

HIBERNATE SEARCH 7

**/ Nouveautés et cas pratiques
de la recherche full-text et vectorielle Java**



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Red Hat - Infinispan - Quarkus

2016

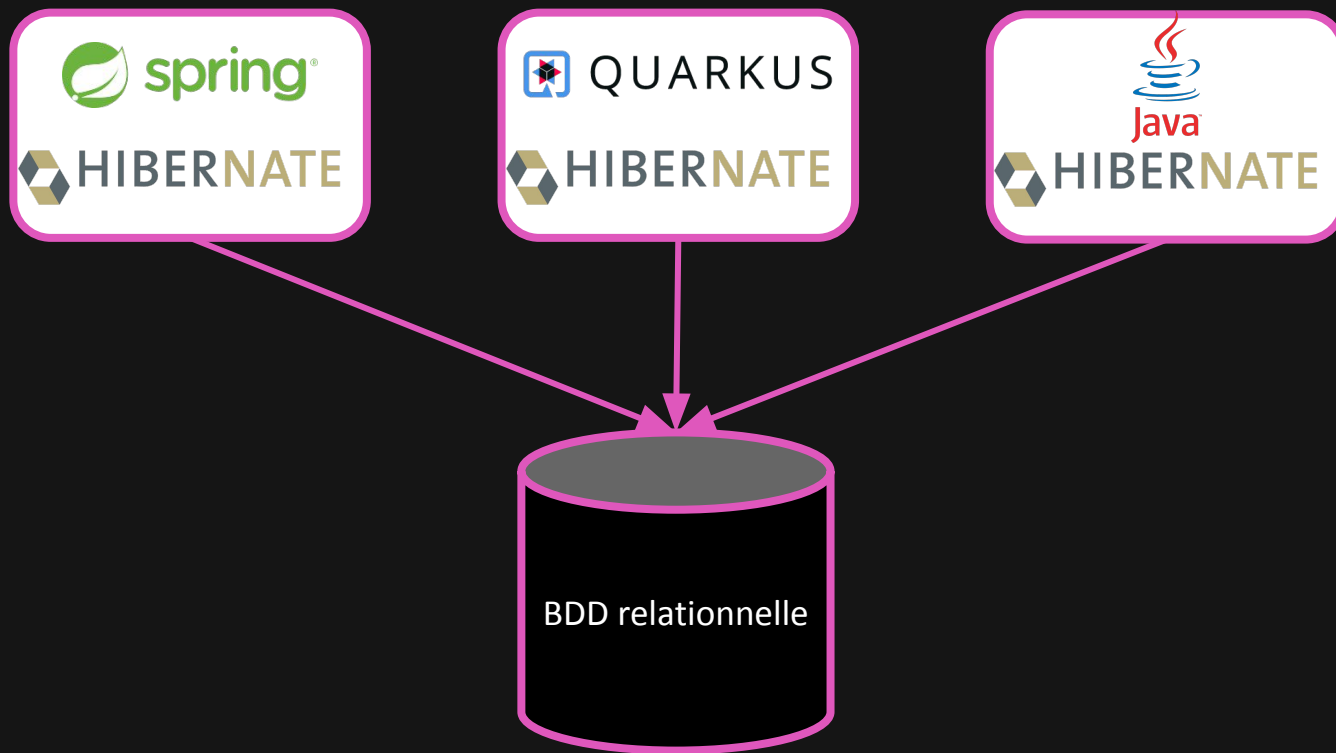


<https://www.youtube.com/watch?v=pQJY-Mu-yGA>



MISSION

Expliquer les fonctionnalités d'Hibernate Search pour les néophytes et les nouveautés pour les utilisateurs aguerris



Intitulé	En cours	x	Etape	
Compétence	DIRM Méditerranée	x		

28 dossiers de balisage					
Intitulé	↓↑	Compétence	Etape	Création	Décision
2021-11-0003 Essai demande de validation		Locale	Consolidation	24/03/2021	
2021-06-0001 Essai demande de validation		Locale	Consolidation	11/03/2021	
2021-11-0002 Essai guide national		Nationale	Réalisation	11/03/2021	11/03/2021

