

Solr and ElasticSearch: index, faceting, and analysing the lyrics of Japanese songs

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Abstract

このドキュメントは、日本語の歌詞の たんご 単語の しようじょうきょう 使用状況を とうけいてき 統計的に ぶんせき 分析が けっか 含まれています。結果は「Part VI」(33ページから 147ページまで) に示されています。

This document contains a statistical analysis of word usage in the lyrics of Japanese songs. The results are shown in part VI (pages 33 to 147).

This article's content is divided as follows:

- ~20%: learning about Solr, full-text search, faceting, and associated concepts
- ~10%: learning how to use those concepts in ElasticSearch, and showing some differences between ElasticSearch and Solr
- ~70%: applying what we learned to analyse the lyrics of Japanese songs, in terms of vocabulary used

In other words, we will give you a quick introduction to Solr and ElasticSearch, then the bulk of this article will be about seeing the tools in action on some interesting, real-world example.

Our goal with this example, will be to answer questions like: “*What kind of words are usually used by different bands / songwriters ?*” (to identify trending words, understand the writing styles of different artists, and find similarities between bands).

For this, we will use *Solr* (an enterprise-search platform based on *Apache Lucene*), and try to replicate the results on the increasingly popular *ElasticSearch*.

All the documents to index are in Japanese, which will allow us to learn about *morphologic analysers*, *lemmatisation*, and the challenges associated with indexing texts in different languages.

Therefore, this article may appeal to different audiences:

- software developers who want to learn about *Solr*, *ElasticSearch*, full-text search, *faceting*, *aggregations*, etc.
- people interested in Japanese music
- people interested in learning Japanese

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Part I

First words

1 Introduction

I was experimenting with Solr and ElasticSearch when I discovered that, in Solr, performing some *faceting* on a field of type *text* returned some statistics on word usage.

Normally, *faceting* is used to provide some statistic information about the result of a query (e.g. *document count*, *sum*, *min*, *max*, *average*, *percentile...*). Faceting is usually applied on fields of type *string(s)* (e.g. to group by tags, categories, etc.), or by defining ranges on some numeric values. ElasticSearch takes the concept of *faceting* even further with its *aggregations* (section 12). Performing *faceting* on a field of type *text* is not common. In fact, this is not enabled by default in ElasticSearch, for a question of performance (sections 25.2 and 25.6).

Seeing the document counts for different words gave me an idea: to use this feature for analysing the writing style of different artists. Also, is the “*More Like This*” facility to find similar œuvres (section 22).

In my spare time, I listen to a lot of Japanese music from a variety of artists. I study the lyrics, look for the words that I do not know, practice at the *karaoke*. This is why I decided to perform the text analysis on Japanese songs. I also had access to a rather large collection of lyrics, parts of which I could use as a dataset.

This case study is interesting because it will allow us to learn about :

- full-text search, indexing, morphologic analysers, etc.
- managing texts in different languages
- *faceting*, *aggregation*, which are essential to providing statistical data on a query result-set

If you like Japanese music (like I do), this article may give you some insights about the word usage of your favourite artists.

In this article, we will do the following:

- introduce the tools (Solr and ElasticSearch)
- introduce the general concepts which will be used in both Solr and ElasticSearch (Part II)
- present our solution, starting with all the Solr-specific implementation details (Parts III and V)
- show some of the considerations that come with handling different languages (Part IV)
- use Solr, run the analysis, display the results (Part VI)
- try to replicate the analysis with ElasticSearch (as a proof-of-concept). Show the differences with Solr (Part VIII)
- compare the two solutions, in terms of: features, implementation, etc. (Part IX)

2 The tools

Below is a quick introduction to the technologies we are going to use in this article:

2.1 Lucene

Apache Lucene is a free and open-source search engine software library, originally written in Java.

Lucene is the technology that powers both Solr and Elasticsearch.

Lucene is supported by the Apache Software Foundation and is released under the Apache Software License. It has been ported to a number of languages besides Java.

2.2 Solr

Solr (pronounced "solar") is an open-source enterprise-search platform, written in Java and powered by Lucene. It is developed by the Apache Software Foundation.

Solr provides features such as: full-text search, hit highlighting, faceted search, and more. Interacting with Solr can be done through an HTTP web interface and schema-free JSON documents.

Solr servers can run in a cluster, in which indexes are replicated. This improves scalability, fault tolerance, and allows for search to be distributed between servers.

2.3 Elasticsearch

ElasticSearch is an extremely popular, proprietary enterprise-search platform, written in Java and powered by Lucene. It is developed by the company Elastic NV.

Much like Solr, it provides full-text search, hit highlighting, aggregations... Interaction can be done through an HTTP web interface and schema-free JSON documents; Elasticsearch supports dynamic clustering, index replication, to achieve scalability, fault tolerance, and allow for distributed search.

The Elasticsearch ecosystem (a.k.a. the "*Elastic Stack*") also includes: Kibana (for data visualisation, Machine Learning, Alerts...), Logstash (for data collection and integration). Some features (e.g. Machine Learning) are only accessible with the appropriate subscription level.

3 Prerequisites

Part “VI — Analysing lyrics” does not require any technical knowledge, as it shows the results of our statistical analysis of word usage in Japanese songs.

For the rest of this document (which explains how we arrived at the results in Part VI), some technical knowledge is necessary.

Below is the list of prerequisites to follow along the technical parts of this document:

- no knowledge of *Solr* or *ElasticSearch* is required to follow this article. We will explain the core principles as needed
- for simplicity and ease of use, we will use *Docker* to run Solr and ElasticSearch in a virtual, containerised environment.
You need to have both **Docker** and **docker-compose** installed and ready to run on your system
- we use **Linux scripts** to run how environments.
Some knowledge of *shell*, *AWK*, or *sed* will help you understand how the scripts work, but is not strictly necessary.
It should be possible to run the scripts on Windows, using WSL 2 (Windows Subsystem for Linux 2), but please bear in mind that *localhost* refers to the Linux virtual machine running on WSL 2. Accessing a service running on the Windows host from the WSL 2 Linux machine is a bit tricky...
- a basic understanding of **Web Services** is an advantage, as this is how we usually interact with Solr and ElasticSearch
- a basic understanding of **JSON** is necessary, as this is the format that we will use to exchange data with Solr and ElasticSearch (both the documents in input, and the query responses are in JSON format)

4 About the dataset...

Normally when I write an article, I try to provide the reader with all the necessary information they would need to reproduce the experiments, as well as explore the data on their own, perform their own experimentations and come to their own conclusion.

However, for this this article, this is not possible... because of copyright laws.

Songs (both the music and the lyrics) are subject to copyright laws.

A copyright is a form of intellectual property protection. It covers *original works* and is generated *automatically* upon creation of said work. Items that can be copyrighted include: poetry, novels, art, movies, research¹, songs...

Individual words cannot be copyrighted. Words can be subject to trademark, a different kind of intellectual property protection which requires registration (and therefore is not automatic).

For this reason, *I cannot publish the dataset that this study is based on*, because the lyrics it contains are subject to copyright (despite the dataset being assembled from publicly-available information).

I can, however, provide you with the results of this study (some statistical data about word usage). *It is impossible to reconstruct the original lyrics based on the results of this study.*

¹which includes this paper

5 General Information

This document was first published at:

<https://pcaboche.github.io>

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6 Conventions

6.1 Name order

Japanese names consist of a family name (surname), followed by a given name, in that order.

When transcribing Japanese names into English, the policy ever since the Meiji era was to follow the English way of ordering names (i.e. first name first, family name last). However, in recent years this policy is being challenged, and Japanese names now tend to follow Japanese name order convention, even when transcribed in English.

In this article, we follow the Japanese convention for ordering name (i.e. family name first) *except* when the artist chose a different convention as their stage name (e.g. *Kaneko Ayano*).

Part II

A bit of theory

This part will us a quick overview of the concepts that make our text analysis possible in both Solr, and ElasticSearch.

7 Lemmatisation

Lemmatisation (or lemmatization) in linguistics is the process of grouping together the inflected forms of a word so they can be analysed as a single item, identified by the word's lemma, or dictionary form.

– <https://en.wikipedia.org/wiki/Lemmatisation>

For example in English, the verb “to be” can take the following forms (inflexions): *to be, be, am, are, is, 'm, 're, 's, was, were, isn't, aren't, wasn't, weren't, ain't...*

Japanese also has inflexions (for verbs and i-adjectives), for example the verb 会う (au - “to meet”)² can conjugate into: 会います (aimasu), 会わない (awanai), 会って (atte), 会った (atta), 会おう (aou), 会え (ae), 会うな (auna), 会える (aeru), 会われる (awareru)...

On top of having inflections as shown above, Japanese also features *agglutinations*, which allows to change the meaning of verbs and i-adjectives by stringing together some *morphemes* (to make the negative form, past form, passive form, etc).

For example, the verb 会う (au - “to meet”) can conjugate into from 会います (aimasu - “(is) meeting”) from which we derive the adjective³ 会いたい (aitai - “want to meet”) which can then turn into, for example:

- aitakunai (会いたくない) - “don't want to meet”
- aitakatta (会いたかった) - “wanted to meet”
- aitakunakatta (会いたくなかった) - “didn't want to meet”
- aitakunakattakutemo (会いたくなかったくても) - “whether (X) wanted to meet or not”

All those forms derive from the same *lexeme* (by *inflection*, *agglutination*, or both).

A *lemma* is a particular inflection that is chosen to represent words belonging to the same *lexeme*.

This is often referred to as the “dictionary form”, “canonical form”, or “citation form”. By convention, for verbs it's the infinitive form which is chosen as the “canonical form” (in this example: 会う).

During the *lemmatisation* process, words in a text will be replaced by their canonical form. These will then be used as *tokens* in the *tokenisation* process (section 9).

²do not to confuse the verb 会う (au - “to meet”) with 合う (au - “to match”). Same pronunciation, similar *kanji*, different verbs...

³you read that right: the verb turned into an i-adjective

8 Morphologic analysers

“Morphology, in linguistics, is the study of the forms of words, and the ways in which words are related to other words of the same language.”

– https://cowgill.ling.yale.edu/sra/morphology_ecs.ht

A *morphologic analyser* is a piece of software which will take a text in a certain language, analyse this text, and extract the structure of this text.

From there, it is possible to extract a list of *lexemes* (section 7), together with some extra information (e.g. lexeme position, offset), which can be used for the *tokenisation* process (section 9).

8.1 The kuromoji analyser

In Lucene (the project which powers both Solr and Elasticsearch), the analysis of texts in Japanese is done using *kuromoji*, an open source Japanese morphological analyser written in Java.

Kuromoji can be used on its own.

According to its website (see below), *kuromoji* has been donated to the Apache Software Foundation.

Website: <https://www.atilika.org>

9 Tokenisation

Tokenisation (or *tokenization*) is the process of breaking down some input (e.g. a piece of text) into small units called *tokens*.

Such tokens are an essential part of indexing (for Solr, Elasticsearch), or Natural Language Processing (NLP).

For text, a *morphologic analyser* (section 8) for the appropriate language is used to extract the tokens which will be used for indexing.

Custom *tokenisers* can also be written to extract important information from a file in a specific format.

10 tf-idf

“In information retrieval, tf-idf, short for term frequency-inverse document frequency, is a numerical statistic that is intended to reflect how important a word is to a document in a collection or corpus.”

– <https://en.wikipedia.org/wiki/Tf%E2%80%93idf>

In other words, *tf-idf* is a measure of “how often a term appears in a document (term frequency) relative to how often it appears in general, across all documents (inverse document frequency)?”

tf-idf is used to measure the *relevance* of a document given a search query.

tf-idf is also used to find documents with similar word-usage, as we will see in section 22 — “*More Like This*”.

There are different ways to weigh both the *term frequency* and *inverse document frequency*. For more information on *tf-idf*, see:

<https://en.wikipedia.org/wiki/Tf%E2%80%93idf>

11 TermsVector

tf-idf term vectors are a data-structure which is used to represent text documents, with the intent of performing text mining and machine learning operations.

termVectors contain information about terms, such as: term (lexeme), frequency, position, start offset, end offset.

We will be able to visualise the content of *termVector* in Elasticsearch in sections 25.1 and 25.5.

12 Faceting and Aggregations

Aggregations (an extension of *faceting*), is a very important concept in Solr and Elasticsearch. Our whole statistical study relies on such concepts.

A *facet* takes a set of documents as input (as returned by a query) and outputs a summary, based on document counts (e.g. number of documents that fall into a certain category / are marked with a certain tag).

Aggregations takes this concept a lot further. As mentioned in the documentation:

“Elasticsearch organizes aggregations into three categories:

- *Metric aggregations that calculate metrics, such as a sum or average, from field values.*
- *Bucket aggregations that group documents into buckets, also called bins, based on field values, ranges, or other criteria.*
- *Pipeline aggregations that take input from other aggregations instead of documents or fields.*

”

— <https://www.elastic.co/guide/en/elasticsearch/reference/current/search-aggregations.html>

ElasticSearch uses the term *aggregation* (and all their features).

Solr uses the term *faceting*, and has more limited capabilities (but are easier to use, and are enough for our use-case).

Part III

Quick introduction to Solr

13 Overview of Solr

Solr is an enterprise-search platform, which means it is designed to index data and documents from various sources (e.g. databases, file systems, e-mails. etc.)

In Solr, information is organised as such:

- **Core**
A *core* is a collection of *documents*
- **Document**
Information that needs to be queried together is stored in the same *document*. Documents are made up of *fields*.
Each document is identified with an `id` field, which must be unique, but can be automatically generated (section 14).
- **Field**
A field is a piece of information that can be queried.
Fields can be defined explicitly (section 15.1), or dynamically (section 15.2).
Sometimes the same information needs to be indexed, stored, and queried in different ways. (15.3 — Copy fields)

Text fields can be analysed, and the index may be stored (with different options such as: terms positions, frequency, etc). Different languages require specific analysers. The analyser for Japanese is called *kuromoji* (section 8.1).

14 The `id` field

In Solr, every document must have a field named `id`, of type `string`, which is used to uniquely identify a document.

Here are a few things to bear in mind when choosing an `id`:

- avoid using numeric identifiers (i.e. 1, 2, 3...)

If your `id` is exposed to the outside world, it would then be easy for an outsider to retrieve the content of your documents just by going through different numeric values

- use characters that can be easily passed in a URL

Most of the time we will need to interact with our documents through a Web API, and the `id` needs to be passed as part of the URL.

If your `id` is not "URL-friendly" then you'll need to encode it, one way or another, to be passed in a URL. Solutions include:

- *URL-encoding*

Special characters are escaped to be used in a URL.

- *base64*

allows to convert some binary data as input into a string of 64 different characters (hence the name). The resulting string is around 33 to 37% longer than the original binary data but has a number of applications, especially on the web.

The *base64 id* can be either generated from a random string, or derived from the data itself. Platforms like YouTube use *base64* for their *ids*.

15 Fields

15.1 Defining Fields

Each field must have at least:

- a *name*
- a *type*

A field *may* also have (optional):

- a *default value*
- *Field Type Override Properties* which define how the field might be stored, indexed, and other properties

Field Types

Below are some examples of field types we might encounter:

Type	Description	Elasticsearch's closest equivalent
<code>string</code>	String (UTF-8 encoded string or Unicode). Has a hard limit of slightly less than 32K. Intended for small fields and are not tokenised or analysed. Examples: ID, email, hostname, postal code, tags... Useful for aggregations (e.g. by tag).	<code>keyword</code>
<code>text_general</code>	Textual information.	<code>text</code> , using the standard analyser
<code>text_en</code>	Textual information. Makes use of the analyser for the English language.	<code>text</code> , using the english analyser

Type	Description	Elasticsearch's closest equivalent
text_ja	Textual information. Makes use of the <i>kuromoji</i> analyser (section 8.1) for the Japanese language.	text, using the <i>kuromoji</i> analyser (plugin)
text_...	Other text types are available, using different analysers.	text, using the analyser of your choice
pdate	Date. Represents a point in time with millisecond-precision. Example: Album release date.	date, date_nanos

Field Type Override Properties

Property	Implicit default	Description
required	false	Instructs Solr to reject any attempts to add a document which does not have a value for this field. This property defaults to false.
multiValued	false	If true, indicates that a single document might contain multiple values for this field type.
stored	true	If true, the actual value of the field can be retrieved by queries.
indexed	true	If true, the value of the field can be used in queries to retrieve matching documents.
docValues	false	If true, the value of the field will be put in a column-oriented DocValues structure (a way of recording field values internally that is more efficient for some purposes, such as sorting and faceting, than traditional indexing). DocValues are only available for specific field types (string, boolean, numeric, date...)
uninvertible	false	<i>Defaults to true for historical reasons, but users are strongly encouraged to set this to false for stability and use "docValues":"true" as needed.</i> If true, indicates that an "indexed":"true", "docValues":"false" field can be "un-inverted" at query time to <i>build up large in memory data structure</i> to serve in place of DocValues.

Property	Implicit default	Description
<code>termVectors,</code> <code>termPositions,</code> <code>termOffsets,</code> <code>termPayloads</code>	<code>false</code>	<p>These options instruct Solr to maintain full term vectors for each document, optionally including position, offset and payload information for each term occurrence in those vectors.</p> <p>These can be used to accelerate highlighting and other ancillary functionality, but impose a substantial cost in terms of index size.</p>

For more information about fields in Solr:

<https://solr.apache.org/guide/solr/latest/indexing-guide/fields.html>

<https://solr.apache.org/guide/solr/latest/indexing-guide/field-types-included-with-solr.html>

<https://solr.apache.org/guide/solr/latest/indexing-guide/docvalues.html>

15.2 Dynamic fields

A dynamic field is like a field that has a name with a wildcard in it.

When indexing a document, Solr will try to match field names with:

1. explicitly defined fields
2. dynamic fields

By using dynamic fields, it becomes easy to add new fields of a certain types by following some naming conventions.

For example (the following are defined by default in Solr):

- `*_str` Field of type `strings` (`DocValues`, `Multivalued`, `Sort Missing Last`).
Used for storing lists of keywords (tags, categories).
- `*_txt_ja` Filed of type `text_ja` (`Indexed`, `Tokenized`, `Stored`, `UnInvertible`)

Think of dynamic fields as “*convention over configuration*”.

15.2.1 Explicit vs. Dynamic fields

The advantage of explicit fields is, you can describe the exact structure of your documents, and also specify which fields are required (and that requirement will be enforced).

The main drawback is, specifying fields explicitly is tedious, there are lots of options, and any change in the schema can be costly (there is a need to re-index documents for newly specified fields to be taken into account).

The advantage of dynamic fields is, you can easily add new fields “on the fly” without modifying the schema.

The main drawback of dynamic fields is, you need to follow certain conventions, which forces you to rename some fields from your original JSON object (and adapt your queries to match this naming convention too).

In our example, we will use dynamic fields a lot. We find it easier to rename fields so that they match the desired convention, rather than declaring each field separately.

Also, by following a convention it is easier to remember the purpose of a given field, just by looking at its name (e.g. `*_str` fields are for *tags* and other lists of predefined values, while `*_txt_ja` fields have been indexed using the Japanese analyser).

15.3 Copy fields

It is possible to specify that, on indexing, some values must be copied from one field to another.

This allows:

- to have different representations of the same data
- to concatenate different pieces of information (e.g. title, author, etc.) into one field that is easy to query (instead of writing complex queries which will impact performance)

16 Defining a schema

A schema allows you to explicitly define:

- what fields will be used (names and types)
- which fields are required
- how each field is indexed
- which fields need to be copied from one another (`copyField`)

It is also possible to define new Dynamic Fields.

A schema can be specified either:

- in the `schema.xml` file
- through the Solr Schema API

It is easier to interact with the Solr Schema API than with files. That being said, we find it even easier to rely dynamic fields, as explained in sections 15.2 and 15.2.1.

Part IV

Challenges

Now that we know more about Solr and some of the concepts behind it, we will talk about the things to consider when dealing with texts in multiple languages. We will also see some of the challenges posed by a language like Japanese.

17 Challenges when indexing different languages

For our case study we want to focus on analysing songs in Japanese, but it is possible to extend this model to other languages.

When dealing with information in different languages, it is necessary to use separate morphological analysers. This is because each analyser is specialised to identify lexemes in one language. This also means having to store information in separate fields.

There are mainly two ways to handle this problem.

The first solution is to have *one field per language*, as follows:

- declare one field per language, using the appropriate type (using the analyser for that language)
- if necessary, use “copy fields” (section 15.3) to copy the content of all the language-specific fields, to a field that uses the standard analyser (which is not language-specific).

This field can be used to perform searches across *all* languages (but the search is less accurate).

The other solution is to have *one core per language*.

17.1 One core per language...

This approach is more suitable in our case because we want to compare the songs in Japanese with other songs in Japanese (and the songs in English with other songs in English, etc.)

If we were to mix songs from different languages in the same Solr core, we would have to filter the collections by language before we could extract any form of useful statistical data.

Having one core per language makes sense in our case.

17.2 Challenges specific to Japanese

Japanese uses different scripts:

<i>kanji</i> :	inherited from Chinese over centuries	e.g. 花火
<i>hiragana</i> :	has many different usages in Japanese (for inflections, particles, etc.)	e.g. はなび
<i>katakana</i> :	used to transcribe foreign words, for emphasis (in lieu of bold, italics), for onomatopoeias, etc.	e.g. ハナビ
<i>romaji</i> :	the Latin alphabet.	e.g. FIREWORKS

On top of that:

- the same word can have different possible writings (one or several *kanji* writings, *kana* writing)
- emphasis is done using *katakana*

This means that the same word may appear several times in our result-set, but with different writings.

This also makes filtering a lot more complicated...

Ideally, a search on either “涙”, “泪”, “涕”, “なみだ”, “ナミダ”, “なだ”, “なんだ”... (all different writings for the word “tears”) should return the same result (because they refer to the same lexeme), regardless of how the word appears in the document, but it does not.

And to go one step further, it should also be possible to allow search based on the *romaji* writing (“namida”).

These are some of the difficulties of implementing a search engine for the Japanese language.

In the next part, we will learn how to run Solr...

Part V

Running Solr

In this part, we will learn how to run Solr, index documents, then run queries.

For ease of use:

- Solr will be run as a Docker container
- documents to index will in the form of JSON files
- some scripts will be provided to launch the Docker container and index the JSON files

sample_song_file.json

```
{
  "id": "<band name> -- <song title>",
  "title_jp": "<song title>",
  "band": "<band name>",
  "lyrics_by": "<songwriter's name>",
  "music_by": "<composer's name>",
  "release_date": "2022-09-12",
  "lyrics_jp": "
This is where you will find the lyrics...
歌詞はこちらどうぞ。。。
"
}
```

18 Getting starting with Solr

In this section we will see the scripts used to start Solr, create the core, load the documents, etc.

18.1 Starting Solr

mysolr.sh

```
#!/usr/bin/bash

# This source code is under the BSD License
# Copyright 2022 Pierre S. Caboche

# stop on error
set -e

export CONT_SOLR=${CONT_SOLR:-solr_lyrics}

export HOST=${HOST:-localhost}
export PORT=${PORT:-8983}
export CORE=${CORE:-songs_jp}

ACTION=${1:-START}

case "${ACTION^^}" in
  "START")
    if [ -z "$(docker container ls -a | grep "\s${CONT_SOLR}\$")" ]
    then
      docker run --name ${CONT_SOLR} -d -p 8983:${PORT} -t solr:latest
      ./_init.sh
    else
      docker start ${CONT_SOLR}
    fi
  fi
```

```
docker container ls -a | grep "\s${CONT_SOLR}\$"
;;

"STOP")
docker stop ${CONT_SOLR}
docker container ls -a | grep "\s${CONT_SOLR}\$"
;;

"RM")
docker rm ${CONT_SOLR} --force
docker container ls -a | grep "\s${CONT_SOLR}\$"
;;

"ENABLE_MLT")
curl -X POST -H 'Content-type:application/json' -d '{
  "add-requesthandler": {
    "name": "/mlt",
    "class": "solr.MoreLikeThisHandler",
    "defaults": {"mlt.fl": "lyrics_txt_ja"}
  }
}' "http://${HOST}:${PORT}/solr/${CORE}/config"
;;
esac
```

This script accepts one parameter (the action to take), which is one of the following:

start (default)

The `start` option will first try to detect if the Docker container already exists or not. If the container does not exist, it will try to create it (from the latest Docker image for Solr) and initialise it (including loading the songs data from JSON files).

If the Docker container already exists, the `start` option will start it.

It will then display the status of the Docker container (to confirm it is running).

stop

The `stop` option will try to stop the Docker container.

It will then display the status of the Docker container (to confirm it has stopped).

rm

The `rm` option will try to stop and delete the Docker container.

It will then try to display the status of the Docker container (this should not return anything).

enable_mlt

This enables the “*More Like This*” (MLT) feature, which is disabled by default (more details in [section 22 — “More Like This”](#)).

`mlt.fl` is a required parameter for the “*More Like This*” feature (i.e. the field we need to use to compare for similarities between documents). We set it to have the value of: `lyrics_txt_ja`.

This way we won’t have to specify the `mlt.fl` parameter every time we want to use the “*More Like This*” feature.

It is also possible to modify the behaviour of the script by passing certain variables:

CONT_SOLR :	the Docker container name	(default: solr_lyrics)
CORE :	the core (collection) containing our songs	(default: songs_jp)
HOST :	the Solr host name	(default: localhost)
PORT :	the Solr port	(default: 8983)

18.2 Initialisation

The `_init.sh` script will do the following:

1. wait for the (containerised) Solr server to start
2. create the Solr core to contain our songs
3. load the data into our Solr core (see 18.3)

Here is the script:

```
_init.sh

#!/usr/bin/bash

# This source code is under the BSD License
# Copyright 2022 Pierre S. Caboche

# stop on error
set -e

DEFAULT_PORT=8983

PORT=${PORT:-${DEFAULT_PORT}}
CONT=${CONT:-'solr_lyrics'}
CORE=${CORE:-'songs_jp'}

# the directory containing JSON files to import
DATADIR=${DATADIR:-'songs'}

START_TIME=$(date +%s)

# wait for container to start
while ! ncat -z localhost ${PORT}; do
    sleep 0.1 # wait 0.1s before trying again
done

END_TIME=$(date +%s)
TIME_START_SOLR=$((END_TIME - START_TIME))

echo "Solr started in ${TIME_START_SOLR}s"

echo "
Creating core '${CORE}'..."

START_TIME=$(date +%s)

# create the Solr core
docker exec -it --user=solr ${CONT} bin/solr create_core -c ${CORE}

END_TIME=$(date +%s)
TIME_CREATE_CORE=$((END_TIME - START_TIME))

START_TIME=$(date +%s)

time ./load_into_solr.sh || true

END_TIME=$(date +%s)
```

```
TIME_IMPORT_DATA=$((END_TIME - START_TIME))

echo "
Solr started in  ${TIME_START_SOLR}s
Core created in  ${TIME_CREATE_CORE}s
Data imported in  ${TIME_IMPORT_DATA}s
"
```

18.3 Loading the songs

The loading of the songs data (from JSON files) is done by the script named `load_into_solr.sh`

This script is automatically run during the initialisation (*section 18.2*), but you can also run it manually, to either add new songs or modify existing documents.

18.3.1 Renaming fields

Below is a sample JSON file containing a song information and lyrics:

`sample_song_file.json`

```
{
  "id": "<band name> -- <song title>",
  "title_jp": "<song title>",
  "band": "<band name>",
  "lyrics_by": "<songwriter's name>",
  "music_by": "<composer's name>",
  "release_date": "2022-09-12",
  "lyrics_jp": "
This is where you will find the lyrics...
歌詞はこちらどうぞ。。。
"
}
```

As explained in *section 15.2 — Dynamic fields*, we will rename some of the fields in our JSON files in order to use dynamic fields. This is easier than modifying the schema, and the field names will follow a convention that is easy to follow.

So the fields will be renamed as follows:

- `title_jp` → `title_txt_ja`
- `lyrics_jp` → `lyrics_txt_ja`
- `band` → `band_str`
- `lyrics_by` → `lyrics_by_str`
- `music_by` → `music_by_str`

As a reminder:

- dynamic fields with the pattern “*_txt_ja” are first tokenised and analysed using the Japanese text analyser (see *section 8.1 — The kuromoji analyser*): the analyser extracts all the lexemes and their positions from the text, and builds a *termsVector* which is then used to index the field.

Searches on such fields is based on lexemes, distance between terms, and other criteria. This means that the search *does not* need to be based on exact terms or phrases (but is based on relevance to the search terms).

- dynamic fields with the pattern “*_str” are of type `strings`. A string is not tokenised or analysed, which means that searches must be performed on the exact terms.

`strings` are used for short texts (with a hard limit of slightly less than 32K), and are useful to store things like: labels, categories, etc.

The script `_alter_json.sed` will rename the fields from the JSON files, so we can use the appropriate built-in dynamic fields instead (this is less effort than modifying the schema).

The `_alter_json.sed` script reads data from the standard input, renames the aforementioned fields, and writes the results in the standard output:

```
_alter_json.sed
#!/usr/bin/sed -Ef

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# Copyright 2022 Pierre S. Caboche

s/"(lyrics|title)_jp"/"\1_txt_ja"/:
s/"(band|lyrics_by|music_by)"/"\1_str"/:
```

The `_alter_json.sh` script is used when loading the documents into Solr.

18.3.2 Loading the JSON files

The `load_into_solr.sh` script does the following:

- count the JSON files to import (using `find` and `wc -l` commands, so as to measure overall progress)
- list all the JSON files to import (with `find` command), and for each file:
 - display a progress message
 - read the JSON file, rename some fields to better fit our usage (see “18.3.1 — Renaming fields”)
 - load the modified JSON document into Solr

Below is the script:

```
load_into_solr.sh
#!/usr/bin/bash

# This source code is under the BSD License
# Copyright 2022 Pierre S. Caboche

# stop on error
set -e

NB_PROC=${NB_PROC:-1}

PORT=${PORT:-8983}
CORE=${CORE:-'songs_jp'}
DATADIR=${DATADIR:-'../songs'}

export START_TIME=$(date +%s)
```

```
echo "Counting files to import..."
export nbFiles=$(find "${DATADIR}" -name '*.json' | wc -l)

AWK=$(cat <<EOF
BEGIN { SEP = "" }

{
  print SEP
  print "echo -e \"\${(( \$(date +%s) - \${START_TIME} ))s\t" NR "\${
    ↪ nbFiles} \t\" ' ' \${0} '"
  print "DATA=\${( ./_alter_json.sed ' ' \${0} ' ' )}"
  print "curl -X POST -H 'Content-Type: application/json' http://
    ↪ localhost:\${PORT}/solr/\${CORE}/update/json/docs?commit=true --
    ↪ data \"\${DATA}\" "

  SEP = "\0"
}
EOF
)

# Processing the JSON files
find "${DATADIR}" -name '*.json' \
| sed "s/'/'\"'/g" \
| gawk "${AWK}" \
| xargs -0 -P ${NB_PROC} -I {CMD} sh -c '{CMD}'
```

The first `find` is used to count the JSON files, to display the overall progress.

The second `find` is used to list and process the JSON files.

`find` outputs the files' path, one file per line. The file path may contain some spaces, special characters, single quotes (`'`), and double quotes (`"`).

In the file path, we will replace every single quotes it may contain (`'`) with (`'''`). This will make it easier for us to generate a script in the next step. This is the role of the `sed` command.

The next step will generate a script for each file path (using `gawk`). This script will then be executed by `xargs`.

The script to be run by `xargs` contains several lines, therefore we cannot use the line feed character (`\n`) as a separator, and will use the `\0` character instead. As a consequence, we also invoke `xargs` with the `-0` option.

The AWK program, whose code is stored in the aptly named `AWK` variable (I didn't want to write a separate AWK script for this), does the following:

- echoes a progress message (file number, total number of files, relative file path")
- reads the JSON file, rename fields (see 18.3.1) on the fly, and stores the result in the variable `DATA`
- sends the data to Solr, using `curl`

The script has been written in such a way that it is possible to load several files in parallel, by setting the `NB_PROC` variable to a value higher than 1. However, this does not change the loading time by much; at best it only saves a dozen seconds over the whole process. The indexing actually takes a bit of time (a few hundred milliseconds per document).

