

# advanced search for your legacy app



**David Pilato**  
Technical advocate

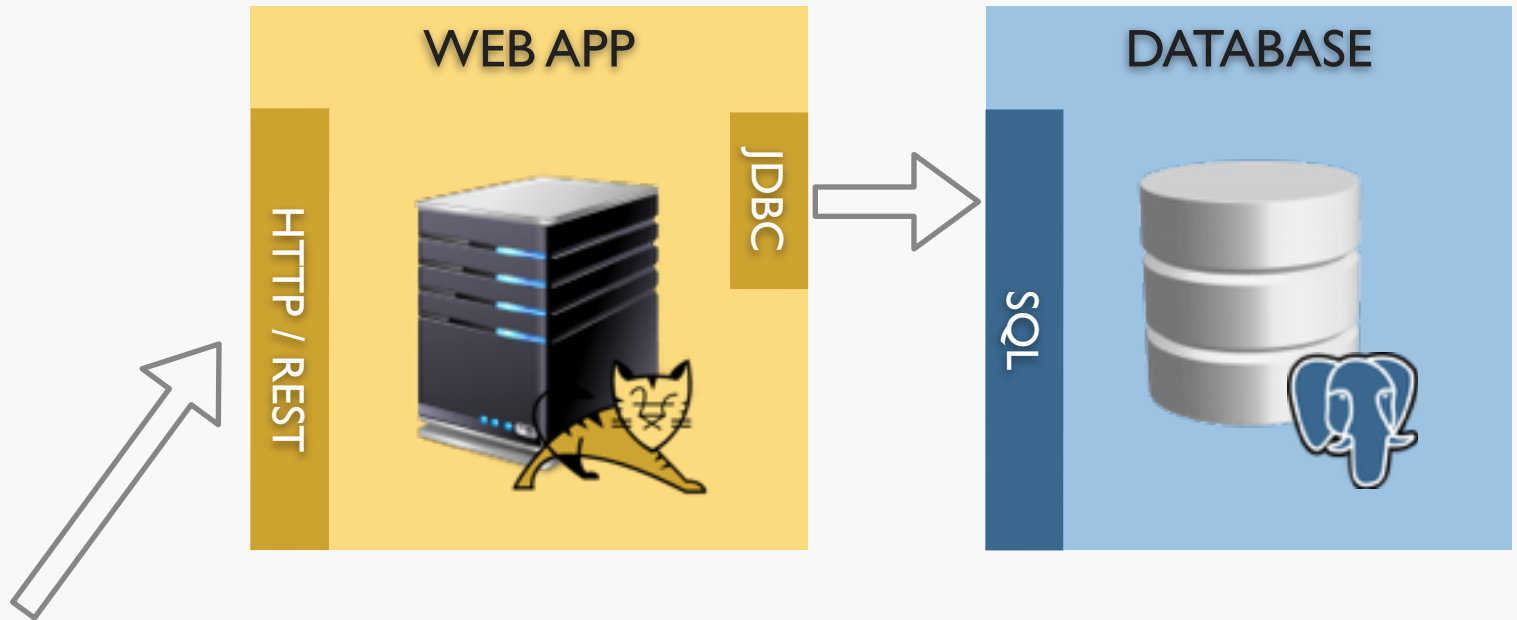


**elasticsearch.**  
@dadoonet

# our use case



# our legacy platform



Contacts Search Advanced

Name... Country... City...

