

Querying Watson Discovery News

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Overview

In this lab, you will familiarize yourself with the Watson Discovery service by using the tooling to query Discovery News, an existing dataset of English-language news sources that is updated continuously, with approximately 300,000 new articles and blogs added daily.

Prerequisites

You need the following accounts and software:

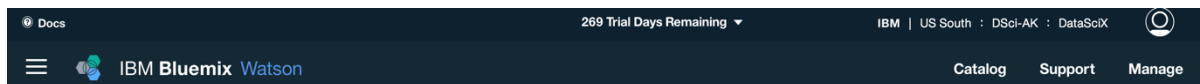
- An [IBM Bluemix account](#)
- An Internet Explorer, Firefox, or Chrome web browser

Section 1. Create your instance of Discovery Service

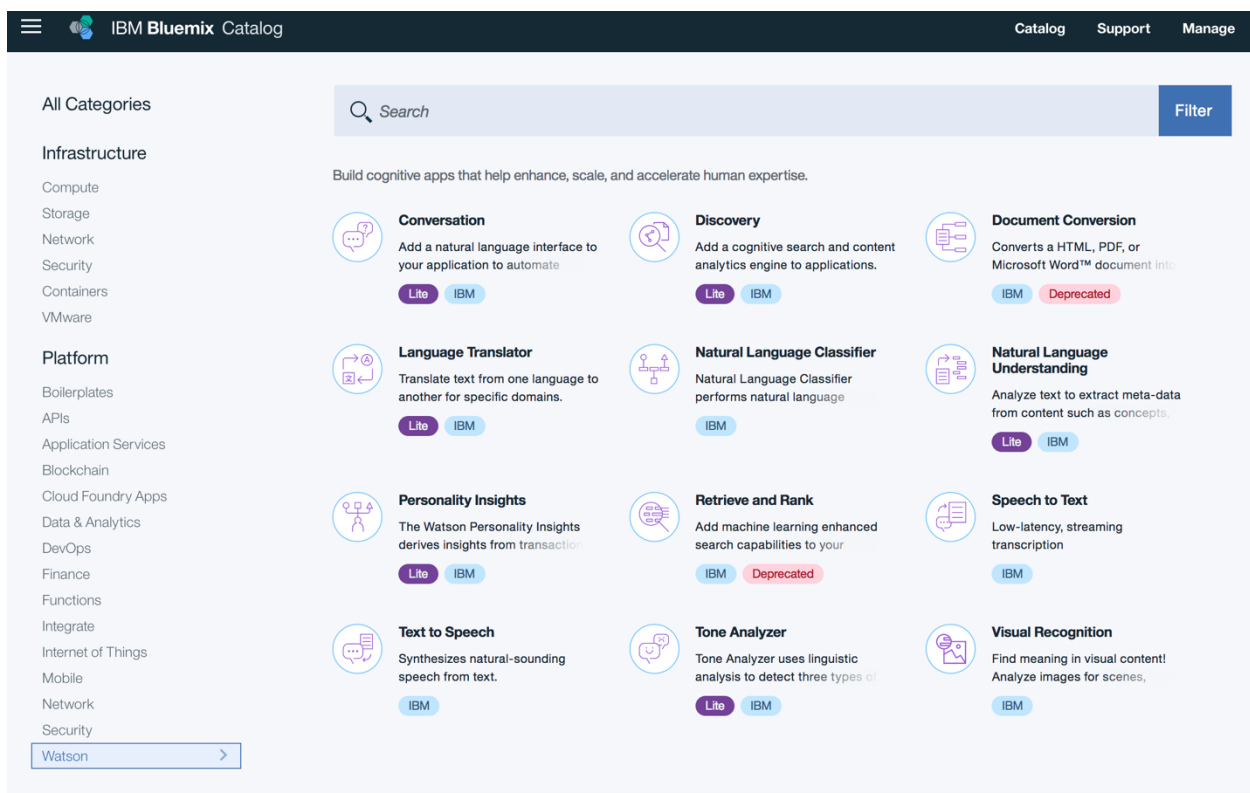
The Discovery service enriches/indexes the documents into collections and provides the options to query the collections. In this section, you'll create an instance of the Discovery Service

1. In a web browser navigate to <https://bluemix.net/> and login to Bluemix

2. Click on **Catalog**



3. On the navigation menu on the left, select **Watson->Discovery**



4. Enter service name, region to deploy, organization and space. Select lite plan in pricing plans

[Catalog](#)
[Support](#)
[Manage](#)

[View all](#)

Discovery

Add a cognitive search and content analytics engine to applications to identify patterns, trends and actionable insights that drive better decision-making. Securely unify structured and unstructured data with pre-enriched content, and use a simplified query language to eliminate the need for manual filtering of results.

