our legacy platform

our legacy domain / database

Person
id	Integer
reference	String
name	String
dateOfBirth	Date
gender	String
children	Integer
marketing	Marketing
address	Address

Address
id	Integer
country	String
zipcode	String
city	String
countrycode	String
location	GeoPoint

GeoPoint
lat	double
lon	double

Marketing
id	Integer
cars	Integer
shoes	Integer
toys	Integer
fashion	Integer
music	Integer
garden	Integer
electronic	Integer
hifi	Integer
food	Integer

person
id	int
children	int
dateofbirth	timestamp
gender	varchar(255)
name	varchar(255)
address_id	int
marketing_id	int

address_id -> id   marketing_id -> id

MySQL

address
id	int
city	varchar(255)
country	varchar(255)
countrycode	varchar(255)
lat	double precision
lon	double precision
zipcode	varchar(255)

marketing
id	int
cars	int
electronic	int
fashion	int
food	int
garden	int
hifi	int
music	int
shoes	int
toys	int

elastic

demo time

our legacy application

```
$ git clone https://github.com/dadoonet/legacy-search.git
$ git checkout 00-legacy
$ mvn clean install jetty:run
```

Some data

```sql
CREATE TABLE user
(
    name VARCHAR(100),
    comments VARCHAR(1000)
);
INSERT INTO user VALUES ('David Pilato', 'Developer at elastic');
INSERT INTO user VALUES ('Malloum Laya', 'Worked with David at
french customs service');
INSERT INTO user VALUES ('David Gageot', 'Engineer at Docker');
INSERT INTO user VALUES ('David David', 'Who is that guy?');
```

elastic

Search on term

```
INSERT INTO user VALUES ('David Pilato', 'Developer at elastic');
INSERT INTO user VALUES ('Malloum Laya', 'Worked with David at
french customs service');
INSERT INTO user VALUES ('David Gageot', 'Engineer at Docker');
INSERT INTO user VALUES ('David David', 'Who is that guy?');
```

```
SELECT * FROM user WHERE name="David";
Empty set (0,00 sec)
```

elastic

Search like

```
INSERT INTO user VALUES ('David Pilato', 'Developer at elastic');
INSERT INTO user VALUES ('Malloum Laya', 'Worked with David at
french customs service');
INSERT INTO user VALUES ('David Gageot', 'Engineer at Docker');
INSERT INTO user VALUES ('David David', 'Who is that guy?');
```

```
SELECT * FROM user WHERE name LIKE "%David%";
+--------------+----------------------+
| name         | comments             |
+--------------+----------------------+
| David Pilato | Developer at elastic |
| David Gageot | Engineer at Docker   |
| David David  | Who is that guy?     |
+--------------+----------------------+
```

elastic

Search like

```
INSERT INTO user VALUES ('David Pilato', 'Developer at elastic');
INSERT INTO user VALUES ('Malloum Laya', 'Worked with David at
french customs service');
INSERT INTO user VALUES ('David Gageot', 'Engineer at Docker');
INSERT INTO user VALUES ('David David', 'Who is that guy?');
```

```
SELECT * FROM user WHERE name LIKE "%David%Pilato%";
+--------------+-----------------------+
| name         | comments              |
+--------------+-----------------------+
| David Pilato | Developer at elastic  |
+--------------+-----------------------+
```

Search like with inverted terms

```
INSERT INTO user VALUES ('David Pilato', 'Developer at elastic');
INSERT INTO user VALUES ('Malloum Laya', 'Worked with David at
french customs service');
INSERT INTO user VALUES ('David Gageot', 'Engineer at Docker');
INSERT INTO user VALUES ('David David', 'Who is that guy?');
```

```
SELECT * FROM user WHERE name LIKE "%Pilato%David%";
Empty set (0,00 sec)
```