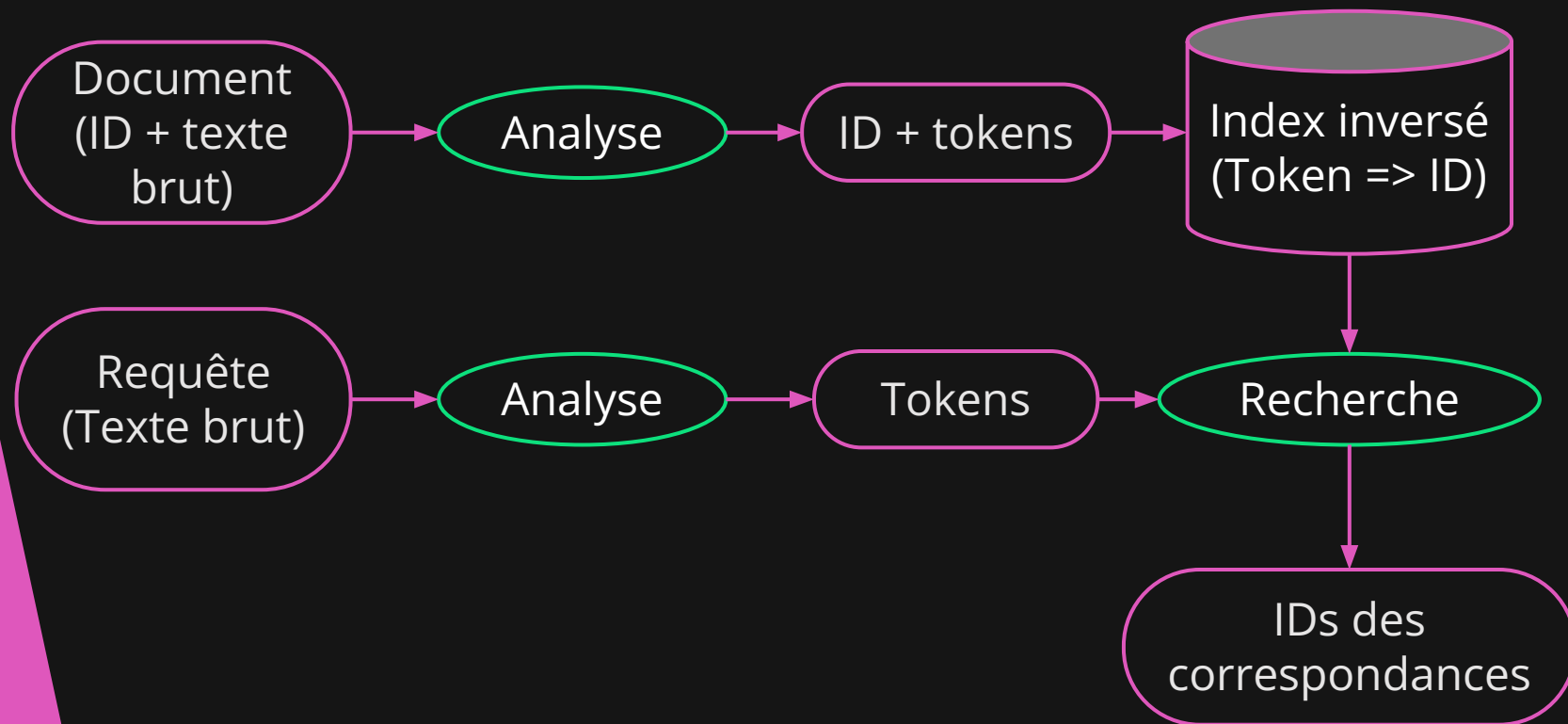
Source: <https://www.kobalt.fr/>

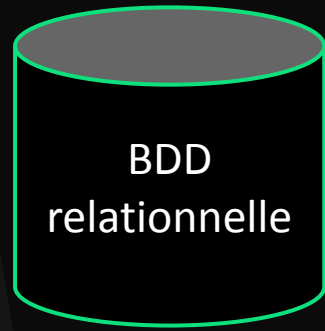
ILIKE '%UN_MOT%'

'kinési**thé**rapie' ILIKE '%thé%'

'pomme' ILIKE '%pomme**s**%'

RECHERCHE FULL TEXT





APACHE
LUCENETM

 **elasticsearch**

 **OpenSearch**





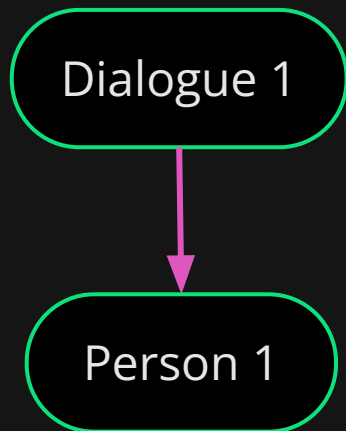
HIBERNATE SEARCH

ORM. Lucene.
Elasticsearch.
Integrated.