19 Using Solr

As explained in section “18.1 — Starting Solr”, we can start Solr with our `mysolr.sh` script (if necessary, this will download the Docker image for the latest version of Solr) :

```
./mysolr.sh start
```

If everything worked fine, you will be able to connect to Solr on port 8983 (by default) :

`http://localhost:8983`

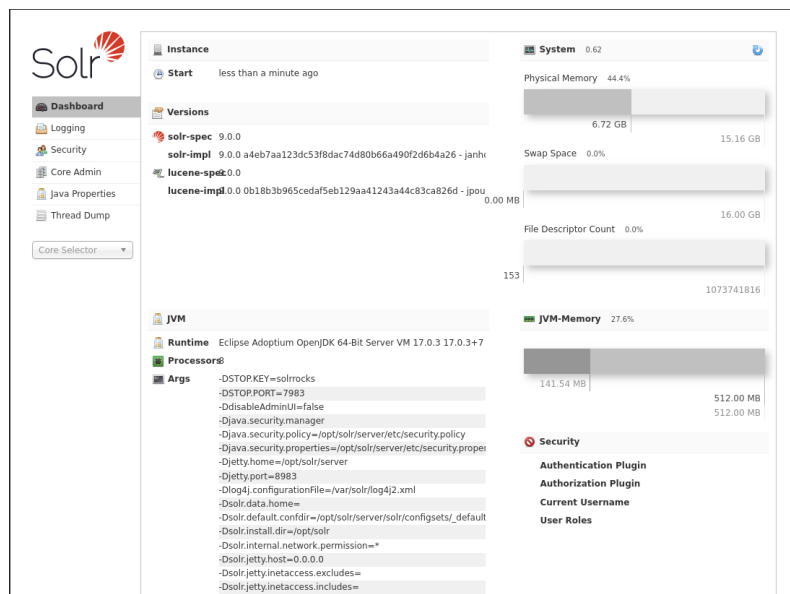


Figure 1: Solr start page

In the “Core Selector” drop-down, select the core we created (“songs_jp”)

From there, you can select “Query” to start querying our dataset...(figure 2).

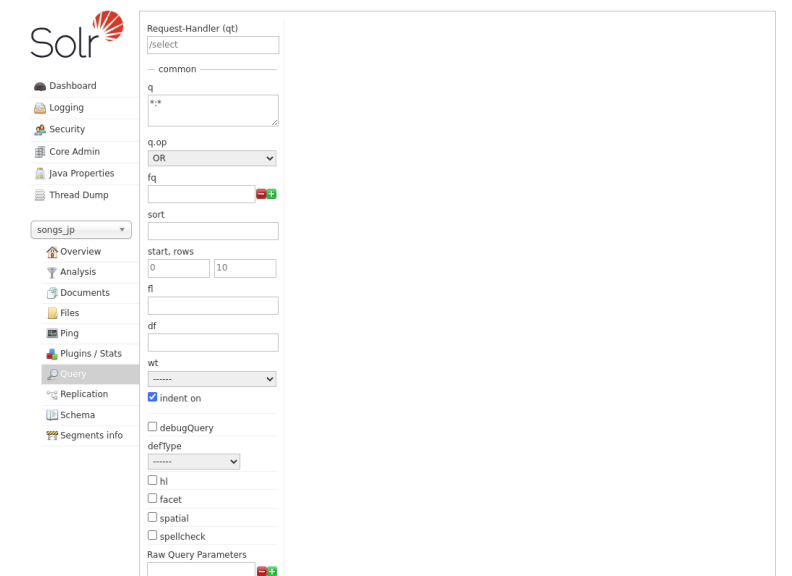


Figure 2: Solr query screen

For our case study, we will mainly use the following fields from this screen:

- *fq*
Stands for “*filter query*”.
We are going to use this field to filter out results (i.e. perform analysis only on a portion of our dataset).
The default (**:**) does not filter anything.
- *start, rows* default: 0,10
These are two positive integer values.
They indicate which documents from the result-set to output: *start* (a.k.a. *offset*), and number of *rows*.
In our study, we are more interested in the result of the *faceting* than the records themselves.
This means we will usually set both of these values to 0.
- *facet*
This is the field we are the most interested in.
We will enable it most of the time.
 - *facet.field*
This is the field on which to perform the *faceting*.
We will perform the *faceting* on fields of either type *strings* (e.g. *band_str*), or indexed text (e.g. *lyrics_txt_ja*)
 - *facet.mincount*
This field tells Solr to remove the *facets* with a low document count.
For example, by setting *facet.mincount* to 1, *facets* with no documents will not appear.
If this field is left empty, Solr will effectively use 0 as a default value.

- *facet.limit* default: 100
The maximum number of constraint counts (i.e. the number of facets for a field that are returned) that should be returned.
A negative value means unlimited number of facets.

After filling up the fields, click on “Execute Query” to display the results (figure 3):

The screenshot shows the Solr Admin UI. On the left, there's a sidebar with navigation links. The main area is divided into two parts: the top part shows the query configuration (index: songs_jp, query: /select, facet.field: band_str, facet.limit: 100, etc.), and the bottom part shows the JSON response. The JSON response is a complex object with various fields, including 'responseHeader', 'response', and 'facet_counts'. The 'facet_counts' field contains a list of facet fields and their corresponding counts.

Figure 3: Solr query result

Above the query result (in JSON), you can see a rather long URL. This shows the URL of web API for the current query (i.e. the kind of URL you will need to interact with Solr programmatically).

Clicking on the URL will display Solr’s web API response, which is in JSON format (figure 4):

```
{
  "responseHeader":{
    "status":0,
    "QTime":3,
    "params":{
      "q":"*",
      "facet.field":"band_str",
      "indent":"true",
      "q.op":"OR",
      "rows":"0",
      "facet":"true"
    }
  },
  "response":{"numFound":3538,"start":0,"numFoundExact":true,"docs":[]
},
  "facet_counts":{
    "facet_queries":{},
    "facet_fields":{
      "band_str":[
        "AKB48",376,
        "B'z",354,
        "SMAP",336,
        "徳永英明",304,
        "サザンオールスターズ",257,
        "ザ・クロマニヨンズ",216,
        "BEGIN",189,
        "GReeeeN",163,
        "DA PUMP",145,
        "都はるみ",140,
        "人間椅子",137,
        "ザ・ハイロウズ",135,
        "ゴールデンボンバー",133,
        "MAN WITH A MISSION",110,
        "back number",109,
        "THE BLUE HEARTS",101,
        "米津玄師",92,
        "MONGOL800",76,
        "カネコアヤノ",61,
        "BABYMETAL",40,
        "Xmas Eileen",26,
        "YASOBI",23,
        "Ado",15
      ]
    },
    "facet_ranges":{},
    "facet_intervals":{},
    "facet_heatmaps":{}}
}
```

Figure 4: Solr - web API result

Now that we are familiar with Solr, we all set to perform queries and analyse our dataset!

Part VI

Analysing lyrics

20 The dataset

To create the dataset, I searched online for the lyrics from a variety of bands.

I tried to include popular bands, as well as a few personal favourites. I also tried to include bands from a variety of genres (Pop, Rock, Metal, Punk, *Enka*...).

Having such a diversity would hopefully yield interesting results, as the bubbly vocabulary used by a Pop band might differ (at least in theory) from the sombre undertones of a metal band, or the melancholic verses of *enka* songs.

Below are some of the bands I included for the study...

20.1 Punk-Rock

20.1.1 THE BLUE HEARTS

THE BLUE HEARTS is one of my favourite bands, and what inspired me to write this paper (I was looking for the lyrics to some of their songs, and was interested in the writing style of the different band members).

THE BLUE HEARTS was a Japanese punk rock band active from 1985 to 1995. The band is very famous in Japan, and their songs have been featured in a lot of media (movies, series, video games, anime...)

THE BLUE HEARTS was mainly comprised of the following members:

- Kōmoto Hiroto — 甲本ヒロト — vocals, harmonica
- Mashima Masatoshi — 真島昌利 — guitar, backing vocals
- Kawaguchi Junnosuke — 河口純之助 — bass, backing vocals
- Kajiwara Tetsuya — 梶原徹也 — drums
- Shirai Mikio — 白井幹夫 — keyboards (support member)

The lyrics for THE BLUE HEARTS are credited to three of the band's members (Kōmoto, Mashima, and Kawaguchi).

Below is a selection of their songs, by author:

- Kōmoto Hiroto — 甲本ヒロト
 - リンダリンダ [Linda Linda]
 - ラブレター [Love Letter]
 - 情熱の薔薇 [Rose of Passion]
 - 歩く花 [The Walking Flower]
 - キスしてほしい [I want you to kiss me]

- 夕暮れ [Evening]
- 月の爆撃機 [Moon Bomber]
- 人にやさしく [Be kind to People]
- 1985
- 星をください [Give me a Star]
- M・O・N・K・E・Y
- 少年の詩 [Teenage Boy Poem]
- パーティー [PARTY]
- Mashima Masatoshi — 真島昌利
 - TRAIN-TRAIN
 - 青空 [Blue Sky]
 - TOO MUCH PAIN
 - 1000 のバイオリン [1000 violins]
 - 夢 [Dream]
 - 君のため [For you]
 - 終わらない歌 [A never-ending Song]
 - 僕はここに立っているよ [I'm standing here]
- Kawaguchi Junnosuke — 河口純之助
 - シンデレラ (灰の中から) [Cinderella (from the ashes)]
 - 心の救急車 [Ambulance of the Heart]
 - 真夜中のテレフォン [Midnight Telephone]

When the band broke up in 1995, Kōmoto Hiroto and Mashima Masatoshi went on to form a new band called “The High-Lows”, and then another band called “The Cro-Magnons” after that (see 20.1.2 and 20.1.3).

This will give us the opportunity to perform different types of queries:

- most used words in songs by THE BLUE HEARTS (section 21.3.1)
- most used words by the different songwriters throughout their career (not just as part of THE BLUE HEARTS), in section 21.4

After the band broke up, Kōmoto Hiroto and Mashima Masatoshi chose not to sing any of the songs from THE BLUE HEARTS, with a few occasional exceptions.

20.1.2 The High-Lows (ザ・ハイロウズ)

A Japanese punk rock band that was formed in 1995 by former members of THE BLUE HEARTS, Kōmoto Hiroto and Mashima Masatoshi (section 20.1.1).

The band broke up in 2005.

Kōmoto and Mashima went on to form “The Cro-Magnons”.

20.1.3 The Cro-Magnons (ザ・クロマニオンズ)

A Japanese punk rock band that was formed in 2006 by former members of THE BLUE HEARTS and “The High-Lows”, Kōmoto Hiroto and Mashima Masatoshi (section 20.1.1).

20.2 Pop

20.2.1 AKB48

AKB48 (pronounced A.K.B. Forty-Eight) is an idol girl group named after the Akihabara (Akiba for short) area in Tokyo.

The band is immensely successful, and has sprouted multiple sister bands, both domestically (NMB48, HKT48, NGT48...) and abroad (JKT48, BNK48, MNL48, SNH48...)

The overall musical style of AKB48 is very girly, and sometimes flirtatious.

That being said, some of their songs really stand out:

- 風は吹いている [The Wind is Blowing]
- 365 日の紙飛行機 [365 Days Paper Plane]
- 桜の栞 [Cherry Blossom Bookmark]
- 前しか向かねえ [Only move forward]

20.3 Enka

Enka (演歌) is a music genre typical from Japan.

Musically speaking, *enka* resembles traditional Japanese music. In terms of lyrics, *enka* songs include recurring themes such as: love, loss, loneliness, hardships, etc. to the point that it can be described as some sort of “*Japanese blues*”.

Enka songs are also often associated with a place and a season.

I’ve included songs from the following *enka* singers in the dataset:

20.3.1 Ishikawa Sayuri (石川さゆり)

Born in 1958, Ishikawa Sayuri is a *enka* singer who made her professional debut in 1973. She is one of the most-recognized and successful *enka* singers in history.

Ishikawa’s most popular songs include: 津軽海峡・冬景色 [Tsugaru Straight - Winter Scenery] (1977), and 天城越え [Walk Over the Amagi Pass] (1986).

20.3.2 Miyako Harumi (都はるみ)

Born in 1948, Miyako Harumi (née Kitamura Harumi) is a singer who made her debut in 1964 and is still active today, making television frequent appearances.

Although usually considered as an *enka* singer, Miyako Harumi never thought of herself as such, arguing that the term “*enka*” was not used in that context at the time of her début.

Popular song by Miyako Harumi include: 北^{きた}の宿^{やど}から [From an Inn in the North] (1975), and 大阪^{おおさか}しぐれ [Autumn Rain in Osaka] (1980).

20.4 Metal

20.4.1 Ningen Isu (人間椅子)

Ningen Isu (人間椅子 — “*The Human Chair*”) is a heavy metal band formed in 1987, and active ever since. The band is named after a short story by Edogawa Rampo, published in 1925.

The band is known for using some difficult and old words (from the Edo to Showa period, i.e. 1603 onwards), and the themes of their songs include: hell, the universe, Buddhism, etc.

For all these reasons, analysing the lyrics of their songs should be interesting (section 21.3.4).

Personal favourites by Ningen Isu include:

- 無情^{むじょう}のスカット [Heartless Scat]
- 杜子春 [Toshishun]
- なまはげ [Namahage]

20.4.2 BABYMETAL

BABYMETAL (ベビーメタル) is a band often credited with the creation and success of a type of metal called “*kawaii metal*” (*cute metal*), a genre that combines heavy metal music and J-pop melodies.

The band formed in 2010. In October of 2021, the band released a cryptic video hinting a hiatus (or maybe the end of the band).

Some of their best songs include:

- NO RAIN, NO RAINBOW
- イジメ、ダメ、ゼッタイ [Bully, Never, Ever]
- ギミチョコ!! — Gimme chocolate!!
- PA PA YA!! (feat. F.HERO)

- メギツネ - MEGITSUNE
- 紅月 — アカツキ [Red moon]

20.5 Other

The dataset contains many more bands, and it would take too long to describe them all (the purpose of this section is to give you an idea of the type of band you will find in the dataset, and the reasons why some of the bands were added).

The list of bands in the dataset (and the number of songs for each band) can be found on page 39 in section 21.2.1 — *List of bands (whole dataset)*

21 Exploring the dataset

21.1 Queries and results

Solr returns results in JSON format.

In this article, we show only *part* of the results returned by Solr, in a more readable form (e.g. in textual form, as a table).

We also add some extra information (such as pronunciations, and common English translations) for convenience to the reader.

Below are the descriptions of the column names:

"numFound" : The total number of documents (i.e. songs) in the result-set.

Band : The band (バンド), or artist name.

This is the key returned when performing some *faceting* on field: `band_str`.

Songwriter : The songwriter. (作詞家^{さくしか})

This is the key returned when performing some *faceting* on field: `lyrics_by_str`. (section 21.2.3)

Lexeme: Lexeme (語彙素^{ごいそ})
A Japanese word, as it would appear in its dictionary form (i.e. without *inflection*)

何曲^{なんきょく}: 何曲 – number of songs
nankyoku – “How many songs?”, “What songs?”

This column represents the number of songs for each item in the result-set.

This is the value returned by Solr when performing some *faceting* (on the fields like: `band_str`, `lyrics_by_str`, `lyrics_txt_ja`), as we will see in the rest of this section.

Pronunc.: (not part of the result-set returned by Solr; this column is been added for the convenience to the reader)

Shows the most common pronunciations for a particular *lexeme* (some words may have more than one pronunciation), in *romaji*.

Meanings: (not part of the result-set returned by Solr; this column is been added for the convenience to the reader)

Shows the most common meanings or English translations for a particular *lexeme*

21.2 General queries

21.2.1 List of bands (whole dataset)

Question:

“Which bands (or solo artists) are in the dataset? (and how many songs do they have?)”

Query:

rows:	0
facet:	true
facet.field:	band_str

Result:

“numFound”: 7263

Band (バンド)		何曲
松任谷由実	<i>Matsutōya Yumi</i>	417
AKB48		376
B'z		354
SMAP		336
徳永英明	<i>Tokunaga Hideaki</i>	304
ゆず	<i>Yuzu</i>	292
JAM Project		264
サザンオールスターズ	<i>Southern All Stars</i>	257
aiko		256
石川さゆり	<i>Ishikawa Sayuri</i>	249
Mr.Children		244
DREAMS COME TRUE		243
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	216
ORANGE RANGE		190
BEGIN		189
RADWIMPS		177
GReeeeN		163
いきものがかり	<i>Ikimonogakari</i>	152
LiSA		150
L'Arc~en~Ciel		149
DA PUMP		145
都はるみ	<i>Miyako Harumi</i>	140
人間椅子	<i>Ningen Isu</i>	137
ザ・ハイロウズ	<i>The High-Lows</i>	135
ゴールデンボンバー	<i>Golden Bomber</i>	133
BUMP OF CHICKEN		132
Aimer		131
fripSide		131
Superfly		130
ONE OK ROCK		129
GACKT		125
MAN WITH A MISSION		110
back number		109
Kiroro		102
THE BLUE HEARTS		101
米津玄師	<i>Yonezu Kenshi</i>	92

Band (バンド)		何曲
MONGOL800		76
河島英五	<i>Kawashima Eigo</i>	62
カネコアヤノ	<i>Kaneko Ayano</i>	61
BABYMETAL		40
Xmas Eileen		26
YOASOBI		23
Ado		15

21.2.2 Most used words (whole dataset)

Question:

"Which words appear the most in our dataset?"

Query:

start, rows:	0, 0
facet:	true
facet.field:	lyrics_txt_ja

Result:

Lexeme	Pronunc.	Meanings	何曲
人	<i>hito</i>	person	2800
今	<i>ima</i>	now	2729
君	<i>kimi</i>	you, buddy, pal	2574
何	<i>nani</i>	what	2540
心	<i>kokoro</i>	heart, mind, spirit	2296
誰	<i>dare</i>	who	2238
僕	<i>boku</i>	I, me (Pronoun, Male term)	2185
夢	<i>yume</i>	dream	2150
そう	<i>sou</i>	looking like	2143
中	<i>naka</i>	inside	1998
日	<i>hi, nichi</i>	day	1949
いい	<i>ii</i>	good, excellent, fine, nice	1915
もう	<i>mou</i>	already, yet, by now	1890
時	<i>toki</i>	time, hour, moment	1874
見る	<i>miru</i>	to see	1873
あなた	<i>anata</i>	you	1850
あの	<i>ano</i>	that, those, the	1747
手	<i>te</i>	hand, arm	1706
空	<i>sora</i>	sky	1615
行く	<i>iku</i>	to go	1571
胸	<i>mune</i>	chest, breast, heart	1569
知る	<i>shiru</i>	to be aware of, to know, to be conscious of	1497
風	<i>kaze</i>	wind	1490
愛	<i>ai</i>	love	1473
涙	<i>namida</i>	tears	1457
まま	<i>mama</i>	as it is, as one likes	1434

Most used words in songs stored in our dataset... (continued)

Lexeme	Pronunc.	Meanings	何曲
目	<i>me</i>	eye	1426
くれる	<i>kureru</i>	to give, to let (one) have	1415
夜	<i>yoru</i>	evening, night	1407
忘れる	<i>wasureru</i>	to forget	1397
明日	<i>ashita, asu</i>	tomorrow, (only "asu") the near future	1395
生きる	<i>ikiru</i>	to live, to exist	1389
一	<i>ichi</i>	one	1384
どこ	<i>doko</i>	where, what place	1366
言う	<i>iu</i>	to say	1364
笑う	<i>warau</i>	to laugh	1350
く	<i>ku</i>	ward, borough, city (in Tokyo)	1346
声	<i>koe</i>	voice	1335
言葉	<i>kotoba</i>	word, phrase	1325
今日	<i>kyou</i>	today	1324
ゆく	<i>iku</i>	行く : to go	1282
くる	<i>kuru</i>	来 : to come	1270
世界	<i>sekai</i>	the world, society, the universe	1257
いつ	<i>itsu</i>	when, at what time	1253
いつも	<i>itsumo</i>	always, all the time, at all times	1245
来る	<i>kuru</i>	to come	1232
いく	<i>iku</i>	行く : to go	1226
きっと	<i>kitto</i>	surely, undoubtedly, almost certainly	1216
泣く	<i>naku</i>	to cry, to weep, to sob	1176
見える	<i>mieru</i>	to be seen, to be in sight, to appear	1164
you	-	-	1152
自分	<i>jibun</i>	I, me, myself, yourself, oneself (Pronoun)	1136
私	<i>watashi</i>	I, me (Pronoun, slightly formal or feminine)	1130
i	-	-	1113
前	<i>mae</i>	in front (of), before	1097
消える	<i>kieru</i>	to go out, to vanish, to disappear	1096
しまう	<i>shimau</i>	to finish, to stop, to put an end to	1080
いつか	<i>itsuka</i>	sometime, someday, one day	1078
歩く	<i>aruku</i>	to walk	1065
そんな	<i>sonna</i>	such, that sort of, that kind of	1064
恋	<i>koi</i>	(romantic) love	1060
変わる	<i>kawaru</i>	to change, to be transformed, to be altered	1055
ずっと	<i>zutto</i>	continuously, throughout	1040
事	<i>koto</i>	thing, matter	1039
未来	<i>mirai</i>	the future (usually distant)	1009
まだ	<i>mada</i>	still, as yet, only	997
信じる	<i>shinjiru</i>	to believe, to place trust in, to have faith in	994
思う	<i>omou</i>	to think, to consider, to believe, to reckon	972
街	<i>gai</i>	... street, ... quarter, ... district	969
気	<i>ki</i>	spirit, mind, heart	954
二	<i>ni</i>	two	944
待つ	<i>matsu</i>	to wait	932
みる	<i>miru</i>	見る : to see	913
少し	<i>sukoshi</i>	a little, a few	910
好き	<i>suki</i>	liked, well-liked, in love (with)	891
光	<i>hikari</i>	light	886
道	<i>machi</i>	road, path, street, lane	886
日々	<i>hibi</i>	the everyday	861
強い	<i>tsuyoi</i>	strong, potent, competent, tough, powerful	860

Most used words in songs stored in our dataset... (continued)

Lexeme	Pronunc.	Meanings	何曲
僕ら	<i>bokura</i>	we (Pronoun, Male term)	849
想い	<i>omoi</i>	thought	844
the	-	-	836
遠い	<i>toi</i>	far, distant, far away	820
度	<i>do</i>	(counter for occurrences)	818
わかる	<i>wakaru</i>	分かる : to understand, to comprehend, to grasp	804
優しい	<i>yasashii</i>	tender, kind, gentle, affectionate	788
気持ち	<i>kimochi</i>	feeling, sensation, mood, state of mind	786
笑顔	<i>egaho</i>	smiling face, smile	784
終わる	<i>owaru</i>	to end, to come to an end, to close, to finish	766
続ける	<i>tsuzukeru</i>	to continue, to keep up, to keep on	760
時間	<i>jikan</i>	time	759
my	-	-	749
顔	<i>kao</i>	face, visage	735
雨	<i>ame</i>	rain	728
同じ	<i>onaji</i>	same, identical, equal, similar, alike	725
to	-	-	723
探す	<i>sagasu</i>	to search for, to look for, to hunt for, to seek	711
星	<i>hoshi</i>	star	710
出る	<i>deru</i>	出る : to leave, to exit, to go out	700

21.2.3 List of songwriters (band: “THE BLUE HEARTS”)

Question:

“How many different songwriters are there in the band “THE BLUE HEARTS”? ”

Query:

fq:	band_str:“THE BLUE HEARTS”
start, rows:	0, 0
facet:	true
facet.field:	lyrics_by_str
facet.mincount:	1

Result:

“numFound”:101

Songwriter (作詞家)		何曲
真島昌利	Mashima Masatoshi	50
甲本ヒロト	Kōmoto Hiroto	45
河口純之助	Kawaguchi Junnosuke	5
甲本ヒロト・真島昌利	Kōmoto Hiroto ・ Mashima Masatoshi	1

21.3 Most used words, by band

In this section, we are going to find the most used for the following artists:

- THE BLUE HEARTS
- AKB48
- SMAP
- Ningen isu
- Kaneko Ayano

21.3.1 Most used words (band: “THE BLUE HEARTS”)

Question:

“Which words appear most often in songs by the band “THE BLUE HEARTS”? ”

Query:

fq:	band_str:“THE BLUE HEARTS”
start, rows:	0, 0
facet:	true
facet.field:	lyrics_txt_ja

Result:

“numFound”:101

Lexeme	Pronunc.	Meanings	何曲
僕	<i>boku</i>	I, me (Pronoun, Male term)	42
誰	<i>dare</i>	who	36
何	<i>nani</i>	what	33
事	<i>koto</i>	thing, matter	29
人	<i>hito</i>	person	29
行く	<i>iku</i>	to go	25
夜	<i>yoru</i>	evening, night	24
見る	<i>miru</i>	to see	24
風	<i>kaze</i>	wind	24
今	<i>ima</i>	now	22
いい	<i>ii</i>	good, excellent, fine, nice	21
中	<i>naka</i>	inside	21
やる	<i>yaru</i>	to do, to undertake, to perform	19
笑う	<i>warau</i>	to laugh	19
いく	<i>iku</i>	行く : to go	17
どこ	<i>doko</i>	where, what place	17
君	<i>kimi</i>	you, buddy, pal	17
時	<i>toki</i>	time, hour, moment	17
死ぬ	<i>shinu</i>	to die	17
くる	<i>kuru</i>	来 : to come	16
そう	<i>sou</i>	looking like	16
今日	<i>kyou</i>	today	16
いつ	<i>itsu</i>	when, at what time	15

Most used words in songs by the band "THE BLUE HEARTS"... (continued)

Lexeme	Pronunc.	Meanings	何曲
夢	yume	dream	15
一	ichi	one	14
言う	iu	to say	14
そんな	sonna	such, that sort of, that kind of	13
声	koe	voice	13
手	te	hand, arm	13
星	hoshi	star	13
空	sora	sky	13
雨	ame	rain	13
もう	mou	already, yet, by now	12
心	kokoro	heart, mind, spirit	12
聞く	kiku	to hear	12
言葉	kotoba	word, phrase	12
あげる	ageru	上げる : to raise, to elevate	11
あなた	anata	you	11
しまう	shimau	to finish, to stop, to put an end to	11
上	ue	above, up, over	11
世界	sekai	the world, society, the universe	11
前	mae	in front (of), before	11
忘れる	wasureru	to forget	11
明日	ashita, asu	tomorrow, (only "asu") the near future	11
気	ki	spirit, mind, heart	11
涙	namida	tears	11
生きる	ikiru	to live, to exist	11
街	gai	... street, ... quarter, ... district	11
見える	mieru	to be seen, to be in sight, to appear	11
遠い	toi	far, distant, far away	11
みんな	minna	everyone, everybody, all	10
俺	ore	I, me (Pronoun, Male term, rough or arrogant)	10
吹く	fuku	to blow (of the wind)	10
日	hi, nichi	day	10
気持ち	kimochi	feeling, sensation, mood, state of mind	10
泣く	naku	to cry, to weep, to sob	10
目	me	eye	10
あの	ano	that, those, the	9
つける	tsukeru		9
どう	dou	how, in what way, how about	9
まま	mama	as it is, as one likes	9
みたい	mitai	-like, sort of, similar to, resembling	9
本当	hontou	truth, reality, actuality, fact	9
生まれる	umareru	to be born	9
道	machi	road, path, street, lane	9
く	ku	ward, borough, city (in Tokyo)	8
くれる	kureru	to give, to let (one) have	8
すぎる	sugiru	to pass through, to pass by	8
つく	tsuku	着く : to arrive at, to reach	8
でる	deru	出る : to leave, to exit, to go out	8
なれる	nareru	慣れる : to get used to	8
ゆく	iku	行く : to go	8
夏	natsu	summer	8
悪い	warui	bad, poor, undesirable	8
来る	kuru	to come	8
欲しい	hoshii	wanted, wished for, in need of, desired	8

Most used words in songs by the band “THE BLUE HEARTS”... (continued)

Lexeme	Pronunc.	Meanings	何曲
歌う	<i>utau</i>	to sing	8
者	<i>mono, sha</i>	person	8
達	<i>tachi</i>	(pluralizing suffix)	8
降る	<i>furu</i>	to fall (of rain, snow, ash, etc.), to come down	8
飛ばす	<i>tobasu</i>	to let fly, to make fly, to skip over, to leave out	8
ああ	<i>aa</i>	ah!, oh!, alas!	7
いける	<i>ikeru</i>		7
かける	<i>kakeru</i>		7
ずっと	<i>zutto</i>	continuously, throughout	7
たくさん	<i>takusan</i>	a lot, lots, plenty, many, a large number, much	7
みる	<i>miru</i>	見る : to see	7
下	<i>shita</i>	below, down, under,	7
世の中	<i>yononaka</i>	society, the world, the times	7
今夜	<i>konya</i>	this evening, tonight	7
奴	<i>yatsu</i>	fellow, guy, chap (Derogatory)	7
少し	<i>sukoshi</i>	a little, a few	7
思い出	<i>omoide</i>	memories, recollections, reminiscence	7
方	<i>hou</i>	direction, way, side	7
月	<i>tsuki</i>	moon	7
楽しい	<i>tanoshii</i>	enjoyable, fun, pleasant	7
歴史	<i>rekishi</i>	history	7
続く	<i>tsuzuku</i>	to continue, to last, to go on	7
言える	<i>ieru</i>	to be possible to say, to be able to say	7

21.3.2 Most used words (band: “AKB48”)

Question:

“Which words appear most often in songs by the band “AKB48”? ”

fq:	band_str:“AKB48”
start, rows:	0, 0
facet:	true
facet.field:	lyrics_by_str

Result:

“numFound”:376

Lexeme	Pronunc.	Meanings	何曲
人	<i>hito</i>	person	216
誰	<i>dare</i>	who	204
何	<i>nani</i>	what	191
私	<i>watashi</i>	I, me (Pronoun, slightly formal or feminine)	177
今	<i>ima</i>	now	167
夢	<i>yume</i>	dream	160
愛	<i>ai</i>	love	146

Most used words in songs by the band “AKB48”... (continued)

Lexeme	Pronunc.	Meanings	何曲
どこ	<i>doko</i>	where, what place	145
来る	<i>kuru</i>	to come	140
心	<i>kokoro</i>	heart, mind, spirit	137
そう	<i>sou</i>	looking like	136
いい	<i>ii</i>	good, excellent, fine, nice	133
一	<i>ichi</i>	one	128
見る	<i>miru</i>	to see	128
中	<i>naka</i>	inside	124
日	<i>hi, nichi</i>	day	123
自分	<i>jibun</i>	I, me, myself, yourself, oneself (Pronoun)	122
行く	<i>iku</i>	to go	119
恋	<i>koi</i>	(romantic) love	117
あなた	<i>anata</i>	you	116
風	<i>kaze</i>	wind	111
君	<i>kimi</i>	you, buddy, pal	109
空	<i>sora</i>	sky	108
時	<i>toki</i>	time, hour, moment	107
僕	<i>boku</i>	I, me (Pronoun, Male term)	103
ずっと	<i>zutto</i>	continuously, throughout	100
未来	<i>mirai</i>	the future (usually distant)	97
目	<i>me</i>	eye	96
言う	<i>iu</i>	to say	95
涙	<i>namida</i>	tears	93
あの	<i>ano</i>	that, those, the	90
忘れる	<i>wasureru</i>	to forget	90
気づく	<i>kizuku</i>	to notice, to recognise, to become aware of	90
道	<i>machi</i>	road, path, street, lane	90
いつ	<i>itsu</i>	when, at what time	89
前	<i>mae</i>	in front (of), before	88
好き	<i>suki</i>	liked, well-liked, in love (with)	88
生きる	<i>ikiru</i>	to live, to exist	88
手	<i>te</i>	hand, arm	87
くれる	<i>kureru</i>	to give, to let (one) have	86
わかる	<i>wakaru</i>	分かる : to understand, to comprehend, to grasp	85
今日	<i>kyou</i>	today	85
信じる	<i>shinjiru</i>	to believe, to place trust in, to have faith in	85
知る	<i>shiru</i>	to be aware of, to know, to be conscious of	85
胸	<i>mune</i>	chest, breast, heart	84
まま	<i>mama</i>	as it is, as one likes	82
しまう	<i>shimau</i>	to finish, to stop, to put an end to	80
歩く	<i>aruku</i>	to walk	78
いつも	<i>itsumo</i>	always, all the time, at all times	76
きっと	<i>kitto</i>	surely, undoubtedly, almost certainly	76
いつか	<i>itsuka</i>	sometime, someday, one day	73
思う	<i>omou</i>	to think, to consider, to believe, to reckon	73
見える	<i>mieru</i>	to be seen, to be in sight, to appear	73
すべて	<i>subete</i>	全て : everything, all, the whole	72
世界	<i>sekai</i>	the world, society, the universe	71
声	<i>koe</i>	voice	69
待つ	<i>matsu</i>	to wait	68
2			66
度	<i>do</i>	(counter for occurrences)	66
夜	<i>yoru</i>	evening, night	65

