

Introduction to Hibernate

Disadvantages of JDBC

- ① Database driver specific
- ② No lazy/Eager loading
- ③ Automatic creation of tables, pkey is done
- ④ JDBC is a technology & not framework
- ⑤ No mapping supported

Hibernate is a framework and supports mapping. It creates tables internally and only methods are used. Hibernate is a ORM framework.

ORM framework

- ↳ Object Relational Mapping framework
- ↳ Converts data from RDBMS to OOPS

data → object

persistence.xml file

↳ a file which contains all configuration

information → database name

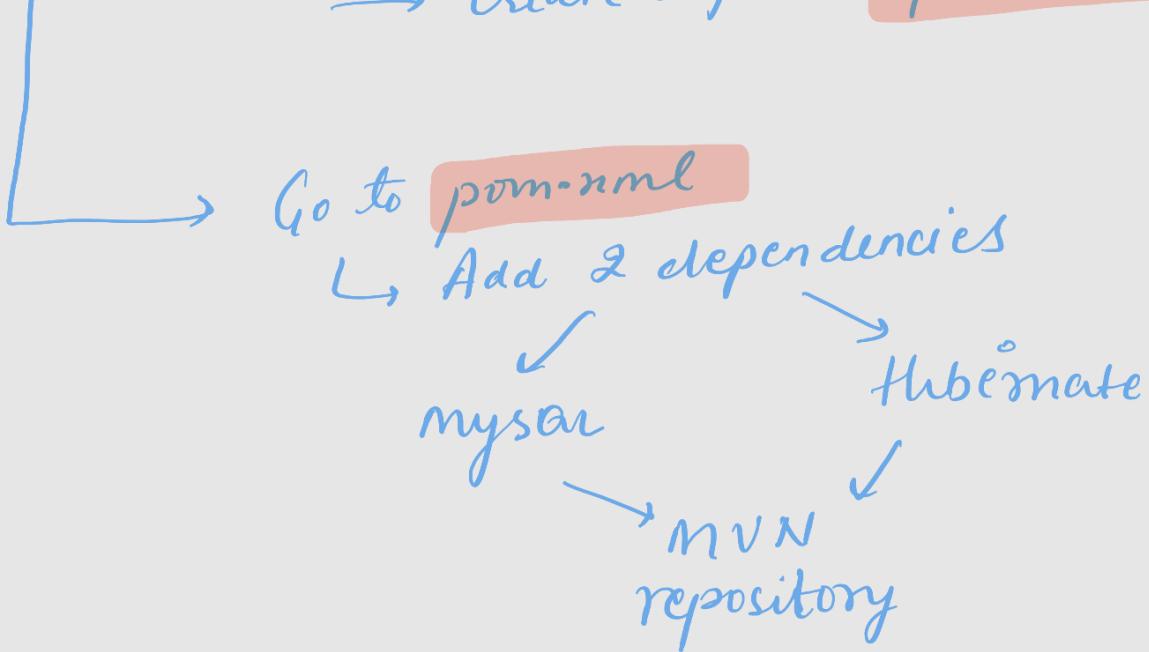
package name ↳ user ↳ password
 ↳ user

Maven Project

→ src/main/resource

→ Create a folder META-INF

→ Create a file persistence.xml



EntityManagerFactory
 EntityManager
 EntityTransaction } Core
 Hibernate

EntityManagerFactory

- ↳ It is an interface
- ↳ already present in java.persistence
- ↳ set up connection b/w java and database
- ↳ helps to create table automatically