Found 100 hits in 35 ms

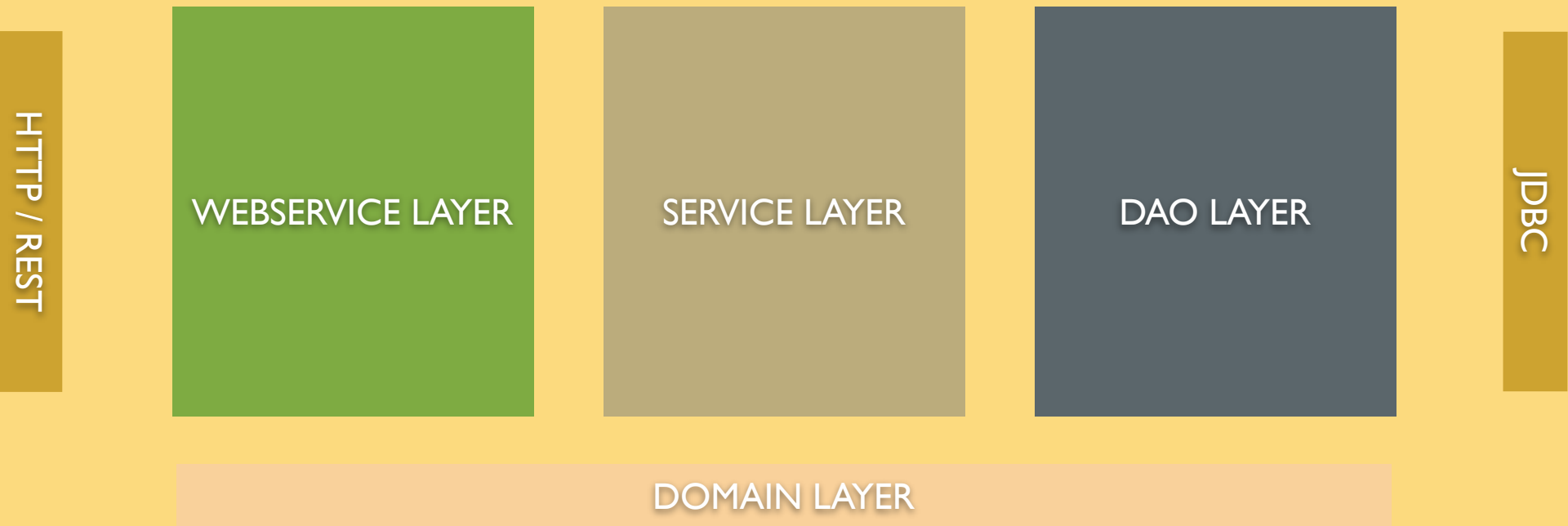
Id	Name	Date Of Birth	City
1	Joe Smith	1977-06-08	Turin
2	Samia Nour	1993-02-13	Turin
3	Eva Kenza	1964-08-26	Bonn