Most used words in songs by the band “AKB48”... (continued)

Lexeme	Pronunc.	Meanings	何曲
どんな	<i>donna</i>	what kind of, what sort of	64
みたい	<i>mitai</i>	-like, sort of, similar to, resembling	64
みんな	<i>minna</i>	everyone, everybody, all	63
愛しい	<i>itoshii</i>	lovely, dear, beloved, darling, dearest	63
なれる	<i>nareru</i>	慣れる : to get used to	62
欲しい	<i>hoshii</i>	wanted, wished for, in need of, desired	61
そんな	<i>sonna</i>	such, that sort of, that kind of	60
もう	<i>mou</i>	already, yet, by now	60
大人	<i>otona</i>	adult, grown-up	60
みる	<i>miru</i>	見る : to see	58
合う	<i>au</i>	to come together, to merge, to unite, to meet	58
場所	<i>basho</i>	place, location, spot, position	58
思い出	<i>omoide</i>	memories, recollections, reminiscence	58
明日	<i>ashita, asu</i>	tomorrow, (only “asu”) the near future	58
すぎる	<i>sugiru</i>	to pass through, to pass by	57
変わる	<i>kawaru</i>	to change, to be transformed, to be altered	57
気持ち	<i>kimochi</i>	feeling, sensation, mood, state of mind	57
なぜ	<i>naze</i>	why, how	55
先	<i>saki</i>	head (of a line), front	53
友達	<i>tomodachi</i>	friend, companion	53
気	<i>ki</i>	spirit, mind, heart	53
言葉	<i>kotoba</i>	word, phrase	53
ひとつ	<i>hitotsu</i>	one (counter)	52
出す	<i>dasu</i>	to take out, to get out	52
時間	<i>jikan</i>	time	52
やさしい	<i>yasashii</i>	優しい : tender, kind, gentle, affectionate	51
あきらめる	<i>akirameru</i>	諦める : to give up	49
く	<i>ku</i>	ward, borough, city (in Tokyo)	49
しあわせ	<i>shiawase</i>	幸せ : happiness, good fortune, luck, blessing	49
街	<i>gai</i>	... street, ... quarter, ... district	49
もっと	<i>motto</i>	(some) more, even more, longer, further	48
やる	<i>yaru</i>	to do, to undertake, to perform	48
長い	<i>nagai</i>	long (distance, length), long (time), prolonged	47
すぐ	<i>sugu</i>	immediately, at once, right away, directly	46
キス	<i>kissu</i>	kiss	46
探す	<i>sagasu</i>	to search for, to look for, to hunt for, to seek	46
どう	<i>dou</i>	how, in what way, how about	45
太陽	<i>taiyou</i>	sun	45
教える	<i>oshieru</i>	to teach, to instruct	45

21.3.3 Most used words (band: “SMAP”)

Question:

“Which words appear most often in songs by the band “SMAP”? ”

fq:	band_str:“SMAP”
start, rows:	0, 0
facet:	true
facet.field:	lyrics_by_str

Result:

"numFound":336

Lexeme	Pronunc.	Meanings	何曲
君	<i>kimī</i>	you, buddy, pal	201
僕	<i>boku</i>	I, me (Pronoun, Male term)	159
人	<i>hito</i>	person	147
そう	<i>sou</i>	looking like	139
誰	<i>dare</i>	who	114
何	<i>nani</i>	what	113
今	<i>ima</i>	now	111
いい	<i>ii</i>	good, excellent, fine, nice	107
時	<i>toki</i>	time, hour, moment	98
中	<i>naka</i>	inside	95
夢	<i>yume</i>	dream	95
心	<i>kokoro</i>	heart, mind, spirit	95
見る	<i>miru</i>	to see	94
日	<i>hi, nichi</i>	day	93
胸	<i>mune</i>	chest, breast, heart	89
いつも	<i>itsumo</i>	always, all the time, at all times	81
きっと	<i>kitto</i>	surely, undoubtedly, almost certainly	80
もう	<i>mou</i>	already, yet, by now	79
気持ち	<i>kimochi</i>	feeling, sensation, mood, state of mind	79
空	<i>sora</i>	sky	78
夜	<i>yoru</i>	evening, night	77
言う	<i>iu</i>	to say	77
you	-	-	75
く	<i>ku</i>	ward, borough, city (in Tokyo)	75
いつ	<i>itsu</i>	when, at what time	74
行く	<i>iku</i>	to go	73
手	<i>te</i>	hand, arm	72
生きる	<i>ikiru</i>	to live, to exist	72
あの	<i>ano</i>	that, those, the	71
明日	<i>ashita, asu</i>	tomorrow, (only "asu") the near future	71
愛	<i>ai</i>	love	70
まま	<i>mama</i>	as it is, as one likes	69
一	<i>ichi</i>	one	68
恋	<i>koi</i>	(romantic) love	68
そんな	<i>sonna</i>	such, that sort of, that kind of	67
今日	<i>kyou</i>	today	67
笑う	<i>warau</i>	to laugh	67
くる	<i>kuru</i>	来 : to come	66
二	<i>ni</i>	two	66
風	<i>kaze</i>	wind	66
どこ	<i>doko</i>	where, what place	63
忘れる	<i>wasureru</i>	to forget	63
ずっと	<i>zutto</i>	continuously, throughout	62
僕ら	<i>bokura</i>	we (Pronoun, Male term)	61
街	<i>gai</i>	... street, ... quarter, ... district	61
涙	<i>namida</i>	tears	59
目	<i>me</i>	eye	59
知る	<i>shiru</i>	to be aware of, to know, to be conscious of	59
ゆく	<i>iku</i>	行く : to go	57
自分	<i>jibun</i>	I, me, myself, yourself, oneself (Pronoun)	57

Most used words in songs by “Kaneko Ayano”... (continued)

Lexeme	Pronunc.	Meanings	何曲
声	<i>koe</i>	voice	56
気	<i>ki</i>	spirit, mind, heart	56
love	-	-	54
変わる	<i>kawaru</i>	to change, to be transformed, to be altered	54
泣く	<i>naku</i>	to cry, to weep, to sob	54
笑顔	<i>egaho</i>	smiling face, smile	54
言葉	<i>kotoba</i>	word, phrase	54
少し	<i>sukoshi</i>	a little, a few	53
歩く	<i>aruku</i>	to walk	53
いつか	<i>itsuka</i>	sometime, someday, one day	52
信じる	<i>shinjiru</i>	to believe, to place trust in, to have faith in	52
未来	<i>mirai</i>	the future (usually distant)	52
いく	<i>iku</i>	行く : to go	51
すぐ	<i>sugu</i>	immediately, at once, right away, directly	51
みんな	<i>minna</i>	everyone, everybody, all	51
感じる	<i>kanjiru</i>	to feel	51
見える	<i>mieru</i>	to be seen, to be in sight, to appear	51
くれる	<i>kureru</i>	to give, to let (one) have	50
みる	<i>miru</i>	見る : to see	50
好き	<i>suki</i>	liked, well-liked, in love (with)	50
世界	<i>sekai</i>	the world, society, the universe	49
顔	<i>kao</i>	face, visage	49
i	-	-	48
oh	-	-	48
前	<i>mae</i>	in front (of), before	48
来る	<i>kuru</i>	to come	48
s	-	-	46
思う	<i>omou</i>	to think, to consider, to believe, to reckon	46
まだ	<i>mada</i>	still, as yet, only	45
同じ	<i>onaji</i>	same, identical, equal, similar, alike	45
it	-	-	44
しまう	<i>shimau</i>	to finish, to stop, to put an end to	44
どんな	<i>donna</i>	what kind of, what sort of	43
はず	<i>hazu</i>	should (be), bound (to be)	43
抱きしめる	<i>dakishimeru</i>	to hug someone close, to hold someone tight	43
my	-	-	42
待つ	<i>matsu</i>	to wait	42
on	-	-	41
the	-	-	41
愛す	<i>aisu</i>	to love	40
星	<i>hoshi</i>	star	40
消える	<i>kieru</i>	to go out, to vanish, to disappear	40
ちょっと	<i>chotto</i>	a little, a bit, slightly	39
場所	<i>basho</i>	place, location, spot, position	39
探す	<i>sagasu</i>	to search for, to look for, to hunt for, to seek	39
日々	<i>hibi</i>	the everyday	39
続ける	<i>tsuzukeru</i>	to continue, to keep up, to keep on	39
雨	<i>ame</i>	rain	39
a	-	-	38

21.3.4 Most used words (band: “Ningen isu”)

Question:

“Which words appear most often in songs by the band “Ningen isu”? ”

fq:	band_str: “人間椅子”
start, rows:	0, 0
facet:	true
facet.field:	lyrics_by_str

Result:

“numFound”:137

Lexeme	Pronunc.	Meanings	何曲
人	<i>hito</i>	person	55
夢	<i>yume</i>	dream	43
心	<i>kokoro</i>	heart, mind, spirit	32
愛	<i>ai</i>	love	32
夜	<i>yoru</i>	evening, night	31
来る	<i>kuru</i>	to come	31
世界	<i>sekai</i>	the world, society, the universe	30
誰	<i>dare</i>	who	30
空	<i>sora</i>	sky	27
光	<i>hikari</i>	light	25
時	<i>toki</i>	time, hour, moment	25
君	<i>kimi</i>	you, buddy, pal	23
泣く	<i>naku</i>	to cry, to weep, to sob	23
見る	<i>miru</i>	to see	23
闇	<i>yami</i>	darkness, the dark, despair, hopelessness	23
声	<i>koe</i>	voice	22
明日	<i>ashita, asu</i>	tomorrow, (only “asu”) the near future	22
月	<i>tsuki</i>	moon	22
どこ	<i>doko</i>	where, what place	21
地獄	<i>jigoku</i>	hell	21
中	<i>naka</i>	inside	20
何	<i>nani</i>	what	19
涙	<i>namida</i>	tears	19
終わる	<i>owaru</i>	to end, to come to an end, to close, to finish	19
花	<i>hana</i>	flower, blossom, bloom, petal	19
越える	<i>koeru</i>	to cross over, to pass through, to go beyond	19
咲く	<i>saku</i>	to bloom, to flower, to blossom	18
山	<i>yama</i>	mountain	18
果て	<i>hote</i>	the end, the extremity, the limit, the limits	18
生きる	<i>ikiru</i>	to live, to exist	18
知る	<i>shiru</i>	to be aware of, to know, to be conscious of	18
くる	<i>kuru</i>	来 : to come	17
この世	<i>konoyo</i>	this world, this life, world of the living	17
永遠	<i>eien</i>	eternity, perpetuity, permanence, immortality	17
目	<i>me</i>	eye	17
笑う	<i>warau</i>	to laugh	17
道	<i>machi</i>	road, path, street, lane	17
吹く	<i>fuku</i>	to blow (of the wind)	16
恋	<i>koi</i>	(romantic) love	16

Most used words in songs by the band “Ningen isu”... (continued)

Lexeme	Pronunc.	Meanings	何曲
日	<i>hi, nichi</i>	day	16
星	<i>hoshi</i>	star	16
胸	<i>mune</i>	chest, breast, heart	16
行く	<i>iku</i>	to go	16
ゆく	<i>iku</i>	行く : to go	15
待つ	<i>matsu</i>	to wait	15
風	<i>kaze</i>	wind	15
くれる	<i>kureru</i>	to give, to let (one) have	14
ご			14
すべて	<i>subete</i>	全て : everything, all, the whole	14
め			14
僕	<i>boku</i>	I, me (Pronoun, Male term)	14
宇宙	<i>uchyuu</i>	blood spilt from the body	14
歌う	<i>utau</i>	to sing	14
消える	<i>kieru</i>	to go out, to vanish, to disappear	14
落ちる	<i>ochiru</i>	to fall down, to drop, to fall (e.g. rain)	14
血潮	<i>chishio</i>	blood spilt from the body	14
開く	<i>hiraku</i>	to open, to undo, to unseal, to unpack	14
く	<i>ku</i>	ward, borough, city (in Tokyo)	13
まま	<i>mama</i>	as it is, as one likes	13
みる	<i>miru</i>	見る : to see	13
命	<i>inochi</i>	life	13
影	<i>kage</i>	shadow, silhouette, figure, shape	13
持つ	<i>motsu</i>	to hold (in one's hand), to take, to carry	13
時代	<i>jidai</i>	period, epoch, era, age	13
海	<i>umi</i>	sea, ocean, waters	13
神	<i>kami</i>	god, deity, divinity, spirit	13
つく	<i>tsuku</i>	着く : to arrive at, to reach	12
今日	<i>kyou</i>	today	12
俺	<i>ore</i>	I, me (Pronoun, Male term, rough or arrogant)	12
手	<i>te</i>	hand, arm	12
死	<i>shi</i>	death	12
いい	<i>ii</i>	good, excellent, fine, nice	11
ひとり	<i>hitori</i>	一人 : one person, alone, oneself; 独り : single	11
ぶる	<i>furu</i>	to assume the air of ..., to behave like ...	11
ぼる			11
今	<i>ima</i>	now	11
出る	<i>deru</i>	出る : to leave, to exit, to go out	11
地平	<i>shi</i>	horizon	11
彼方	<i>achira</i>	that way, that direction, over there	11
忘れる	<i>wasureru</i>	to forget	11
悪	<i>waru</i>	wicked person, evil person, scoundrel, bad guy	11
抱く	<i>idaku</i>	to hold in one's arms (e.g. a baby), to hug	11
生まれる	<i>umareru</i>	to be born	11
眠る	<i>nemuru</i>	to sleep, to die, to rest (in peace), to lie (buried)	11
笑み	<i>emi</i>	smile	11
色	<i>iro</i>	colour	11
見える	<i>mieru</i>	to be seen, to be in sight, to appear	11
雨	<i>ame</i>	rain	11
魂	<i>tamashii</i>	soul, spirit	11
あなた	<i>anata</i>	you	10
こ			10
ちる			10

Most used words in songs by the band “Ningen isu”... (continued)

Lexeme	Pronunc.	Meanings	何曲
やる	<i>yaru</i>	to do, to undertake, to perform	10
一	<i>ichi</i>	one	10
出す	<i>dasu</i>	to take out, to get out	10
前	<i>mae</i>	in front (of), before	10
形	<i>katachi</i>	form, shape, figure	10
彼	<i>kare</i>	him (Pronoun)	10
懐かしい	<i>natsukashii</i>	dear (old), fondly-remembered, missed, nostalgic	10

21.3.5 Most used words (artist: “Kaneko Ayano”)

Question:

“Which words appear most often in songs from singer “Kaneko Ayano”? ”

fq:	band_str: “カネコアヤノ”
start, rows:	0, 0
facet:	true
facet.field:	lyrics_by_str

Result:

“numFound”:61

Lexeme	Pronunc.	Meanings	何曲
君	<i>kimi</i>	you, buddy, pal	31
人	<i>hito</i>	person	24
いい	<i>ii</i>	good, excellent, fine, nice	23
私	<i>watashi</i>	I, me (Pronoun, slightly formal or feminine)	23
今日	<i>kyou</i>	today	22
今	<i>ima</i>	now	18
知る	<i>shiru</i>	to be aware of, to know, to be conscious of	17
中	<i>naka</i>	inside	16
あなた	<i>anata</i>	you	15
くる	<i>kuru</i>	来 : to come	15
みたい	<i>mitai</i>	-like, sort of, similar to, resembling	15
夜	<i>yoru</i>	evening, night	15
夢	<i>yume</i>	dream	14
街	<i>gai</i>	... street, ... quarter, ... district	14
みる	<i>miru</i>	見る : to see	13
忘れる	<i>wasureru</i>	to forget	13
愛	<i>ai</i>	love	13
思う	<i>omou</i>	to think, to consider, to believe, to reckon	12
日	<i>hi, nichi</i>	day	12
気持ち	<i>kimochi</i>	feeling, sensation, mood, state of mind	12
見る	<i>miru</i>	to see	12
いつ	<i>itsu</i>	when, at what time	11
いつも	<i>itsumo</i>	always, all the time, at all times	11
しまう	<i>shimau</i>	to finish, to stop, to put an end to	11

Most used words in songs by “Kaneko Ayano”... (continued)

Lexeme	Pronunc.	Meanings	何曲
朝	<i>asa, ashita</i>	morning	11
行く	<i>iku</i>	to go	11
誰	<i>dare</i>	who	11
いく	<i>iku</i>	行く : to go	10
くれる	<i>kureru</i>	to give, to let (one) have	10
ゆく	<i>iku</i>	行く : to go	10
歩く	<i>aruku</i>	to walk	10
話	<i>hanashi</i>	talk, speech, chat, conversation	10
そう	<i>sou</i>	looking like	9
わかる	<i>wakaru</i>	分かる : to understand, to comprehend, to grasp	9
体	<i>karada</i>	body	9
前	<i>mae</i>	in front (of), before	9
少し	<i>sukoshi</i>	a little, a few	9
明日	<i>ashita, asu</i>	tomorrow, (only “asu”) the near future	9
いつか	<i>itsuka</i>	sometime, someday, one day	8
きっと	<i>kitto</i>	surely, undoubtedly, almost certainly	8
まま	<i>mama</i>	as it is, as one likes	8
出る	<i>deru</i>	出る : to leave, to exit, to go out	8
外	<i>soto</i>	outside	8
好き	<i>suki</i>	liked, well-liked, in love (with)	8
恋	<i>koi</i>	(romantic) love	8
毎日	<i>mainichi</i>	every day	8
気	<i>ki</i>	spirit, mind, heart	8
目	<i>me</i>	eye	8
笑う	<i>warau</i>	to laugh	8
見える	<i>mieru</i>	to be seen, to be in sight, to appear	8
部屋	<i>heya</i>	room	8
食べる	<i>taberu</i>	to eat	8
ずっと	<i>zutto</i>	continuously, throughout	7
だれ	<i>dare</i>	誰 : who	7
どこ	<i>doko</i>	where, what place	7
ひとつ	<i>hitotsu</i>	one (counter)	7
一	<i>ichi</i>	one	7
二	<i>ni</i>	two	7
何	<i>nani</i>	what	7
僕	<i>boku</i>	I, me (Pronoun, Male term)	7
先	<i>saki</i>	head (of a line), front	7
分かる	<i>wakaru</i>	to understand, to comprehend, to grasp	7
変わる	<i>kawaru</i>	to change, to be transformed, to be altered	7
日々	<i>hibi</i>	the everyday	7
星	<i>hoshi</i>	star	7
空	<i>sora</i>	sky	7
考える	<i>kangaeru</i>	to think (about, of), to ponder, to contemplate	7
言う	<i>iu</i>	to say	7
風	<i>kaze</i>	wind	7
ああ	<i>aa</i>	ah!, oh!, alas!	6
入れる	<i>ireru</i>	入れる : to put in	6
つく	<i>tsuku</i>	着く : to arrive at, to reach	6
もう	<i>mou</i>	already, yet, by now	6
わたし	<i>watashi</i>	私 : I, me (Pronoun, slightly formal or feminine)	6
上	<i>ue</i>	above, up, over	6
会う	<i>au</i>	to meet, to encounter, to see	6
夏	<i>natsu</i>	summer	6

Part VI — Analysing lyrics

Most used words in songs by “Kaneko Ayano” ... (continued)

Lexeme	Pronunc.	Meanings	何曲
家	<i>ie, uchi</i>	house	6
待つ	<i>matsu</i>	to wait	6
心	<i>kokoro</i>	heart, mind, spirit	6
恋しい	<i>koishii</i>	yearned for, longed for, missed	6
悪い	<i>warui</i>	bad, poor, undesirable	6
悲しい	<i>kanashii</i>	sad, miserable, unhappy, sorrowful	6
方	<i>hou</i>	direction, way, side	6
月	<i>tsuki</i>	moon	6
気づく	<i>kizuku</i>	to notice, to recognise, to become aware of	6
終わる	<i>owaru</i>	to end, to come to an end, to close, to finish	6
胸	<i>mune</i>	chest, breast, heart	6
良い	<i>yoi</i>	good, excellent, fine, nice, pleasant, agreeable	6
色	<i>iro</i>	colour	6
花	<i>hana</i>	flower, blossom, bloom, petal	6
言葉	<i>kotoba</i>	word, phrase	6
走る	<i>hashiru</i>	to run	6
顔	<i>kao</i>	face, visage	6
きれい	<i>kirei</i>	綺麗 : pretty, lovely, beautiful, fair	5
く	<i>ku</i>	ward, borough, city (in Tokyo)	5
これから	<i>kore kara</i>	from now on	5
さよなら	<i>sayonara</i>	goodbye, so long, farewell	5
すぎる	<i>sugiru</i>	to pass through, to pass by	5

21.4 Most used words, by songwriter

Finding the most used words by band is interesting, as it gives an idea of the kind of themes that the band deals with in their songs.

What is perhaps even more relevant, however, is to find the most used words by a particular songwriter, as it provides us with some information about their writing style (in terms of lexicon), especially considering that one songwriter sometimes provides lyrics for several bands (or change bands throughout their career).

In this section, we will look at the style of the songwriters from “THE BLUE HEARTS”, two of whom went on to form other bands later on (namely, “The High-Lows” and “The Cro-Magnons”).

21.4.1 Most used words (writer: Kōmoto Hiroto)

Question:

“Which words appear most often in songs by 甲本ヒロト (Kōmoto Hiroto), the singer from “THE BLUE HEARTS”?”

Query:

fq:	lyrics_by_str:” 甲本ヒロト”
start, rows:	0, 0
facet:	true
facet.field:	lyrics_by_str
facet.mincount:	1

Result:

”numFound”:45

Lexeme	Pronunc.	Meanings	何曲
僕	<i>boku</i>	I, me (Pronoun, Male term)	49
人	<i>hito</i>	person	39
誰	<i>dare</i>	who	36
何	<i>nani</i>	what	32
夜	<i>yoru</i>	evening, night	32
そう	<i>sou</i>	looking like	31
中	<i>naka</i>	inside	31
夢	<i>yume</i>	dream	31
行く	<i>iku</i>	to go	31
見る	<i>miru</i>	to see	29
もう	<i>mou</i>	already, yet, by now	27
ああ	<i>aa</i>	ah!, oh!, alas!	26
いい	<i>ii</i>	good, excellent, fine, nice	26
まま	<i>mama</i>	as it is, as one likes	26
今	<i>ima</i>	now	26
空	<i>sora</i>	sky	26
くれる	<i>kureru</i>	to give, to let (one) have	25
時	<i>toki</i>	time, hour, moment	25
笑う	<i>warau</i>	to laugh	23

Most used words in songs written by Kōmoto Hiroto... (continued)

Lexeme	Pronunc.	Meanings	何曲
一	<i>ichi</i>	one	22
俺	<i>ore</i>	I, me (Pronoun, Male term, rough or arrogant)	22
見える	<i>mieru</i>	to be seen, to be in sight, to appear	22
やる	<i>yaru</i>	to do, to undertake, to perform	21
泣く	<i>naku</i>	to cry, to weep, to sob	21
君	<i>kimi</i>	you, buddy, pal	20
風	<i>kaze</i>	wind	20
どこ	<i>doko</i>	where, what place	19
くる	<i>kuru</i>	来 : to come	17
世界	<i>sekai</i>	the world, society, the universe	17
事	<i>koto</i>	thing, matter	17
待つ	<i>matsu</i>	to wait	17
心	<i>kokoro</i>	heart, mind, spirit	17
恋	<i>koi</i>	(romantic) love	17
街	<i>gai</i>	... street, ... quarter, ... district	17
いく	<i>iku</i>	行く : to go	16
二	<i>ni</i>	two	16
今日	<i>kyou</i>	today	16
日	<i>hi, nichī</i>	day	16
死ぬ	<i>shinu</i>	to die	16
目	<i>me</i>	eye	16
あなた	<i>anata</i>	you	15
前	<i>mae</i>	in front (of), before	15
星	<i>hoshi</i>	star	15
遠い	<i>toi</i>	far, distant, far away	15
つく	<i>tsuku</i>	着く : to arrive at, to reach	14
今夜	<i>konya</i>	this evening, tonight	14
全部	<i>zenbu</i>	all, entire, whole, altogether	14
手	<i>te</i>	hand, arm	14
涙	<i>namida</i>	tears	14
燃える	<i>moeru</i>	to burn	14
生きる	<i>ikiru</i>	to live, to exist	14
みんな	<i>minna</i>	everyone, everybody, all	13
ゆく	<i>iku</i>	行く : to go	13
欲しい	<i>hoshii</i>	wanted, wished for, in need of, desired	13
知る	<i>shiru</i>	to be aware of, to know, to be conscious of	13
雨	<i>ame</i>	rain	13
飛ぶ	<i>tobu</i>	to fly, to soar	13
しまう	<i>shimau</i>	to finish, to stop, to put an end to	12
みる	<i>miru</i>	見る : to see	12
声	<i>koe</i>	voice	12
海	<i>umi</i>	sea, ocean, waters	12
生まれる	<i>umareru</i>	to be born	12
聞く	<i>kiku</i>	to hear	12
いける	<i>ikeru</i>		11
いつ	<i>itsu</i>	when, at what time	11
く	<i>ku</i>	ward, borough, city (in Tokyo)	11
ずっと	<i>zutto</i>	continuously, throughout	11
つける	<i>tsukeru</i>		11
どう	<i>dou</i>	how, in what way, how about	11
わかる	<i>wakaru</i>	分かる : to understand, to comprehend, to grasp	11
上	<i>ue</i>	above, up, over	11
乗る	<i>noru</i>	to get on (train, plane, bus, ship, etc.)	11

Most used words in songs written by Kōmoto Hiroto... (continued)

Lexeme	Pronunc.	Meanings	何曲
呼ぶ	yobu	to call out	11
命	inochi	life	11
好き	suki	liked, well-liked, in love (with)	11
忘れる	wasureru	to forget	11
方	hou	direction, way, side	11
明日	ashita, asu	tomorrow, (only "asu") the near future	11
歩く	aruku	to walk	11
眠る	nemuru	to sleep, to die, to rest (in peace), to lie (buried)	11
言う	iu	to say	11
道	machi	road, path, street, lane	11
降る	furu	to fall (of rain, snow, ash, etc.), to come down	11
あげる	ageru	上げる : to raise, to elevate	10
あの	ano	that, those, the	10
いま	ima	今 : now	10
かける	kakeru		10
すぐ	sugu	immediately, at once, right away, directly	10
ちゃう	chau	to do completely	10
みたい	mitai	-like, sort of, similar to, resembling	10
オレ	ore	俺 : I, me (Pronoun, Male term, rough or arrogant)	10
会う	au	to meet, to encounter, to see	10
本当	hontou	truth, reality, actuality, fact	10
気	ki	spirit, mind, heart	10
線	sen	line, stripe	10
顔	kao	face, visage	10
いつか	itsuka	sometime, someday, one day	9
そんな	sonna	such, that sort of, that kind of	9
やさしい	yasashii	優しい : tender, kind, gentle, affectionate	9

21.4.2 Most used words (writer: Mashima Masatoshi)

Question:

"Which words appear most often in songs by 真島昌利 (Mashima Masatoshi), the guitarist from "THE BLUE HEARTS"? "

Query:

fq:	lyrics_by_str:" 真島昌利"
start, rows:	0, 0
facet:	true
facet.field:	lyrics_by_str
facet.mincount:	1

Result:

"numFound":50

Lexeme	Pronunc.	Meanings	何曲
いい	<i>ii</i>	good, excellent, fine, nice	58
何	<i>nani</i>	what	54
事	<i>koto</i>	thing, matter	44
風	<i>kaze</i>	wind	44
人	<i>hito</i>	person	40
いく	<i>iku</i>	行く : to go	38
もう	<i>mou</i>	already, yet, by now	38
行く	<i>iku</i>	to go	35
く	<i>ku</i>	ward, borough, city (in Tokyo)	34
俺	<i>ore</i>	I, me (Pronoun, Male term, rough or arrogant)	34
一	<i>ichi</i>	one	32
今	<i>ima</i>	now	32
誰	<i>dare</i>	who	32
笑う	<i>warau</i>	to laugh	30
ちゃう	<i>chau</i>	to do completely	28
やる	<i>yaru</i>	to do, to undertake, to perform	28
夏	<i>natsu</i>	summer	27
そう	<i>sou</i>	looking like	26
今日	<i>kyou</i>	today	26
夜	<i>yoru</i>	evening, night	26
中	<i>naka</i>	inside	25
時	<i>toki</i>	time, hour, moment	25
見る	<i>miru</i>	to see	25
わかる	<i>wakaru</i>	分かる : to understand, to comprehend, to grasp	23
僕	<i>boku</i>	I, me (Pronoun, Male term)	23
言う	<i>iu</i>	to say	23
どこ	<i>doko</i>	where, what place	22
君	<i>kimi</i>	you, buddy, pal	22
死ぬ	<i>shinu</i>	to die	22
目	<i>me</i>	eye	21
雨	<i>ame</i>	rain	21
くる	<i>kuru</i>	来 : to come	20
明日	<i>ashita, asu</i>	tomorrow, (only "asu") the near future	20
空	<i>sora</i>	sky	20
どう	<i>dou</i>	how, in what way, how about	19
上	<i>ue</i>	above, up, over	19
日	<i>hi, nichi</i>	day	19
生きる	<i>ikiru</i>	to live, to exist	19
言葉	<i>kotoba</i>	word, phrase	19
吹く	<i>fuku</i>	to blow (of the wind)	18
月	<i>tsuki</i>	moon	18
飛ぶ	<i>tobu</i>	to fly, to soar	18
楽しい	<i>tanoshii</i>	enjoyable, fun, pleasant	17
飲む	<i>nomu</i>	to drink	17
いつ	<i>itsu</i>	when, at what time	16
出る	<i>deru</i>	出る : to leave, to exit, to go out	16
夢	<i>yume</i>	dream	16
手	<i>te</i>	hand, arm	16
走る	<i>hashiru</i>	to run	16
くれる	<i>kureru</i>	to give, to let (one) have	15
まま	<i>mama</i>	as it is, as one likes	15
世界	<i>sekai</i>	the world, society, the universe	15
遠い	<i>toi</i>	far, distant, far away	15
音	<i>oto</i>	sound, noise	15

Most used words in songs written by Mashima Masatoshi... (continued)