DÉMO

HIBERNATE Entités

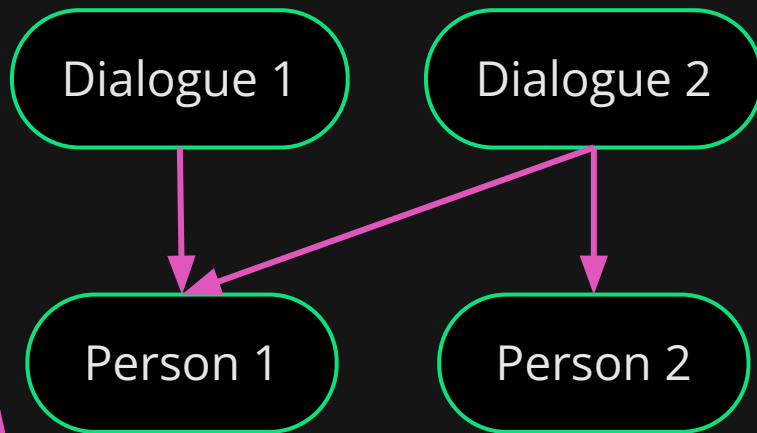


Document

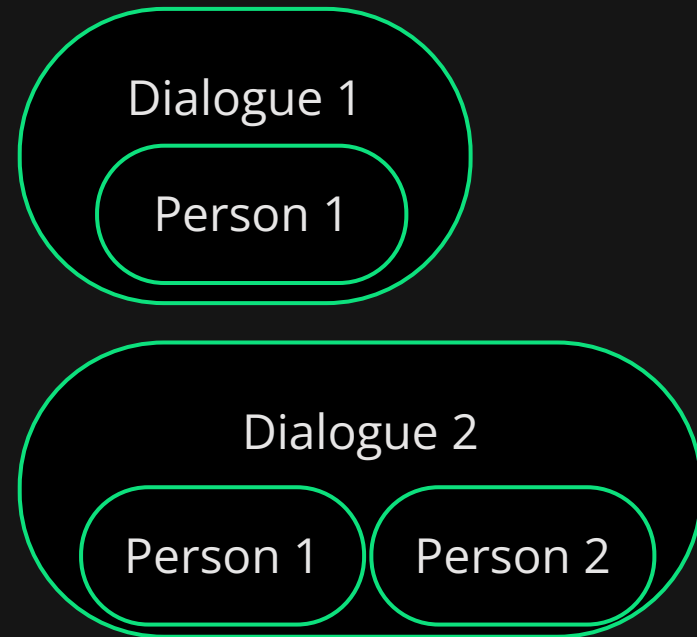


DÉNORMALISATION

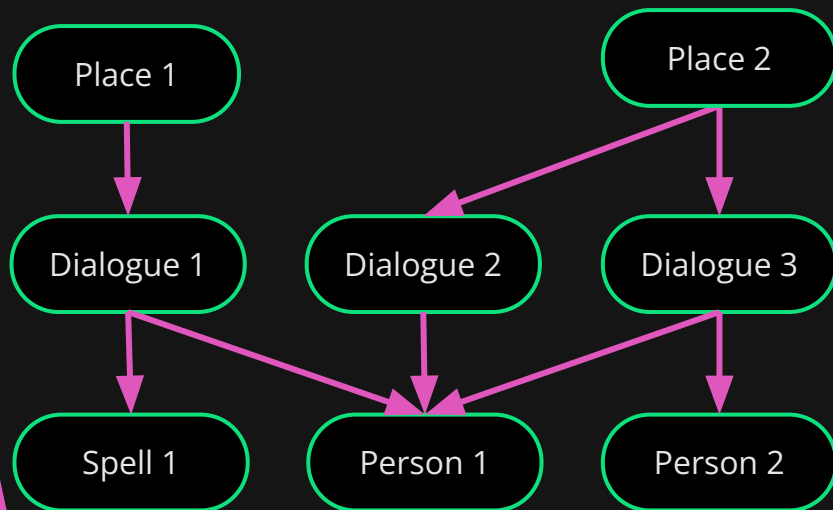
HIBERNATE Entités



APACHE LUCENE Document



HIBERNATE Entités

