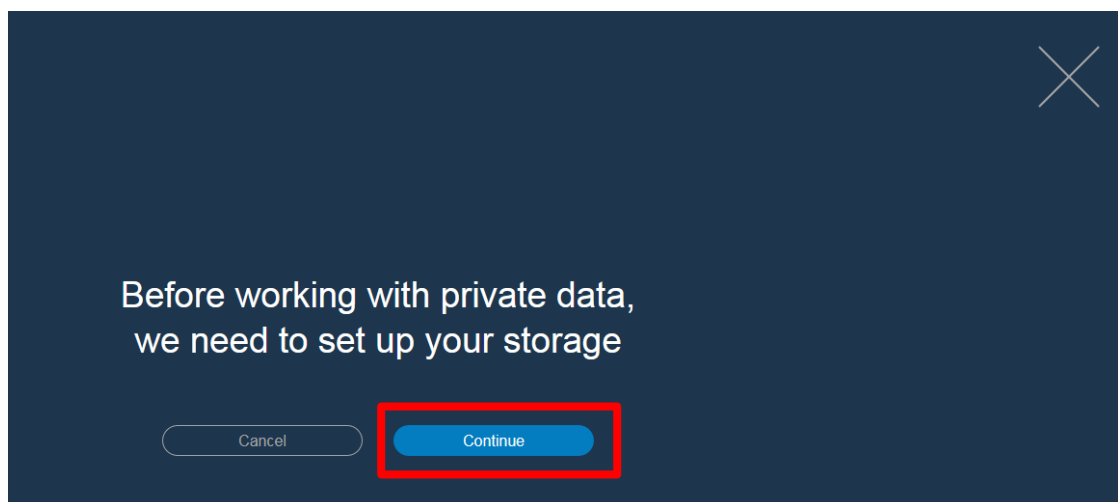
12. Clicking launching tool will open the discovery service homepage. In this homepage, you can see the collections you have. A collection is a set of your documents, and a space to question (in natural language query) your collection of documents.

Documents supported are *PDF, WORD, HTML, and JSON*.

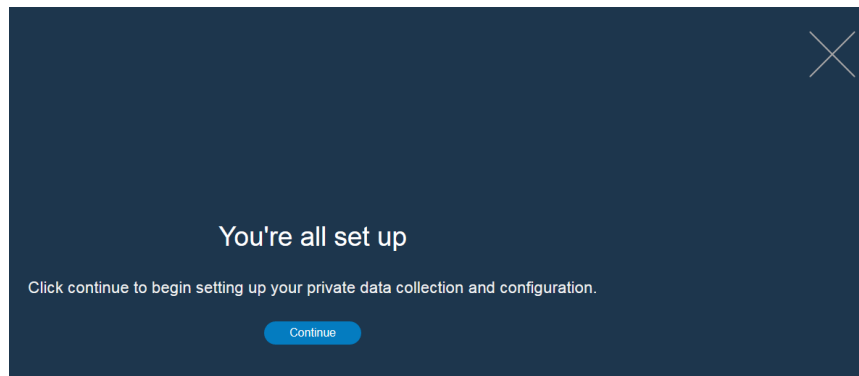
**Click on *create a data collection* to create a new collection:**



13. The service is setting up storage for indexing. You will get the following message, click **continue**



14. You will get a message that the service finish setting up the storage, click **continue**



15. The following window will pop up, insert a **meaningful name** for the collection, choose **default configurations** and choose **English** as your documents language. Click **Create**.

×

Name your new collection

Collection name

Select a configuration to apply

Default Configuration

▼

Select the language of your documents

English

▼

Cancel

Create

## 16. It will forward you to this window:

Manage data > **stam**



[View data schema](#) →

[Overview](#)

[Errors and warnings \(\)](#)



Drag and drop your documents here  
or [browse from computer](#)

File format: PDF, WORD, HTML, and JSON

Maximum file size: 50MB

Configuration: **Default Configuration** [Switch](#)

Here is where you upload your documents (drag and drop).


17. **After downloading** the files from the git you will have inside **Lab materials** a folder called **files to upload**, click on it.