Lexeme	Pronunc.	Meanings	何曲
すぎる	<i>sugiru</i>	to pass through, to pass by	14
でる	<i>deru</i>	出る : to leave, to exit, to go out	14
オレ	<i>ore</i>	俺 : I, me (Pronoun, Male term, rough or arrogant)	14
ギター	<i>gitaa</i>	guitar	14
乗る	<i>noru</i>	to get on (train, plane, bus, ship, etc.)	14
冷たい	<i>tsumetai</i>	cold (to the touch)	14
歌う	<i>utau</i>	to sing	14
気	<i>ki</i>	spirit, mind, heart	14
海	<i>umi</i>	sea, ocean, waters	14
見える	<i>mieru</i>	to be seen, to be in sight, to appear	14
輝く	<i>kagayaku</i>	to shine, to glitter, to sparkle	14
降る	<i>furu</i>	to fall (of rain, snow, ash, etc.), to come down	14
食べる	<i>taberu</i>	to eat	14
そんな	<i>sonna</i>	such, that sort of, that kind of	13
つく	<i>tsuku</i>	着く : to arrive at, to reach	13
つける	<i>tsukeru</i>		13
太陽	<i>taiyou</i>	sun	13
忘れる	<i>wasureru</i>	to forget	13
意味	<i>imi</i>	meaning, significance, sense	13
時間	<i>jikan</i>	time	13
自分	<i>jibun</i>	I, me, myself, yourself, oneself (Pronoun)	13
踊る	<i>odoru</i>	to dance	13
達	<i>tachi</i>	(pluralizing suffix)	13
顔	<i>kao</i>	face, visage	13
あの	<i>ano</i>	that, those, the	12
少し	<i>sukoshi</i>	a little, a few	12
悪い	<i>warui</i>	bad, poor, undesirable	12
星	<i>hoshi</i>	star	12
者	<i>mono, sha</i>	person	12
金	<i>kane</i>	money	12
いつも	<i>itsumo</i>	always, all the time, at all times	11
光る	<i>hikaru</i>	to shine, to glitter, to be bright	11
揺れる	<i>yureru</i>	to shake, to sway, to waver	11
昨日	<i>kinou</i>	yesterday	11
来る	<i>kuru</i>	to come	11
涙	<i>namida</i>	tears	11
聞く	<i>kiku</i>	to hear	11
あがる	<i>agaru</i>	上がる : to rise, to go up	10
うまい	<i>umai</i>	skillful, clever; delicious	10
さん	<i>san</i>	Mr., Mrs., Miss, Ms.	10
しまう	<i>shimau</i>	to finish, to stop, to put an end to	10
みたい	<i>mitai</i>	-like, sort of, similar to, resembling	10
みる	<i>miru</i>	見る : to see	10
もっと	<i>motto</i>	(some) more, even more, longer, further	10
バカ	<i>baka</i>	ばか, 馬鹿 : idiot	10

21.4.3 Most used words (writer: Kawaguchi Junnosuke)

Question:

"Which words appear most often in songs by 河口純之助 (Kawaguchi Junnosuke), the bassist from "THE BLUE HEARTS"?"

fq:	lyrics_by_str:" 河口純之助"
start, rows:	0, 0
facet:	true
facet.field:	lyrics_by_str
facet.mincount:	1

Result:

"numFound":5

Lexeme	Pronunc.	Meanings	何曲
心	<i>kokoro</i>	heart, mind, spirit	3
胸	<i>mune</i>	chest, breast, heart	3
きっと	<i>kitto</i>	surely, undoubtedly, almost certainly	2
どこ	<i>doko</i>	where, what place	2
みえる	<i>mieru</i>	見える : to be seen, to be in sight	2
ゆく	<i>iku</i>	行く : to go	2
中	<i>naka</i>	inside	2
会える	<i>aeru</i>	(be able) to meet, to encounter (会う)	2
僕	<i>boku</i>	I, me (Pronoun, Male term)	2
前	<i>mae</i>	in front (of), before	2
君	<i>kimi</i>	you, buddy, pal	2
声	<i>koe</i>	voice	2
夢	<i>yume</i>	dream	2
奥	<i>oku</i>	inner part, interior	2
少し	<i>sukoshi</i>	a little, a few	2
形	<i>katachi</i>	form, shape, figure	2
描く	<i>egaku</i>	to draw	2
星	<i>hoshi</i>	star	2
気	<i>ki</i>	spirit, mind, heart	2
気持ち	<i>kimochi</i>	feeling, sensation, mood, state of mind	2
流れる	<i>nagareru</i>	to stream, to flow (liquid, time, etc.)	2
行く	<i>iku</i>	to go	2
雨	<i>ame</i>	rain	2
雲	<i>kumo</i>	cloud	2
あける	<i>akeru</i>	開ける : to open (a door, etc.)	1
あげる	<i>ageru</i>	上げる : to raise, to elevate	1
あたたかい	<i>atatakai</i>	暖かい : warm	1
あの	<i>ano</i>	that, those, the	1
いま	<i>ima</i>	今 : now	1
うた	<i>uta</i>	歌 : song (歌う)	1
うねる	<i>uneru</i>	畝る : to undulate	1
おかしな	<i>okashina</i>	ridiculous, odd	1
おちる	<i>ochiru</i>	to fall down	1
おなじ	<i>onaji</i>	同じ : same, identical, equal, similar	1
かえる	<i>kaeru</i>	帰る : to return, to go home	1
かならず	<i>kanarazu</i>	必ず : always, without exception	1
かわる	<i>kawaru</i>	変わる : to change, to be transformed	1

Most used words in songs written by Kawaguchi Junnosuke... (continued)

Lexeme	Pronunc.	Meanings	何曲
きこえる	kikoeru	聞こえる：to be heard, to be audible	1
きみ	kimi	君：you, buddy, pal	1
きれい	kirei	綺麗：pretty, lovely, beautiful, fair	1
く	ku	ward, borough, city (in Tokyo)	1
くる	kuru	来：to come	1
ぐち	guchi	愚痴：idle complaint, grumble	1
こわれる	kowareru	壊れる：to be broken, to break	1
すぎる	sugiru	to pass through, to pass by	1
ずっと	zutto	continuously, throughout	1
そのうち	sono uchi	before very long, soon, someday	1
そば	soba	near, close	1
だす	dasu	出す：to take out, to get out	1
ちっぽけ	chippoke	very small, tiny	1
つくる	tsukuru	作る：to make, to produce	1
つくろう	tsukuruu	繕う：to mend, to patch up, to fix	1
つぶる	tsuburu	to close (one's eyes), to shut	1
とおりぬける	toorinukeru	通り抜ける：to go through	1
とける	tokeru	解ける：to be solved, to be resolved	1
とびだす	tobidasu	飛び出す：to jump out, to rush out	1
とれる	toreru	取れる：to come off, to be removed	1
なに	nani	何：what	1
なれる	nareru	慣れる：to get used to	1
のぞく	nozoku	除く：to remove, to eliminate	1
はいる	hairu	入る：to enter, to go into	1
はじめ	hajime	始め：beginning, start, first (time)	1
はず	hazu	should (be), bound (to be)	1
びら			1
ふる	furu	降る：to fall (e.g. rain, snow, etc.)	1
ふるえる	furueru	震える：to shiver, to shake	1
ぼく	boku	僕：I, me (Pronoun, Male term)	1
まぎれこむ	magirekomu	紛れ込む：to disappear into, to slip into	1
まとも	matomo	honesty, decency	1
まま	mama	as it is, as one likes	1
まわす	mawasu	回す：to turn, to rotate	1
まんなか	mannaka	真ん中：middle, centre	1
みる	miru	見る：to see	1
もどる	modoru	戻る：to turn back	1
やわらかい	yawarakai	柔らかい：soft, tender	1
ゆれる	yureru	揺れる：to shake, to sway	1
よみがえる	yomigaeru	蘇る：to be resurrected	1
よろこぶ	yorokobi	to be delighted	1
アンテナ	ANTENA	antenna	1
インスピレーション	INSUPIREESHION	inspiration	1
エネルギー	ENERUGI	energy	1
カード	KAADO	card	1
カーニバル	KAANIBARU	cannibal	1
グラス	GARASU	grass	1
キミ	kimi	君：you, buddy, pal	1
キー	KII	key	1
サビ	SABI	hook (high point of a song)	1
シンデレラ	SHINDERERA	Cinderella	1
チャンネル	CHANERU	channel	1
テレフォン	TEREFUON	telephone	1

Most used words in songs written by Kawaguchi Junnosuke... (continued)

Lexeme	Pronunc.	Meanings	何曲
ドア	DOA	door	1
ドレス	DORESU	dress	1
ボク	boku	僕：I, me (Pronoun, Male term)	1
メッセージ	MESSEEGI	message	1
上	ue	above, up, over	1
下	shita	below, down, under,	1
不思議	fushigi	wonderful, marvelous, amazing	1

21.5 Words usage, across bands

So far we were trying to determine which words appear most often in Japanese songs. Now we can do it the other way round: take a word, and see how often this word is used by different bands (or songwriters).

We can start with the more popular words, and then try with words that appear far less often:

- most used words:
 - most used words in the dataset (section 21.2.2)
 - most used words by band/songwriter, for each band/songwriter (section 21.3)
- lesser used words:
 - using the list of “interesting terms” from the “More Like This” feature (section 22) on a particular song (e.g. a popular song, a song you like or find the lyrics interesting) can help reveal the terms which make that song unique
 - through personal experience. When listening to some song’s lyrics, some terms may stand out for different reasons (e.g. uncommon terms, derogatory terms, etc.).
Thanks to Solr, we can determine how often these terms are used, by which bands, in which songs... (section 21.5.72)

21.5.1 “Dream” (夢)

Question:

“Which bands use the word “dream” (夢 — yume) the most ?”

q:	lyrics_txt_ja:” 夢”
q.op:	OR
start, rows:	0, 0
facet:	true
facet.field:	band_str
facet.mincount:	0

Results:

”numFound”: 2150

Facets:

Band	何曲
AKB48	160
サザンオールスターズ <i>Southern All Stars</i>	144
JAM Project	117
徳永英明 <i>Tokunaga Hideaki</i>	117
松任谷由実 <i>Matsutōya Yumi</i>	105
SMAP	95
B'z	89
いきものがかり <i>Ikimonogakari</i>	81
Mr.Children	80
fripSide	76
石川さゆり <i>Ishikawa Sayuri</i>	75
ゆず <i>Yuzu</i>	72
BEGIN	66
都はるみ <i>Miyako Harumi</i>	63
DA PUMP	58
aiko	56
GReeeeN	52
GACKT	50
RADWIMPS	49
LiSA	45
人間椅子 <i>Ningen Isu</i>	43
Aimer	41
L'Arc~en~Ciel	40
ゴールデンボンバー <i>Golden Bomber</i>	38
ORANGE RANGE	36
BUMP OF CHICKEN	33
Kiroro	31
DREAMS COME TRUE	25
MAN WITH A MISSION	25
Superfly	24
米津玄師 <i>Yonezu Kenshi</i>	24
ザ・クロマニヨンズ <i>The Cro-Magnons</i>	23
MONGOL800	17
THE BLUE HEARTS	15
back number	14

カネコアヤノ	<i>Kaneko Ayano</i>	14
ザ・ハイロウズ	<i>The High-Lows</i>	13
河島英五	<i>Kawashima Eigo</i>	13
BABYMETAL		12
ONE OK ROCK		12
Xmas Eileen		3
Ado		2
YOASOBI		2

As we can see, the word for “dream” appears in 160 songs by AKB48, out of the 376 songs for this band (section 21.2.1). This means that around 42.5% of all song by AKB48 contain the word “dream”.

There is no way to calculate this kind of ratio directly in Solr (or Elasticsearch). Even if there was a way to perform some sort of “subquery”, it would be prohibitively expensive. In the end it is better to perform several queries (for the numerator, and then the denominator).

21.5.2 “Heart” (心)

心 — kokoro

"numFound": 2296

Band	何曲
aiko	143
徳永英明	<i>Tokunaga Hideaki</i> 141
AKB48	137
松任谷由実	<i>Matsutōya Yumi</i> 125
B'z	115
fripSide	105
サザンオールスターズ	<i>Southern All Stars</i> 98
SMAP	95
ゆず	<i>Yuzu</i> 94
Mr.Children	92
JAM Project	80
GReeeeN	70
石川さゆり	<i>Ishikawa Sayuri</i> 68
DA PUMP	61
Superfly	61
BUMP OF CHICKEN	60
いきものがかり	<i>Ikimonogakari</i> 60
ゴールデンボンバー	<i>Golden Bomber</i> 56
RADWIMPS	53
ORANGE RANGE	52
DREAMS COME TRUE	47
Kiroro	47
BEGIN	41
LiSA	41
米津玄師	<i>Yonezu Kenshi</i> 39
L'Arc~en~Ciel	34
GACKT	33
人間椅子	<i>Ningen Isu</i> 32
Aimer	31
back number	31
都はるみ	<i>Miyako Harumi</i> 30
河島英五	<i>Kawashima Eigo</i> 23
MAN WITH A MISSION	19
MONGOL800	16
ONE OK ROCK	12
THE BLUE HEARTS	12
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 11
BABYMETAL	9
ザ・ハイロウズ	<i>The High-Lows</i> 7
カネコアヤノ	<i>Kaneko Ayano</i> 6
Ado	4
YOASOBI	4
Xmas Eileen	1

21.5.3 “Chest, Heart” (胸)

胸 — *mune*

This is the word for “chest” (the body part) but can also be used for “heart”, with a less literal meaning than 心.

”numFound”: 1569

Band		何曲
徳永英明	<i>Tokunaga Hideaki</i>	106
JAM Project		94
Mr.Children		90
SMAP		89
aiko		87
サザンオールスターズ	<i>Southern All Stars</i>	87
AKB48		84
B'z		75
いきものがかり	<i>Ikimonogakari</i>	74
松任谷由実	<i>Matsutōya Yumi</i>	69
fripSide		61
DA PUMP		51
DREAMS COME TRUE		45
石川さゆり	<i>Ishikawa Sayuri</i>	42
都はるみ	<i>Miyako Harumi</i>	42
GReeeeN		40
ゆず	<i>Yuzu</i>	35
ゴールデンボンバー	<i>Golden Bomber</i>	34
BEGIN		33
RADWIMPS		32
LiSA		31
L'Arc〜en〜Ciel		28
Superfly		27
ORANGE RANGE		26
BUMP OF CHICKEN		25
GACKT		23
back number		20
Aimer		19
Kiroro		16
人間椅子	<i>Ningen Isu</i>	16
米津玄師	<i>Yonezu Kenshi</i>	15
MONGOL800		10
THE BLUE HEARTS		6
カネコアヤノ	<i>Kaneko Ayano</i>	6
河島英五	<i>Kawashima Eigo</i>	6
MAN WITH A MISSION		5
ザ・ハイロウズ	<i>The High-Lows</i>	5
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	4
BABYMETAL		3
ONE OK ROCK		3
Ado		2
YOASOBI		2
Xmas Eileen		1

21.5.4 “Love” (愛)

愛 — *ai*

"numFound": 1473

Band		何曲
AKB48		146
徳永英明	<i>Tokunaga Hideaki</i>	125
サザンオールスターズ	<i>Southern All Stars</i>	102
JAM Project		78
松任谷由実	<i>Matsutōya Yumi</i>	78
SMAP		70
DA PUMP		62
aiko		61
Mr.Children		55
B'z		52
石川さゆり	<i>Ishikawa Sayuri</i>	44
Superfly		43
いきものがかり	<i>Ikimonogakari</i>	43
GReeeeN		42
RADWIMPS		38
ゴールデンボンバー	<i>Golden Bomber</i>	34
人間椅子	<i>Ningen Isu</i>	32
BEGIN		31
ORANGE RANGE		29
L'Arc〜en〜Ciel		28
LiSA		28
Aimer		27
DREAMS COME TRUE		24
Kiroro		24
ゆず	<i>Yuzu</i>	22
米津玄師	<i>Yonezu Kenshi</i>	22
MONGOL800		19
都はるみ	<i>Miyako Harumi</i>	19
カネコアヤノ	<i>Kaneko Ayano</i>	13
GACKT		12
fripSide		12
back number		11
Xmas Eileen		9
ONE OK ROCK		8
河島英五	<i>Kawashima Eigo</i>	6
BABYMETAL		5
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	5
THE BLUE HEARTS		4
BUMP OF CHICKEN		3
ザ・ハイロウズ	<i>The High-Lows</i>	3
Ado		2
YOASOBI		2
MAN WITH A MISSION		0

21.5.5 “Romantic love” (恋)

恋 — *koi*

”numFound”: 1060

Band	何曲
AKB48	117
サザンオールスターズ	<i>Southern All Stars</i> 111
松任谷由実	<i>Matsutōya Yumi</i> 90
石川さゆり	<i>Ishikawa Sayuri</i> 73
SMAP	68
徳永英明	<i>Tokunaga Hideaki</i> 56
都はるみ	<i>Miyako Harumi</i> 46
Mr.Children	45
いきものがかり	<i>Ikimonogakari</i> 42
B'z	38
aiko	35
ゴールデンボンバー	<i>Golden Bomber</i> 35
DREAMS COME TRUE	33
DA PUMP	27
GReeeeN	22
RADWIMPS	21
BEGIN	19
ゆず	<i>Yuzu</i> 18
LiSA	17
人間椅子	<i>Ningen Isu</i> 16
Superfly	14
Kiroro	12
ザ・ハイロウズ	<i>The High-Lows</i> 11
L’Arc〜en〜Ciel	10
ORANGE RANGE	10
米津玄師	<i>Yonezu Kenshi</i> 10
back number	9
Aimer	8
JAM Project	8
カネコアヤノ	<i>Kaneko Ayano</i> 8
GACKT	5
THE BLUE HEARTS	5
MONGOL800	4
fripSide	4
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 4
河島英五	<i>Kawashima Eigo</i> 3
ONE OK ROCK	2
YOASOBI	2
Ado	1
BABYMETAL	1
BUMP OF CHICKEN	0
MAN WITH A MISSION	0
Xmas Eileen	0

21.5.6 “Person” (人)

人 — hito

"numFound": 2800

Band		何曲
AKB48		216
SMAP		147
B'z		143
松任谷由実	<i>Matsutōya Yumi</i>	136
徳永英明	<i>Tokunaga Hideaki</i>	133
ゆず	<i>Yuzu</i>	124
Mr.Children		123
aiko		120
サザンオールスターズ	<i>Southern All Stars</i>	106
石川さゆり	<i>Ishikawa Sayuri</i>	105
GReeeeN		95
RADWIMPS		86
JAM Project		85
DREAMS COME TRUE		80
BUMP OF CHICKEN		77
ORANGE RANGE		69
DA PUMP		64
BEGIN		63
fripSide		59
ゴールデンボンバー	<i>Golden Bomber</i>	57
人間椅子	<i>Ningen Isu</i>	55
都はるみ	<i>Miyako Harumi</i>	55
back number		53
Aimer		47
GACKT		47
LiSA		46
Superfly		44
Kiroro		42
いきものがかり	<i>Ikimonogakari</i>	39
米津玄師	<i>Yonezu Kenshi</i>	36
河島英五	<i>Kawashima Eigo</i>	35
ザ・ハイロウズ	<i>The High-Lows</i>	31
L'Arc〜en〜Ciel		29
THE BLUE HEARTS		29
MONGOL800		27
ONE OK ROCK		27
カネコアヤノ	<i>Kaneko Ayano</i>	24
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	24
Xmas Eileen		9
YOASOBI		7
Ado		3
MAN WITH A MISSION		3
BABYMETAL		0

21.5.7 “Lover, sweetheart” (恋人)

恋人 — *koibito* — lover, sweetheart, boyfriend, girlfriend

”numFound”: 156

Band		何曲
サザンオールスターズ	<i>Southern All Stars</i>	23
AKB48		18
SMAP		12
徳永英明	<i>Tokunaga Hideaki</i>	12
松任谷由実	<i>Matsutōya Yumi</i>	11
B'z		7
DA PUMP		7
Mr.Children		6
aiko		6
THE BLUE HEARTS		5
ゆず	<i>Yuzu</i>	5
人間椅子	<i>Ningen Isu</i>	5
BEGIN		4
ゴールデンボンバー	<i>Golden Bomber</i>	4
DREAMS COME TRUE		3
back number		3
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	3
河島英五	<i>Kawashima Eigo</i>	3
BUMP OF CHICKEN		2
Kiroro		2
ORANGE RANGE		2
カネコアヤノ	<i>Kaneko Ayano</i>	2
ザ・ハイロウズ	<i>The High-Lows</i>	2
都はるみ	<i>Miyako Harumi</i>	2
Aimer		1
GACKT		1
GReeeeN		1
LiSA		1
fripSide		1
いきものがかり	<i>Ikimonogakari</i>	1
石川さゆり	<i>Ishikawa Sayuri</i>	1
Ado		0
BABYMETAL		0
JAM Project		0
L'Arc〜en〜Ciel		0
MAN WITH A MISSION		0
MONGOL800		0
ONE OK ROCK		0
RADWIMPS		0
Superfly		0
Xmas Eileen		0
YOASOBI		0
米津玄師	<i>Yonezu Kenshi</i>	0

21.5.8 “(To be) liked” (好き)

好き — *suki* (NA-adjective)

"numFound": 891

Band		何曲
aiko		96
AKB48		88
SMAP		50
B'z		44
松任谷由実	<i>Matsutōya Yumi</i>	43
RADWIMPS		40
DREAMS COME TRUE		38
ゴールデンボンバー	<i>Golden Bomber</i>	36
back number		35
石川さゆり	<i>Ishikawa Sayuri</i>	33
サザンオールスターズ	<i>Southern All Stars</i>	32
LiSA		30
BEGIN		28
GReeeeN		28
ゆず	<i>Yuzu</i>	28
徳永英明	<i>Tokunaga Hideaki</i>	27
Mr.Children		26
BUMP OF CHICKEN		19
都はるみ	<i>Miyako Harumi</i>	19
いきものがかり	<i>Ikimonogakari</i>	18
ORANGE RANGE		16
Kiroro		15
Aimer		11
DA PUMP		11
L'Arc~en~Ciel		9
Superfly		9
ザ・ハイロウズ	<i>The High-Lows</i>	9
カネコアヤノ	<i>Kaneko Ayano</i>	8
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	7
fripSide		6
THE BLUE HEARTS		5
YOASOBI		5
GACKT		4
MONGOL800		4
ONE OK ROCK		4
河島英五	<i>Kawashima Eigo</i>	3
米津玄師	<i>Yonezu Kenshi</i>	3
Ado		1
BABYMETAL		1
JAM Project		1
人間椅子	<i>Ningen Isu</i>	1
MAN WITH A MISSION		0
Xmas Eileen		0

21.5.9 “Kiss” (キス)

キス — *kisu*

”numFound”: 274

Band	何曲
AKB48	46
aiko	42
SMAP	25
DREAMS COME TRUE	17
Mr.Children	17
back number	13
松任谷由実	<i>Matsutōya Yumi</i> 13
B'z	11
RADWIMPS	11
いきものがかり	<i>Ikimonogakari</i> 9
GACKT	8
Kiroro	6
LiSA	6
Superfly	5
カネコアヤノ	<i>Kaneko Ayano</i> 5
ゴールデンボンバー	<i>Golden Bomber</i> 4
サザンオールスターズ	<i>Southern All Stars</i> 4
ザ・ハイロウズ	<i>The High-Lows</i> 4
徳永英明	<i>Tokunaga Hideaki</i> 4
BEGIN	3
L'Arc〜en〜Ciel	3
THE BLUE HEARTS	3
JAM Project	2
ORANGE RANGE	2
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 2
石川さゆり	<i>Ishikawa Sayuri</i> 2
米津玄師	<i>Yonezu Kenshi</i> 2
Ado	1
BUMP OF CHICKEN	1
DA PUMP	1
MONGOL800	1
fripSide	1
Aimer	0
BABYMETAL	0
GReeeeen	0
MAN WITH A MISSION	0
ONE OK ROCK	0
Xmas Eileen	0
YOASOBI	0
ゆず	<i>Yuzu</i> 0
人間椅子	<i>Ningen Isu</i> 0
河島英五	<i>Kawashima Eigo</i> 0
都はるみ	<i>Miyako Harumi</i> 0

21.5.10 “Feeling” (気持ち)

気持ち — *kimochi*

"numFound": 786

Band	何曲
SMAP	79
aiko	61
AKB48	57
GReeeeN	43
DREAMS COME TRUE	42
B'z	37
fripSide	37
徳永英明	<i>Tokunaga Hideaki</i> 32
ORANGE RANGE	31
ゆず	<i>Yuzu</i> 30
サザンオールスターズ	<i>Southern All Stars</i> 28
DA PUMP	27
RADWIMPS	27
Mr.Children	26
Kiroro	25
back number	23
いきものがかり	<i>Ikimonogakari</i> 17
松任谷由実	<i>Matsutōya Yumi</i> 16
BEGIN	15
L'Arc〜en〜Ciel	13
LiSA	12
カネコアヤノ	<i>Kaneko Ayano</i> 12
BUMP OF CHICKEN	11
THE BLUE HEARTS	10
Aimer	9
JAM Project	9
ONE OK ROCK	9
ゴールデンボンバー	<i>Golden Bomber</i> 9
石川さゆり	<i>Ishikawa Sayuri</i> 7
Superfly	5
YOASOBI	4
人間椅子	<i>Ningen Isu</i> 4
都はるみ	<i>Miyako Harumi</i> 4
ザ・ハイロウズ	<i>The High-Lows</i> 3
米津玄師	<i>Yonezu Kenshi</i> 3
GACKT	2
MONGOL800	2
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 2
河島英五	<i>Kawashima Eigo</i> 2
Ado	1
BABYMETAL	0
MAN WITH A MISSION	0
Xmas Eileen	0

21.5.11 “Tears” (涙)

涙 — *namida, nada*

”numFound”: 1457

Band		何曲
サザンオールスターズ	<i>Southern All Stars</i>	131
徳永英明	<i>Tokunaga Hideaki</i>	94
AKB48		93
aiko		73
GACKT		61
松任谷由実	<i>Matsutōya Yumi</i>	61
B'z		60
SMAP		59
GReeeeN		57
fripSide		54
JAM Project		50
いきものがかり	<i>Ikimonogakari</i>	48
石川さゆり	<i>Ishikawa Sayuri</i>	47
BUMP OF CHICKEN		46
DREAMS COME TRUE		41
都はるみ	<i>Miyako Harumi</i>	40
BEGIN		38
Aimer		36
RADWIMPS		34
ゆず	<i>Yuzu</i>	34
Superfly		31
ORANGE RANGE		30
Mr.Children		27
LiSA		25
Kiroro		23
DA PUMP		19
人間椅子	<i>Ningen Isu</i>	19
米津玄師	<i>Yonezu Kenshi</i>	14
ONE OK ROCK		12
back number		12
MONGOL800		11
THE BLUE HEARTS		11
ゴールデンボンバー	<i>Golden Bomber</i>	11
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	11
L'Arc〜en〜Ciel		9
YOASOBI		9
カネコアヤノ	<i>Kaneko Ayano</i>	5
BABYMETAL		4
MAN WITH A MISSION		4
Xmas Eileen		4
ザ・ハイロウズ	<i>The High-Lows</i>	4
河島英五	<i>Kawashima Eigo</i>	4
Ado		1

21.5.12 “Sky” (空)

空 — *sora*

"numFound": 1615

Band		何曲
ゆず	<i>Yuzu</i>	110
AKB48		108
徳永英明	<i>Tokunaga Hideaki</i>	102
JAM Project		92
松任谷由実	<i>Matsutōya Yumi</i>	83
SMAP		78
aiko		68
いきものがかり	<i>Ikimonogakari</i>	67
ORANGE RANGE		60
B'z		58
Aimer		53
BEGIN		53
サザンオールスターズ	<i>Southern All Stars</i>	48
fripSide		46
GReeeeN		45
L'Arc〜en〜Ciel		44
石川さゆり	<i>Ishikawa Sayuri</i>	44
GACKT		34
DREAMS COME TRUE		33
Mr.Children		31
Superfly		31
DA PUMP		30
LiSA		30
人間椅子	<i>Ningen Isu</i>	27
BUMP OF CHICKEN		26
Kiroro		26
RADWIMPS		25
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	21
MAN WITH A MISSION		15
都はるみ	<i>Miyako Harumi</i>	15
THE BLUE HEARTS		13
ザ・ハイロウズ	<i>The High-Lows</i>	13
河島英五	<i>Kawashima Eigo</i>	13
back number		12
ゴールデンボンバー	<i>Golden Bomber</i>	12
米津玄師	<i>Yonezu Kenshi</i>	12
Xmas Eileen		11
MONGOL800		10
カネコアヤノ	<i>Kaneko Ayano</i>	7
YOASOBI		4
BABYMETAL		3
ONE OK ROCK		2
Ado		0

21.5.13 “Wind” (風)

風 — kaze

”numFound”: 1490

Band	何曲
AKB48	111
ゆず	96
松任谷由実	95
徳永英明	81
JAM Project	66
SMAP	66
Mr.Children	64
サザンオールスターズ	64
石川さゆり	64
B'z	59
いきものがかり	50
aiko	47
GReeeeN	42
ORANGE RANGE	42
BEGIN	41
fripSide	40
DREAMS COME TRUE	37
L'Arc〜en〜Ciel	37
DA PUMP	36
Aimer	33
GACKT	30
ザ・クロマニヨンズ	27
THE BLUE HEARTS	24
都はるみ	24
Superfly	21
Kiroro	19
米津玄師	19
河島英五	17
LiSA	16
BUMP OF CHICKEN	15
MONGOL800	15
RADWIMPS	15
ザ・ハイロウズ	15
人間椅子	15
back number	13
MAN WITH A MISSION	10
カネコアヤノ	7
Xmas Eileen	6
ONE OK ROCK	4
ゴールデンボンバー	4
BABYMETAL	2
YOASOBI	1
Ado	0

21.5.14 “Rain” (雨)

雨 — *ame*

"numFound": 728

Band		何曲
松任谷由実	<i>Matsutōya Yumi</i>	53
サザンオールスターズ	<i>Southern All Stars</i>	50
ゆず	<i>Yuzu</i>	42
aiko		41
SMAP		39
AKB48		33
徳永英明	<i>Tokunaga Hideaki</i>	29
石川さゆり	<i>Ishikawa Sayuri</i>	27
都はるみ	<i>Miyako Harumi</i>	26
Aimer		24
B'z		24
ORANGE RANGE		23
BUMP OF CHICKEN		22
BEGIN		21
いきものがかり	<i>Ikimonogakari</i>	19
DA PUMP		17
GACKT		17
GReeeeN		17
RADWIMPS		16
DREAMS COME TRUE		15
Mr.Children		15
ザ・ハイロウズ	<i>The High-Lows</i>	14
THE BLUE HEARTS		13
back number		13
L'Arc~en~Ciel		12
米津玄師	<i>Yonezu Kenshi</i>	12
JAM Project		11
人間椅子	<i>Ningen Isu</i>	11
LiSA		10
fripSide		10
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	9
Superfly		7
Kiroro		6
ゴールデンボンバー	<i>Golden Bomber</i>	5
MONGOL800		4
ONE OK ROCK		4
河島英五	<i>Kawashima Eigo</i>	4
Ado		3
Xmas Eileen		3
カネコアヤノ	<i>Kaneko Ayano</i>	3
BABYMETAL		2
MAN WITH A MISSION		2
YOASOBI		0

21.5.15 “Snow” (雪)

雪 — *yuki*

”numFound”: 207

Band		何曲
石川さゆり	<i>Ishikawa Sayuri</i>	24
松任谷由実	<i>Matsutōya Yumi</i>	20
都はるみ	<i>Miyako Harumi</i>	13
DREAMS COME TRUE		11
GACKT		10
徳永英明	<i>Tokunaga Hideaki</i>	10
SMAP		9
fripSide		9
いきものがかり	<i>Ikimonogakari</i>	9
L’Arc〜en〜Ciel		8
aiko		8
サザンオールスターズ	<i>Southern All Stars</i>	8
AKB48		6
Aimer		6
B’z		5
ゆず	<i>Yuzu</i>	5
ザ・ハイロウズ	<i>The High-Lows</i>	5
LiSA		4
RADWIMPS		4
GReeeeN		3
ORANGE RANGE		3
THE BLUE HEARTS		3
back number		3
河島英五	<i>Kawashima Eigo</i>	3
BEGIN		2
BUMP OF CHICKEN		2
Kiroro		2
Superfly		2
カネコアヤノ	<i>Kaneko Ayano</i>	2
人間椅子	<i>Ningen Isu</i>	2
DA PUMP		1
JAM Project		1
MAN WITH A MISSION		1
MONGOL800		1
Mr.Children		1
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	1
Ado		0
BABYMETAL		0
ONE OK ROCK		0
Xmas Eileen		0
YOASOBI		0
ゴールデンボンバー	<i>Golden Bomber</i>	0
米津玄師	<i>Yonezu Kenshi</i>	0

21.5.16 “Night” (夜)

