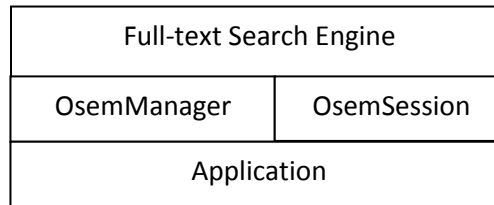


I. Preface

Osem Manager is a framework that facilitates the storage and retrieval of Java POJO objects via Object/Relational Mapping to Full-text search engine. The design goal is to relieve developers from writing common data persistence-related codes.

Currently, the framework has API for Elastic Search only.

II. Architecture



III. Core Components

OsemSessionFactory – Interface that manages creation and removing of sessions. Usually an application has a single instance and threads servicing client requests obtain osem session instances from this factory. Implementors must be thread safe and internal state of the factory is immutable.

OsemSession – Interface used to interact with search or document stores to perform CRUD operations to entities or documents.

IV. Elastic Search API Core Components (org.kwince.osem.es package)

OsemSessionImpl – OsemSession implementation that uses elastic search as the underlying database.

EsOsemSessionFactory – Interface for elastic search session management that extends OsemSessionFactory. The internal state includes all of the metadata about Object/Document Mapping.

NodeClientOsemSessionFactoryBean – A factory bean used to create OsemManagerFactory that uses Node Client instance which is an embedded instance of the cluster within a running application. The lifecycle of the underlying node instance is tied to the lifecycle of the bean via the destroy() method which calls Node#close.

TransportClientOsemManagerFactoryBean – A factory bean used to create OsemManager that uses ElasticSearch Transport Client. You need to define the host that holds the nodes you want to communicate with.

V. Usage

For spring users, `EsOsemSessionFactoryIT` and `TransportEsSessionFactoryIT` showcases complete setup and usage of the APIs.

You can also use the framework even without the aid of spring assuming that required libraries like elastic search are present in classpath.

```
NodeClientOsemSessionFactoryBean factory = new NodeClientOsemSessionFactoryBean();
factory.setIndexName("testdb");
```

```
// scan for valid documents in all packages that starts with org.my and ends with documents
factory.setPackagesToScan("org.my.**.documents");
```

```
OsemSession session = factory.getCurrentSession();
TestDocument doc = new TestDocument();
session.save(doc);
...
```