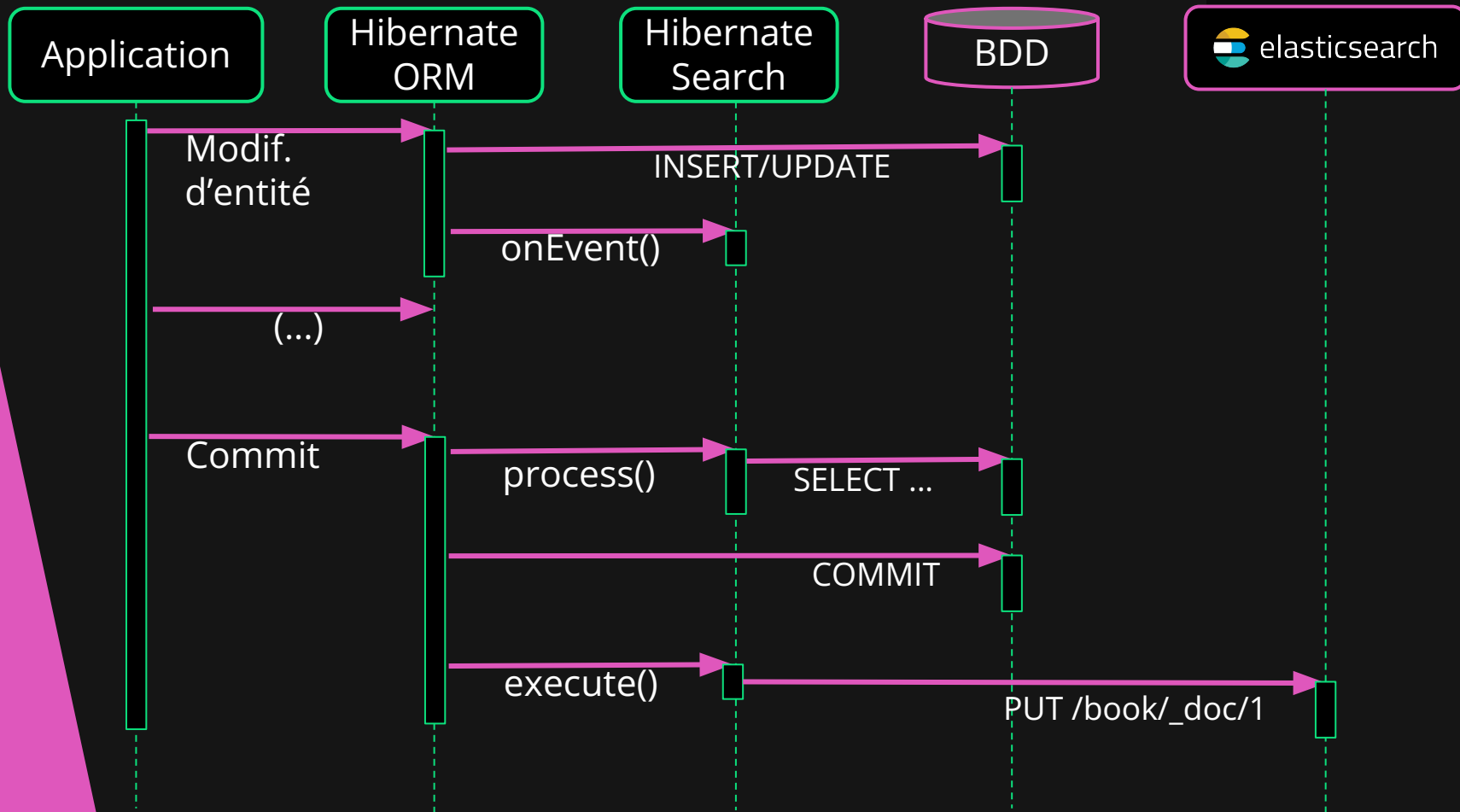


Document





INDEXATION





HIBERNATE SEARCH

VERSION 6+

REFONTE API



ABSTRACTION

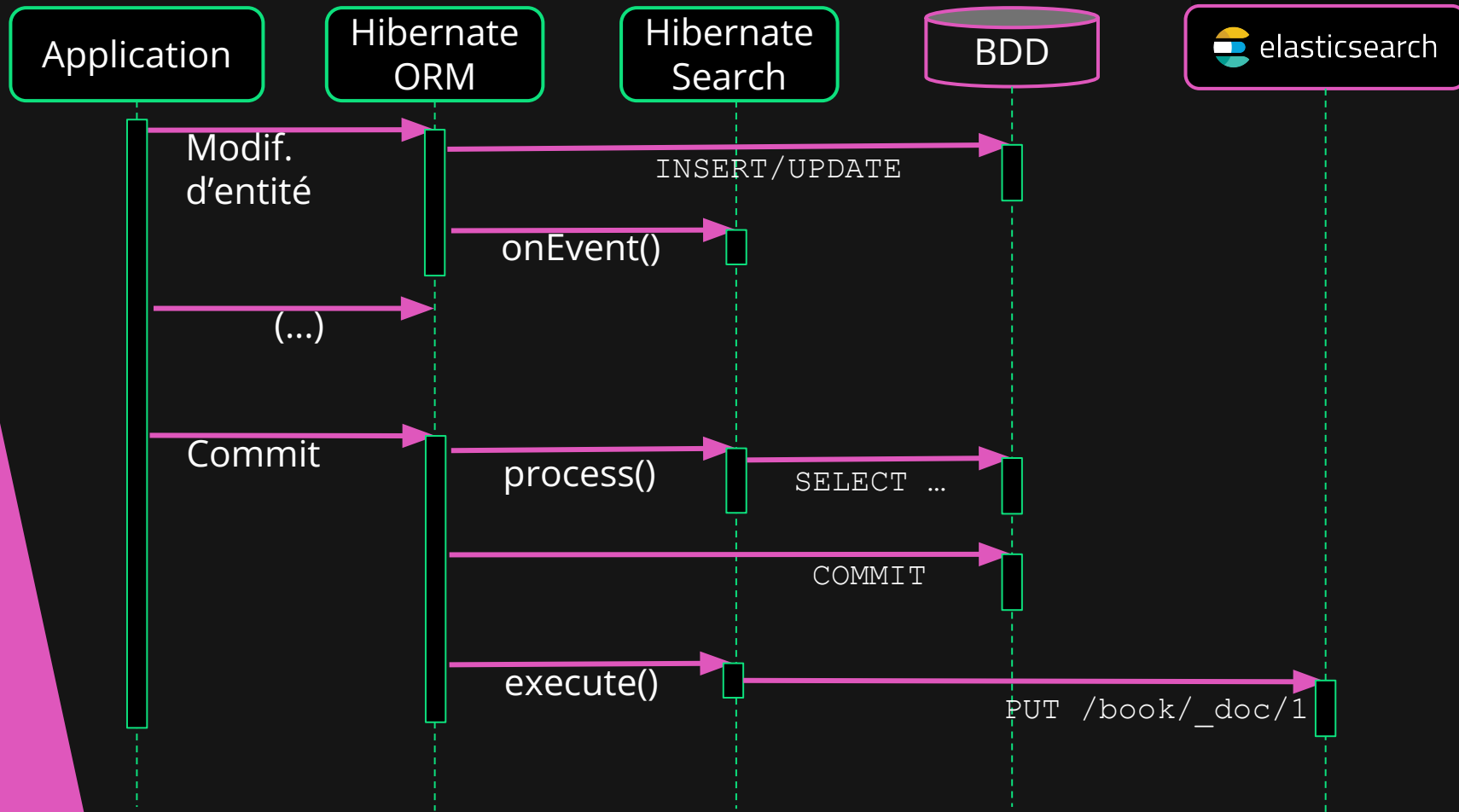
SUCCINCT

CUSTOMISATION

EN PRODUCTION



TRANSACTIONS ?