夜 — *yoru*

"numFound": 1407

Band		何曲
サザンオールスターズ	<i>Southern All Stars</i>	87
SMAP		77
徳永英明	<i>Tokunaga Hideaki</i>	77
松任谷由実	<i>Matsutōya Yumi</i>	67
ゆず	<i>Yuzu</i>	66
AKB48		65
B'z		58
aiko		53
石川さゆり	<i>Ishikawa Sayuri</i>	50
BEGIN		48
Mr.Children		48
Aimer		46
DREAMS COME TRUE		39
ORANGE RANGE		38
DA PUMP		36
米津玄師	<i>Yonezu Kenshi</i>	36
JAM Project		34
GACKT		32
fripSide		32
都はるみ	<i>Miyako Harumi</i>	32
BUMP OF CHICKEN		31
人間椅子	<i>Ningen Isu</i>	31
LiSA		30
ゴールデンボンバー	<i>Golden Bomber</i>	28
L'Arc~en~Ciel		26
THE BLUE HEARTS		24
RADWIMPS		23
Superfly		23
GReeeeN		19
back number		19
いきものがかり	<i>Ikimonogakari</i>	19
ザ・ハイロウズ	<i>The High-Lows</i>	18
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	17
カネコアヤノ	<i>Kaneko Ayano</i>	15
河島英五	<i>Kawashima Eigo</i>	15
MONGOL800		11
Kiroro		8
YOASOBI		7
BABYMETAL		6
MAN WITH A MISSION		5
Xmas Eileen		5
Ado		3
ONE OK ROCK		3

21.5.17 “Time, hour, moment” (時)

時 — *toki*

”numFound”: 1874

Band	何曲
aiko	111
AKB48	107
ゆず	Yuzu 106
SMAP	98
松任谷由実	Matsutōya Yumi 98
JAM Project	92
徳永英明	Tokunaga Hideaki 78
GReeeeN	73
RADWIMPS	70
B'z	68
fripSide	68
BUMP OF CHICKEN	59
DREAMS COME TRUE	59
Mr.Children	57
DA PUMP	56
サザンオールスターズ	Southern All Stars 54
ORANGE RANGE	51
L'Arc〜en〜Ciel	47
BEGIN	44
LiSA	44
Kiroro	36
ゴールデンボンバー	Golden Bomber 34
GACKT	32
いきものがかり	Ikimonogakari 32
石川さゆり	Ishikawa Sayuri 32
Aimer	28
back number	26
人間椅子	Ningen Isu 25
ONE OK ROCK	22
河島英五	Kawashima Eigo 19
ザ・クロマニヨンズ	The Cro-Magnons 18
MONGOL800	17
THE BLUE HEARTS	17
ザ・ハイロウズ	The High-Lows 16
都はるみ	Miyako Harumi 15
MAN WITH A MISSION	13
Superfly	13
米津玄師	Yonezu Kenshi 11
BABYMETAL	7
Xmas Eileen	7
YOASOBI	5
カネコアヤノ	Kaneko Ayano 5
Ado	4

21.5.18 “Moment, instant” (瞬間)

瞬間 — *shunkan*

"numFound": 337

Band		何曲
fripSide		33
AKB48		29
JAM Project		27
B'z		24
SMAP		23
aiko		18
GReeeeN		15
いきものがかり	<i>Ikimonogakari</i>	14
LiSA		13
L'Arc〜en〜Ciel		10
Mr.Children		10
Superfly		10
徳永英明	<i>Tokunaga Hideaki</i>	10
Kiroro		9
DREAMS COME TRUE		8
サザンオールスターズ	<i>Southern All Stars</i>	8
GACKT		7
ORANGE RANGE		7
ゆず	<i>Yuzu</i>	7
松任谷由実	<i>Matsutōya Yumi</i>	7
DA PUMP		6
BUMP OF CHICKEN		5
ONE OK ROCK		5
MAN WITH A MISSION		4
MONGOL800		3
RADWIMPS		3
Xmas Eileen		3
ゴールデンボンバー	<i>Golden Bomber</i>	3
米津玄師	<i>Yonezu Kenshi</i>	3
Aimer		2
BEGIN		2
THE BLUE HEARTS		2
ザ・ハイロウズ	<i>The High-Lows</i>	2
BABYMETAL		1
back number		1
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	1
石川さゆり	<i>Ishikawa Sayuri</i>	1
都はるみ	<i>Miyako Harumi</i>	1
Ado		0
YOASOBI		0
カネコアヤノ	<i>Kaneko Ayano</i>	0
人間椅子	<i>Ningen Isu</i>	0
河島英五	<i>Kawashima Eigo</i>	0

21.5.19 “Always” (いつも)

いつも — *itsumo*

”numFound”: 1245

Band	何曲
ゆず	99
SMAP	81
aiko	78
AKB48	76
GReeeeN	73
徳永英明	62
B'z	59
Mr.Children	55
いきものがかり	55
LiSA	41
サザンオールスターズ	41
DA PUMP	40
DREAMS COME TRUE	38
松任谷由実	38
fripSide	34
RADWIMPS	33
Aimer	25
JAM Project	25
BUMP OF CHICKEN	22
Kiroro	22
back number	22
ゴールデンボンバー	21
石川さゆり	21
BEGIN	20
L'Arc〜en〜Ciel	19
Superfly	19
ORANGE RANGE	18
GACKT	14
MONGOL800	12
ONE OK ROCK	12
カネコアヤノ	11
都はるみ	11
米津玄師	8
YOASOBI	6
BABYMETAL	5
THE BLUE HEARTS	5
ザ・クロマニヨンズ	5
ザ・ハイロウズ	5
人間椅子	4
河島英五	4
Xmas Eileen	3
MAN WITH A MISSION	2
Ado	1

21.5.20 “Continuously” (ずっと)

ずっと — *zutto* — continuously in some state

“numFound”: 1040

Band		何曲
AKB48		100
aiko		65
SMAP		62
松任谷由実	<i>Matsutōya Yumi</i>	61
ゆず	<i>Yuzu</i>	52
徳永英明	<i>Tokunaga Hideaki</i>	52
BUMP OF CHICKEN		49
fripSide		49
JAM Project		44
LiSA		41
GReeeeN		40
DREAMS COME TRUE		39
B'z		38
DA PUMP		32
Mr.Children		32
Aimer		26
いきものがかり	<i>Ikimonogakari</i>	26
Kiroro		25
RADWIMPS		21
back number		20
GACKT		18
Superfly		18
米津玄師	<i>Yonezu Kenshi</i>	18
ORANGE RANGE		17
ゴールデンボンバー	<i>Golden Bomber</i>	17
L'Arc~en~Ciel		12
BEGIN		11
MONGOL800		8
THE BLUE HEARTS		7
YOASOBI		7
カネコアヤノ	<i>Kaneko Ayano</i>	7
ONE OK ROCK		5
ザ・ハイロウズ	<i>The High-Lows</i>	5
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	4
BABYMETAL		3
MAN WITH A MISSION		3
サザンオールスターズ	<i>Southern All Stars</i>	2
石川さゆり	<i>Ishikawa Sayuri</i>	2
都はるみ	<i>Miyako Harumi</i>	2
Ado		0
Xmas Eileen		0
人間椅子	<i>Ningen Isu</i>	0
河島英五	<i>Kawashima Eigo</i>	0

21.5.21 “Eternity” (永遠)

永遠 — *eien*

”numFound”: 451

Band	何曲
JAM Project	49
AKB48	40
サザンオールスターズ	<i>Southern All Stars</i> 29
SMAP	22
徳永英明	<i>Tokunaga Hideaki</i> 22
松任谷由実	<i>Matsutōya Yumi</i> 19
B’z	18
Mr.Children	18
fripSide	18
いきものがかり	<i>Ikimonogakari</i> 18
人間椅子	<i>Ningen Isu</i> 17
GACKT	14
L’Arc〜en〜Ciel	14
LiSA	12
aiko	12
Aimer	11
DREAMS COME TRUE	10
ゴールデンボンバー	<i>Golden Bomber</i> 10
ゆず	<i>Yuzu</i> 8
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 8
DA PUMP	7
RADWIMPS	7
Superfly	7
米津玄師	<i>Yonezu Kenshi</i> 7
ORANGE RANGE	6
石川さゆり	<i>Ishikawa Sayuri</i> 6
ザ・ハイロウズ	<i>The High-Lows</i> 5
BEGIN	4
GReeeeN	4
Kiroro	4
MONGOL800	4
都はるみ	<i>Miyako Harumi</i> 4
Ado	2
BABYMETAL	2
BUMP OF CHICKEN	2
MAN WITH A MISSION	2
ONE OK ROCK	2
THE BLUE HEARTS	2
Xmas Eileen	2
back number	1
カネコアヤノ	<i>Kaneko Ayano</i> 1
河島英五	<i>Kawashima Eigo</i> 1
YOASOBI	0

21.5.22 “Period, epoch, era” (時代)

時代 — *jidai*

"numFound": 343

Band	何曲
JAM Project	65
Mr.Children	29
サザンオールスターズ	<i>Southern All Stars</i> 25
徳永英明	<i>Tokunaga Hideaki</i> 22
SMAP	16
DA PUMP	14
ORANGE RANGE	13
人間椅子	<i>Ningen Isu</i> 13
B'z	12
fripSide	12
ゆず	<i>Yuzu</i> 12
AKB48	10
BEGIN	9
GACKT	8
RADWIMPS	8
いきものがかり	<i>Ikimonogakari</i> 8
ONE OK ROCK	7
LiSA	5
MAN WITH A MISSION	5
Superfly	5
ゴールデンボンバー	<i>Golden Bomber</i> 5
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 5
河島英五	<i>Kawashima Eigo</i> 5
石川さゆり	<i>Ishikawa Sayuri</i> 5
MONGOL800	4
GReeeeN	3
Xmas Eileen	3
aiko	3
BABYMETAL	2
THE BLUE HEARTS	2
松任谷由実	<i>Matsutōya Yumi</i> 2
L'Arc〜en〜Ciel	1
YOASOBI	1
カネコアヤノ	<i>Kaneko Ayano</i> 1
ザ・ハイロウズ	<i>The High-Lows</i> 1
米津玄師	<i>Yonezu Kenshi</i> 1
都はるみ	<i>Miyako Harumi</i> 1
Ado	0
Aimer	0
BUMP OF CHICKEN	0
DREAMS COME TRUE	0
Kiroro	0
back number	0

21.5.23 “To laugh” (笑う)

笑う — warau

”numFound”: 1350

Band	何曲
GReeeeN	95
aiko	87
ゆず	79
SMAP	67
RADWIMPS	62
Mr.Children	61
BUMP OF CHICKEN	58
いきものがかり	55
B'z	53
DREAMS COME TRUE	53
徳永英明	48
back number	42
米津玄師	40
LiSA	39
Aimer	38
松任谷由実	34
GACKT	31
ORANGE RANGE	29
Kiroro	27
石川さゆり	27
DA PUMP	26
AKB48	22
BEGIN	22
JAM Project	21
fripSide	21
ザ・クロマニヨンズ	21
Superfly	19
THE BLUE HEARTS	19
L'Arc〜en〜Ciel	18
人間椅子	17
サザンオールスターズ	15
ザ・ハイロウズ	15
MONGOL800	14
ゴールデンボンバー	14
MAN WITH A MISSION	12
都はるみ	10
ONE OK ROCK	8
カネコアヤノ	8
YOASOBI	7
河島英五	6
Ado	5
Xmas Eileen	3
BABYMETAL	2

21.5.24 “To cry” (泣く)

泣く — *naku*

"numFound": 1176

Band		何曲
aiko		70
サザンオールスターズ	<i>Southern All Stars</i>	64
石川さゆり	<i>Ishikawa Sayuri</i>	62
SMAP		54
松任谷由実	<i>Matsutōya Yumi</i>	51
B'z		50
GReeeeN		48
ゆず	<i>Yuzu</i>	47
徳永英明	<i>Tokunaga Hideaki</i>	45
AKB48		44
DREAMS COME TRUE		42
RADWIMPS		42
BEGIN		37
BUMP OF CHICKEN		37
LiSA		37
いきものがかり	<i>Ikimonogakari</i>	36
Mr.Children		34
都はるみ	<i>Miyako Harumi</i>	32
Aimer		31
GACKT		28
米津玄師	<i>Yonezu Kenshi</i>	25
ゴールデンボンバー	<i>Golden Bomber</i>	23
人間椅子	<i>Ningen Isu</i>	23
Superfly		20
back number		20
ORANGE RANGE		19
Kiroro		18
JAM Project		17
DA PUMP		14
Xmas Eileen		13
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	13
河島英五	<i>Kawashima Eigo</i>	11
MONGOL800		10
ONE OK ROCK		10
THE BLUE HEARTS		10
ザ・ハイロウズ	<i>The High-Lows</i>	7
MAN WITH A MISSION		6
Ado		5
YOASOBI		5
BABYMETAL		4
L'Arc〜en〜Ciel		4
fripSide		4
カネコアヤノ	<i>Kaneko Ayano</i>	4

21.5.25 “Voice” (声)

声 — koe

”numFound”: 1335

Band		何曲
aiko		73
AKB48		69
ゆず	Yuzu	67
JAM Project		65
B'z		63
いきものがかり	Ikimonogakari	59
Aimer		56
GReeeeN		56
SMAP		56
RADWIMPS		55
徳永英明	Tokunaga Hideaki	54
BUMP OF CHICKEN		49
DREAMS COME TRUE		43
GACKT		43
Mr.Children		43
LiSA		40
松任谷由実	Matsutōya Yumi	38
サザンオールスターズ	Southern All Stars	35
ORANGE RANGE		34
米津玄師	Yonezu Kenshi	32
DA PUMP		28
L'Arc〜en〜Ciel		28
ゴールデンボンバー	Golden Bomber	24
人間椅子	Ningen Isu	22
back number		21
fripSide		20
BEGIN		19
Kiroro		19
Superfly		19
石川さゆり	Ishikawa Sayuri	17
MAN WITH A MISSION		13
THE BLUE HEARTS		13
MONGOL800		11
河島英五	Kawashima Eigo	11
ONE OK ROCK		10
YOASOBI		6
BABYMETAL		5
ザ・クロマニヨンズ	The Cro-Magnons	5
ザ・ハイロウズ	The High-Lows	5
都はるみ	Miyako Harumi	4
Xmas Eileen		3
Ado		2
カネコアヤノ	Kaneko Ayano	0

21.5.26 “World” (世界)

世界 — *sekai*

"numFound": 1257

Band		何曲
JAM Project		92
AKB48		71
RADWIMPS		61
B'z		59
fripSide		58
ゆず	<i>Yuzu</i>	56
ORANGE RANGE		52
松任谷由実	<i>Matsutōya Yumi</i>	50
SMAP		49
Mr.Children		48
GReeeeN		46
いきものがかり	<i>Ikimonogakari</i>	44
ゴールデンボンバー	<i>Golden Bomber</i>	43
BUMP OF CHICKEN		41
LiSA		40
aiko		40
L'Arc~en~Ciel		36
Aimer		33
人間椅子	<i>Ningen Isu</i>	30
Superfly		28
MAN WITH A MISSION		27
DA PUMP		25
サザンオールスターズ	<i>Southern All Stars</i>	24
GACKT		23
ONE OK ROCK		17
DREAMS COME TRUE		16
米津玄師	<i>Yonezu Kenshi</i>	16
徳永英明	<i>Tokunaga Hideaki</i>	15
back number		13
ザ・ハイロウズ	<i>The High-Lows</i>	13
BEGIN		12
THE BLUE HEARTS		11
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	11
Xmas Eileen		9
YOASOBI		9
MONGOL800		8
Kiroro		7
石川さゆり	<i>Ishikawa Sayuri</i>	7
カネコアヤノ	<i>Kaneko Ayano</i>	5
Ado		4
都はるみ	<i>Miyako Harumi</i>	4
BABYMETAL		2
河島英五	<i>Kawashima Eigo</i>	2

21.5.27 “To end” (変わる)

変わる — *owaru*

”numFound”: 1055

Band	何曲
ゆず	59
aiko	58
AKB48	57
SMAP	54
いきものがかり	53
B'z	48
松任谷由実	45
fripSide	43
GReeeeN	39
Mr.Children	39
徳永英明	36
GACKT	34
ORANGE RANGE	30
BEGIN	29
DA PUMP	29
LiSA	29
DREAMS COME TRUE	28
JAM Project	27
RADWIMPS	26
Aimer	25
BUMP OF CHICKEN	23
L'Arc〜en〜Ciel	22
ゴールデンボンバー	22
サザンオールスターズ	22
back number	18
ONE OK ROCK	16
Superfly	16
米津玄師	16
Kiroro	14
MONGOL800	14
石川さゆり	13
MAN WITH A MISSION	10
ザ・クロマニヨンズ	8
都はるみ	8
カネコアヤノ	7
THE BLUE HEARTS	6
Xmas Eileen	6
YOASOBI	6
人間椅子	6
ザ・ハイロウズ	5
Ado	3
BABYMETAL	3
河島英五	3

21.5.28 “Future” (未来)

未来 — *mirai*

"numFound": 1009

Band		何曲
JAM Project		156
AKB48		97
fripSide		59
SMAP		52
いきものがかり	<i>Ikimonogakari</i>	49
LiSA		45
ゆず	<i>Yuzu</i>	42
徳永英明	<i>Tokunaga Hideaki</i>	42
DA PUMP		37
Mr.Children		36
GReeeeN		33
松任谷由実	<i>Matsutōya Yumi</i>	28
ORANGE RANGE		27
RADWIMPS		26
B'z		24
L'Arc~en~Ciel		24
サザンオールスターズ	<i>Southern All Stars</i>	20
GACKT		17
Kiroro		17
Superfly		17
BEGIN		15
Aimer		14
BUMP OF CHICKEN		14
米津玄師	<i>Yonezu Kenshi</i>	13
MAN WITH A MISSION		12
aiko		11
ゴールデンボンバー	<i>Golden Bomber</i>	11
DREAMS COME TRUE		10
back number		9
ONE OK ROCK		8
人間椅子	<i>Ningen Isu</i>	7
BABYMETAL		6
THE BLUE HEARTS		6
Xmas Eileen		5
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	5
YOASOBI		4
Ado		2
MONGOL800		2
ザ・ハイロウズ	<i>The High-Lows</i>	2
石川さゆり	<i>Ishikawa Sayuri</i>	2
都はるみ	<i>Miyako Harumi</i>	2
河島英五	<i>Kawashima Eigo</i>	1
カネコアヤノ	<i>Kaneko Ayano</i>	0

21.5.29 “To think” (思う)

思う — *omou*

”numFound”: 972

Band	何曲
AKB48	73
aiko	69
B'z	63
Mr.Children	53
DREAMS COME TRUE	50
RADWIMPS	50
SMAP	46
back number	45
松任谷由実	<i>Matsutōya Yumi</i> 44
徳永英明	<i>Tokunaga Hideaki</i> 41
GReeeeN	31
BUMP OF CHICKEN	30
ゆず	<i>Yuzu</i> 30
ゴールデンボンバー	<i>Golden Bomber</i> 30
DA PUMP	26
fripSide	23
ONE OK ROCK	21
いきものがかり	<i>Ikimonogakari</i> 19
石川さゆり	<i>Ishikawa Sayuri</i> 18
BEGIN	17
ORANGE RANGE	17
JAM Project	16
Kiroro	16
米津玄師	<i>Yonezu Kenshi</i> 16
LiSA	15
Aimer	14
サザンオールスターズ	<i>Southern All Stars</i> 14
L'Arc〜en〜Ciel	13
カネコアヤノ	<i>Kaneko Ayano</i> 12
河島英五	<i>Kawashima Eigo</i> 10
GACKT	9
ザ・ハイロウズ	<i>The High-Lows</i> 8
人間椅子	<i>Ningen Isu</i> 7
MONGOL800	5
THE BLUE HEARTS	4
YOASOBI	4
都はるみ	<i>Miyako Harumi</i> 4
MAN WITH A MISSION	3
Superfly	3
Ado	2
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 1
BABYMETAL	0
Xmas Eileen	0

21.5.30 “To remember” (思い出す)

思い出す — *omoidasu*

"numFound": 427

Band		何曲
AKB48		39
松任谷由実	<i>Matsutōya Yumi</i>	31
fripSide		28
BUMP OF CHICKEN		27
aiko		25
DREAMS COME TRUE		21
GReeeeN		18
ゆず	<i>Yuzu</i>	18
Mr.Children		16
SMAP		15
back number		15
B'z		14
徳永英明	<i>Tokunaga Hideaki</i>	14
BEGIN		12
DA PUMP		12
LiSA		9
米津玄師	<i>Yonezu Kenshi</i>	9
いきものがかり	<i>Ikimonogakari</i>	8
ゴールデンボンバー	<i>Golden Bomber</i>	8
Kiroro		7
ORANGE RANGE		7
RADWIMPS		7
JAM Project		6
MAN WITH A MISSION		6
サザンオールスターズ	<i>Southern All Stars</i>	6
Aimer		5
YOASOBI		5
カネコアヤノ	<i>Kaneko Ayano</i>	5
石川さゆり	<i>Ishikawa Sayuri</i>	5
都はるみ	<i>Miyako Harumi</i>	5
河島英五	<i>Kawashima Eigo</i>	4
GACKT		3
Superfly		3
ザ・ハイロウズ	<i>The High-Lows</i>	3
人間椅子	<i>Ningen Isu</i>	3
MONGOL800		2
THE BLUE HEARTS		2
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	2
L'Arc〜en〜Ciel		1
ONE OK ROCK		1
Ado		0
BABYMETAL		0
Xmas Eileen		0

21.5.31 “A memory” (思い出)

思い出 — omoide

”numFound”: 524

Band	何曲
AKB48	58
松任谷由実	<i>Matsutōya Yumi</i> 43
サザンオールスターズ	<i>Southern All Stars</i> 35
徳永英明	<i>Tokunaga Hideaki</i> 31
DREAMS COME TRUE	21
SMAP	20
GReeeeN	19
fripSide	19
いきものがかり	<i>Ikimonogakari</i> 19
aiko	17
BEGIN	16
Aimer	15
B'z	15
LiSA	15
石川さゆり	<i>Ishikawa Sayuri</i> 15
米津玄師	<i>Yonezu Kenshi</i> 15
GACKT	14
都はるみ	<i>Miyako Harumi</i> 14
Kiroro	13
BUMP OF CHICKEN	11
DA PUMP	9
MONGOL800	9
back number	9
RADWIMPS	8
JAM Project	7
THE BLUE HEARTS	7
ゆず	<i>Yuzu</i> 7
ゴールデンボンバー	<i>Golden Bomber</i> 6
Mr.Children	5
YOASOBI	5
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 4
L'Arc〜en〜Ciel	3
MAN WITH A MISSION	3
ORANGE RANGE	3
Superfly	3
カネコアヤノ	<i>Kaneko Ayano</i> 3
人間椅子	<i>Ningen Isu</i> 2
河島英五	<i>Kawashima Eigo</i> 2
Ado	1
BABYMETAL	1
ONE OK ROCK	1
Xmas Eileen	1
ザ・ハイロウズ	<i>The High-Lows</i> 0

21.5.32 “To forget” (忘れる)

忘れる — *wasureru*

"numFound": 1397

Band		何曲
AKB48		90
松任谷由実	<i>Matsutōya Yumi</i>	86
B'z		85
aiko		83
SMAP		63
ゆず	<i>Yuzu</i>	61
BUMP OF CHICKEN		60
fripSide		54
GReeeeN		50
徳永英明	<i>Tokunaga Hideaki</i>	50
サザンオールスターズ	<i>Southern All Stars</i>	49
いきものがかり	<i>Ikimonogakari</i>	48
JAM Project		41
石川さゆり	<i>Ishikawa Sayuri</i>	41
GACKT		38
DREAMS COME TRUE		37
BEGIN		34
LiSA		33
RADWIMPS		33
Aimer		31
Mr.Children		28
DA PUMP		27
Kiroro		27
ORANGE RANGE		26
ゴールデンボンバー	<i>Golden Bomber</i>	26
米津玄師	<i>Yonezu Kenshi</i>	22
back number		21
都はるみ	<i>Miyako Harumi</i>	19
Superfly		14
ONE OK ROCK		13
カネコアヤノ	<i>Kaneko Ayano</i>	13
L'Arc〜en〜Ciel		12
河島英五	<i>Kawashima Eigo</i>	12
THE BLUE HEARTS		11
人間椅子	<i>Ningen Isu</i>	11
MAN WITH A MISSION		10
MONGOL800		9
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	9
YOASOBI		6
Xmas Eileen		5
ザ・ハイロウズ	<i>The High-Lows</i>	4
BABYMETAL		3
Ado		2

21.5.33 “To disappear” (消える)

消える — *kieru*

”numFound”: 1096

Band		何曲
松任谷由実	<i>Matsutōya Yumi</i>	92
ゆず	<i>Yuzu</i>	66
GACKT		62
B'z		58
いきものがかり	<i>Ikimonogakari</i>	49
aiko		47
徳永英明	<i>Tokunaga Hideaki</i>	44
AKB48		42
JAM Project		42
Aimer		41
SMAP		40
サザンオールスターズ	<i>Southern All Stars</i>	40
Mr.Children		38
BUMP OF CHICKEN		37
BEGIN		36
ゴールデンボンバー	<i>Golden Bomber</i>	34
RADWIMPS		32
fripSide		30
米津玄師	<i>Yonezu Kenshi</i>	27
LiSA		24
L'Arc〜en〜Ciel		21
DREAMS COME TRUE		20
都はるみ	<i>Miyako Harumi</i>	17
石川さゆり	<i>Ishikawa Sayuri</i>	16
Superfly		15
ORANGE RANGE		14
back number		14
人間椅子	<i>Ningen Isu</i>	14
DA PUMP		11
GReeeeN		9
MAN WITH A MISSION		9
Xmas Eileen		8
Kiroro		7
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	7
ONE OK ROCK		6
YOASOBI		6
BABYMETAL		5
MONGOL800		4
カネコアヤノ	<i>Kaneko Ayano</i>	3
ザ・ハイロウズ	<i>The High-Lows</i>	3
河島英五	<i>Kawashima Eigo</i>	3
Ado		2
THE BLUE HEARTS		1

21.5.34 “To believe, to trust” (信じる)

信じる — *shinjiru*

"numFound": 994

Band		何曲
AKB48		85
JAM Project		84
fripSide		75
徳永英明	<i>Tokunaga Hideaki</i>	55
SMAP		52
松任谷由実	<i>Matsutōya Yumi</i>	44
いきものがかり	<i>Ikimonogakari</i>	43
ゆず	<i>Yuzu</i>	42
LiSA		38
GReeeeN		36
B'z		35
Mr.Children		32
BUMP OF CHICKEN		28
DA PUMP		27
Kiroro		25
L'Arc〜en〜Ciel		25
aiko		22
BEGIN		20
RADWIMPS		20
Superfly		20
MAN WITH A MISSION		17
ORANGE RANGE		16
GACKT		15
石川さゆり	<i>Ishikawa Sayuri</i>	15
Aimer		14
DREAMS COME TRUE		13
ONE OK ROCK		13
サザンオールスターズ	<i>Southern All Stars</i>	11
米津玄師	<i>Yonezu Kenshi</i>	10
ゴールデンボンバー	<i>Golden Bomber</i>	8
都はるみ	<i>Miyako Harumi</i>	8
MONGOL800		6
THE BLUE HEARTS		6
カネコアヤノ	<i>Kaneko Ayano</i>	5
ザ・ハイロウズ	<i>The High-Lows</i>	5
back number		4
人間椅子	<i>Ningen Isu</i>	4
河島英五	<i>Kawashima Eigo</i>	4
BABYMETAL		3
Xmas Eileen		3
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	3
YOASOBI		2
Ado		1

21.5.35 “Hope, Wish, Aspiration” (希望)

希望 — *kibou*

”numFound”: 399

Band	何曲
JAM Project	58
AKB48	35
fripSide	33
Mr.Children	25
いきものがかり	<i>Ikimonogakari</i> 22
ゆず	<i>Yuzu</i> 22
徳永英明	<i>Tokunaga Hideaki</i> 20
LiSA	19
B'z	18
サザンオールスターズ	<i>Southern All Stars</i> 13
ORANGE RANGE	12
RADWIMPS	11
SMAP	11
DA PUMP	9
人間椅子	<i>Ningen Isu</i> 9
GReeeeN	7
MAN WITH A MISSION	7
石川さゆり	<i>Ishikawa Sayuri</i> 7
BUMP OF CHICKEN	6
DREAMS COME TRUE	5
ONE OK ROCK	5
Superfly	5
松任谷由実	<i>Matsutōya Yumi</i> 5
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 4
Aimer	3
Kiroro	3
aiko	3
ゴールデンボンバー	<i>Golden Bomber</i> 3
BEGIN	2
カネコアヤノ	<i>Kaneko Ayano</i> 2
ザ・ハイロウズ	<i>The High-Lows</i> 2
河島英五	<i>Kawashima Eigo</i> 2
米津玄師	<i>Yonezu Kenshi</i> 2
都はるみ	<i>Miyako Harumi</i> 2
Ado	1
BABYMETAL	1
GACKT	1
MONGOL800	1
THE BLUE HEARTS	1
Xmas Eileen	1
back number	1
L'Arc〜en〜Ciel	0
YOASOBI	0

21.5.36 “Wish, Desire, Hope” (望み)

望み — nozomi

"numFound": 51

Band		何曲
B'z		6
RADWIMPS		6
JAM Project		4
Mr.Children		4
ゴールデンボンバー	<i>Golden Bomber</i>	4
BUMP OF CHICKEN		3
L'Arc~en~Ciel		2
LiSA		2
aiko		2
いきものがかり	<i>Ikimonogakari</i>	2
石川さゆり	<i>Ishikawa Sayuri</i>	2
米津玄師	<i>Yonezu Kenshi</i>	2
AKB48		1
Ado		1
DA PUMP		1
DREAMS COME TRUE		1
GACKT		1
MONGOL800		1
SMAP		1
Superfly		1
fripSide		1
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	1
徳永英明	<i>Tokunaga Hideaki</i>	1
都はるみ	<i>Miyako Harumi</i>	1
Aimer		0
BABYMETAL		0
BEGIN		0
GReeeeN		0
Kiroro		0
MAN WITH A MISSION		0
ONE OK ROCK		0
ORANGE RANGE		0
THE BLUE HEARTS		0
Xmas Eileen		0
YOASOBI		0
back number		0
ゆず	<i>Yuzu</i>	0
カネコアヤノ	<i>Kaneko Ayano</i>	0
サザンオールスターズ	<i>Southern All Stars</i>	0
ザ・ハイロウズ	<i>The High-Lows</i>	0
人間椅子	<i>Ningen Isu</i>	0
松任谷由実	<i>Matsutōya Yumi</i>	0
河島英五	<i>Kawashima Eigo</i>	0

21.5.37 “God (kami)” (神)

神 — *kami*

”numFound”: 131

Band		何曲
JAM Project		39
人間椅子	<i>Ningen Isu</i>	13
AKB48		10
L’Arc〜en〜Ciel		8
RADWIMPS		7
サザンオールスターズ	<i>Southern All Stars</i>	7
Mr.Children		5
ORANGE RANGE		4
石川さゆり	<i>Ishikawa Sayuri</i>	4
B’z		3
GACKT		3
Xmas Eileen		3
ゴールデンボンバー	<i>Golden Bomber</i>	3
河島英五	<i>Kawashima Eigo</i>	3
BUMP OF CHICKEN		2
GReeeeN		2
ゆず	<i>Yuzu</i>	2
ザ・ハイロウズ	<i>The High-Lows</i>	2
松任谷由実	<i>Matsutōya Yumi</i>	2
DA PUMP		1
LiSA		1
MAN WITH A MISSION		1
MONGOL800		1
ONE OK ROCK		1
SMAP		1
aiko		1
back number		1
fripSide		1
Ado		0
Aimer		0
BABYMETAL		0
BEGIN		0
DREAMS COME TRUE		0
Kiroro		0
Superfly		0
THE BLUE HEARTS		0
YOASOBI		0
いきものがかり	<i>Ikimonogakari</i>	0
カネコアヤノ	<i>Kaneko Ayano</i>	0
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	0
徳永英明	<i>Tokunaga Hideaki</i>	0
米津玄師	<i>Yonezu Kenshi</i>	0
都はるみ	<i>Miyako Harumi</i>	0

21.5.38 “God (kami-sama)” (神様)