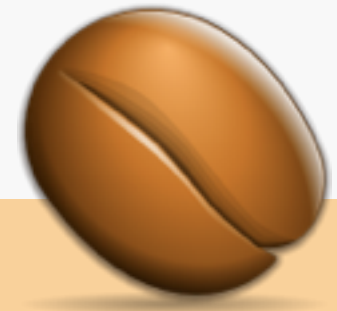
# our legacy application



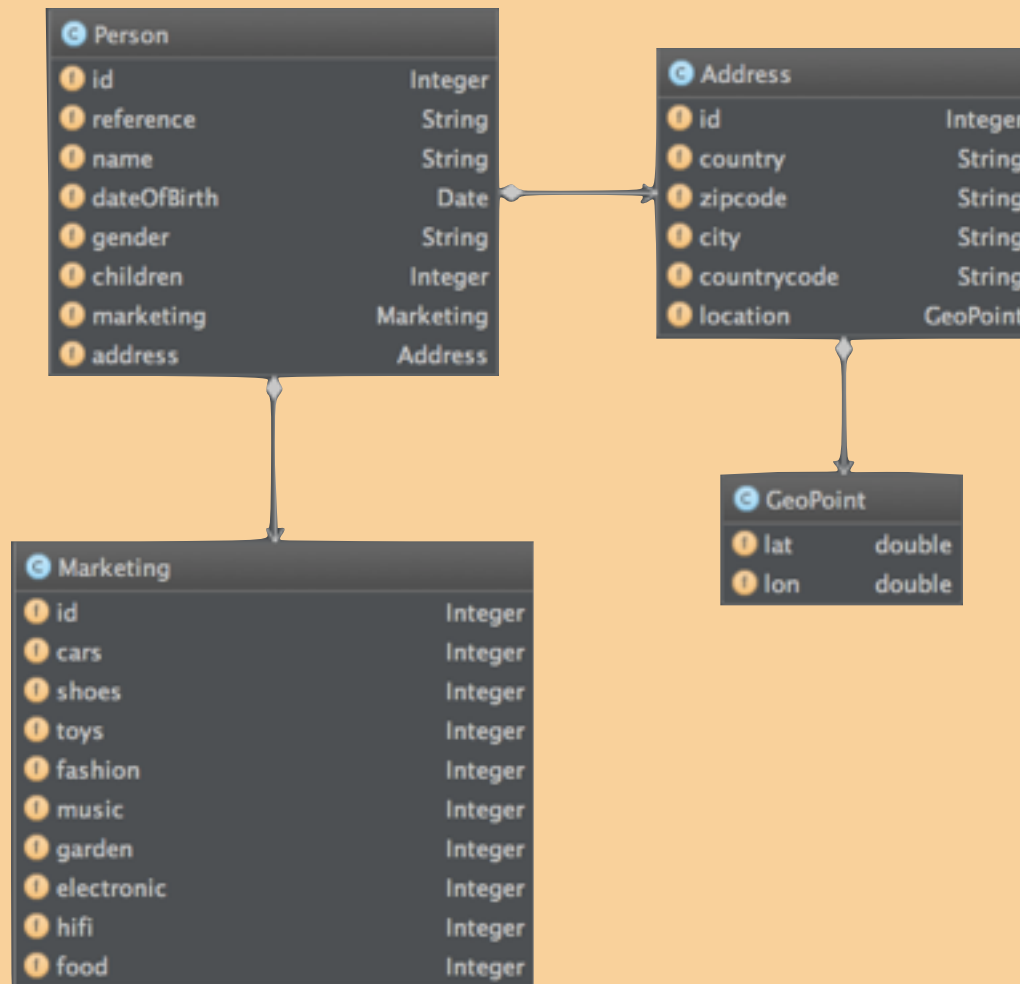
WEB APP



# our legacy domain



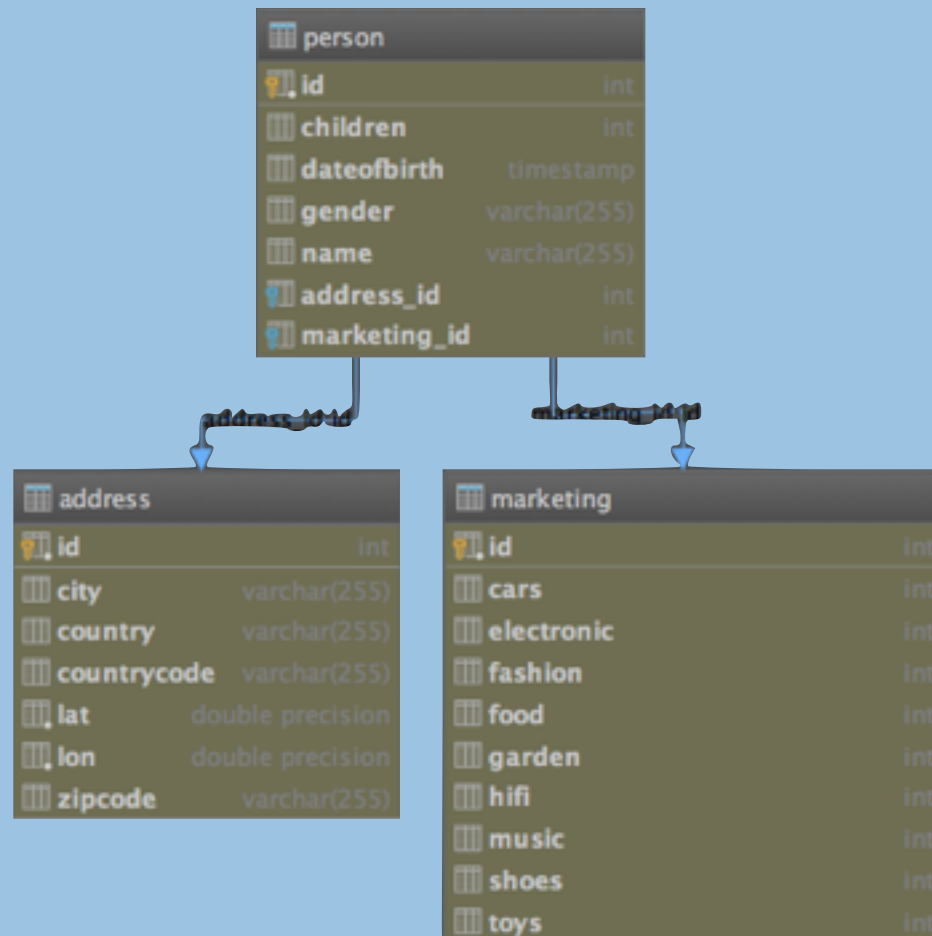
## JAVA BEANS



# our legacy database



## DATABASE



SQL

# demo time

## our legacy app

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



# connecting with our app architecture





# 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
}
```

# 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
  }
}
```