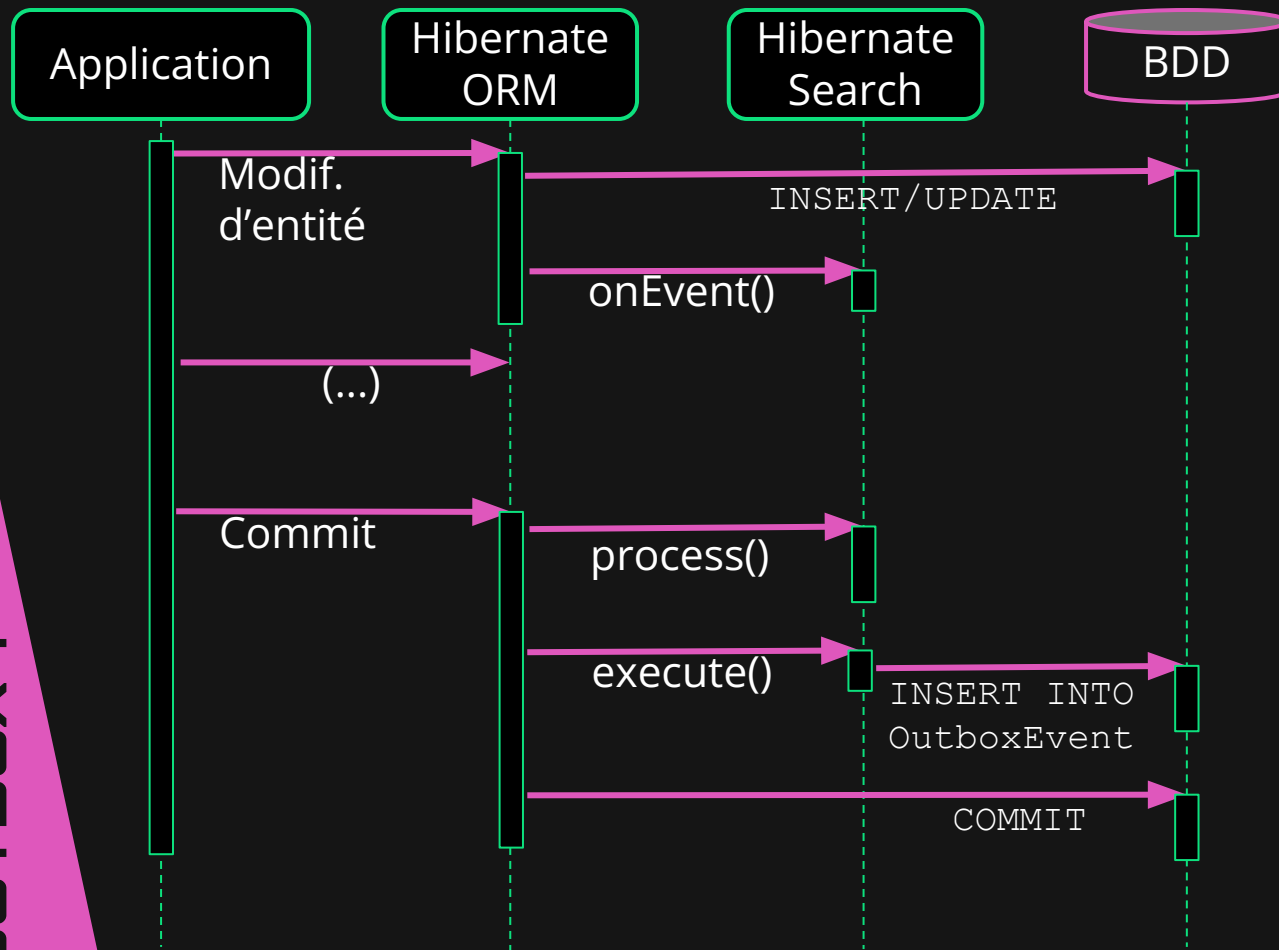




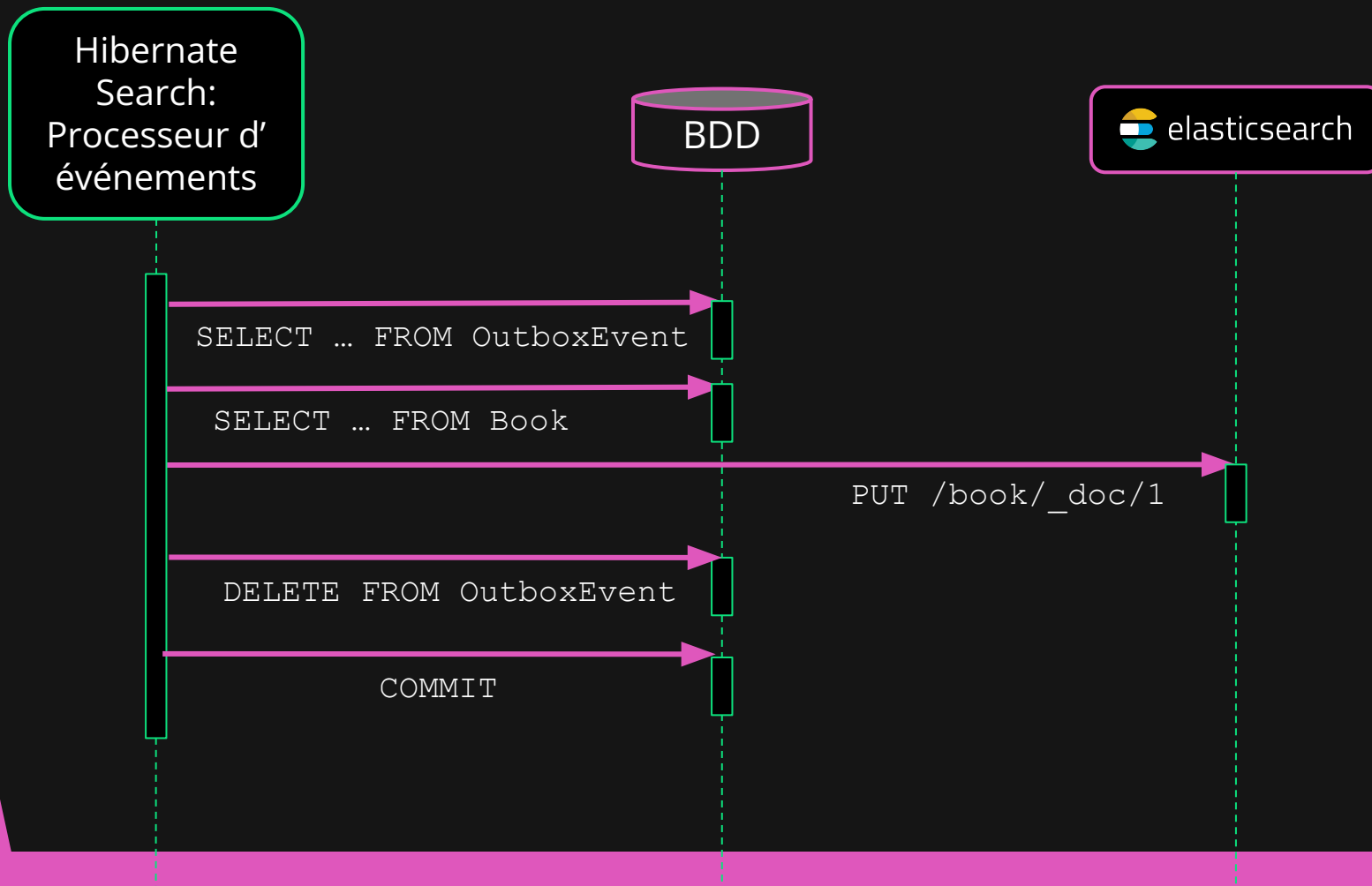
TRANSACTIONAL OUTBOX



TRANSACTIONAL OUTBOX 1



TRANSACTIONAL OUTBOX 2



TRANSACTIONNEL

Perte d'événement impossible



**PLUS
PUISSANT...**

ASYNCHRONE

Latence minimale

PARTITIONNÉ

Pas de conflits d'indexation
Parallélisme



Infrastructure :