神様 — *kami-sama*

"numFound": 141

Band		何曲
RADWIMPS		15
AKB48		13
Kiroro		7
SMAP		7
B'z		6
DREAMS COME TRUE		6
LiSA		6
Mr.Children		6
aiko		6
THE BLUE HEARTS		5
いきものがかり	<i>Ikimonogakari</i>	5
ゆず	<i>Yuzu</i>	5
人間椅子	<i>Ningen Isu</i>	5
GReeeeN		4
MONGOL800		4
Superfly		4
松任谷由実	<i>Matsutōya Yumi</i>	4
Aimer		3
BUMP OF CHICKEN		3
米津玄師	<i>Yonezu Kenshi</i>	3
Ado		2
BEGIN		2
JAM Project		2
ORANGE RANGE		2
back number		2
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	2
徳永英明	<i>Tokunaga Hideaki</i>	2
河島英五	<i>Kawashima Eigo</i>	2
石川さゆり	<i>Ishikawa Sayuri</i>	2
BABYMETAL		1
L'Arc〜en〜Ciel		1
ONE OK ROCK		1
ゴールデンボンバー	<i>Golden Bomber</i>	1
サザンオールスターズ	<i>Southern All Stars</i>	1
ザ・ハイロウズ	<i>The High-Lows</i>	1
DA PUMP		0
GACKT		0
MAN WITH A MISSION		0
Xmas Eileen		0
YOASOBI		0
fripSide		0
カネコアヤノ	<i>Kaneko Ayano</i>	0
都はるみ	<i>Miyako Harumi</i>	0

21.5.39 “Hand” (手)

手 — te

”numFound”: 1706

Band		何曲
B'z		107
aiko		91
いきものがかり	<i>Ikimonogakari</i>	90
AKB48		87
Mr.Children		85
JAM Project		81
ゆず	<i>Yuzu</i>	75
SMAP		72
BUMP OF CHICKEN		63
DREAMS COME TRUE		59
徳永英明	<i>Tokunaga Hideaki</i>	59
LiSA		55
Aimer		54
RADWIMPS		54
松任谷由実	<i>Matsutōya Yumi</i>	51
GReeeeN		50
fripSide		50
L'Arc〜en〜Ciel		49
ORANGE RANGE		46
DA PUMP		34
サザンオールスターズ	<i>Southern All Stars</i>	34
GACKT		32
石川さゆり	<i>Ishikawa Sayuri</i>	32
back number		31
米津玄師	<i>Yonezu Kenshi</i>	27
Kiroro		25
BEGIN		24
ゴールデンボンバー	<i>Golden Bomber</i>	23
Superfly		22
MAN WITH A MISSION		19
ONE OK ROCK		18
都はるみ	<i>Miyako Harumi</i>	16
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	15
MONGOL800		13
THE BLUE HEARTS		13
人間椅子	<i>Ningen Isu</i>	12
Xmas Eileen		11
YOASOBI		6
河島英五	<i>Kawashima Eigo</i>	6
ザ・ハイロウズ	<i>The High-Lows</i>	5
BABYMETAL		4
Ado		3
カネコアヤノ	<i>Kaneko Ayano</i>	3

21.5.40 “Light” (光)

光 — hikari

"numFound": 886

Band	何曲
JAM Project	93
fripSide	62
ゆず	Yuzu 56
松任谷由実	Matsutōya Yumi 53
いきものがかり	Ikimonogakari 47
AKB48	38
Mr.Children	38
徳永英明	Tokunaga Hideaki 34
SMAP	32
B'z	31
ORANGE RANGE	31
aiko	31
Aimer	27
人間椅子	Ningen Isu 25
LiSA	23
DA PUMP	21
GACKT	21
GReeeeN	20
BUMP OF CHICKEN	19
L'Arc〜en〜Ciel	19
RADWIMPS	17
Superfly	17
MAN WITH A MISSION	13
米津玄師	Yonezu Kenshi 13
ONE OK ROCK	11
BABYMETAL	10
BEGIN	8
Kiroro	8
back number	8
サザンオールスターズ	Southern All Stars 8
MONGOL800	7
ザ・クロマニヨンズ	The Cro-Magnons 7
都はるみ	Miyako Harumi 7
ゴールデンボンバー	Golden Bomber 6
石川さゆり	Ishikawa Sayuri 5
DREAMS COME TRUE	4
カネコアヤノ	Kaneko Ayano 4
YOASOBI	3
河島英五	Kawashima Eigo 3
THE BLUE HEARTS	2
Xmas Eileen	2
Ado	1
ザ・ハイロウズ	The High-Lows 1

21.5.41 “Fire” (火)

火 — *hi*

”numFound”: 159

Band	何曲
JAM Project	14
ORANGE RANGE	14
B'z	10
人間椅子	<i>Ningen Isu</i> 10
ゴールデンボンバー	<i>Golden Bomber</i> 8
石川さゆり	<i>Ishikawa Sayuri</i> 8
BUMP OF CHICKEN	6
DA PUMP	6
Mr.Children	6
米津玄師	<i>Yonezu Kenshi</i> 6
AKB48	5
サザンオールスターズ	<i>Southern All Stars</i> 5
GReeeeN	4
L'Arc〜en〜Ciel	4
SMAP	4
松任谷由実	<i>Matsutōya Yumi</i> 4
都はるみ	<i>Miyako Harumi</i> 4
GACKT	3
RADWIMPS	3
Superfly	3
THE BLUE HEARTS	3
いきものがかり	<i>Ikimonogakari</i> 3
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 3
徳永英明	<i>Tokunaga Hideaki</i> 3
Aimer	2
BEGIN	2
DREAMS COME TRUE	2
LiSA	2
ゆず	<i>Yuzu</i> 2
ザ・ハイロウズ	<i>The High-Lows</i> 2
Ado	1
BABYMETAL	1
MONGOL800	1
ONE OK ROCK	1
aiko	1
back number	1
カネコアヤノ	<i>Kaneko Ayano</i> 1
河島英五	<i>Kawashima Eigo</i> 1
Kiroro	0
MAN WITH A MISSION	0
Xmas Eileen	0
YOASOBI	0
fripSide	0

21.5.42 “Flower” (花)

花 — hana

"numFound": 607

Band		何曲
石川さゆり	<i>Ishikawa Sayuri</i>	57
都はるみ	<i>Miyako Harumi</i>	50
AKB48		37
サザンオールスターズ	<i>Southern All Stars</i>	36
ゆず	<i>Yuzu</i>	27
いきものがかり	<i>Ikimonogakari</i>	26
徳永英明	<i>Tokunaga Hideaki</i>	23
BEGIN		21
ORANGE RANGE		21
JAM Project		20
Aimer		19
GReeeeN		19
aiko		19
人間椅子	<i>Ningen Isu</i>	19
L'Arc〜en〜Ciel		16
松任谷由実	<i>Matsutōya Yumi</i>	16
B'z		14
GACKT		14
米津玄師	<i>Yonezu Kenshi</i>	14
Mr.Children		13
DREAMS COME TRUE		12
SMAP		11
DA PUMP		10
Kiroro		10
BUMP OF CHICKEN		9
Superfly		8
ゴールデンボンバー	<i>Golden Bomber</i>	8
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	8
LiSA		7
カネコアヤノ	<i>Kaneko Ayano</i>	6
MONGOL800		5
河島英五	<i>Kawashima Eigo</i>	5
ONE OK ROCK		4
THE BLUE HEARTS		4
back number		4
BABYMETAL		3
MAN WITH A MISSION		3
YOASOBI		3
Ado		2
ザ・ハイロウズ	<i>The High-Lows</i>	2
RADWIMPS		1
Xmas Eileen		1
fripSide		0

21.5.43 “Fireworks” (花火)

花火 — *hanabi*

”numFound”: 97

Band		何曲
石川さゆり	<i>Ishikawa Sayuri</i>	10
ゆず	<i>Yuzu</i>	7
松任谷由実	<i>Matsutōya Yumi</i>	7
Mr.Children		6
いきものがかり	<i>Ikimonogakari</i>	6
サザンオールスターズ	<i>Southern All Stars</i>	6
DREAMS COME TRUE		5
AKB48		4
aiko		4
B'z		3
ORANGE RANGE		3
SMAP		3
米津玄師	<i>Yonezu Kenshi</i>	3
Ado		2
BEGIN		2
GRREEN		2
LiSA		2
MAN WITH A MISSION		2
RADWIMPS		2
THE BLUE HEARTS		2
Xmas Eileen		2
back number		2
カネコアヤノ	<i>Kaneko Ayano</i>	2
人間椅子	<i>Ningen Isu</i>	2
BABYMETAL		1
L'Arc〜en〜Ciel		1
Superfly		1
YOASOBI		1
ゴールデンボンバー	<i>Golden Bomber</i>	1
ザ・ハイロウズ	<i>The High-Lows</i>	1
徳永英明	<i>Tokunaga Hideaki</i>	1
都はるみ	<i>Miyako Harumi</i>	1
Aimer		0
BUMP OF CHICKEN		0
DA PUMP		0
GACKT		0
JAM Project		0
Kiroro		0
MONGOL800		0
ONE OK ROCK		0
fripSide		0
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	0
河島英五	<i>Kawashima Eigo</i>	0

21.5.44 “Flower petal” (花びら)

花びら — hanabira

"numFound": 77

Band		何曲
B'z		11
AKB48		7
Aimer		6
aiko		6
徳永英明	<i>Tokunaga Hideaki</i>	5
サザンオールスターズ	<i>Southern All Stars</i>	4
DREAMS COME TRUE		3
GACKT		3
ORANGE RANGE		3
松任谷由実	<i>Matsutōya Yumi</i>	3
石川さゆり	<i>Ishikawa Sayuri</i>	3
GReeeeN		2
L'Arc〜en〜Ciel		2
Mr.Children		2
SMAP		2
fripSide		2
米津玄師	<i>Yonezu Kenshi</i>	2
BEGIN		1
BUMP OF CHICKEN		1
JAM Project		1
Superfly		1
back number		1
いきものがかり	<i>Ikimonogakari</i>	1
ゆず	<i>Yuzu</i>	1
カネコアヤノ	<i>Kaneko Ayano</i>	1
人間椅子	<i>Ningen Isu</i>	1
河島英五	<i>Kawashima Eigo</i>	1
都はるみ	<i>Miyako Harumi</i>	1
Ado		0
BABYMETAL		0
DA PUMP		0
Kiroro		0
LiSA		0
MAN WITH A MISSION		0
MONGOL800		0
ONE OK ROCK		0
RADWIMPS		0
THE BLUE HEARTS		0
Xmas Eileen		0
YOASOBI		0
ゴールデンボンバー	<i>Golden Bomber</i>	0
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	0
ザ・ハイロウズ	<i>The High-Lows</i>	0

21.5.45 “Cherry blossom” (桜)

桜 — sakura

”numFound”: 89

Band	何曲
AKB48	12
aiko	6
人間椅子	6
GReeeeN	5
fripSide	5
ザ・クロマニヨンズ	5
DREAMS COME TRUE	4
いきものがかり	4
サザンオールスターズ	4
石川さゆり	4
都はるみ	4
GACKT	3
ゆず	3
B'z	2
BUMP OF CHICKEN	2
DA PUMP	2
SMAP	2
THE BLUE HEARTS	2
back number	2
徳永英明	2
松任谷由実	2
JAM Project	1
MAN WITH A MISSION	1
Mr.Children	1
ORANGE RANGE	1
RADWIMPS	1
Superfly	1
ザ・ハイロウズ	1
河島英五	1
Ado	0
Aimer	0
BABYMETAL	0
BEGIN	0
Kiroro	0
L'Arc〜en〜Ciel	0
LiSA	0
MONGOL800	0
ONE OK ROCK	0
Xmas Eileen	0
YOASOBI	0
カネコアヤノ	0
ゴールデンボンバー	0
米津玄師	0

21.5.46 “Mountain” (山)

山 — yama

"numFound": 134

Band		何曲
人間椅子	<i>Ningen Isu</i>	18
石川さゆり	<i>Ishikawa Sayuri</i>	15
都はるみ	<i>Miyako Harumi</i>	10
AKB48		7
B'z		6
ORANGE RANGE		6
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	6
松任谷由実	<i>Matsutōya Yumi</i>	6
BEGIN		5
DREAMS COME TRUE		5
河島英五	<i>Kawashima Eigo</i>	5
GReeeeN		4
ゆず	<i>Yuzu</i>	4
DA PUMP		3
SMAP		3
back number		3
カネコアヤノ	<i>Kaneko Ayano</i>	3
ゴールデンボンバー	<i>Golden Bomber</i>	3
ザ・ハイロウズ	<i>The High-Lows</i>	3
Kiroro		2
LiSA		2
THE BLUE HEARTS		2
サザンオールスターズ	<i>Southern All Stars</i>	2
米津玄師	<i>Yonezu Kenshi</i>	2
Aimer		1
BUMP OF CHICKEN		1
JAM Project		1
L'Arc~en~Ciel		1
MONGOL800		1
Mr.Children		1
RADWIMPS		1
aiko		1
徳永英明	<i>Tokunaga Hideaki</i>	1
Ado		0
BABYMETAL		0
GACKT		0
MAN WITH A MISSION		0
ONE OK ROCK		0
Superfly		0
Xmas Eileen		0
YOASOBI		0
fripSide		0
いきものがかり	<i>Ikimonogakari</i>	0

21.5.47 “Man” (男)

男 — *otoko*

”numFound”: 285

Band	何曲
サザンオールスターズ	<i>Southern All Stars</i> 36
都はるみ	<i>Miyako Harumi</i> 26
AKB48	24
B'z	23
石川さゆり	<i>Ishikawa Sayuri</i> 23
SMAP	22
徳永英明	<i>Tokunaga Hideaki</i> 16
河島英五	<i>Kawashima Eigo</i> 15
ORANGE RANGE	13
Mr.Children	12
DA PUMP	8
ゴールデンボンバー	<i>Golden Bomber</i> 8
BEGIN	7
ザ・ハイロウズ	<i>The High-Lows</i> 7
人間椅子	<i>Ningen Isu</i> 7
松任谷由実	<i>Matsutōya Yumi</i> 7
RADWIMPS	4
THE BLUE HEARTS	4
ゆず	<i>Yuzu</i> 4
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 3
GReeeeN	2
JAM Project	2
Kiroro	2
back number	2
いきものがかり	<i>Ikimonogakari</i> 2
DREAMS COME TRUE	1
GACKT	1
L'Arc〜en〜Ciel	1
MONGOL800	1
Superfly	1
カネコアヤノ	<i>Kaneko Ayano</i> 1
Ado	0
Aimer	0
BABYMETAL	0
BUMP OF CHICKEN	0
LiSA	0
MAN WITH A MISSION	0
ONE OK ROCK	0
Xmas Eileen	0
YOASOBI	0
aiko	0
fripSide	0
米津玄師	<i>Yonezu Kenshi</i> 0

21.5.48 “Woman” (女)

女 — onna

"numFound": 300

Band		何曲
サザンオールスターズ	<i>Southern All Stars</i>	63
石川さゆり	<i>Ishikawa Sayuri</i>	41
B'z		28
都はるみ	<i>Miyako Harumi</i>	28
AKB48		21
Mr.Children		16
河島英五	<i>Kawashima Eigo</i>	14
松任谷由実	<i>Matsutōya Yumi</i>	10
BEGIN		8
ORANGE RANGE		8
SMAP		8
徳永英明	<i>Tokunaga Hideaki</i>	7
人間椅子	<i>Ningen Isu</i>	6
DREAMS COME TRUE		4
JAM Project		4
Superfly		4
back number		4
Kiroro		3
RADWIMPS		3
いきものがかり	<i>Ikimonogakari</i>	3
ゴールデンボンバー	<i>Golden Bomber</i>	3
DA PUMP		2
aiko		2
ザ・ハイロウズ	<i>The High-Lows</i>	2
BABYMETAL		1
GACKT		1
GReeeeN		1
MONGOL800		1
THE BLUE HEARTS		1
ゆず	<i>Yuzu</i>	1
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	1
米津玄師	<i>Yonezu Kenshi</i>	1
Ado		0
Aimer		0
BUMP OF CHICKEN		0
L'Arc~en~Ciel		0
LiSA		0
MAN WITH A MISSION		0
ONE OK ROCK		0
Xmas Eileen		0
YOASOBI		0
fripSide		0
カネコアヤノ	<i>Kaneko Ayano</i>	0

21.5.49 “Child” (子)

子 — ko

”numFound”: 175

Band	何曲
RADWIMPS	17
ORANGE RANGE	16
LiSA	13
aiko	13
人間椅子	<i>Ningen Isu</i> 9
AKB48	8
石川さゆり	<i>Ishikawa Sayuri</i> 8
米津玄師	<i>Yonezu Kenshi</i> 8
ゴールデンボンバー	<i>Golden Bomber</i> 6
サザンオールスターズ	<i>Southern All Stars</i> 6
DA PUMP	5
GReeeeN	5
Kiroro	5
back number	5
B'z	4
BEGIN	4
MONGOL800	4
Mr.Children	4
Superfly	4
ゆず	<i>Yuzu</i> 4
DREAMS COME TRUE	3
ONE OK ROCK	3
Xmas Eileen	3
カネコアヤノ	<i>Kaneko Ayano</i> 3
SMAP	2
いきものがかり	<i>Ikimonogakari</i> 2
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 2
徳永英明	<i>Tokunaga Hideaki</i> 2
松任谷由実	<i>Matsutōya Yumi</i> 2
Ado	1
Aimer	1
BABYMETAL	1
BUMP OF CHICKEN	1
GACKT	1
JAM Project	0
L'Arc〜en〜Ciel	0
MAN WITH A MISSION	0
THE BLUE HEARTS	0
YOASOBI	0
fripSide	0
ザ・ハイロウズ	<i>The High-Lows</i> 0
河島英五	<i>Kawashima Eigo</i> 0
都はるみ	<i>Miyako Harumi</i> 0

21.5.50 “Cute” (可愛い, かわいい, カワイイ)

可愛い — *kawaii*

"numFound": 127

Band		何曲
サザンオールスターズ	<i>Southern All Stars</i>	17
AKB48		12
SMAP		8
ゴールデンボンバー	<i>Golden Bomber</i>	8
石川さゆり	<i>Ishikawa Sayuri</i>	8
B'z		7
DREAMS COME TRUE		6
aiko		5
Kiroro		4
Mr.Children		4
徳永英明	<i>Tokunaga Hideaki</i>	4
松任谷由実	<i>Matsutōya Yumi</i>	4
RADWIMPS		3
Superfly		3
back number		3
ゆず	<i>Yuzu</i>	3
カネコアヤノ	<i>Kaneko Ayano</i>	3
都はるみ	<i>Miyako Harumi</i>	3
BUMP OF CHICKEN		2
DA PUMP		2
LiSA		2
ONE OK ROCK		2
いきものがかり	<i>Ikimonogakari</i>	2
人間椅子	<i>Ningen Isu</i>	2
Ado		1
Aimer		1
BABYMETAL		1
BEGIN		1
GACKT		1
MONGOL800		1
ORANGE RANGE		1
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	1
ザ・ハイロウズ	<i>The High-Lows</i>	1
河島英五	<i>Kawashima Eigo</i>	1
GReeeeN		0
JAM Project		0
L'Arc〜en〜Ciel		0
MAN WITH A MISSION		0
THE BLUE HEARTS		0
Xmas Eileen		0
YOASOBI		0
fripSide		0
米津玄師	<i>Yonezu Kenshi</i>	0

21.5.51 “Innocent” (初)

初, はつ, うい — *hatsu, ui* — first, new

うぶ, 初, 初心 — *ubu* (NA-adjective) — innocent, naive, inexperienced

”numFound”: 13

Band	何曲
DREAMS COME TRUE	2
ORANGE RANGE	2
AKB48	1
B'z	1
BEGIN	1
DA PUMP	1
JAM Project	1
RADWIMPS	1
fripSide	1
ゴールデンボンバー	<i>Golden Bomber</i> 1
都はるみ	<i>Miyako Harumi</i> 1
Ado	0
Aimer	0
BABYMETAL	0
BUMP OF CHICKEN	0
GACKT	0
GReeeeN	0
Kiroro	0
L'Arc~en~Ciel	0
LiSA	0
MAN WITH A MISSION	0
MONGOL800	0
Mr.Children	0
ONE OK ROCK	0
SMAP	0
Superfly	0
THE BLUE HEARTS	0
Xmas Eileen	0
YOASOBI	0
aiko	0
back number	0
いきものがかり	<i>Ikimonogakari</i> 0
ゆず	<i>Yuzu</i> 0
カネコアヤノ	<i>Kaneko Ayano</i> 0
サザンオールスターズ	<i>Southern All Stars</i> 0
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 0
ザ・ハイロウズ	<i>The High-Lows</i> 0
人間椅子	<i>Ningen Isu</i> 0
徳永英明	<i>Tokunaga Hideaki</i> 0
松任谷由実	<i>Matsutōya Yumi</i> 0
河島英五	<i>Kawashima Eigo</i> 0
石川さゆり	<i>Ishikawa Sayuri</i> 0
米津玄師	<i>Yonezu Kenshi</i> 0

21.5.52 “To be born” (生まれる)

生まれる — *umareru*

"numFound": 507

Band	何曲
JAM Project	33
AKB48	32
RADWIMPS	32
B'z	25
BUMP OF CHICKEN	24
徳永英明	<i>Tokunaga Hideaki</i> 24
GReeeeN	21
Mr.Children	19
ORANGE RANGE	16
aiko	16
ゆず	<i>Yuzu</i> 16
サザンオールスターズ	<i>Southern All Stars</i> 16
SMAP	15
いきものがかり	<i>Ikimonogakari</i> 15
松任谷由実	<i>Matsutōya Yumi</i> 15
米津玄師	<i>Yonezu Kenshi</i> 15
DREAMS COME TRUE	14
石川さゆり	<i>Ishikawa Sayuri</i> 13
BEGIN	12
DA PUMP	11
人間椅子	<i>Ningen Isu</i> 11
ONE OK ROCK	10
ゴールデンボンバー	<i>Golden Bomber</i> 10
Superfly	9
THE BLUE HEARTS	9
fripSide	9
Aimer	7
Kiroro	7
河島英五	<i>Kawashima Eigo</i> 7
GACKT	6
back number	6
L'Arc~en~Ciel	5
LiSA	5
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 4
ザ・ハイロウズ	<i>The High-Lows</i> 4
都はるみ	<i>Miyako Harumi</i> 4
MAN WITH A MISSION	3
Xmas Eileen	2
カネコアヤノ	<i>Kaneko Ayano</i> 2
Ado	1
BABYMETAL	1
MONGOL800	1
YOASOBI	0

21.5.53 “To live” (生きる)

生きる — *ikiru*

”numFound”: 1389

Band	何曲
AKB48	88
B'z	85
ゆず	80
SMAP	72
JAM Project	71
徳永英明	62
GReeeeN	60
RADWIMPS	59
Mr.Children	58
BUMP OF CHICKEN	51
石川さゆり	49
いきものがかり	47
fripSide	39
Superfly	38
aiko	38
松任谷由実	38
米津玄師	37
サザンオールスターズ	36
ゴールデンボンバー	33
都はるみ	29
Kiroro	27
LiSA	26
DA PUMP	24
ORANGE RANGE	23
ONE OK ROCK	21
河島英五	21
DREAMS COME TRUE	20
back number	18
人間椅子	18
BEGIN	17
Xmas Eileen	14
ザ・クロマニヨンズ	12
MAN WITH A MISSION	11
THE BLUE HEARTS	11
ザ・ハイロウズ	11
GACKT	10
MONGOL800	9
Aimer	8
YOASOBI	6
カネコアヤノ	5
Ado	4
BABYMETAL	3
L'Arc〜en〜Ciel	0

21.5.54 “(Human) life” (人生)

人生 — *jinsei*

"numFound": 355

Band	何曲
AKB48	38
B'z	32
SMAP	22
石川さゆり	<i>Ishikawa Sayuri</i> 21
GReeeeN	18
Mr.Children	18
ORANGE RANGE	16
RADWIMPS	16
サザンオールスターズ	<i>Southern All Stars</i> 16
LiSA	14
DA PUMP	12
Superfly	11
松任谷由実	<i>Matsutōya Yumi</i> 11
JAM Project	10
ゴールデンボンバー	<i>Golden Bomber</i> 8
人間椅子	<i>Ningen Isu</i> 8
河島英五	<i>Kawashima Eigo</i> 8
BEGIN	7
ONE OK ROCK	7
back number	7
ゆず	<i>Yuzu</i> 7
Kiroro	6
徳永英明	<i>Tokunaga Hideaki</i> 6
都はるみ	<i>Miyako Harumi</i> 6
いきものがかり	<i>Ikimonogakari</i> 4
BUMP OF CHICKEN	3
MONGOL800	3
Xmas Eileen	3
Ado	2
DREAMS COME TRUE	2
MAN WITH A MISSION	2
fripSide	2
ザ・ハイロウズ	<i>The High-Lows</i> 2
米津玄師	<i>Yonezu Kenshi</i> 2
GACKT	1
L'Arc〜en〜Ciel	1
THE BLUE HEARTS	1
aiko	1
カネコアヤノ	<i>Kaneko Ayano</i> 1
Aimer	0
BABYMETAL	0
YOASOBI	0
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 0

21.5.55 “Life, life force” (命)

命 — *inochi*

”numFound”: 380

Band	何曲
JAM Project	69
RADWIMPS	36
BUMP OF CHICKEN	25
石川さゆり	<i>Ishikawa Sayuri</i> 21
Mr.Children	20
ゆず	<i>Yuzu</i> 19
AKB48	18
サザンオールスターズ	<i>Southern All Stars</i> 17
B'z	14
人間椅子	<i>Ningen Isu</i> 13
fripSide	10
GACKT	9
GReeeeN	9
徳永英明	<i>Tokunaga Hideaki</i> 8
松任谷由実	<i>Matsutōya Yumi</i> 8
都はるみ	<i>Miyako Harumi</i> 8
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 7
河島英五	<i>Kawashima Eigo</i> 7
L'Arc〜en〜Ciel	6
いきものがかり	<i>Ikimonogakari</i> 6
BEGIN	5
ORANGE RANGE	5
BABYMETAL	4
DA PUMP	4
THE BLUE HEARTS	4
LiSA	3
SMAP	3
Superfly	3
Aimer	2
MONGOL800	2
YOASOBI	2
ザ・ハイロウズ	<i>The High-Lows</i> 2
米津玄師	<i>Yonezu Kenshi</i> 2
Ado	1
DREAMS COME TRUE	1
Kiroro	1
MAN WITH A MISSION	1
ONE OK ROCK	1
aiko	1
back number	1
カネコアヤノ	<i>Kaneko Ayano</i> 1
ゴールデンボンバー	<i>Golden Bomber</i> 1
Xmas Eileen	0

21.5.56 “Death” (死)

死 — *shi*

"numFound": 39

Band		何曲
人間椅子	<i>Ningen Isu</i>	12
JAM Project		4
Mr.Children		4
AKB48		2
DREAMS COME TRUE		2
L'Arc~en~Ciel		2
ONE OK ROCK		2
ゴールデンボンバー	<i>Golden Bomber</i>	2
B'z		1
LiSA		1
ORANGE RANGE		1
RADWIMPS		1
THE BLUE HEARTS		1
fripSide		1
ゆず	<i>Yuzu</i>	1
サザンオールスターズ	<i>Southern All Stars</i>	1
石川さゆり	<i>Ishikawa Sayuri</i>	1
Ado		0
Aimer		0
BABYMETAL		0
BEGIN		0
BUMP OF CHICKEN		0
DA PUMP		0
GACKT		0
GReeeeen		0
Kiroro		0
MAN WITH A MISSION		0
MONGOL800		0
SMAP		0
Superfly		0
Xmas Eileen		0
YOASOBI		0
aiko		0
back number		0
いきものがかり	<i>Ikimonogakari</i>	0
カネコアヤノ	<i>Kaneko Ayano</i>	0
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	0
ザ・ハイロウズ	<i>The High-Lows</i>	0
徳永英明	<i>Tokunaga Hideaki</i>	0
松任谷由実	<i>Matsutōya Yumi</i>	0
河島英五	<i>Kawashima Eigo</i>	0
米津玄師	<i>Yonezu Kenshi</i>	0
都はるみ	<i>Miyako Harumi</i>	0

21.5.57 “To die” (死ぬ)

死ぬ — *shinu*

”numFound”: 316

Band	何曲
RADWIMPS	23
ゴールデンボンバー	<i>Golden Bomber</i> 22
石川さゆり	<i>Ishikawa Sayuri</i> 22
AKB48	18
THE BLUE HEARTS	17
Mr.Children	16
サザンオールスターズ	<i>Southern All Stars</i> 16
松任谷由実	<i>Matsutōya Yumi</i> 16
ザ・ハイロウズ	<i>The High-Lows</i> 14
BUMP OF CHICKEN	12
B'z	11
DREAMS COME TRUE	11
aiko	11
米津玄師	<i>Yonezu Kenshi</i> 10
人間椅子	<i>Ningen Isu</i> 9
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 8
徳永英明	<i>Tokunaga Hideaki</i> 8
都はるみ	<i>Miyako Harumi</i> 8
JAM Project	7
ゆず	<i>Yuzu</i> 7
GReeeeN	6
ONE OK ROCK	6
SMAP	6
BEGIN	5
ORANGE RANGE	4
L’Arc〜en〜Ciel	3
back number	3
カネコアヤノ	<i>Kaneko Ayano</i> 3
DA PUMP	2
GACKT	2
Kiroro	2
河島英五	<i>Kawashima Eigo</i> 2
BABYMETAL	1
LiSA	1
MONGOL800	1
Superfly	1
Xmas Eileen	1
いきものがかり	<i>Ikimonogakari</i> 1
Ado	0
Aimer	0
MAN WITH A MISSION	0
YOASOBI	0
fripSide	0

21.5.58 “To be separated” (離れる)

離れる — hanareru

"numFound": 446

Band		何曲
松任谷由実	<i>Matsutōya Yumi</i>	46
aiko		38
BUMP OF CHICKEN		26
B'z		25
AKB48		21
SMAP		20
GReeeeN		18
fripSide		18
BEGIN		17
ゆず	<i>Yuzu</i>	17
ゴールデンボンバー	<i>Golden Bomber</i>	14
Mr.Children		13
サザンオールスターズ	<i>Southern All Stars</i>	13
GACKT		12
いきものがかり	<i>Ikimonogakari</i>	12
徳永英明	<i>Tokunaga Hideaki</i>	12
DREAMS COME TRUE		11
JAM Project		10
Kiroro		10
LiSA		9
L'Arc〜en〜Ciel		8
米津玄師	<i>Yonezu Kenshi</i>	8
Aimer		7
DA PUMP		7
back number		7
ONE OK ROCK		6
ORANGE RANGE		6
MONGOL800		5
河島英五	<i>Kawashima Eigo</i>	5
RADWIMPS		4
Superfly		4
THE BLUE HEARTS		4
石川さゆり	<i>Ishikawa Sayuri</i>	4
都はるみ	<i>Miyako Harumi</i>	4
BABYMETAL		1
YOASOBI		1
カネコアヤノ	<i>Kaneko Ayano</i>	1
ザ・ハイロウズ	<i>The High-Lows</i>	1
人間椅子	<i>Ningen Isu</i>	1
Ado		0
MAN WITH A MISSION		0
Xmas Eileen		0
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	0

21.5.59 “Alcohol” (酒)

酒 — sake

”numFound”: 123

Band		何曲
石川さゆり	<i>Ishikawa Sayuri</i>	28
都はるみ	<i>Miyako Harumi</i>	20
BEGIN		18
サザンオールスターズ	<i>Southern All Stars</i>	8
河島英五	<i>Kawashima Eigo</i>	8
徳永英明	<i>Tokunaga Hideaki</i>	6
ORANGE RANGE		4
ゴールデンボンバー	<i>Golden Bomber</i>	4
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	4
Mr.Children		3
SMAP		3
ザ・ハイロウズ	<i>The High-Lows</i>	2
人間椅子	<i>Ningen Isu</i>	2
米津玄師	<i>Yonezu Kenshi</i>	2
AKB48		1
Ado		1
B'z		1
DA PUMP		1
Kiroro		1
MONGOL800		1
THE BLUE HEARTS		1
aiko		1
ゆず	<i>Yuzu</i>	1
カネコアヤノ	<i>Kaneko Ayano</i>	1
松任谷由実	<i>Matsutōya Yumi</i>	1
Aimer		0
BABYMETAL		0
BUMP OF CHICKEN		0
DREAMS COME TRUE		0
GACKT		0
GReeeeN		0
JAM Project		0
L'Arc〜en〜Ciel		0
LiSA		0
MAN WITH A MISSION		0
ONE OK ROCK		0
RADWIMPS		0
Superfly		0
Xmas Eileen		0
YOASOBI		0
back number		0
fripSide		0
いきものがかり	<i>Ikimonogakari</i>	0