[Project](#) [Repository](#) [Issues 0](#) [Merge Requests 0](#) [Wiki](#) [Snippets](#) [Members](#) [Settings](#)

[Files](#) [Commits](#) [Branches](#) [Tags](#) [Contributors](#) [Graph](#) [Compare](#) [Charts](#)

master ▾ ryc-2017-pa-test / +

Find file History ▾

 remove unnecessary folder  
Tal Neeman committed 40 minutes ago

e0de2204 

Name	Last commit	Last Update
Web Interface.html	Add new file	about 22 hours ago
defaults	add flow.json	about 3 hours ago
lab materials	remove unnecessary folder	40 minutes ago
launchConfigurations	add basic configuration	2 days ago
nodes	Clone from zip	2 days ago
public	Clone from zip	2 days ago
readme-img	Editing the README.md file	about 22 hours ago
.cfignore	Clone from zip	2 days ago
.gitignore	Clone from zip	2 days ago
CONTRIBUTING.md	Clone from zip	2 days ago
DCO1.1.txt	Clone from zip	2 days ago



[Project](#) [Repository](#) [Issues](#) 0 [Merge Requests](#) 0 [Wiki](#) [Snippets](#) [Members](#) [Settings](#)

[Files](#) [Commits](#) [Branches](#) [Tags](#) [Contributors](#) [Graph](#) [Compare](#) [Charts](#)

master ryc-2017-pa-test / lab materials / +

Find file History

remove unnecessary folder  
Tal Neeman committed 42 minutes ago e0de2204

Name	Last commit	Last Update
..		
Files to upload	add discovery json and pdf	58 minutes ago
Lab Tutorial	remove unnecessary folder	42 minutes ago

18. In this folder, you will find the following files:

*Discovery - BoschDishwasher.json*

*Discovery - BoschWashingMachine.json*

*Discovery - LGDishwasher.json*

*Discovery - LGWashingMachine.json*

*Discovery - BoschDishwasher.pdf*

*Discovery - BoschWashingMachine.pdf*

*Discovery - LGDishwasher.pdf*

*Discovery - LGWashingMachine.pdf*

*Those Files are manuals and information about the services our technician can give*

Name	Last commit	Last Update
..		
Discovery - BoschDishwasher.json	Upload New File	about a minute ago
Discovery - BoschDishwasher.pdf	Upload New File	6 minutes ago
Discovery - BoschWashingMachine.json	Upload New File	about a minute ago
Discovery - BoschWashingMachine.pdf	Upload New File	4 minutes ago
Discovery - LGDishwasher.json	Upload New File	less than a minute ago
Discovery - LGDishwasher.pdf	Upload New File	3 minutes ago
Discovery - LGWashingMachine.json	Upload New File	less than a minute ago
Discovery - LGWashingMachine.pdf	Upload New File	2 minutes ago

19. After downloading the files drag and drop them.

After uploading it will give you a summary of Watson Discovery built in abilities:

- General Sentiments – extracting the documents sentiments. (In percentage, how negative, positive or neutral)
- Top keywords – extracting top keywords from your text
- Top Entities – Entity represents a class of object or a data type that is relevant to a user's purpose. Discovery service extracts automatically entities based on the documents.
- Related concepts and concepts hierarchy – extracts concepts (that are in the documents) that are being discussed in the text.

20.

Manage data > stam

 [View data schema](#) →

[Overview](#) [Errors and warnings \(\)](#)



Drag and drop your documents here  
or [browse from computer](#)

File format: PDF, WORD, HTML, and JSON

Maximum file size: 50MB

Configuration: **Default Configuration** [↔ Switch](#)

21. After you upload the first file you can see "Use this application in API" button, **click** on it and **copy** the "collection\_id" and "environment\_id" and **save** them as "discoveryEnvironmentID" and "discoveryCollectionID" in your CheatSheet.txt file.



### Collection info

Created on 9/5/2017 8:41:13 am EDT

Last updated 9/5/2017 8:41:13 am EDT

[Use this collection in API](#)

#### Collection Id

b2b53a83-de0d-41bf-86ea-6b543a4decb8

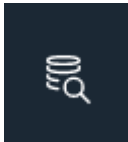
#### Configuration Id

2be9d1c3-7e82-4632-99bc-f2b5509fb113

#### Environment Id

2803d22c-bd9b-43c3-a259-0ef8536da3e1

22. Click "Build Queries" button located at the left menu and select your collection.



23. Click **Search for documents**

## Build your own query

Collection: [ryc\\_new](#)

Build a query using one or more of these components. [Learn more.](#)