Application

+

BDD

+

 elasticsearch

Configuration :

```
<dependency>
  <groupId>io.quarkus</groupId>
  <artifactId>
    quarkus-hibernate-search-orm-outbox-polling
  </artifactId>
</dependency>

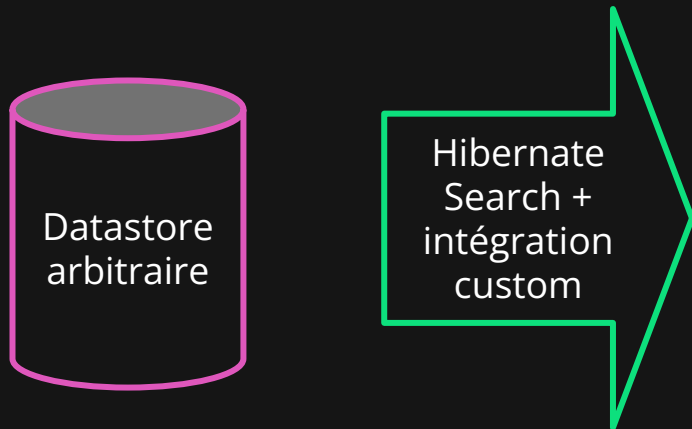
quarkus.hibernate-search-orm.coordination.strategy
=outbox-polling
```

... ET TOUT
AUSSI SIMPLE



STANDALONE POJO MAPPER

STANDALONE POJO MAPPER

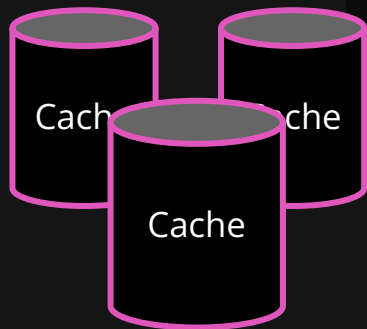


 elasticsearch

APACHE
LUCENE™

 OpenSearch

INFINISPAN



Hibernate Search +
intégration custom



Infinispan

APACHE
LUCENE™

INFINISPAN EMBEDDING STORE



Infinispan



Lanchain 4J



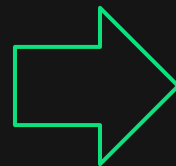
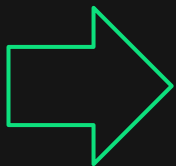
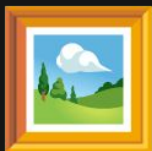
LangChain