# using a ETL

WEB APP

JDBC

HTTP / REST



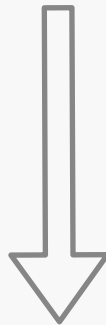
DATABASE

SQL



ELASTICSEARCH

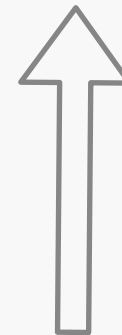
REST / JSON



ETL



talend



# elasticsearch rivers

## JDBC River



# JDBC river

WEB APP

JDBC

HTTP / REST



DATABASE

SQL



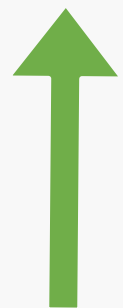
ELASTICSEARCH

REST / JSON



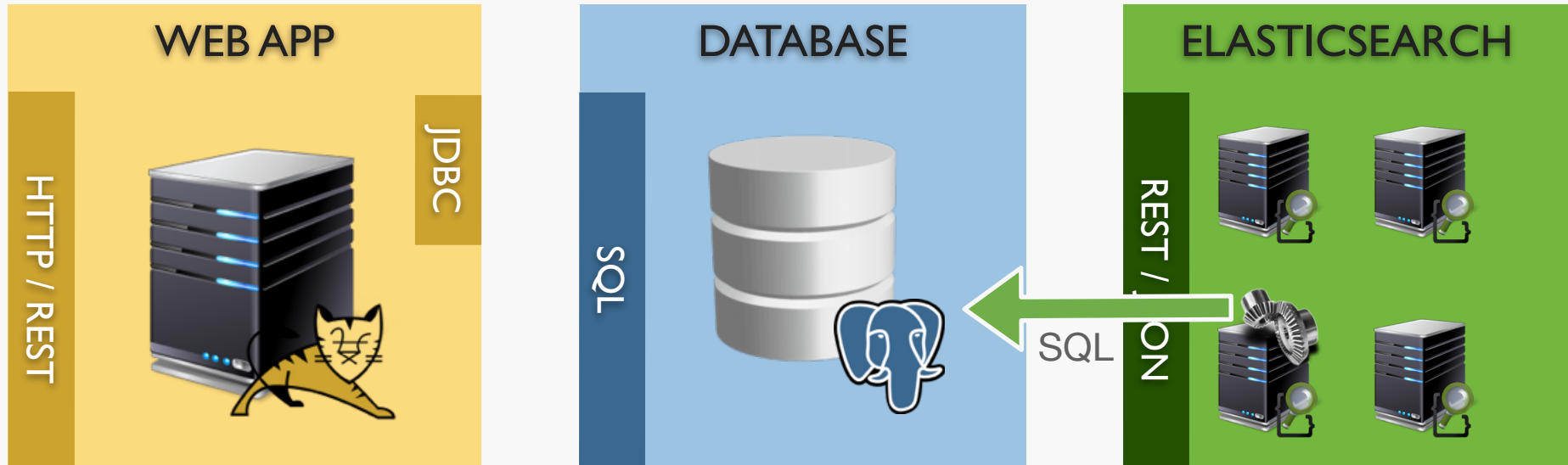
SQL

ETL



JSON

# JDBC river

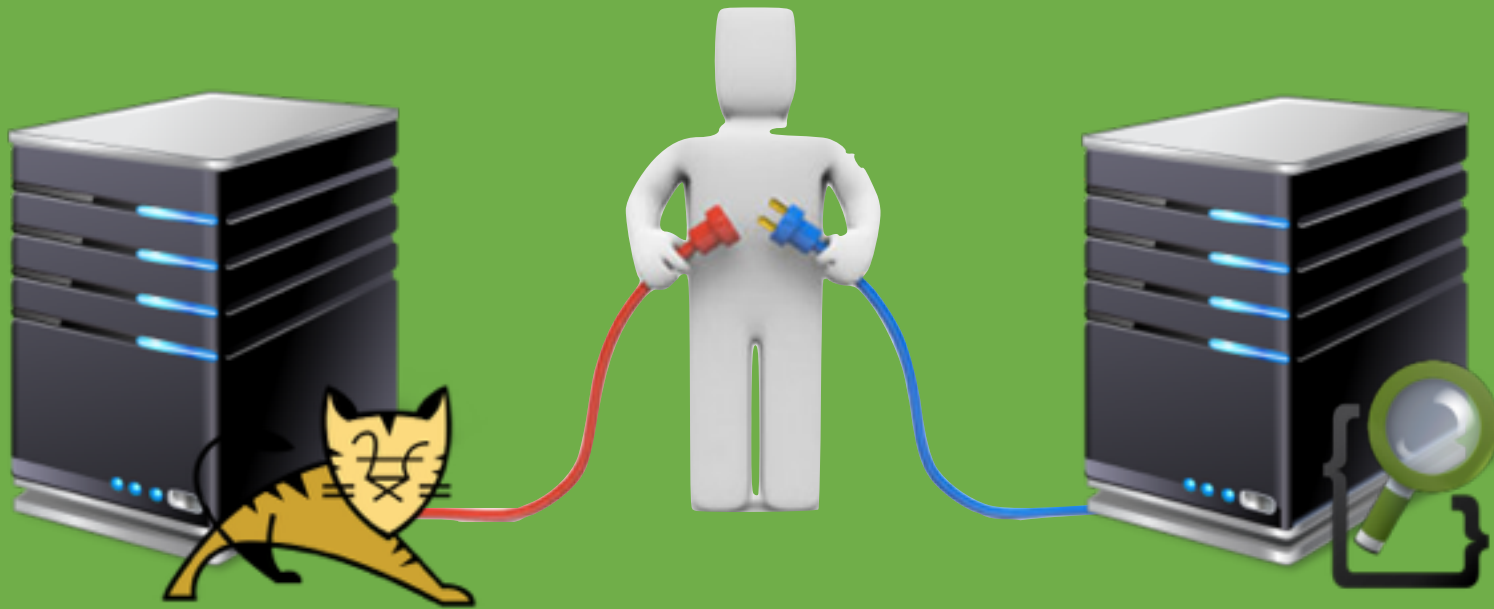






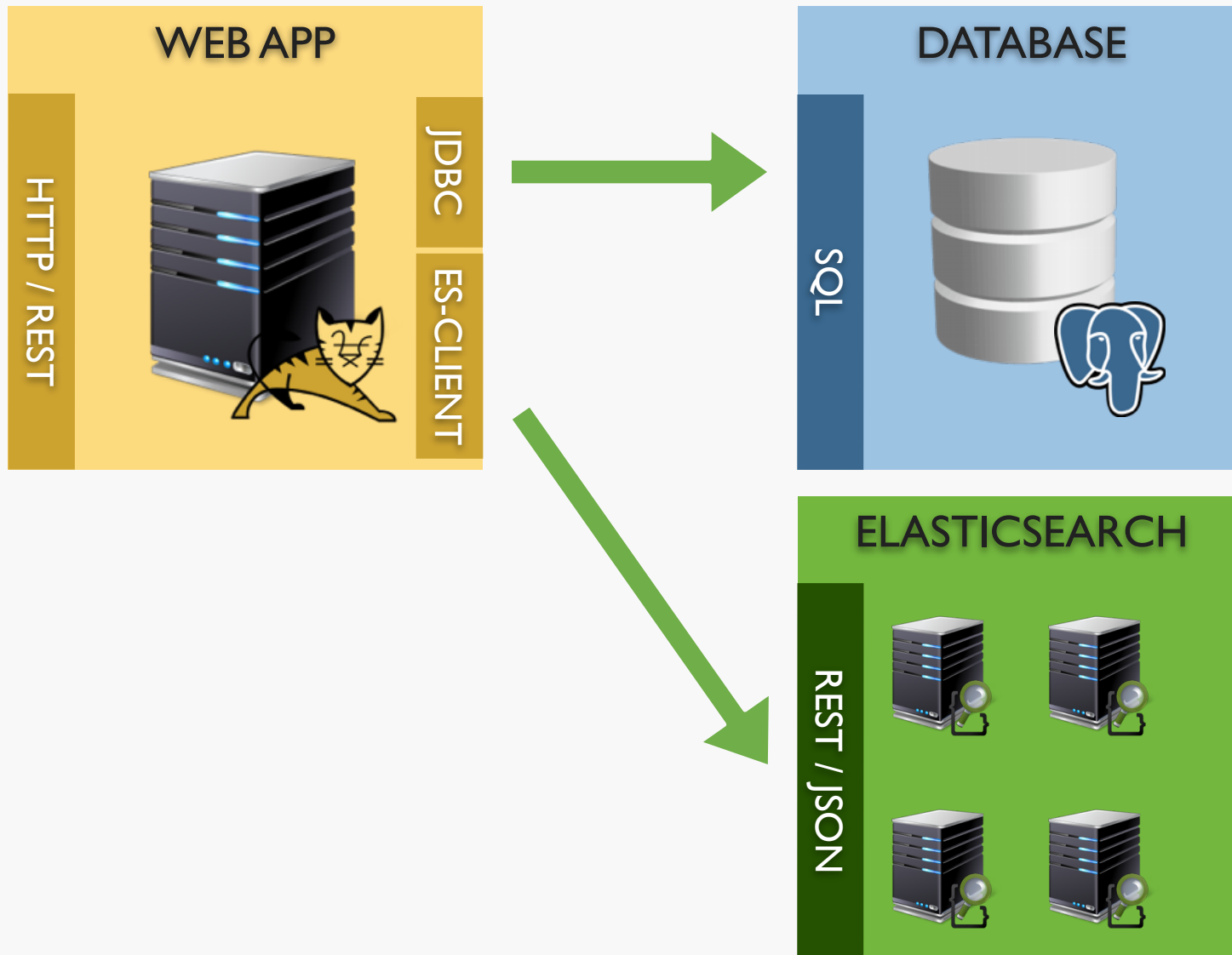
# Do It Yourself

## direct connection





# direct