

Lot 5 : Advanced modules of Jakarta EE stack Day 2

Training @FPS on November 17th 2020

Agenda

1. Day 1 recap
2. Hibernate workshop
3. Reverse Engineering
4. Hibernate 5 Features
5. Performance Tips
6. Questions

Reverse Engineering

- Hibernate uses a collection of rules for mapping
- This configuration file can specify type mappings and table filterings
 - Tag “schema-selection” is used to identify the schemas
 - Tag “table-filter” identifies tables to reverse engineer
 - Tag “type-mapping” is used to convert types

Reverse Engineering

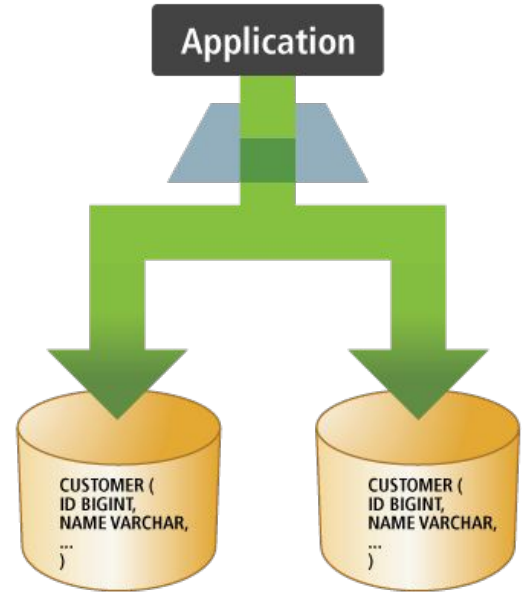
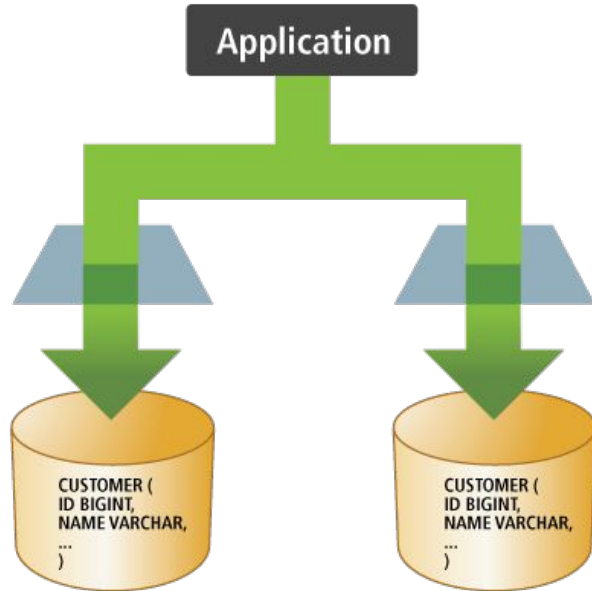
Mapping Type	Java Type	SQL Type
integer	int	INTEGER
short	short	SMALLINT
float	float	FLOAT
string	String	VARCHAR

Workshop: Reverse Engineering

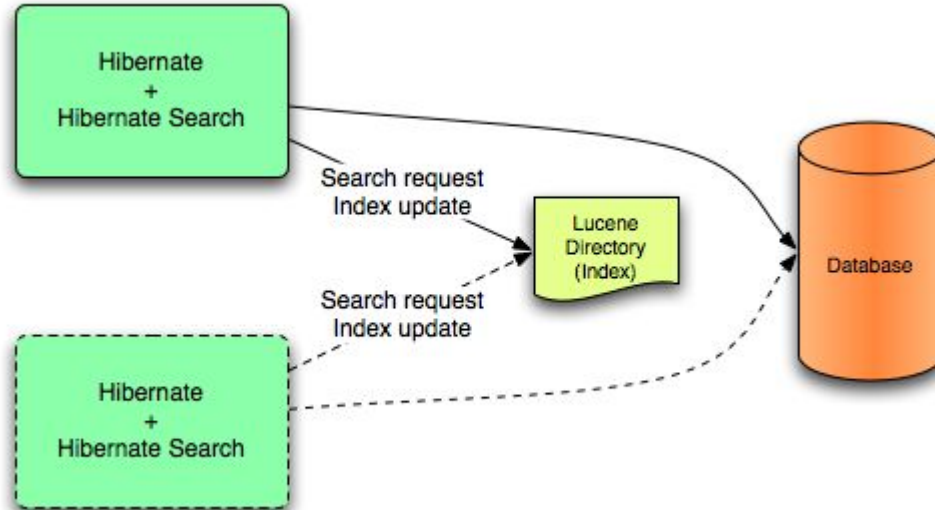
Hibernate 5 features

- MultitIdentifierLoadAccess
<https://gist.github.com/thjanssen/22ce2b57a14a10057b63ef601aaf95c6#file-loadmultipleentities-java>
- Repeatable Named Queries
<https://gist.github.com/thjanssen/6f28dbed98381504d0f64c1334a1e293#file-namedquerieswithjpa-java>
- Support for Date and Time API, Optional and Streams