HIBERNATE
SEARCH

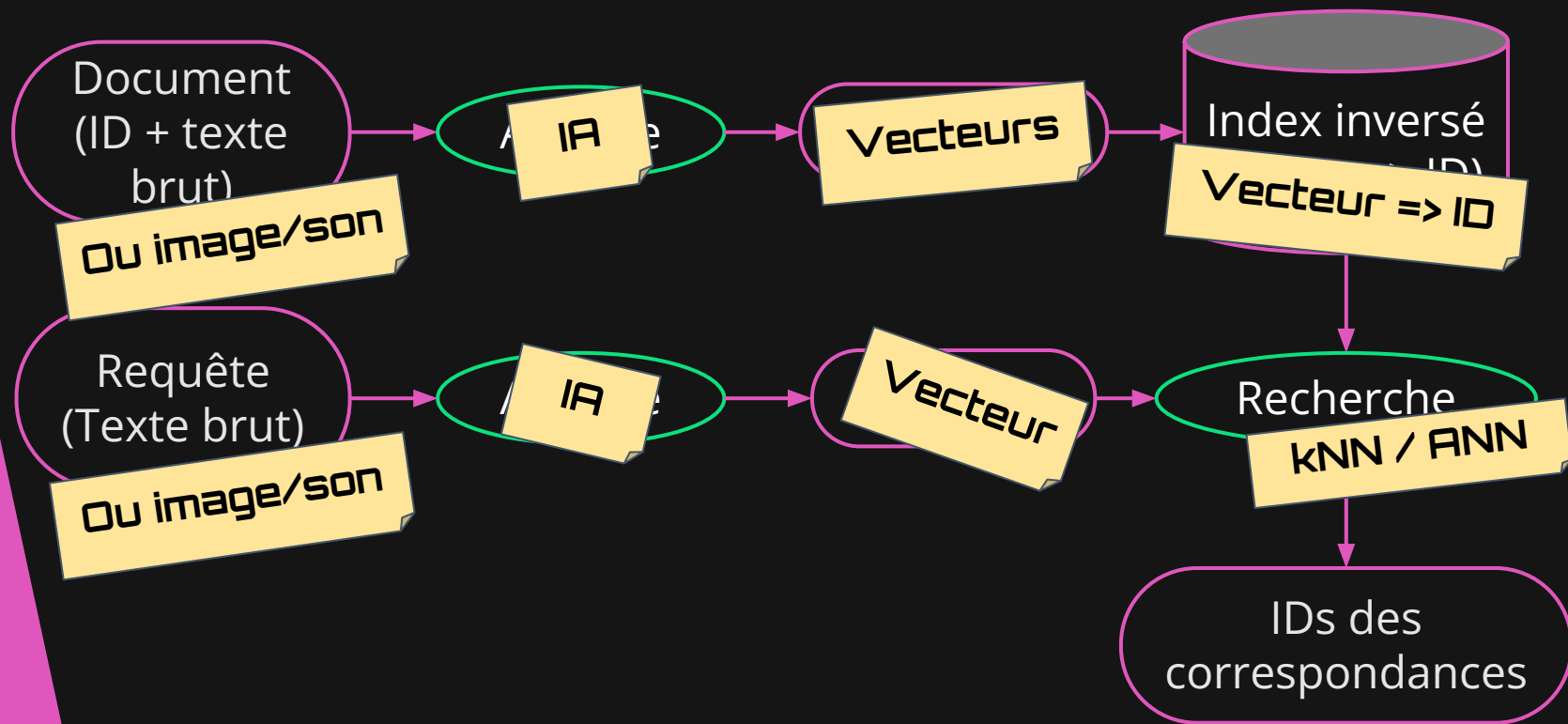
VERSION 7

VECTEURS ET EMBEDDINGS



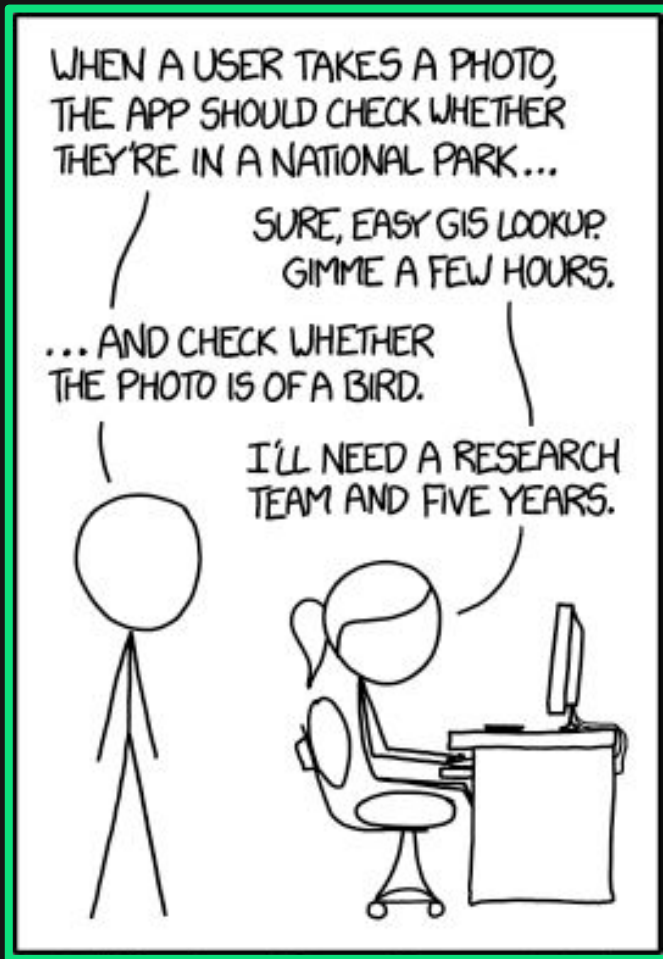
$[-0.7754,$
 $-0.7972,$
 $-0.5784,$
 \dots
 $-0.4750,$
 $-0.4254]$

RECHERCHE VECTORIELLE





DÉMO



<https://xkcd.com/1425/>

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MERCI !



Hibernate Search <https://hibernate.org/search/>



Quarkus <https://quarkus.io/>

DEVOXX[™] FRANCE

ALLER PLUS
LOIN

La recherche à l'ère de l'IA *par David Pilato (Elastic)*

La recherche sous stéroïdes - une histoire de sémantique
par Mathilde Rigabert et Martin Labenne (Jolimoi)

Apache Lucene : de l'indexation textuelle à l'intelligence artificielle *par Lucian Precup (Adelan)*

... et encore plus