connection




# demo time

## direct connection

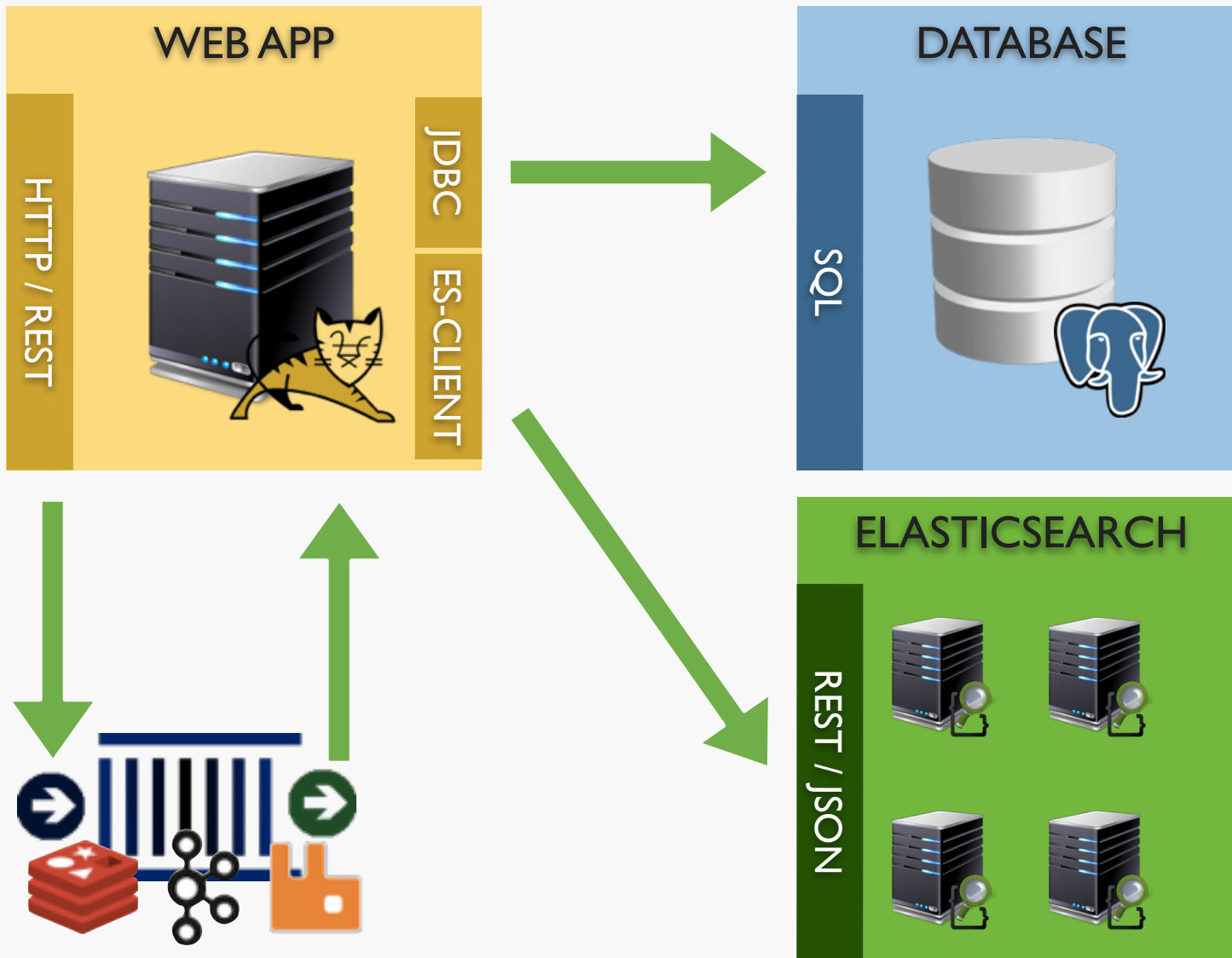
```
$ git checkout 01-direct  
$ git checkout 02-bulk  
$ git checkout 03-mapping  
$ git checkout 04-aggs  
$ git checkout 05-compute  
$ mvn clean install jetty:run  
$ cat README.markdown
```