MultiTenancy



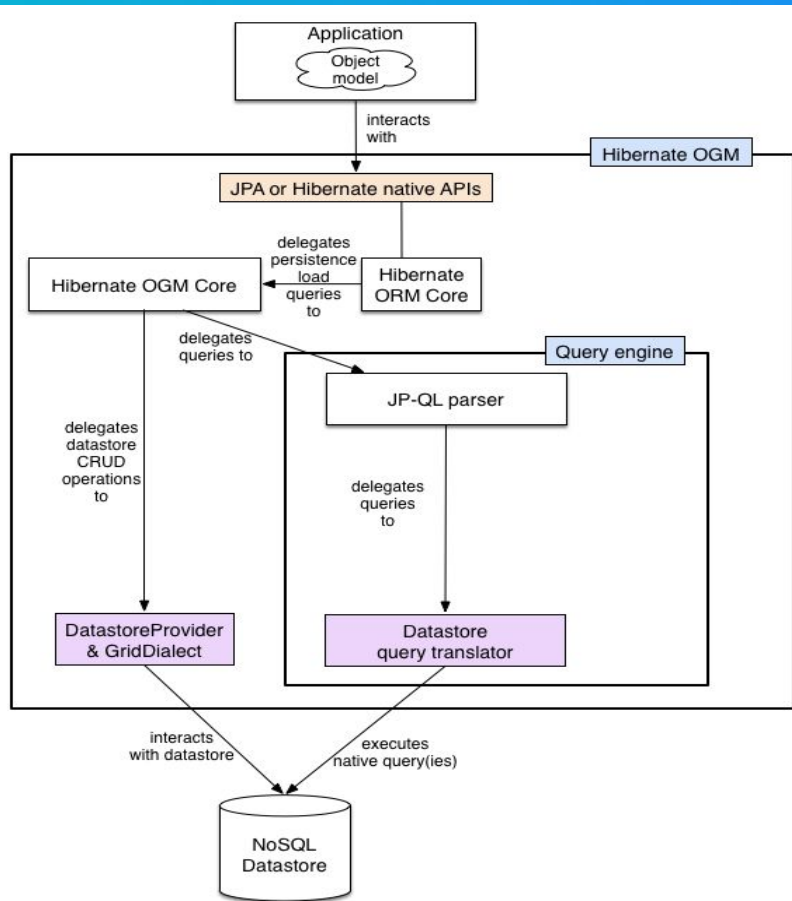
Hibernate Search



Credit : https://docs.jboss.org/hibernate/stable/search/reference/en-US/html_single/#preface

Hibernate OGM

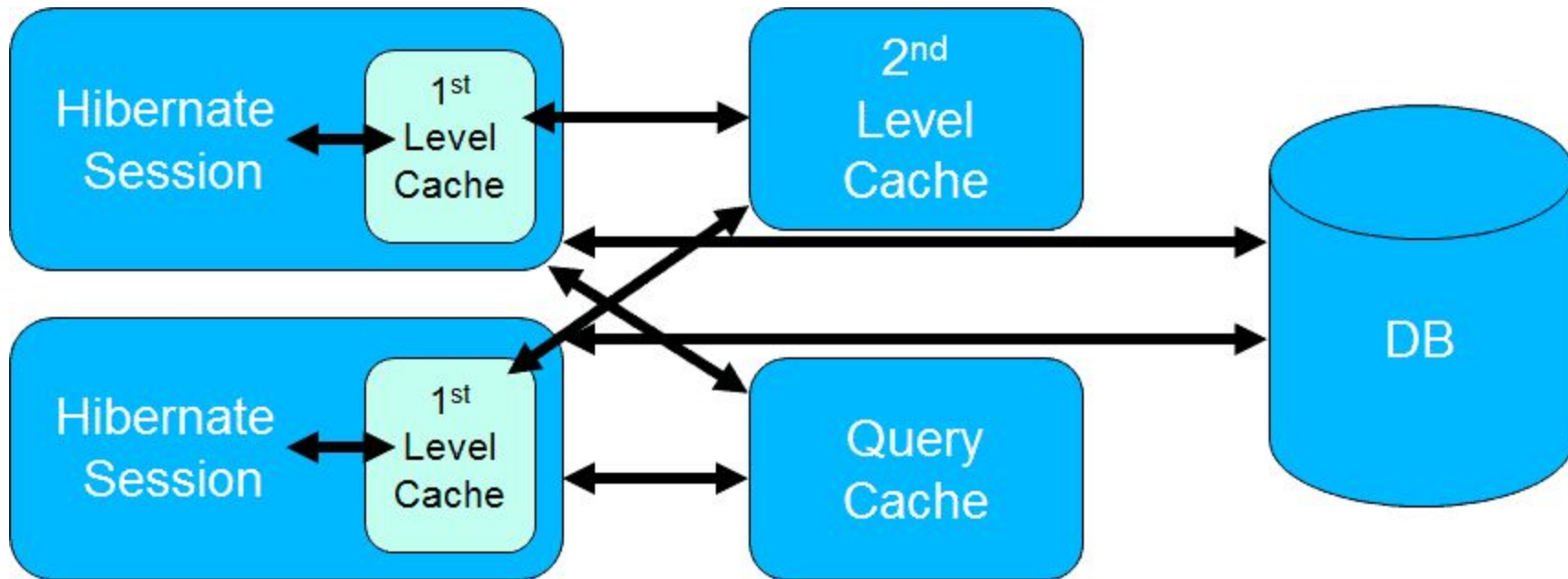
- Deals NoSQL Stores
 - key/value stores (Infinispan and Ehcache)
 - document stores (MongoDB and CouchDB)
 - graph databases (Neo4J)
- Explore alternative datastores



Performance

- In some cases, use StoredProcedure
- Choose the right FetchType
- Activate `hibernate.generate_statistics`
- Improve slow queries
- Perform Write operation in bulks

Cache Usage



Credit : <https://thorben-janssen.com/tips-to-boost-your-hibernate-performance/>