Search in two fields

```
INSERT INTO user VALUES ('David Pilato', 'Developer at elastic');
INSERT INTO user VALUES ('Malloum Laya', 'Worked with David at
french customs service');
INSERT INTO user VALUES ('David Gageot', 'Engineer at Docker');
INSERT INTO user VALUES ('David David', 'Who is that guy?');
```

```
SELECT * FROM user WHERE name LIKE "%David%" OR
                        comments LIKE "%David%";
+---------------+------------------------------------------------+
| name          | comments                                       |
+---------------+------------------------------------------------+
| David Pilato  | Developer at elastic                           |
| Malloum Laya  | Worked with David at french customs service    |
| David Gageot  | Engineer at Docker                             |
| David David   | Who is that guy?                               |
+---------------+------------------------------------------------+
```

elastic

Connecting with our app
Architecture
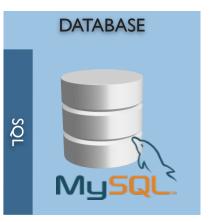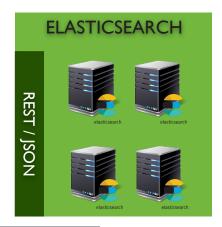
using a ETL
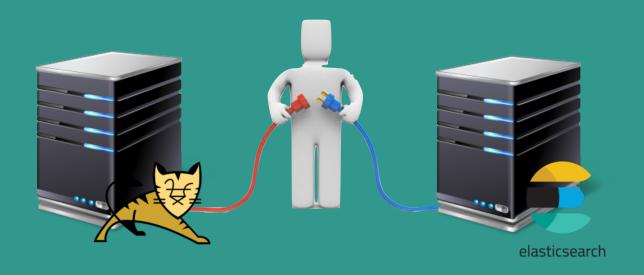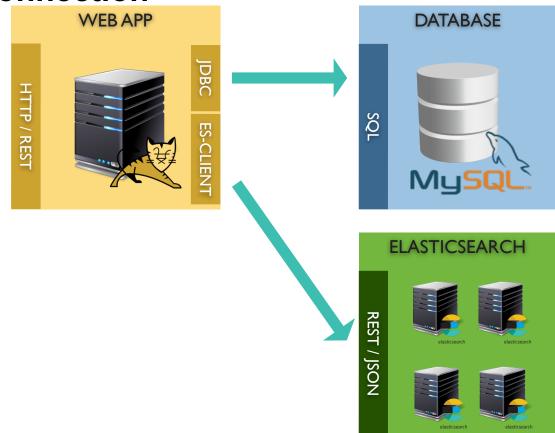
Do It Yourself
Direct Connection

elasticsearch

elastic

direct connection

JSON document design

person	
🔑 id	int
children	int
dateofbirth	timestamp
gender	varchar(255)
name	varchar(255)
address_id	int
marketing_id	int

address	
🔑 id	int
city	varchar(255)
country	varchar(255)
countrycode	varchar(255)
lat	double precision
lon	double precision
zipcode	varchar(255)

marketing	
🔑 id	int
cars	int
electronic	int
fashion	int
food	int
garden	int
hifi	int
music	int
shoes	int
toys	int

```
PUT /person/person/1
{
    "name":"Joe Pink",
    "dateOfBirth":"1971-12-26",
    "address_id":"2",
    "marketing_id":"3"
}
```

```
PUT /person/address/2
{
    "city":"Paris",
    "country":"France"
}
```

```
PUT /person/marketing/3
{
    "cars":1000,
    "food":1500
}
```

elastic

JSON document design

person

🔑 **id**		int
▦ **children**		int
▦ **dateofbirth**		timestamp
▦ **gender**		varchar(255)
▦ **name**		varchar(255)
🔑 **address_id**		int
🔑 **marketing_id**		int

address

🔑 **id**		int
▦ **city**		varchar(255)
▦ **country**		varchar(255)
▦ **countrycode**		varchar(255)
▦ **lat**		double precision
▦ **lon**		double precision
▦ **zipcode**		varchar(255)

marketing

🔑 **id**	int
▦ **cars**	int
▦ **electronic**	int
▦ **fashion**	int
▦ **food**	int
▦ **garden**	int
▦ **hifi**	int
▦ **music**	int
▦ **shoes**	int
▦ **toys**	int

```
PUT /person/person/1
{
    "name":"Joe Pink",
    "dateOfBirth":"1971-12-26",
    "address":{
        "city":"Paris",
        "country":"France"
    },
    "marketing":{
        "cars":1000,
        "food":1500
    }
}
```
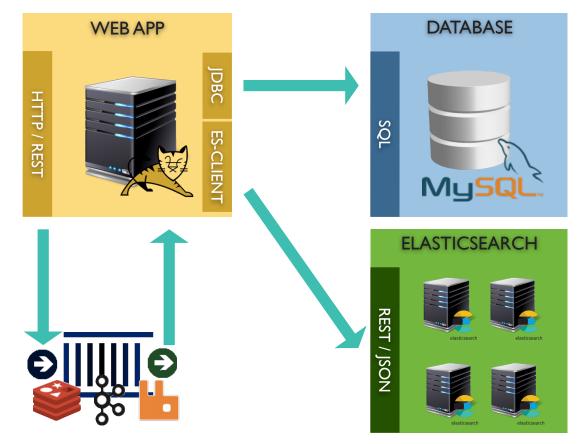
elastic