[Use a sample query](#)

⊕ Search for documents

24. You can use natural language or using "Discovery Query Language" which is a query language used in discovery.

Build a query using one or more of these components. [Learn more.](#)

[Use a sample query](#)

### Search for documents



[Use natural language](#)

[Use the Discovery Query Language](#)

e.g. IBM Watson in healthcare

25. In the bottom of the page there is a possibility to choose **more options**, clicking on that will open a menu that helps you filtering your results



✓ [More options](#)

**Fields to return**

☒ All    ☐ Specify

**Include relevant passages**

☒ Yes    ☐ No

**Number of documents to return**

Default: 10

**Number of query results to skip at the beginning**

This option is for pagination

## 26. Here is an example of an output of the query "My dishwasher is leaking":

Watson Discovery Service

Instance: Discovery-ryc-pa

Build your own query

Collection: ryc\_new

Build a query using one or more of these components. [Learn more.](#) [Use a sample query](#)

Search for documents

[Use natural language](#) Use the Discovery Query Language

My dishwasher is leaking

Include analysis of your results

Filter which documents you query

[More options](#)

**Summary** JSON

Train Watson to improve results

**Passages**

"... the dishwasher door opens. Why does my dishwasher continuously beep if I open the door during a cycle or right after the cycle has finished? This is normal. The dishwasher is letting..."

"... may reduce wash performance and may cause the dishwasher to leak. DO NOT use hand dish washing detergent in this dishwasher. DO NOT add detergent when the Rinse Only cycle is selected. Too..."

"... Why does my dishwasher continuously beep if I open the door during a cycle or right after the cycle has finished? This is normal. The dishwasher is letting you know that the interior temperatures..."

"... operation. Excess sudsing may reduce wash performance and may cause the dishwasher to leak. DO NOT use hand dish washing detergent in this dishwasher. DO NOT add detergent when the Rinse Only cycle..."

"... What can be done if my dishes have a cloudy, white film on them after a wash? The cloudy film is usually caused by minerals in the water reacting with the dishwasher detergent..."

"...http://www.lg.com/uk/dishwashers/all-dishwashers..."

"... Loading the dishwasher ..... 9 Unloading the dishwasher ..... 9 Cups and glasses ..... 9 Pans..."

"...dishwasher..."

"...dishwasher..."

"...http://www.bosch-home.co.uk/product-list/dishwashers/..."

## 27. Clicking on the **JSON** next to summary will give you the output in a **JSON** format:

Watson Discovery Service

Instance: Discovery-ryc-pa

Build your own query

Collection: ryc\_new

Build a query using one or more of these components. [Learn more.](#) [Use a sample query](#)

Search for documents

[Use natural language](#) Use the Discovery Query Language

My dishwasher is leaking

Include analysis of your results

Filter which documents you query

[More options](#)

**Summary** **JSON**

Train Watson to improve results

Query URL: <https://gateway.watsonplatform.net/discovery/api/v1/environments/280...>

```
{
  "matching_results": 7,
  "passages": [
    {
      "document_id": "1d5d58e233b99b7868d96f6e1f758bda",
      "passage_score": 12.321299931280558,
      "passage_text": " the dishwasher door opens. </p><p>why does my dishwasher continuously beep if I open the door during a cycle or right after the cycle has finished?</b></p><p>This is normal. The dishwasher is letting",
      "start_offset": 409,
      "end_offset": 613,
      "field": "html"
    },
    {
      "document_id": "1d5d58e233b99b7868d96f6e1f758bda",
      "passage_score": 10.90025473898074,
      "passage_text": " may reduce wash performance and may cause the dishwasher to leak. DO NOT use hand dish washing detergent in this dishwasher. </p><p>DO NOT add detergent when the Rinse only cycle is selected.</p><p>Too",
      "start_offset": 0,
      "end_offset": 203,
      "field": "html"
    },
    {
      "document_id": "1d5d58e233b99b7868d96f6e1f758bda",
      "passage_score": 10.601460759297122,
      "passage_text": ".</p><p>why does my dishwasher continuously beep if I open the door during a cycle or right after the cycle has finished?</p><p>This is normal. The dishwasher is letting you know that the interior temperatures",
      "start_offset": 203,
      "end_offset": 303,
      "field": "html"
    }
  ]
}
```

Run query Close