EntityManagerFactory eMF = persistence.createEntityManagerFactory(unit);

return type set / found in persistence file persistence unit

EntityManager

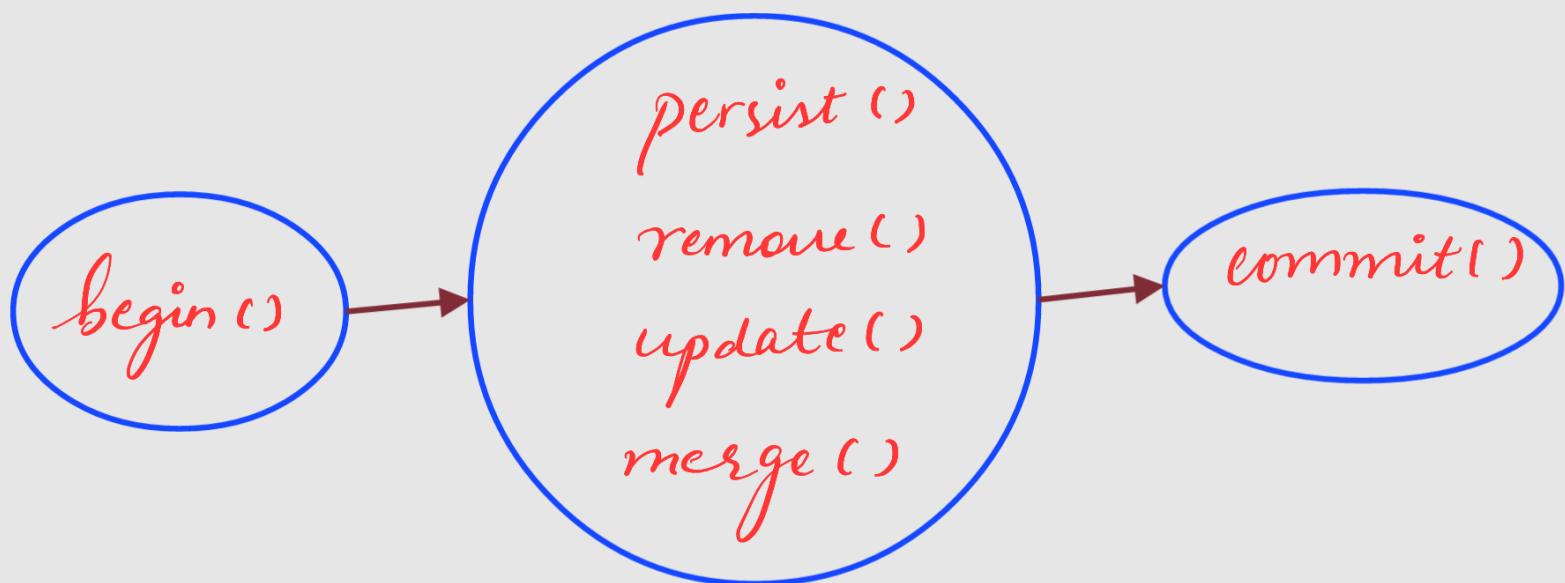
- ↳ Interface
- ↳ present in java.persistence
- ↳ No parameters
- ↳ Internally establish the statement

EntityManager eM = eMF.createEntityManager();

Entity Transaction

- ↳ interface
- ↳ java.persistence package
- ↳ Manages all the transactions

EntityTransaction eT = eM.getTransaction();



persist()

- ↳ store data into table

remove()

- ↳ remove data from table

find()

↳ fetch particular data from table

merge()

- ↳ if id found → update data
- ↳ if id not found → save data

When one is fetching data , eT is not reg-
as we are not manipulating the data

Create Query Method

Query q = cM.createQuery(<query>);

HQL
Hibernate Query Language

Select s from Student s
get list of all results

list <Student> ls = q.getResultSet();

for(Student st : ls) {
 System.out.println(st.getId());
}

and soon--- }

for each loop

Query Parameters



Parameters

Positional Parameters

Select s from Student s

Where s.name = ?1;

q.setParameter(1, "Reena");

positional parameter
place holder

Question mark
is replaced by Reena

Named Parameters

Name

Where s.name = ?name

placeholder

q.setParameter("name", "Raj");

name is
replaced by
Raj