demo time

direct connection

```
$ git clone https://github.com/dadoonet/legacy-search.git
$ git checkout 01-direct
$ git checkout 02-bulk
$ git checkout 03-mapping
$ git checkout 04-aggs
$ git checkout 05-compute
$ mvn clean install jetty:run
$ cat README.markdown
```
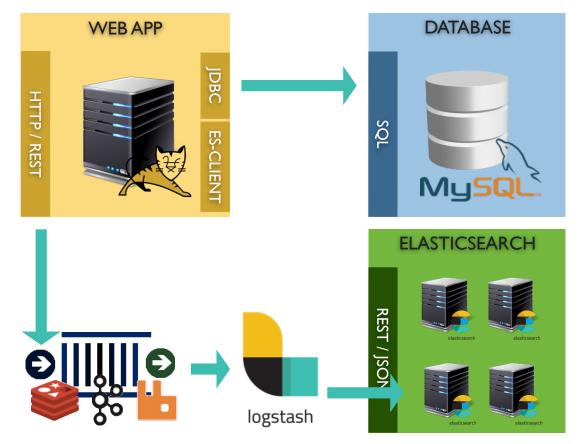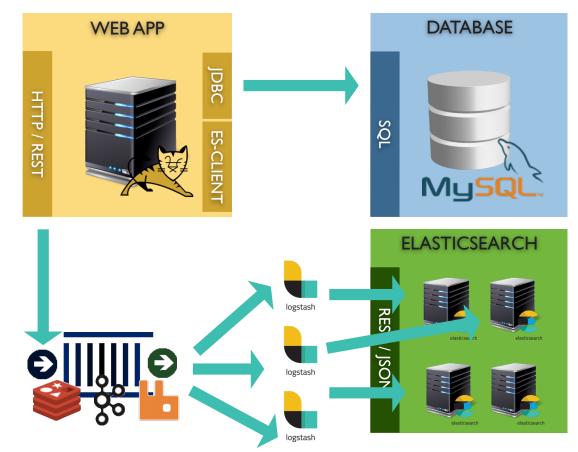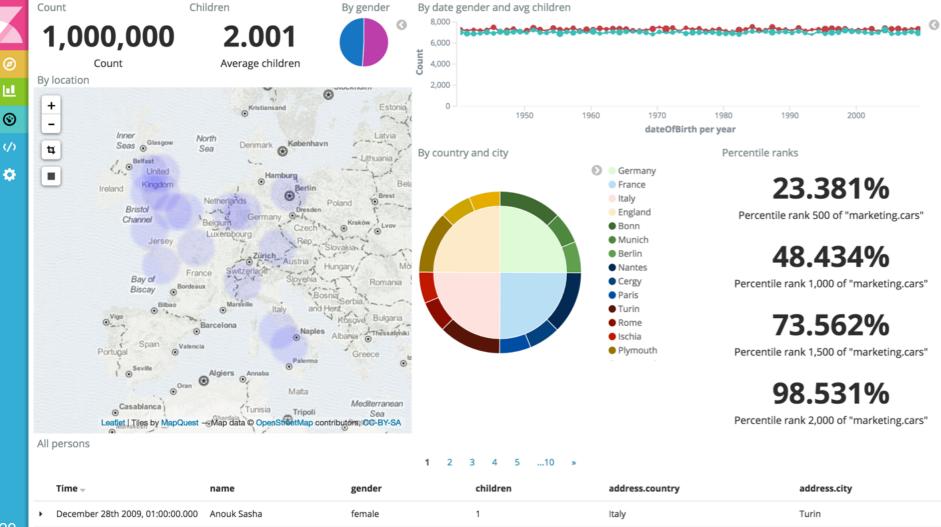
synchronous
vs asynchronous

elastic

using brokers

using brokers

using brokers

COME TO THE DARK SIDE

WE HAVE COOKIES!

elastic

David Pilato
Developer | Evangelist
@dadoonet

спасибо!

https://www.elastic.co/subscriptions

`https://github.com/dadoonet/legacy-search.git`

Joker<?>