21.5.60 “Sadness” (悲しみ)

悲しみ — *kanashimi*

"numFound": 491

Band	何曲
AKB48	40
ゆず <i>Yuzu</i>	39
Mr.Children	33
徳永英明 <i>Tokunaga Hideaki</i>	32
サザンオールスターズ <i>Southern All Stars</i>	29
SMAP	25
いきものがかり <i>Ikimonogakari</i>	25
JAM Project	20
B'z	16
BEGIN	14
LiSA	14
aiko	14
GReeeeN	13
ORANGE RANGE	13
RADWIMPS	13
石川さゆり <i>Ishikawa Sayuri</i>	12
GACKT	11
Superfly	11
Aimer	10
back number	9
河島英五 <i>Kawashima Eigo</i>	9
米津玄師 <i>Yonezu Kenshi</i>	9
Kiroro	7
L'Arc~en~Ciel	7
MONGOL800	7
ONE OK ROCK	7
DA PUMP	6
fripSide	6
人間椅子 <i>Ningen Isu</i>	6
都はるみ <i>Miyako Harumi</i>	6
DREAMS COME TRUE	5
ゴールデンボンバー <i>Golden Bomber</i>	5
ザ・ハイロウズ <i>The High-Lows</i>	4
THE BLUE HEARTS	3
Xmas Eileen	3
松任谷由実 <i>Matsutōya Yumi</i>	3
BABYMETAL	1
BUMP OF CHICKEN	1
YOASOBI	1
カネコアヤノ <i>Kaneko Ayano</i>	1
ザ・クロマニヨンズ <i>The Cro-Magnons</i>	1
Ado	0
MAN WITH A MISSION	0

21.5.61 “Sad, miserable” (悲しい)

悲しい — *kanashii*

”numFound”: 502

Band	何曲
aiko	45
AKB48	36
サザンオールスターズ	<i>Southern All Stars</i> 32
ゆず	<i>Yuzu</i> 27
松任谷由実	<i>Matsutōya Yumi</i> 25
RADWIMPS	24
徳永英明	<i>Tokunaga Hideaki</i> 24
SMAP	21
DREAMS COME TRUE	17
GReeeeN	17
いきものがかり	<i>Ikimonogakari</i> 17
米津玄師	<i>Yonezu Kenshi</i> 17
Mr.Children	16
Aimer	15
back number	15
BEGIN	14
石川さゆり	<i>Ishikawa Sayuri</i> 14
都はるみ	<i>Miyako Harumi</i> 11
B'z	10
Kiroro	10
BUMP OF CHICKEN	9
ゴールデンボンバー	<i>Golden Bomber</i> 9
河島英五	<i>Kawashima Eigo</i> 9
L'Arc~en~Ciel	8
LiSA	8
Superfly	7
JAM Project	6
カネコアヤノ	<i>Kaneko Ayano</i> 6
人間椅子	<i>Ningen Isu</i> 5
GACKT	4
ONE OK ROCK	4
MONGOL800	3
THE BLUE HEARTS	3
BABYMETAL	2
DA PUMP	2
ORANGE RANGE	2
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 2
Ado	1
MAN WITH A MISSION	1
Xmas Eileen	1
YOASOBI	1
fripSide	1
ザ・ハイロウズ	<i>The High-Lows</i> 1

21.5.62 “Happiness” (幸せ)

幸せ — *shiawase*

"numFound": 546

Band	何曲
aiko	44
GReeeeN	33
SMAP	33
Kiroro	30
LiSA	30
B'z	29
ゆず	<i>Yuzu</i> 29
徳永英明	<i>Tokunaga Hideaki</i> 29
松任谷由実	<i>Matsutōya Yumi</i> 27
Mr.Children	24
Superfly	18
fripSide	16
back number	15
いきものがかり	<i>Ikimonogakari</i> 15
ゴールデンボンバー	<i>Golden Bomber</i> 15
サザンオールスターズ	<i>Southern All Stars</i> 14
RADWIMPS	13
米津玄師	<i>Yonezu Kenshi</i> 12
石川さゆり	<i>Ishikawa Sayuri</i> 11
Aimer	10
BEGIN	10
ORANGE RANGE	10
DA PUMP	8
人間椅子	<i>Ningen Isu</i> 8
ONE OK ROCK	7
都はるみ	<i>Miyako Harumi</i> 7
JAM Project	6
河島英五	<i>Kawashima Eigo</i> 6
BUMP OF CHICKEN	5
THE BLUE HEARTS	5
AKB48	4
GACKT	4
YOASOBI	4
L'Arc〜en〜Ciel	3
MONGOL800	3
MAN WITH A MISSION	2
カネコアヤノ	<i>Kaneko Ayano</i> 2
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 2
Ado	1
BABYMETAL	1
ザ・ハイロウズ	<i>The High-Lows</i> 1
DREAMS COME TRUE	0
Xmas Eileen	0

21.5.63 “Joy, delight” (喜び)

喜び — Yorokobi

”numFound”: 212

Band		何曲
ゆず	Yuzu	16
aiko		14
RADWIMPS		12
LiSA		10
いきものがかり	Ikimonogakari	10
徳永英明	Tokunaga Hideaki	10
Mr.Children		9
SMAP		8
B'z		7
GACKT		7
JAM Project		7
MONGOL800		7
fripSide		7
AKB48		6
GReeeeN		6
L'Arc〜en〜Ciel		6
ORANGE RANGE		6
サザンオールスターズ	Southern All Stars	6
BEGIN		5
DA PUMP		5
人間椅子	Ningen Isu	5
松任谷由実	Matsutōya Yumi	5
河島英五	Kawashima Eigo	5
Kiroro		4
Superfly		4
石川さゆり	Ishikawa Sayuri	4
ONE OK ROCK		3
back number		3
ゴールデンボンバー	Golden Bomber	3
米津玄師	Yonezu Kenshi	3
YOASOBI		2
都はるみ	Miyako Harumi	2
BABYMETAL		1
BUMP OF CHICKEN		1
MAN WITH A MISSION		1
THE BLUE HEARTS		1
Xmas Eileen		1
Ado		0
Aimer		0
DREAMS COME TRUE		0
カネコアヤノ	Kaneko Ayano	0
ザ・クロマニヨンズ	The Cro-Magnons	0
ザ・ハイロウズ	The High-Lows	0

21.5.64 “Happy” (嬉しい)

嬉しい — *ureshii*

"numFound": 187

Band		何曲
LiSA		18
RADWIMPS		17
いきものがかり	<i>Ikimonogakari</i>	17
aiko		16
GReeeeN		14
Mr.Children		12
BUMP OF CHICKEN		8
石川さゆり	<i>Ishikawa Sayuri</i>	8
GACKT		7
Kiroro		7
back number		7
BEGIN		6
SMAP		6
米津玄師	<i>Yonezu Kenshi</i>	6
DREAMS COME TRUE		5
ゆず	<i>Yuzu</i>	5
徳永英明	<i>Tokunaga Hideaki</i>	5
L'Arc~en~Ciel		4
ゴールデンボンバー	<i>Golden Bomber</i>	4
AKB48		2
ORANGE RANGE		2
Superfly		2
fripSide		2
Ado		1
Aimer		1
B'z		1
カネコアヤノ	<i>Kaneko Ayano</i>	1
サザンオールスターズ	<i>Southern All Stars</i>	1
人間椅子	<i>Ningen Isu</i>	1
都はるみ	<i>Miyako Harumi</i>	1
BABYMETAL		0
DA PUMP		0
JAM Project		0
MAN WITH A MISSION		0
MONGOL800		0
ONE OK ROCK		0
THE BLUE HEARTS		0
Xmas Eileen		0
YOASOBI		0
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	0
ザ・ハイロウズ	<i>The High-Lows</i>	0
松任谷由実	<i>Matsutōya Yumi</i>	0
河島英五	<i>Kawashima Eigo</i>	0

21.5.65 “Enjoyable, pleasant” (楽しい)

楽しい — *tanoshii*

”numFound”: 298

Band	何曲
AKB48	31
GReeeeN	31
SMAP	23
B'z	18
aiko	17
サザンオールスターズ	<i>Southern All Stars</i> 12
DREAMS COME TRUE	11
ゴールデンボンバー	<i>Golden Bomber</i> 11
LiSA	10
BUMP OF CHICKEN	9
ザ・ハイロウズ	<i>The High-Lows</i> 9
Mr.Children	8
back number	8
ゆず	<i>Yuzu</i> 8
松任谷由実	<i>Matsutōya Yumi</i> 8
ORANGE RANGE	7
RADWIMPS	7
THE BLUE HEARTS	7
BEGIN	6
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 6
DA PUMP	5
Kiroro	5
徳永英明	<i>Tokunaga Hideaki</i> 5
ONE OK ROCK	4
Superfly	4
米津玄師	<i>Yonezu Kenshi</i> 4
JAM Project	3
MONGOL800	3
いきものがかり	<i>Ikimonogakari</i> 3
人間椅子	<i>Ningen Isu</i> 3
石川さゆり	<i>Ishikawa Sayuri</i> 3
YOASOBI	2
fripSide	2
カネコアヤノ	<i>Kaneko Ayano</i> 2
BABYMETAL	1
L'Arc〜en〜Ciel	1
都はるみ	<i>Miyako Harumi</i> 1
Ado	0
Aimer	0
GACKT	0
MAN WITH A MISSION	0
Xmas Eileen	0
河島英五	<i>Kawashima Eigo</i> 0

21.5.66 “To enjoy (oneself)” (楽しむ)

楽しむ — *tanoshimu*

"numFound": 84

Band	何曲
GReeeeN	15
B'z	8
LiSA	8
SMAP	7
Kiroro	6
ORANGE RANGE	6
AKB48	5
DA PUMP	3
徳永英明	<i>Tokunaga Hideaki</i> 3
松任谷由実	<i>Matsutōya Yumi</i> 3
THE BLUE HEARTS	2
aiko	2
いきものがかり	<i>Ikimonogakari</i> 2
ゴールデンボンバー	<i>Golden Bomber</i> 2
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 2
BEGIN	1
L'Arc〜en〜Ciel	1
Mr.Children	1
Superfly	1
YOASOBI	1
back number	1
ザ・ハイロウズ	<i>The High-Lows</i> 1
河島英五	<i>Kawashima Eigo</i> 1
石川さゆり	<i>Ishikawa Sayuri</i> 1
米津玄師	<i>Yonezu Kenshi</i> 1
Ado	0
Aimer	0
BABYMETAL	0
BUMP OF CHICKEN	0
DREAMS COME TRUE	0
GACKT	0
JAM Project	0
MAN WITH A MISSION	0
MONGOL800	0
ONE OK ROCK	0
RADWIMPS	0
Xmas Eileen	0
fripSide	0
ゆず	<i>Yuzu</i> 0
カネコアヤノ	<i>Kaneko Ayano</i> 0
サザンオールスターズ	<i>Southern All Stars</i> 0
人間椅子	<i>Ningen Isu</i> 0
都はるみ	<i>Miyako Harumi</i> 0

21.5.67 “Promise” (約束, やくそく)

約束 — yakusoku

”numFound”: 310

Band		何曲
fripSide		32
JAM Project		22
aiko		20
松任谷由実	<i>Matsutōya Yumi</i>	18
ゆず	<i>Yuzu</i>	16
AKB48		15
GACKT		15
BUMP OF CHICKEN		13
いきものがかり	<i>Ikimonogakari</i>	12
Aimer		10
DA PUMP		9
DREAMS COME TRUE		9
RADWIMPS		9
SMAP		9
徳永英明	<i>Tokunaga Hideaki</i>	9
B'z		8
BEGIN		8
LiSA		7
Mr.Children		7
都はるみ	<i>Miyako Harumi</i>	7
GReeeeN		6
Kiroro		6
石川さゆり	<i>Ishikawa Sayuri</i>	5
L'Arc〜en〜Ciel		4
THE BLUE HEARTS		4
カネコアヤノ	<i>Kaneko Ayano</i>	4
MAN WITH A MISSION		3
Superfly		3
ザ・ハイロウズ	<i>The High-Lows</i>	3
米津玄師	<i>Yonezu Kenshi</i>	3
MONGOL800		2
Xmas Eileen		2
back number		2
ゴールデンボンバー	<i>Golden Bomber</i>	2
サザンオールスターズ	<i>Southern All Stars</i>	2
人間椅子	<i>Ningen Isu</i>	2
ORANGE RANGE		1
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	1
Ado		0
BABYMETAL		0
ONE OK ROCK		0
YOASOBI		0
河島英五	<i>Kawashima Eigo</i>	0

21.5.68 “Train station” (駅)

駅 — eki

"numFound": 104

Band		何曲
松任谷由実	<i>Matsutōya Yumi</i>	14
AKB48		11
ゆず	<i>Yuzu</i>	11
SMAP		7
石川さゆり	<i>Ishikawa Sayuri</i>	7
DREAMS COME TRUE		6
徳永英明	<i>Tokunaga Hideaki</i>	5
B'z		4
いきものがかり	<i>Ikimonogakari</i>	4
都はるみ	<i>Miyako Harumi</i>	4
DA PUMP		3
ゴールデンボンバー	<i>Golden Bomber</i>	3
ザ・ハイロウズ	<i>The High-Lows</i>	3
Aimer		2
BEGIN		2
BUMP OF CHICKEN		2
GReeeeN		2
Superfly		2
aiko		2
JAM Project		1
LiSA		1
Mr.Children		1
THE BLUE HEARTS		1
Xmas Eileen		1
back number		1
サザンオールスターズ	<i>Southern All Stars</i>	1
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	1
人間椅子	<i>Ningen Isu</i>	1
米津玄師	<i>Yonezu Kenshi</i>	1
Ado		0
BABYMETAL		0
GACKT		0
Kiroro		0
L'Arc~en~Ciel		0
MAN WITH A MISSION		0
MONGOL800		0
ONE OK ROCK		0
ORANGE RANGE		0
RADWIMPS		0
YOASOBI		0
fripSide		0
カネコアヤノ	<i>Kaneko Ayano</i>	0
河島英五	<i>Kawashima Eigo</i>	0

21.5.69 “Heaven” (天国)

天国 — *tengoku*

”numFound”: 69

Band	何曲
RADWIMPS	6
SMAP	6
人間椅子	6
AKB48	5
松任谷由実	5
Mr.Children	4
サザンオールスターズ	4
BEGIN	3
THE BLUE HEARTS	3
ゆず	3
ザ・クロマニヨンズ	3
JAM Project	2
L’Arc〜en〜Ciel	2
ゴールデンボンバー	2
ザ・ハイロウズ	2
石川さゆり	2
米津玄師	2
Ado	1
Aimer	1
B’z	1
BABYMETAL	1
GACKT	1
LiSA	1
ORANGE RANGE	1
Superfly	1
back number	1
BUMP OF CHICKEN	0
DA PUMP	0
DREAMS COME TRUE	0
GReeeeN	0
Kiroro	0
MAN WITH A MISSION	0
MONGOL800	0
ONE OK ROCK	0
Xmas Eileen	0
YOASOBI	0
aiko	0
fripSide	0
いきものがかり	0
カネコアヤノ	0
徳永英明	0
河島英五	0
都はるみ	0

21.5.70 “Hell” (地獄)

地獄 — jigoku

"numFound": 71

Band		何曲
人間椅子	<i>Ningen Isu</i>	21
JAM Project		8
ORANGE RANGE		4
米津玄師	<i>Yonezu Kenshi</i>	4
GACKT		3
ゴールデンボンバー	<i>Golden Bomber</i>	3
ザ・ハイロウズ	<i>The High-Lows</i>	3
Ado		2
BABYMETAL		2
DREAMS COME TRUE		2
LiSA		2
RADWIMPS		2
THE BLUE HEARTS		2
ゆず	<i>Yuzu</i>	2
サザンオールスターズ	<i>Southern All Stars</i>	2
AKB48		1
DA PUMP		1
Mr.Children		1
SMAP		1
Superfly		1
back number		1
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	1
河島英五	<i>Kawashima Eigo</i>	1
石川さゆり	<i>Ishikawa Sayuri</i>	1
Aimer		0
B'z		0
BEGIN		0
BUMP OF CHICKEN		0
GRREEN		0
Kiroro		0
L'Arc~en~Ciel		0
MAN WITH A MISSION		0
MONGOL800		0
ONE OK ROCK		0
Xmas Eileen		0
YOASOBI		0
aiko		0
fripSide		0
いきものがかり	<i>Ikimonogakari</i>	0
カネコアヤノ	<i>Kaneko Ayano</i>	0
徳永英明	<i>Tokunaga Hideaki</i>	0
松任谷由実	<i>Matsutōya Yumi</i>	0
都はるみ	<i>Miyako Harumi</i>	0

21.5.71 “*komorebi*” (木漏れ日)

“*komorebi*” (木漏れ日) is a Japanese term, difficult to translate in English, which represents “*the sunlight that is filtered through the trees*”.

Only a handful of artists make use of this uniquely Japanese term:

“numFound”: 34

Band		何曲
AKB48		4
GACKT		4
ORANGE RANGE		4
L’Arc〜en〜Ciel		3
Mr.Children		3
いきものがかり	<i>Ikimonogakari</i>	3
ゆず	<i>Yuzu</i>	3
RADWIMPS		2
徳永英明	<i>Tokunaga Hideaki</i>	2
Aimer		1
B’z		1
GReeeeN		1
Kiroro		1
サザンオールスターズ	<i>Southern All Stars</i>	1
松任谷由実	<i>Matsutōya Yumi</i>	1

21.5.72 Derogatory terms... (軽蔑的な言葉。。。)

In this section, we will search lyrics for a few bad words, see which bands use them, and how often.

- The following search term is basically the *S-word* (and sometimes the *F-word*) of the Japanese language

q:	lyrics_txt_ja:"クソ", lyrics_txt_ja:"くそ", lyrics_txt_ja:"糞"
q.op:	OR
rows:	10
facet:	true
facet.field:	band_str
facet.mincount:	1

Results:

Facets:

Ado		2
ゴールデンボンバー	<i>Golden Bomber</i>	2
人間椅子	<i>Ningen Isu</i>	2
BEGIN		1
DREAMS COME TRUE		1
GReeeeN		1
JAM Project		1
ONE OK ROCK		1
ORANGE RANGE		1
back number		1
ゆず	<i>Yuzu</i>	1
サザンオールスターズ	<i>Southern All Stars</i>	1

List of songs:

band		title
Ado		うっせえわ
Ado		レディメイド
back number		サマーワンダーランド
BEGIN		ソウセイ
DREAMS COME TRUE		普通の今夜のことを — let tonight be forever remembered —
GReeeeN		歩み
JAM Project		ピアノ狂奏曲第 4 番〜怪人賛歌
ONE OK ROCK		Re:make
ORANGE RANGE		マイ・ライフル〜feat. ペチュニアロ クッス〜
ゴールデンボンバー	<i>Golden Bomber</i>	SHINE
ゴールデンボンバー	<i>Golden Bomber</i>	さよなら、さよなら、さよなら
サザンオールスターズ	<i>Southern All Stars</i>	Let It Boogie
ゆず	<i>Yuzu</i>	手紙

band		title
人間椅子	<i>Ningen Isu</i>	地獄
人間椅子	<i>Ningen Isu</i>	地獄への招待状

- The following search term is a derogatory word for “a stupid or otherwise undesirable person”

q:	lyrics_txt_ja:” クソツタレ”, lyrics_txt_ja:” くそったれ”, lyrics_txt_ja:” 糞たれ”
q.op:	OR
rows:	10
facet:	true
facet.field:	band_str
facet.mincount:	1

Results:

Facets:

THE BLUE HEARTS		3
人間椅子	<i>Ningen Isu</i>	2
ゆず	<i>Yuzu</i>	1
ゴールデンボンバー	<i>Golden Bomber</i>	1

List of songs:

band		title
THE BLUE HEARTS		僕はここに立っているよ
THE BLUE HEARTS		少年の詩
THE BLUE HEARTS		終わらない歌
ゴールデンボンバー	<i>Golden Bomber</i>	SHINE
ゆず	<i>Yuzu</i>	濃
人間椅子	<i>Ningen Isu</i>	地獄
人間椅子	<i>Ningen Isu</i>	地獄への招待状

21.6 Pronouns usage

Japanese has a variety of pronouns, especially for “I” and “we”.

Some pronouns are used more often by males (male term), some are used more often by females (female term), some can be used by either genders. Pronouns have different levels of politeness (formal, very formal, casual, or downright derogatory). Some pronouns are used in very specific contexts (e.g. 我々, わたくしたち).

Studying the pronouns usage can give us an idea of the level of language used in the songs.

21.6.1 “you” (君)

“*kimi*” — “you”, male term, familiar language

This is the most used pronoun in the whole dataset, and usually⁴ in the top 3 most used words, together with 人 (*hito* – person), and 今 (*ima* – now).

“numFound”: 2574

Band		何曲
SMAP		201
ゆず	<i>Yuzu</i>	194
Mr.Children		168
徳永英明	<i>Tokunaga Hideaki</i>	154
B'z		138
RADWIMPS		121
AKB48		109
fripSide		107
DA PUMP		99
サザンオールスターズ	<i>Southern All Stars</i>	97
ORANGE RANGE		95
GReeeeN		94
JAM Project		80
ゴールデンボンバー	<i>Golden Bomber</i>	80
BUMP OF CHICKEN		79
L'Arc〜en〜Ciel		73
BEGIN		69
back number		69
いきものがかり	<i>Ikimonogakari</i>	66
GACKT		57
Aimer		49
ONE OK ROCK		42
米津玄師	<i>Yonezu Kenshi</i>	33
LiSA		31
aiko		31
カネコアヤノ	<i>Kaneko Ayano</i>	31
Superfly		26
人間椅子	<i>Ningen Isu</i>	23
ザ・ハイロウズ	<i>The High-Lows</i>	18
MAN WITH A MISSION		17
THE BLUE HEARTS		17

⁴the ranking changes as we add new songs to the dataset

Kiroro		14
河島英五	<i>Kawashima Eigo</i>	13
松任谷由実	<i>Matsutōya Yumi</i>	12
都はるみ	<i>Miyako Harumi</i>	12
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	11
YOASOBI		10
MONGOL800		9
BABYMETAL		8
石川さゆり	<i>Ishikawa Sayuri</i>	7
Xmas Eileen		5
Ado		4
DREAMS COME TRUE		1

21.6.2 “you” (あなた)

“anata” — “you”

May also mean “dear”, “honey” (especially in *enka* songs).

“numFound”: 1926

Band	何曲
松任谷由実	<i>Matsutōya Yumi</i> 261
aiko	226
DREAMS COME TRUE	178
AKB48	117
石川さゆり	<i>Ishikawa Sayuri</i> 116
徳永英明	<i>Tokunaga Hideaki</i> 101
都はるみ	<i>Miyako Harumi</i> 78
B'z	69
Kiroro	63
いきものがかり	<i>Ikimonogakari</i> 57
RADWIMPS	51
L'Arc〜en〜Ciel	49
サザンオールスターズ	<i>Southern All Stars</i> 46
米津玄師	<i>Yonezu Kenshi</i> 44
ゆず	<i>Yuzu</i> 38
Aimer	37
ORANGE RANGE	33
Superfly	33
MONGOL800	29
GReeeeN	28
SMAP	28
BEGIN	25
BUMP OF CHICKEN	25
LiSA	23
back number	21
Mr.Children	19
GACKT	16
ゴールデンボンバー	<i>Golden Bomber</i> 16
カネコアヤノ	<i>Kaneko Ayano</i> 15
fripSide	14
THE BLUE HEARTS	11

人間椅子	<i>Ningen Isu</i>	11
MAN WITH A MISSION		7
YOASOBI		7
ONE OK ROCK		6
河島英五	<i>Kawashima Eigo</i>	6
JAM Project		5
Ado		4
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	4
BABYMETAL		3
DA PUMP		3
ザ・ハイロウズ	<i>The High-Lows</i>	3

21.6.3 “you (derogatory)” (お前, おまえ)

“*omae*” — “you”, male term, derogatory (used to be honorific)

“numFound”: 230

Band	何曲
B'z	27
サザンオールスターズ <i>Southern All Stars</i>	22
RADWIMPS	19
BEGIN	17
JAM Project	16
河島英五 <i>Kawashima Eigo</i>	13
ORANGE RANGE	12
DA PUMP	9
石川さゆり <i>Ishikawa Sayuri</i>	8
都はるみ <i>Miyako Harumi</i>	8
AKB48	7
Mr.Children	7
ザ・クロマニヨンズ <i>The Cro-Magnons</i>	7
ゴールデンボンバー <i>Golden Bomber</i>	6
SMAP	5
ゆず <i>Yuzu</i>	5
米津玄師 <i>Yonezu Kenshi</i>	5
ONE OK ROCK	4
人間椅子 <i>Ningen Isu</i>	4
BUMP OF CHICKEN	3
THE BLUE HEARTS	3
徳永英明 <i>Tokunaga Hideaki</i>	3
GACKT	2
GReeeeN	2
MONGOL800	2
Superfly	2
aiko	2
ザ・ハイロウズ <i>The High-Lows</i>	2
松任谷由実 <i>Matsutōya Yumi</i>	2
BABYMETAL	1
L'Arc〜en〜Ciel	1
LiSA	1
back number	1
いきものがかり <i>Ikimonogakari</i>	1

カネコアヤノ	<i>Kaneko Ayano</i>	1
--------	---------------------	---

21.6.4 “you (derogatory)” (てめえ)

“temee” — “you”, derogatory.

This term was added for completeness, but yields no results:

“numFound”: null

Band	何曲
null	

21.6.5 “I” (私, わたし)

“watashi” — “I”

“numFound”: 1321

Band		何曲
松任谷由実	Matsutōya Yumi	242
AKB48		178
DREAMS COME TRUE		124
石川さゆり	Ishikawa Sayuri	103
Kiroro		66
徳永英明	Tokunaga Hideaki	66
都はるみ	Miyako Harumi	60
Superfly		57
fripSide		49
LiSA		35
いきものがかり	Ikimonogakari	31
カネコアヤノ	Kaneko Ayano	25
Aimer		24
サザンオールスターズ	Southern All Stars	24
GReeeeN		23
L’Arc〜en〜Ciel		23
back number		21
米津玄師	Yonezu Kenshi	20
B’z		18
RADWIMPS		16
ORANGE RANGE		14
GACKT		13
ゴールデンボンバー	Golden Bomber	12
BEGIN		11
ゆず	Yuzu	10
Ado		9
BUMP OF CHICKEN		7
Mr.Children		6
SMAP		6
人間椅子	Ningen Isu	5
河島英五	Kawashima Eigo	5
YOASOBI		4

BABYMETAL		3
JAM Project		3
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	3
MONGOL800		2
aiko		2
THE BLUE HEARTS		1

21.6.6 “I” (あたし)

“*atashi*” — “I”, female term

“numFound”: 318

Band	何曲
aiko	222
いきものがかり	<i>Ikimonogakari</i> 37
DREAMS COME TRUE	15
米津玄師	<i>Yonezu Kenshi</i> 7
LiSA	6
AKB48	3
ORANGE RANGE	3
徳永英明	<i>Tokunaga Hideaki</i> 3
石川さゆり	<i>Ishikawa Sayuri</i> 3
Ado	2
BABYMETAL	2
BEGIN	2
MONGOL800	2
サザンオールスターズ	<i>Southern All Stars</i> 2
Aimer	1
B'z	1
JAM Project	1
Kiroro	1
SMAP	1
Superfly	1
fripSide	1
河島英五	<i>Kawashima Eigo</i> 1
都はるみ	<i>Miyako Harumi</i> 1

21.6.7 “I” (僕, ぼく, ボク)

“*boku*” — “I”, male term

“numFound”: 2359

Band	何曲
B'z	194
SMAP	179
ゆず	<i>Yuzu</i> 178
Mr.Children	174
RADWIMPS	139
徳永英明	<i>Tokunaga Hideaki</i> 132

AKB48		103
ゴールデンボンバー	<i>Golden Bomber</i>	101
GReeeeN		96
BUMP OF CHICKEN		87
GACKT		78
back number		78
ORANGE RANGE		66
LiSA		58
いきものがかり	<i>Ikimonogakari</i>	58
ONE OK ROCK		55
JAM Project		51
BEGIN		50
L'Arc〜en〜Ciel		50
THE BLUE HEARTS		48
fripSide		42
サザンオールスターズ	<i>Southern All Stars</i>	42
米津玄師	<i>Yonezu Kenshi</i>	41
DA PUMP		29
ザ・ハイロウズ	<i>The High-Lows</i>	26
MONGOL800		22
Xmas Eileen		21
松任谷由実	<i>Matsutōya Yumi</i>	20
aiko		19
Aimer		16
MAN WITH A MISSION		15
人間椅子	<i>Ningen Isu</i>	15
河島英五	<i>Kawashima Eigo</i>	15
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	14
カネコアヤノ	<i>Kaneko Ayano</i>	11
YOASOBI		8
Superfly		7
石川さゆり	<i>Ishikawa Sayuri</i>	5
都はるみ	<i>Miyako Harumi</i>	5
DREAMS COME TRUE		4
Kiroro		4
BABYMETAL		2
Ado		1

21.6.8 “I” (俺, おれ, オレ)

“ore” — “I”, male term, rough or arrogant

“numFound”: 581

Band	何曲
DA PUMP	84
JAM Project	65
サザンオールスターズ	<i>Southern All Stars</i> 50
ザ・ハイロウズ	<i>The High-Lows</i> 43
ORANGE RANGE	40
RADWIMPS	38
BEGIN	29
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 29

B'z		21
GReeeeN		17
SMAP		17
ゆず	Yuzu	15
BUMP OF CHICKEN		12
THE BLUE HEARTS		12
人間椅子	Ningen Isu	12
AKB48		11
Mr.Children		10
河島英五	Kawashima Eigo	10
石川さゆり	Ishikawa Sayuri	10
都はるみ	Miyako Harumi	9
ONE OK ROCK		8
ゴールデンボンバー	Golden Bomber	8
L'Arc〜en〜Ciel		6
GACKT		5
DREAMS COME TRUE		4
米津玄師	Yonezu Kenshi	4
back number		3
MONGOL800		2
徳永英明	Tokunaga Hideaki	2
Aimer		1
Superfly		1
aiko		1
いきものがかり	Ikimonogakari	1
カネコアヤノ	Kaneko Ayano	1

21.6.9 “I” (我, われ, フレ)

“ware” — “I”

“numFound”: 69

Band	何曲
JAM Project	14
サザンオールスターズ	12
人間椅子	6
ORANGE RANGE	5
B'z	3
GReeeeN	3
Mr.Children	2
ONE OK ROCK	2
Superfly	2
いきものがかり	2
ゴールデンボンバー	2
都はるみ	2
AKB48	1
BEGIN	1
BUMP OF CHICKEN	1
Kiroro	1
L'Arc〜en〜Ciel	1
LiSA	1
MONGOL800	1

RADWIMPS		1
SMAP		1
ゆず	Yuzu	1
徳永英明	Tokunaga Hideaki	1
松任谷由実	Matsutōya Yumi	1
河島英五	Kawashima Eigo	1
石川さゆり	Ishikawa Sayuri	1

21.6.10 “I” (わたくし)

“watakushi” — “I”, very formal (or snob)

“numFound”: 2

Band	何曲
ORANGE RANGE	1
back number	1

21.6.11 “we” (私たち, 私達, わたしたち)

“watashitachi” — “we”, plural of 私

“numFound”: 1321

Band		何曲
松任谷由実	Matsutōya Yumi	242
AKB48		178
DREAMS COME TRUE		124
石川さゆり	Ishikawa Sayuri	103
Kiroro		66
徳永英明	Tokunaga Hideaki	66
都はるみ	Miyako Harumi	60
Superfly		57
fripSide		49
LiSA		35
いきものがかり	Ikimonogakari	31
カネコアヤノ	Kaneko Ayano	25
Aimer		24
サザンオールスターズ	Southern All Stars	24
GReeeeN		23
L'Arc〜en〜Ciel		23
back number		21
米津玄師	Yonezu Kenshi	20
B'z		18
RADWIMPS		16
ORANGE RANGE		14
GACKT		13
ゴールデンボンバー	Golden Bomber	12
BEGIN		11
ゆず	Yuzu	10
Ado		9

BUMP OF CHICKEN		7
Mr.Children		6
SMAP		6
人間椅子	<i>Ningen Isu</i>	5
河島英五	<i>Kawashima Eigo</i>	5
YOASOBI		4
BABYMETAL		3
JAM Project		3
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	3
MONGOL800		2
aiko		2
THE BLUE HEARTS		1

21.6.12 “we” (僕ら, ぼくら, ボクラ)

“bokura” — “we”, plural of 僕 (male term)

“numFound”: 915

Band	何曲
GReeeeN	84
ゆず	78
Mr.Children	70
SMAP	70
JAM Project	61
B'z	53
RADWIMPS	51
いきものがかり	46
徳永英明	41
BUMP OF CHICKEN	35
ORANGE RANGE	30
MAN WITH A MISSION	26
米津玄師	25
LiSA	22
ONE OK ROCK	22
BEGIN	20
ゴールデンボンバー	20
fripSide	19
AKB48	17
back number	13
DA PUMP	11
L'Arc~en~Ciel	9
カネコアヤノ	9
ザ・ハイロウズ	9
松任谷由実	9
GACKT	8
サザンオールスターズ	8
Aimer	7
BABYMETAL	5
MONGOL800	5
Kiroro	4
THE BLUE HEARTS	4
YOASOBI	4

河島英五	<i>Kawashima Eigo</i>	4
DREAMS COME TRUE		3
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	3
都はるみ	<i>Miyako Harumi</i>	3
人間椅子	<i>Ningen Isu</i>	2
Ado		1
Superfly		1
Xmas Eileen		1
aiko		1
石川さゆり	<i>Ishikawa Sayuri</i>	1

21.6.13 “we” (俺たち, 俺達, おれたち, オレタチ)

“oretachi” — “we”, plural of 俺 (male term, rough or arrogant)

“numFound”: 513

Band	何曲
DA PUMP	76
JAM Project	63
サザンオールスターズ	<i>Southern All Stars</i> 50
RADWIMPS	38
ORANGE RANGE	35
ザ・ハイロウズ	<i>The High-Lows</i> 27
BEGIN	25
ザ・クロマニヨンズ	<i>The Cro-Magnons</i> 23
GReeeeN	15
B'z	14
ゆず	<i>Yuzu</i> 14
人間椅子	<i>Ningen Isu</i> 12
AKB48	11
BUMP OF CHICKEN	11
SMAP	11
Mr.Children	10
THE BLUE HEARTS	10
河島英五	<i>Kawashima Eigo</i> 10
石川さゆり	<i>Ishikawa Sayuri</i> 10
都はるみ	<i>Miyako Harumi</i> 9
ONE OK ROCK	7
L'Arc~en~Ciel	6
ゴールデンボンバー	<i>Golden Bomber</i> 5
DREAMS COME TRUE	4
米津玄師	<i>Yonezu Kenshi</i> 4
back number	3
GACKT	2
MONGOL800	2
徳永英明	<i>Tokunaga Hideaki</i> 2
Aimer	1
aiko	1
いきものがかり	<i>Ikimonogakari</i> 1
カネコアヤノ	<i>Kaneko Ayano</i> 1

21.6.14 “we” (我々, 我我, われわれ)

“wareware” — a collective “we” to represent a group of people (as in “we the people...”)