Service name:

Discovery-9m

Select region to deploy in:

US South

Choose an organization:

DSci-AK

Choose a space:

DataSciX

Lite

IBM

[View Docs](#)

AUTHOR

IBM

PUBLISHED

10/11/2017

TYPE

Service

LOCATION

US South, Germany, Sydney, United Kingdom

Pricing Plans

Monthly prices shown are for country or region: [United States](#)

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.

Need Help?

[Contact Bluemix Sales](#)

Estimate Monthly Cost

[Cost Calculator](#)

Create

- Click **Create**. The service is created in the respective region and space. The Apps and Service Dashboard is displayed after service creation is completed. The newly created service is displayed under “All Services”.

Section 2. Launch the Discovery News Service Tool

In this lab section, you will query the Discovery News Service from the instance created above.

1. In your browser go to the Bluemix Dashboard.
2. Click on the Service name, which we created in section 1 under All Services section

All Services (6) [Create Service](#)

Services 7/40 Used

20 Items per page | 1-6 of 6 items 1 of 1 pages

NAME	SERVICE OFFERING	PLAN	ACTIONS
App ID-j6c8ewx2	App ID	Graduated tier	
Continuous Delivery	Continuous Delivery	Free	
DataCollectionDB	Cloudant NoSQL DB	Lite	
MyDiscoveryService	Discovery	Lite	

3. Click “**Launch Tool**”, in Discovery Service Manage Section.

Docs 332 Trial Days Remaining Ramesh Poomalai's Account | US South : ramesh.poomalai : dev

IBM Bluemix Watson Catalog Support Manage

Manage


Service credentials

Plan

Connections

Watson / MyDiscoveryService

MyDiscoveryService

 **Discovery**

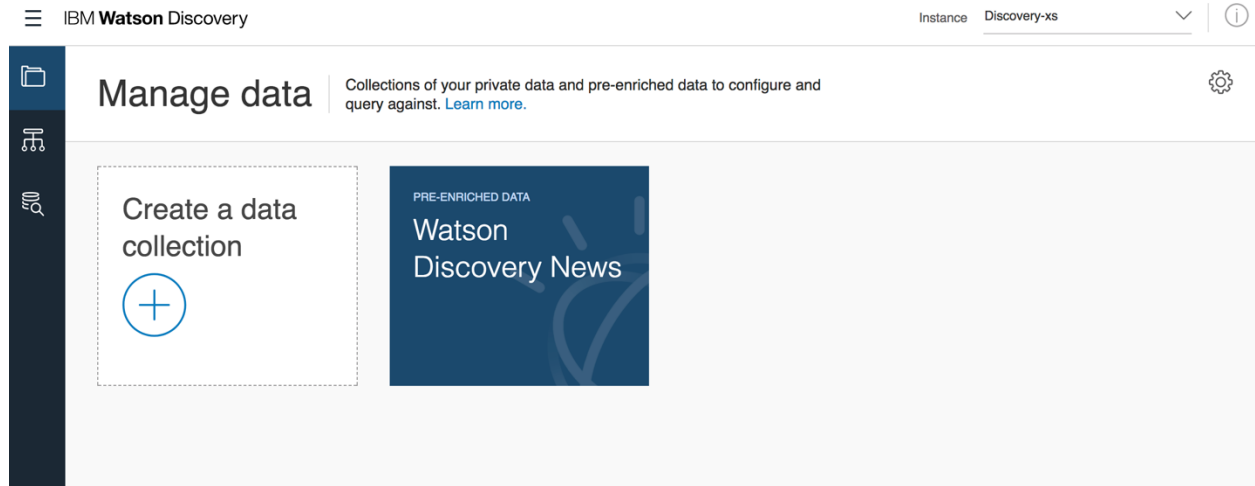
Add a cognitive search and content analytics engine to applications to identify patterns, trends and actionable insights that drive better decision-making

[Launch tool](#)

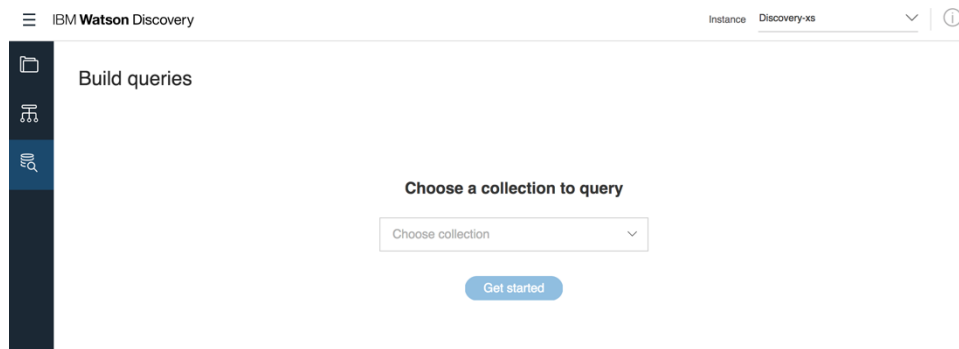
Developer resources:

- [Documentation](#)
- [Demo](#)

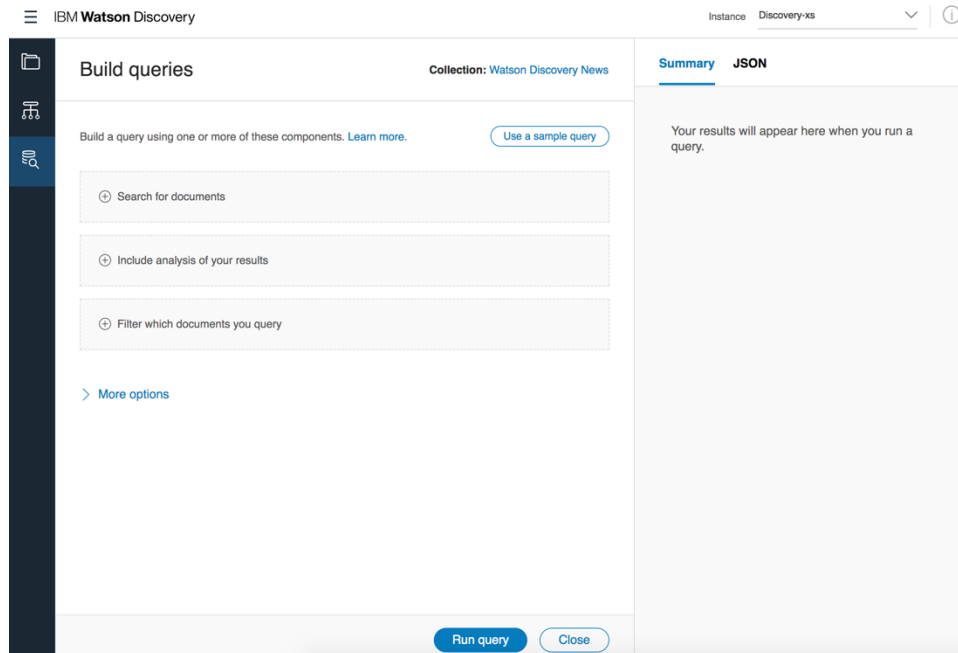
4. Click the Build Queries icon on the side navigation.



5. You should see the page "Build queries" page. Choose "Watson Discovery News" in the drop down. Click **Get started**.



6. A page will load allowing you to build queries and see the results. Expand the components on the build side to practice with the queries at the end of this lab. Let's walk through the first one in the next section.



Section 3. Query the Discovery News Service

In this section, we will do a basic search for documents with “IBM in finance”. The following shows the format for the queries.

Search:

IBM in finance

No aggregation.

No filter.

Resulting query string:

```
https://gateway.watsonplatform.net/discovery/api/v1/environments/system/collections/news/query?version=2017-08-01&count=&offset=&aggregation=&filter=&passages=true&highlight=true&return=&natural_language_query=IBM%20in%20finance
```

Now let's go step by step to build this query.

1. Expand the “Search for documents” component and type in “IBM in finance”.

Build your own query

Collection: [Watson Discovery News](#)

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

⊕ Include analysis of your results

⊕ Filter which documents you query

[> More options](#)

[Run query](#)

[Close](#)

2. Leave analysis (aggregation) field blank. Leave filter field blank.
3. Click **Run query**. Your results will appear in the Summary and JSON section on the right. Click **JSON** to see the resulting query string at the top.

Build queries

Collection: **Watson Discovery News**

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](#)

IBM in finance

+

 Include analysis of your results

+

 Filter which documents you query

[More options](#)

Run query

Close

Summary

JSON

Query URL

https://gateway.watsonplatform.net/discovery/api/v

Results

Showing 10 of 3366099 matching documents

IBM, ZF and UBS Partner to Develop Blockchain Car eWallet · Crypto News

Sentiment

neutral

Keywords

IBM blockchain technology, IBM Cloud

Entities

IBM

Categories

/finance/bank, /finance/personal finance/financial planning/asset and portfolio management

Text

"...Sep 13 IBM, ZF and UBS Partner to Develop Blockchain Car eWallet The platform is built on IBM..."
"... blockchain technology, which is provided through the IBM Cloud and driven by Hyperledger Fabric 1.0, a blockchain ... more"