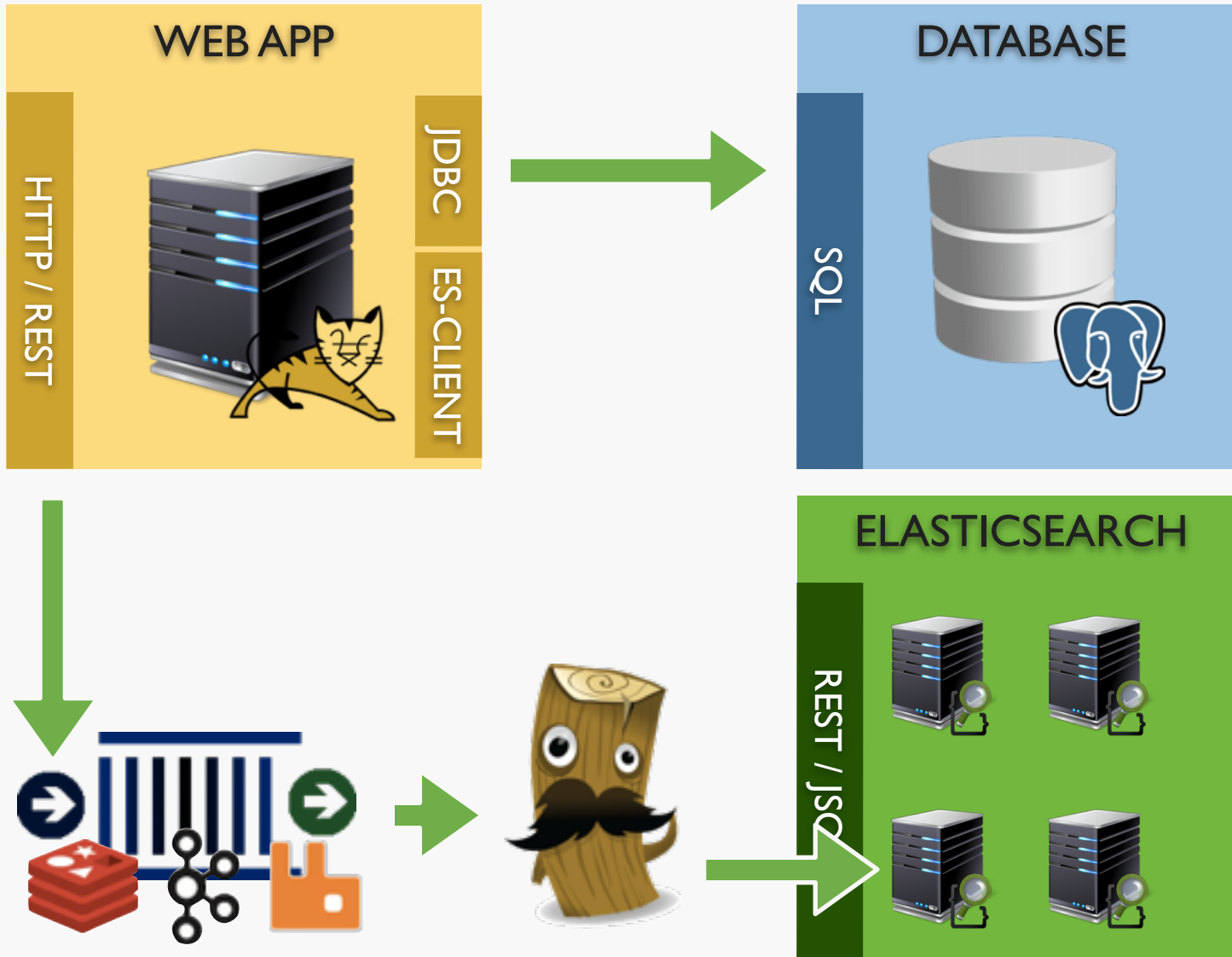


# synchronous vs asynchronous

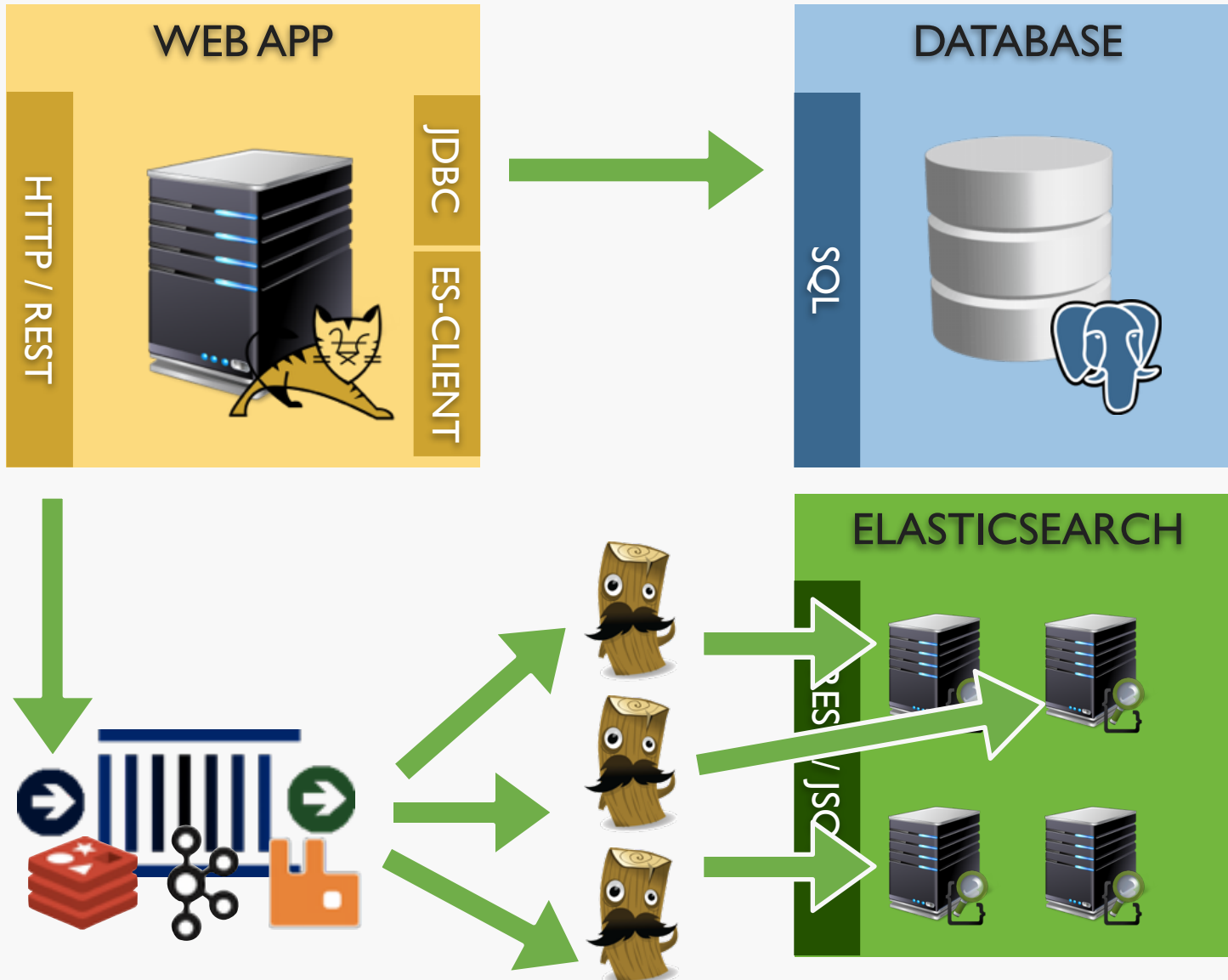
# using brokers



# using brokers



# using brokers





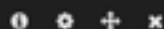
**COME TO THE DARK SIDE**

**WE HAVE COOKIES!**



# kibana

## HITS



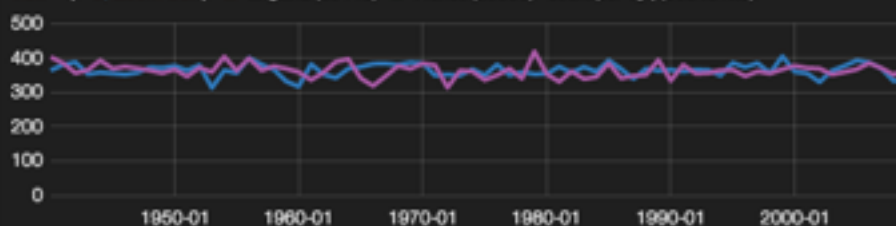
● England (25448) ● France (25385)



## HISTOGRAM



View | Q Zoom Out | ● England (25448) ● France (25385) count per 1y | (50843 hits)



## TERMS



● female (25854) ● male (24989)



## MAP



## TABLE



0 to 100 of 500 available for paging



name	gender	dateOfBirth	children	address.country	address.city	marketing.cars	marketing.food
Rami Honore	male	1957-04-22	0	England	Liverpool	188	613
Balthazar Peda	male	1985-10-21	0	England	Plymouth		
Liv Amy	female	1952-11-20	4	England	Plymouth		723
Filip Adrian	male	1973-11-10	0	England	Plymouth		
Felicle Kadlatou	female	1972-08-09	3	England	Plymouth	1388	
elisa Zachary	female	1996-08-22	0	England	Plymouth		
Sofia Dries	female	1956-03-09	2	England	Liverpool		
Matthias Abdoul	male	1979-09-07	1	England	London	1876	
Jayden Flora	male	1942-07-03	0	England	Plymouth		
Jonah Charlene	male	1981-12-19	2	England	London		
Loyla Mae	female	1983-11-05	0	England	Plymouth		
Maria-Cecilia	female	1979-07-04	1	England	Liverpool		





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<http://elasticsearch.com/support/>

We are hiring!