“numFound”: 10

Band		何曲
サザンオールスターズ	<i>Southern All Stars</i>	2
ザ・クロマニヨンズ	<i>The Cro-Magnons</i>	2
GReeeeen		1
ORANGE RANGE		1
RADWIMPS		1
THE BLUE HEARTS		1
ゴールデンボンバー	<i>Golden Bomber</i>	1
人間椅子	<i>Ningen Isu</i>	1

21.6.15 “we” (わたくしたち)

“watakushitachi” — “we”, plural of わたくしたち (very formal or snob)

“numFound”: 2

Band	何曲
ORANGE RANGE	1
back number	1

Part VII

Other Solr features

22 “More Like This”

22.1 What is “More Like This”?

“More Like This” is a feature which, given a document, will:

1. extract a list of “interesting terms” (based on TF-IDF: *term frequency-inverse document frequency*, see section 10) from a certain field
2. find other documents with similar terms in them

22.2 Enabling “More Like This”

In Solr, the “More Like This” feature is not accessible by default. You need to add a request handler before you can start using it. This can be done by either editing the `solrconfig.xml`, or by via the Config API.

We will activate it with the Config API, similar to this:

```
curl -X POST -H 'Content-type:application/json' -d '{
  "add-requesthandler": {
    "name": "/mlt",
    "class": "solr.MoreLikeThisHandler",
    "defaults": {"mlt.fl": "lyrics_txt_ja"}
  }
}' "http://${HOST}:${PORT}/solr/${CORE}/config"
```

This is done in our script `mysolr.sh`, which is was featured on page 23.

All you need to do to enable “More Like This” is call:

```
./mysolr.sh enable_mlt
```

22.3 Accessing “More Like This”

Unlike with regular query (section 19 — *Using Solr*), the “More Like This” feature does not have a dedicated page with a User Interface that you can access through the browser. Instead, we need to query “More Like This” via HTTP requests, at:

```
http://localhost:8983/solr/songs_jp/mlt?...
```

The “More Like This” feature requires some query parameter (usually `q`) that will return one document (it is possible to have a query that returns more than one document, but the list of “interesting terms” will be shorter and therefore, the suggested documents will be less relevant).

For this reason, we recommend using a query based on the `id` field.

For example:

```
q=id:"THE BLUE HEARTS -- 歩く花" ← (this need to be URL-encoded)
```

After that, we need to specify the parameters related to “*More Like This*”, the documentation of which can be found here:

<https://solr.apache.org/guide/solr/latest/query-guide/morelikethis.html>

Below are the parameters that we will focus on:

- *mlt.fl*
The field (or list of fields) to use for similarity. For better performance, it is advisable that these fields use `termsVectors` that are *stored*.
This parameter is *required*, but in the configuration (section 22.2) we already specified to use the field `lyrics_txt_ja`, so we won’t have to specify this parameter every time in the URL.
- *mintf* (default: 2)
The minimum frequency below which terms will be ignored in the source document.
The default is 2 (i.e. repeating terms).
However, our texts are short, and there usually aren’t a lot of repeating terms outside of the chorus. So we will set this to 1.
- *mlt.interestingTerms* (default: none)
Shows the top terms used by the “*More Like This*” query (based on TF-IDF: *term frequency-inverse document frequency*).
Possible values: `none`, `list`, `details`.
- *mlt.boost* (default: false)
Specifies if the query will be boosted by the interesting term relevance.

22.4 Example

Below is a script that will illustrate how to query the “*More Like This*” feature:

```
get_mlt.sh
#!/usr/bin/bash

# This source code is under the BSD License
# Copyright 2022 Pierre S. Caboche

BASE_URL=${BASE_URL:-http://localhost:8983}
CORE=${CORE:-songs_jp}

id=$1

curl -X --get --data-urlencode "q=id:\"${id}\" \" \
  \"${BASE_URL}/solr/${CORE}/mlt?mlt.interestingTerms=list&mlt.boost=true&
  ↪ mlt.mintf=1"
```

Let’s call it on a document of `id`: “GReeeeN - 風” (a song called “風” - *kaze* - “Wind”, by band “GReeeeN”):

```
./get_mlt.sh 'GReeeeN -- 風'
```

The response from Solr will be in JSON format.

Results:

“interesting terms”:

そんな	<i>sonna</i>	such, that sort of, that kind of
未来	<i>mirai</i>	the future (usually distant)
どの	<i>dono</i>	which, what
想い	<i>omoi</i>	thought
遠い	<i>toi</i>	far, distant, far away
探す	<i>sagasu</i>	to search for, to look for, to hunt for, to seek
選べる	<i>erabu</i>	to choose, to select
どんな	<i>donna</i>	what kind of, what sort of
清い	<i>kiyoi</i>	clear, pure, noble
流れる	<i>nagareru</i>	to stream, to flow (liquid, time, etc.)
行く	<i>iku</i>	to go
描く	<i>egaku</i>	to draw
飛ぶ	<i>tobu</i>	to fly, to soar
新しい	<i>atarashii</i>	new
ゆく	<i>iku</i>	行く : to go
舞う	<i>mau</i>	to dance
まだ	<i>mada</i>	still, as yet, only
乗せる	<i>noseru</i>	to place on (something)
風	<i>kaze</i>	wind
花びら	<i>hanabira</i>	(flower) petal
場所	<i>basho</i>	place, location, spot, position
ヒラヒラ		
吹く	<i>fuku</i>	to blow (of the wind)
私	<i>watashi</i>	I, me (Pronoun, slightly formal or feminine)

“docs”:

Band	Title
松任谷由実	Flying Messenger
AKB48	風は吹いている
fripSide	rain of blossoms
ゆず	歩行者優先
BUMP OF CHICKEN	(please) forgive
いきものがかり	スパイス・マジック
ゆず	風に吹かれた
fripSide	an evening calm
Kiroro	落書き
fripSide	colorless fate -version 2018-

The list of similar songs that Solr found is comprised of: 5 different songs by AKB48, 2 songs by GReeeeN, and 2 songs by Tokunaga Hideaki (徳永英明).

22.5 Usage

In section 22.1 we showed what the “*More Like This*” feature can be used for.

The example allowed us to better visualise “*More Like This*” in action:

- the “*interesting terms*” gives us a list of terms that are characteristic of the song, and make it distinctive
- the “*docs*” list can help us discover the songs whose lyrics have some commonalities with the song being studied. This can help us choose which songs to explore next.

Part VIII

ElasticSearch

In the previous parts, we saw the general concepts behind full-text search, lemmatisation, faceting, etc. We saw how to use Solr to generate some statistics about word usage in Japanese songs, and then we ran this tool on a few thousand songs from a variety of artists (part VI).

Now we are going to do the same with ElasticSearch, currently the most popular enterprise search engine.

Many of the concepts we have seen so far also apply to ElasticSearch. There are, of course, a number of differences in terms of setup, configuration, syntax, etc. However, the general steps are the same (running the server, create the collection, input some documents, query the collection...)

Also, at every step of the way, we know what kind of result to expect since we have already done the same in Solr.

23 Starting ElasticSearch

Like with Solr, we are going to run ElasticSearch (and other related tools) using Docker.

I tried to run the latest version of ElasticSearch (currently: 8.3.3) and followed the official documentation:

<https://www.elastic.co/guide/en/elasticsearch/reference/current/docker.html>

However, I (and other people on the internet) invariably ended up with the same error:

```
ERROR: for kibana Container "....." is unhealthy.  
ERROR: Encountered errors while bringing up the project.
```

This is the reference guide for the latest version. Hopefully these issues would be resolved in the future (for version 8 or later).

So for this article, we will stick with ElasticSearch version 7.17.5.

Unlike Solr, the Kuromoji plugin is not installed by default in ElasticSearch. This means we need to build a custom Docker image for ElasticSearch with Kuromoji installed. For this, we need a Dockerfile:

es_kuro/Dockerfile

```
FROM docker.elastic.co/elasticsearch/elasticsearch:7.17.5
```

```
# Install the "kuromoji" plugin
```

```
RUN bin/elasticsearch-plugin install analysis-kuromoji
```

For better ease of use and access to other features, we will interact with Elasticsearch by using Kibana. This means we need to configure them to run together.

An easy way to do this is by using `docker-compose`:

```
docker-compose.yml
```

```
version: '3.7'

services:
  elasticsearch:
    build: es_kuro/.
    environment:
      - "discovery.type=single-node"
      - "ES_JAVA_OPTS=-Xms512m -Xmx512m"
    expose:
      - "9200"
    ports:
      - "9200:9200"

  kibana:
    image: kibana:7.17.5
    environment:
      - "elasticsearch.hosts=[ 'http://es_kuro:9200' ]"
    links:
      - "elasticsearch"
    ports:
      - "5601:5601"
```

The `docker-compose.yml` file defines how the services will run together (in an isolated environment).

It also indicates that we need to build a custom Docker image for our Elasticsearch service (so that it comes with the `kuromoji` plugin installed, as seen in the previous step).

All this (and more) is described in the `docker-compose.yml` file.

Now all we need to do is run the following command:

```
docker-compose up
```

From there, `docker` and `docker-compose` will take care of:

- downloading the Docker images that we will need (ElasticSearch and Kibana, both at version 7.15.5)
- building our custom ElasticSearch
- running our services with the configuration specified in the file

If the previous command ran without issue, you should be able to connect to Kibana at the following URL:

`http://localhost:5601`

To stop ElasticSearch and Kibana, just press `Ctrl + C` in the terminal where `docker-compose` is running. The servers will stop gracefully.

Pressing `Ctrl + C` a second time will force ElasticSearch and Kibana to stop.

24 Using Kibana

If you followed the instructions from section 23, then Kibana should be running, and accessible at:

`http://localhost:5601`

Following this URL should lead you to Kibana's start page:

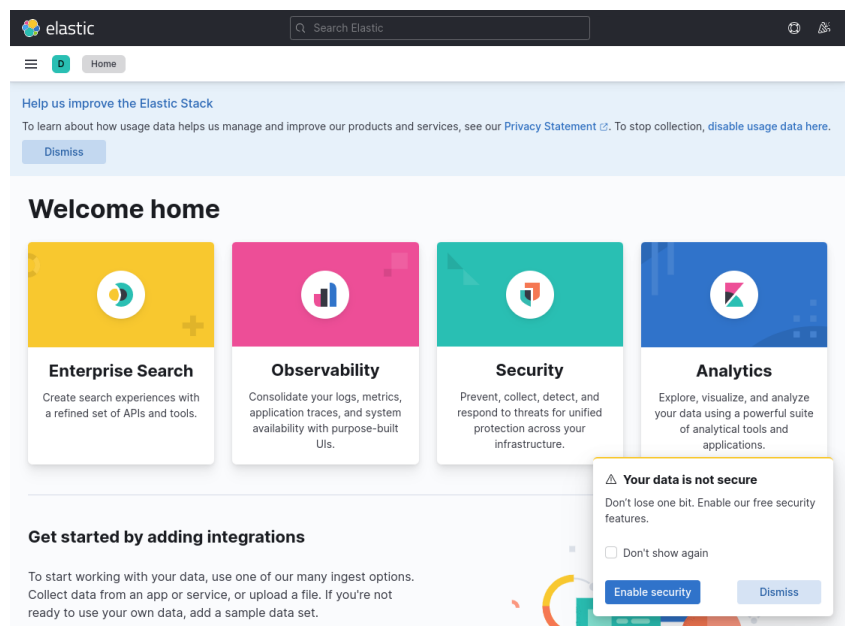


Figure 5: Kibana's start page

From there, it is possible to explore the different Kibana components, import some sample datasets, create Dashboards... and learn more about Kibana and Elasticsearch in general.

For this article, we will only need to use the development tools from Kibana...

Note: we could use any tool that allows to perform HTTP requests to the Elasticsearch server, but Kibana comes with some extra features as well as auto-completion.

To access Kibana’s Dev Tools, click on the “hamburger” menu (top left) » then scroll down to “Management” and select “Dev Tools”:

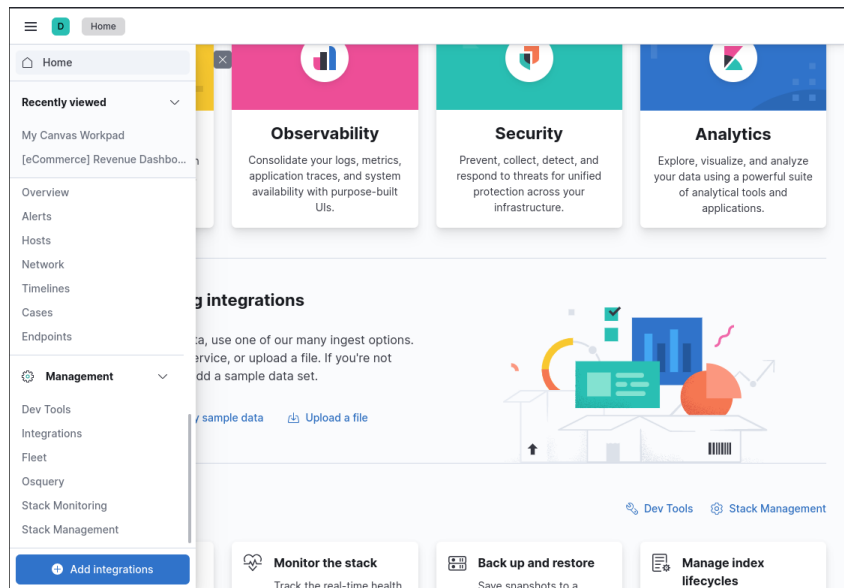


Figure 6: Menu to access Kibana’s Dev Tools

This will lead you to the following screen:

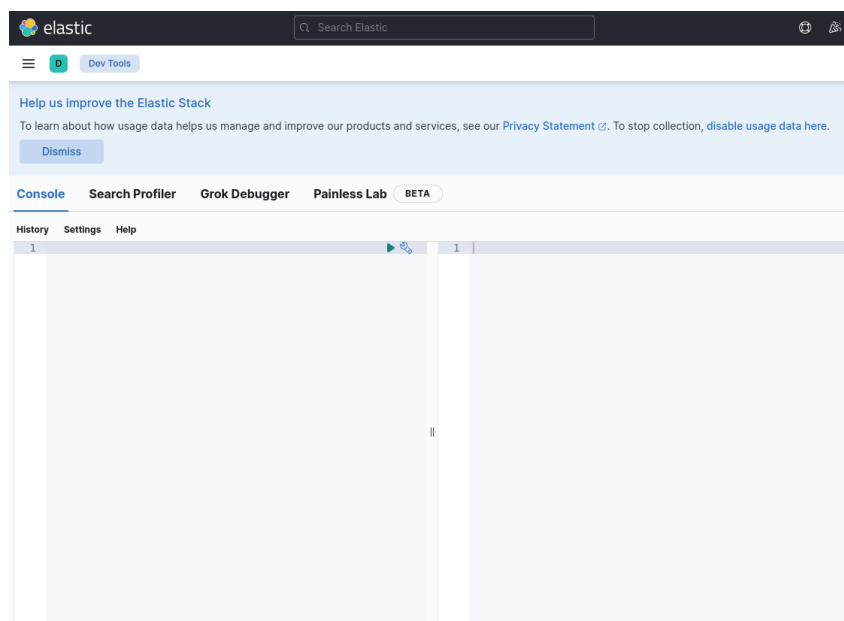


Figure 7: Kibana’s Dev Tools

On the left side, you can type the HTTP requests to send to Elasticsearch (we will see some examples in section 25). The server’s responses will be displayed on the right.

25 Using Elasticsearch

25.1 Testing that Kuromoji works

The first thing we will do is see if the *kuromoji* plugin works, by trying to process some text:

```
POST _analyze
{
  "tokenizer": "kuromoji_tokenizer",
  "text": ""普通の星の下に生まれ 普通の星の下を歩き
普通の下で 君と出会う 特別な恋をする""
  ,
  "filter": [
    "kuromoji_baseform"
    , "kuromoji_part_of_speech"
    , "cjk_width"
    , "ja_stop"
    , "kuromoji_stemmer"
    , "lowercase"
  ]
}
```

The result is as follows (edited for brevity):

```
{
  "tokens" : [
    {
      "token" : "普通",
      "start_offset" : 0,
      "end_offset" : 2,
      "type" : "word",
      "position" : 0
    },
    {
      "token" : "星",
      "start_offset" : 3,
      "end_offset" : 4,
      "type" : "word",
      "position" : 2
    },
    {
      "token" : "下",
      "start_offset" : 5,
      "end_offset" : 6,
      "type" : "word",
      "position" : 4
    },
    {
      "token" : "生まれる",
      "start_offset" : 7,
      "end_offset" : 10,
      "type" : "word",
      "position" : 6
    },
    {
      "token" : "普通",
      "start_offset" : 11,
      "end_offset" : 13,
      "type" : "word",
      "position" : 7
    },
    (...)
  ]
}
```

So as you can see, the *kuromoji* plugin works. We can also see the result of tokenisation (lexeme, offsets, type, position).

25.2 Creating a core (collection)

Next, we create a core called `/song_jp` :

```
PUT /song_jp
{
  "settings": {
    "index": {
      "analysis": {
        "analyzer": {
          "jp_analyser": {
            "tokenizer": "kuromoji_tokenizer",
            "filter": [
              "kuromoji_baseform",
              "kuromoji_part_of_speech",
              "cjk_width",
              "ja_stop",
              "kuromoji_stemmer",
              "lowercase"
            ]
          }
        }
      }
    }
  },
  "mappings": {
    "dynamic_templates": [
      {
        "txt_japanese": {
          "match_mapping_type": "string",
          "match": "*_txt_ja",
          "mapping": {
            "type": "text",
            "analyzer": "jp_analyser",
            "term_vector": "with_positions_offsets",
            "store": true,
            "fielddata": true
          }
        }
      }
    ],
    {
      "str": {
        "match_mapping_type": "string",
        "match": "*_str",
        "mapping": {
          "type": "keyword"
        }
      }
    }
  ]
}
```

First we need to configure an analyser for text in Japanese. We need to give it a name: `jp_analyser`.

This analyser will use the *kuromoji* tokeniser (`kuromoji_tokenizer`).

In Solr, we decided to use dynamic fields (section 15.2):

- `*_txt_jp` : fields of Solr type `text_ja` (text which is tokenised by *kuromoji*, and then indexed and stored)
- `*_str` : fields of Solr type `strings` (string values that are compared “as is”; ideal for: tags, categories, etc.)

We want to do the same with Elasticsearch:

- `*_txt_jp` : fields of Elasticsearch type `text`, tokenised by *kuromoji*, with positions and offsets, stored
- `*_str` : fields of Solr type `keyword`

Finally, the `*_txt_jp` fields are declared with `"fielddata":true`. This is necessary to do some *aggregations* on a field type `text` (as we will see in section 25.6), but it uses more memory.

All these fields are defined in `"dynamic_templates"`.

25.3 Deleting a core (collection)

If at any point you need to delete a core (e.g. to recreated it), perform the following action:

```
DELETE /song_jp
```

25.4 Adding a document

Adding a document is done with the following HTTP request:

```
POST /song_jp/_doc/1
{
  "band_str": "Band name",
  "lyrics_txt_ja":
  """
  The song lyrics go there...

  (but because of copyright law,
  I cannot give you an actual example)

  """
}
```

The document id is part of the URL (which means it must be URL-encoded).

25.5 Viewing the `termsVectors` of a document

To view the *termsVector* used in every field in the document, you can use the following HTTP request:

```
GET /song_jp/_termvectors/1
```

...or if you want the *termsVector* of one field in particular:

```
GET /song_jp/_termvectors/1?fields=lyrics_txt_ja
```

...and you can be precise in your request:

```
GET /song_jp/_termvectors/1?fields=lyrics_txt_ja
{
  "term_statistics": true,
  "field_statistics": true,
  "positions": false,
  "offsets": false,
  "filter": {
    "max_num_terms": 10,
    "min_term_freq": 1,
    "min_doc_freq": 1
  }
}
```

These queries allow to inspect the *termsVectors*, and the type of information they contain.

Result example (edited for brevity):

```
{
  "_index" : "song_jp",
  "_type" : "_doc",
  "_id" : "1",
  "_version" : 1,
  "found" : true,
  "took" : 0,
  "term_vectors" : {
    "lyrics_txt_ja" : {
      "field_statistics" : {
        "sum_doc_freq" : 130,
        "doc_count" : 3,
        "sum_ttf" : 276
      },
      "terms" : {
        "いける" : {
          "term_freq" : 1,
          "tokens" : [
            {
              "position" : 6,
              "start_offset" : 12,
              "end_offset" : 14
            }
          ]
        }
      },
      (...)
    },
    "愛する" : {
      "term_freq" : 4,
      "tokens" : [
        {
          "position" : 108,
          "start_offset" : 208,
          "end_offset" : 211
        }
      ],
      (...)
    }
  }
}
```

```
{
  {
    "position" : 193,
    "start_offset" : 353,
    "end_offset" : 356
  },
  {
    "position" : 199,
    "start_offset" : 363,
    "end_offset" : 366
  },
  {
    "position" : 205,
    "start_offset" : 373,
    "end_offset" : 376
  }
]
},
(...)
}
}
```

25.6 Aggregation on `termsVectors`

Now we reach the part where we want to answer questions of the type: “Which words are the most used in (a certain result-set) ?”

As we have seen many times in section 21 — *Exploring the dataset*, this is done with an aggregation on a text field containing `termsVectors` (and `fielddata`).

```
GET /song_jp/_search
{
  "size": 0,
  "aggs": {
    "test": {
      "terms": {
        "field": "lyrics_txt_ja",
        "size": 100
      }
    }
  }
}
```

This query is only possible if the field used in the *faceting* has been declared with `"fielddata": true`.

If the `"fielddata"` was not set, then we would be met with the following error:

```
"Fielddata is disabled on text fields by default. Set `fielddata=true`
  ↳ on [your_field_name] in order to load field data in memory by
  ↳ uninverting the inverted index. Note that this can however, use "
  ↳ significant memory." - if this happens you can either enable the
  ↳ field-data on that text field, or choose another way to query the
  ↳ data (again, because field-data consumes a lot of memory and is not
  ↳ recommended).
```

We are more interested in the result of the aggregation (list of terms) than the list of documents. So we set the `size` of the result-set (list of documents) to 0.

Then we specify the `size` of the aggregation to the number of terms we want to display (default value: 10).

The result looks something like this:

```
{
  "took" : 24,
  "timed_out" : false,
  "_shards" : {
    "total" : 1,
    "successful" : 1,
    "skipped" : 0,
    "failed" : 0
  },
  "hits" : {
    "total" : {
      "value" : 3,
      "relation" : "eq"
    },
    "max_score" : null,
    "hits" : [ ]
  },
  "aggregations" : {
    "test" : {
      "doc_count_error_upper_bound" : 0,
      "sum_other_doc_count" : 109,
      "buckets" : [
        {
          "key" : "時",
          "doc_count" : 3
        },
        {
          "key" : "何",
          "doc_count" : 2
        },
        {
          "key" : "僕",
          "doc_count" : 2
        },
        {
          "key" : "君",
          "doc_count" : 2
        },
        (...)
      ]
    }
  }
}
```

25.7 Elasticsearch’s “More Like This”

We have talked about the “*More Like This*” queries, and show how to run them in Solr in section 22 — “*More Like This*”.

Performing a “*More Like This*” query in Elasticsearch is easy. Here is an example with one document:

```
GET /_search
{
  "query": {
    "more_like_this": {
      "fields": [ "lyrics_txt_ja" ],
      "like": [
        {
          "_index": "song_jp",
          "_id": "1"
        }
      ],
      "min_term_freq": 1,
      "max_query_terms": 12
    }
  }
}
```

It is also possible to perform a “*More Like This*” query on more than one document, and also one custom text:

```
GET /_search
{
  "query": {
    "more_like_this": {
      "fields": [ "lyrics_txt_ja" ],
      "like": [
        {
          "_index": "song_jp",
          "_id": "1"
        }
      ],
      {
        "_index": "song_jp",
        "_id": "2"
      },
      "You can also perform a 'More Like This' query on custom text, not
        ↪ just on documents."
    ],
    "min_term_freq": 1,
    "max_query_terms": 12
  }
}
```

A notable difference with Solr: in Elasticsearch, you can pass a list of documents or custom strings on which to run the “*More Like This*” query, whereas in Solr you pass a query (which may return one or more documents) and the “*More Like This*” feature is run on the result of this query (as shown in section 22.4).

On one hand, Solr allows you to run “*More Like This*” on the result of a query. On the other hand, Elasticsearch allows you to run “*More Like This*” on a custom query.

In practice though, you would rarely want to run a “*More Like This*” query on more than one document (because the results become less relevant). Being able to run “*More Like This*” on a custom string can be convenient.

<https://www.elastic.co/guide/en/elasticsearch/reference/current/query-dsl-mlt-query.html>

Part IX

Final words

26 Comparing Solr and Elasticsearch

- *Solr is easier to get started with*

Getting Solr started was easy: one `docker run` command and the latest image was downloaded, the container created, and Solr was up and running (for testing purposes). All the results you see in this document were gathered on Solr.

Then I tried to replicate our study in the immensely popular Elasticsearch...

I wanted to run Elasticsearch with Kibana. Although not strictly necessary, Kibana provides ways to interact with Elasticsearch other than through a web API. I wanted to evaluate the UI, and compare it to what Solr provides out-of-the-box.

I read the official documentation for Elasticsearch (currently at version 8.3.3), created the `docker-compose` files as instructed (for Elasticsearch and Kibana), tried to execute them, and was greeted with the following message (for all versions from 8.3.1 to 8.3.3):

```
ERROR: for kibana Container "....." is unhealthy.  
ERROR: Encountered errors while bringing up the project.
```

Version 7.17.5 was easier to get to work.

Unlike with Solr, the *kuromoji* plugin was not installed by default. This meant writing a `Dockerfile` to create a custom image, and a `docker-compose.yml` to run the custom image in a container (with all the parameters that we need).

As you can see, the process was more complicated, and I didn't get to run the latest version despite following the documentation to the letter.

I hope this would be fixed in the future...

- *ElasticSearch has more features*

ElasticSearch in itself has more features, and those features tend to be more advanced. On top of that, there is a whole environment around Elasticsearch: Kibana (for visualisation), and Logstash (for data integration).

ElasticSearch offers some really advanced *aggregations*, while Solr only provides basic *faceting*.

Kibana allows to visualise, explore data, create dashboards, and many other things with the appropriate licence (e.g. Machine Learning).

A clear win for Elasticsearch.

- *Solr is free*

Solr is free (it is under Apache License 2.0)

ElasticSearch has a dual-licence (both proprietary; source-available): the Elastic License, and the Server Side Public License.

27 Conclusion

This article started as a way to teach the basics of Solr, ElasticSearch, indexing for full-text search, *faceting / aggregations* (for which we found some interesting use). Then to illustrate how those principles work, we created a catalogue of songs which we wanted to query in different manners.

This led us to analyse the lyrics of Japanese songs, by running different statistics about word usage (most used words overall, most used words for a particular band or songwriter, list of bands using a certain word the most...)

From a technical point of view, we have learned a number of things:

- fields, types, dynamic fields
- termsVectors, indexing different languages
- *faceting, aggregations, “More Like This”* features
- some of the differences between Solr and ElasticSearch

We tried to give just enough information to understand the main concepts and become operational quickly. Exploring the dataset (which we created to show the tool’s capabilities) would constitute the bulk of this paper.

The tool that we created (a set of scripts to interact with Solr) allow us to run statistics, and find commonalities between songs from different bands, and across genres. Starting with a list of common words (sections 21.2 to 21.4), we can determine the likelihood of a given band to use a certain word (section 21.5), thereby allowing us to establish some sort of profile for certain bands, songwriters, etc.

This idea is taken a step further with the *“More Like This”* feature (section 22). Given one document (song), it is capable to find a list of documents featuring similar terms (based on *term frequency-inverse document frequency*, section 10). The connections it makes is sometimes very surprising (but all based on statistics), and it can help you discover songs with similar lyrics to the ones you already like.

As we add more songs to the dataset, find new “interesting terms” to explore and run statistics on, we get more insights on the bands’ writing styles, and the type of lexicon used in a popular art form.

The data presented in “*section 21 — Exploring the dataset*” are only a fraction of the results we gathered. We can establish more statistics by band or lexemes, more suggestions with the *“More Like This”* feature. The only thing I cannot do is share the dataset, for legal reasons.

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