Title

IBM, ZF and UBS Partner to Develop Blockchain Car eWallet · Crypto News

Url

http://crypt0.net/post/ibm-zf-and-ubs-partner-to-develop-blockchain-car-ewallet/

[Banking giants join UBS-backed IBM blockchain](#)

Build queries

Collection: **Watson Discovery News**

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](#)

IBM in finance

+

 Include analysis of your results

+

 Filter which documents you query

[More options](#)

Run query

Close

Summary

JSON

Query URL

https://gateway.watsonplatform.net/discovery/api/v

```
{
  "matching_results": 3366099,
  "passages": [],
  "results": [
    {
      "id": "sMaJuwsnDUEiJzyQWnp1NE20mZA_v6b0jr_9I_McBD5NKc9U8hCEKdBM86gWbWw",
      "score": 4.031971,
      "enriched_title": {...},
      "crawl_date": "2017-09-13T11:38:49Z",
      "url": "http://crypt0.net/post/ibm-zf-and-ubs-partner-to-develop-blockchain-car-ewallet/",
      "host": "crypt0.net",
      "text": "Sep 13 IBM, ZF and UBS Partner to Develop Blockchain Car eWallet The platform is built on IBM blockchain technology, which is provided through the IBM Cloud and driven by Hyperledger Fabric 1.0, a blockchain _ more .",
      "country": "US",
      "source_type": "mainstream",
      "language": "en",
      "publication_date": "2017-09-13T00:00:00Z",
      "enriched_text": {
        "entities": [...],
        "sentiment": {...},
        "semantic_roles": [...],
        "concepts": [...],
        "categories": [...],
        "relations": [...],
        "keywords": [...]
      },
      "extracted_metadata": {...},
      "title": "IBM, ZF and UBS Partner to Develop Blockchain Car eWallet · Crypto News",
      "highlight": {...}
    },
    {
      "id": "vRcuejUVpgpnhsY4lTmhSrre7s0ftt0g3fLCTaMeuAhaXZlUyDym8qHhcmILMs0",

```


Using the same process, build the queries that follow. Remember to expand the component applicable to the query.

Query: 50 most mentioned companies in the tech industry

No search query.

Aggregation:

```
nested(enriched_text.entities).filter(enriched_text.entities.type::Company).term(enriched_text.entities.text,count:50)
```

Filter:

```
enriched_text.categories.label::/technology and computing
```

Resulting query string:

```
https://gateway.watsonplatform.net/discovery/api/v1/environments/system/collections/news/query?version=2017-08-01&count=&offset=&aggregation=nested%28enriched_text.entities%29.filter%28enriched_text.entities.type%3A%3ACompany%29.term%28enriched_text.entities.text%2Ccount%3A50%29&filter=enriched_text.categories.label%3A%3A%2Ftechnology%20and%20computing&passages=true&highlight=true&return=&query=
```

Query: Use sentiment analysis to see if a given host site (Gizmodo) has been publishing positive, negative, or neutral articles

Search (Use natural language):

```
Host::gizmodo.com
```

Aggregation:

```
term(enriched_text.sentiment.document.label)
```

No filter query.

Resulting query string:

https://gateway.watsonplatform.net/discovery/api/v1/environments/system/collections/news/query?version=2017-08-01&count=&offset=&aggregation=term%28enriched_text.sentiment.document.label%29&filter=&passages=true&highlight=true&return=&natural_language_query=Host%3A%3Agizmodo.com

Query: Remove the junk

Search (Use natural language):

Host::gizmodo.com, title:!deadspin

Aggregation:

term(enriched_text.sentiment.document.label)

No filter query.

Resulting query string:

https://gateway.watsonplatform.net/discovery/api/v1/environments/system/collections/news/query?version=2017-08-01&count=&offset=&aggregation=term%28enriched_text.sentiment.document.label%29&filter=&passages=true&highlight=true&return=&natural_language_query=Host%3A%3Agizmodo.com%2C%20title%3A%21deadspin

Query: Find the top 10 posts on Facebook Live with Oculus/VR

Search:

Facebook Live

Aggregation:

`filter(enriched_title.entities.type::Company).top_hits(10)`

Filter:

Oculus

Resulting query string:

https://gateway.watsonplatform.net/discovery/api/v1/environments/system/collections/news/query?version=2017-08-01&count=&offset=&aggregation=filter%28enriched_title.entities.type%3A%3ACompany%29.top_hits%2810%29&filter=Oculus&passages=true&highlight=true&return=&natural_language_query=Facebook%20Live