

Java

ORM

Сергей Рыбалкин

ORM



Отметьтесь на портале



JDBC



+++	
Clean and simple SQL processing	Complex in large projects
Good performance with large data	Large programming overhead
Very good for small applications	Query is DBMS specific
Simple syntax	

Data



RDBMS – row in table

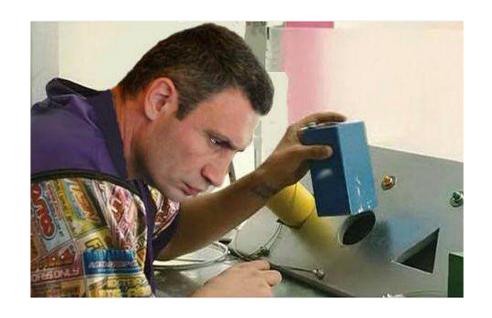
Java – instance of class

Data. Mismatch

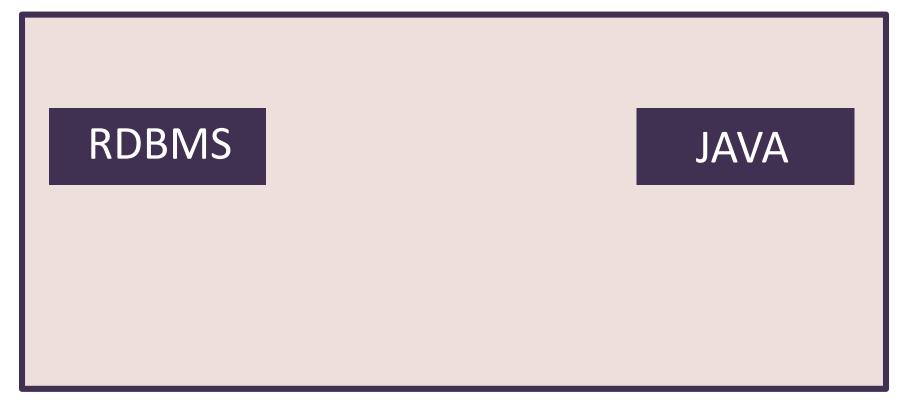


RDBMS – row in table

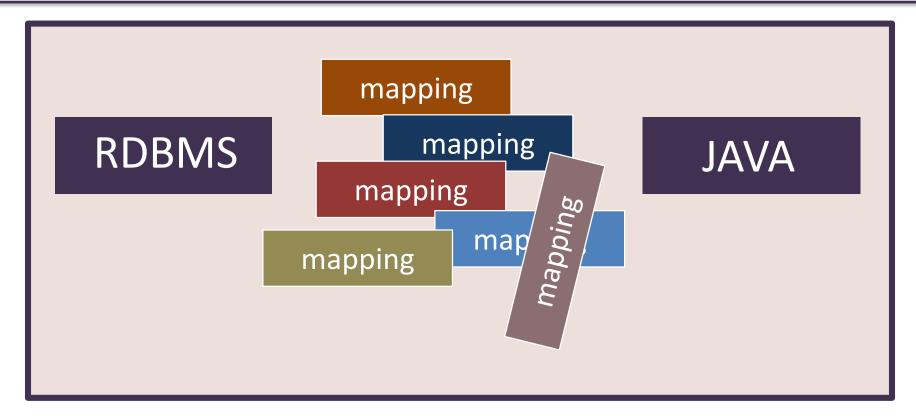
Java – instance of class



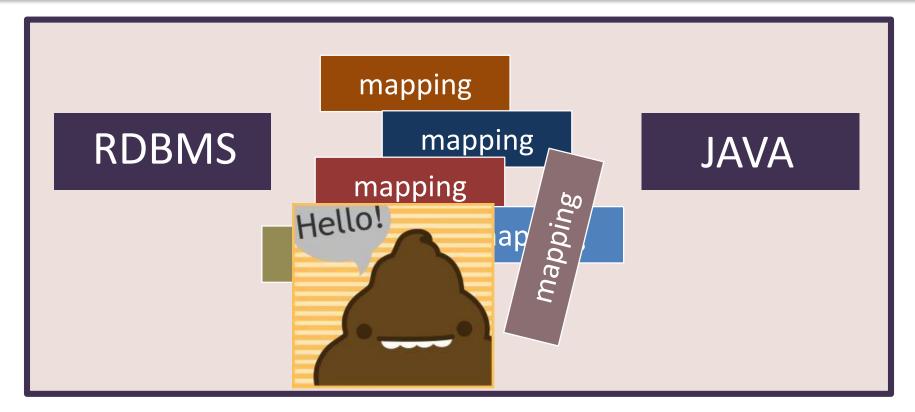














What about?

- inheritance
- identity
- access

• • •



We need a hero



To convert all the data

To hide sql details

To reduce boilerplate code

Based on JDBC 'under the hood'



ORM



Object – Relational Mapping

- CRUD API
- object-specific query language
- mapping customization



ORM. Frameworks

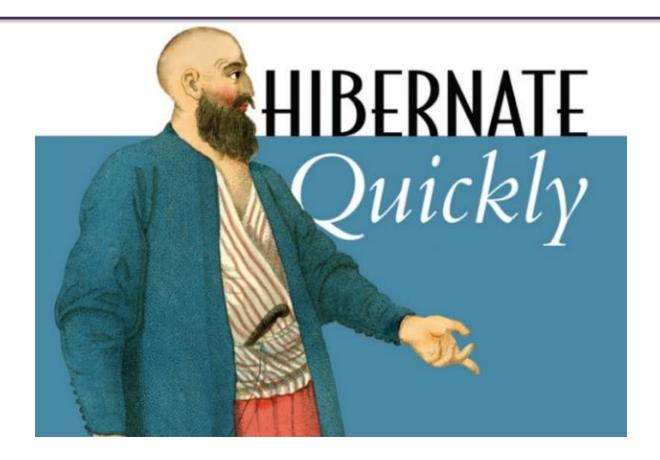


- Enterprise JavaBeans Entity Beans
- Java Data Objects
- Castor
- TopLink
- Spring DAO
- Hibernate

• • •

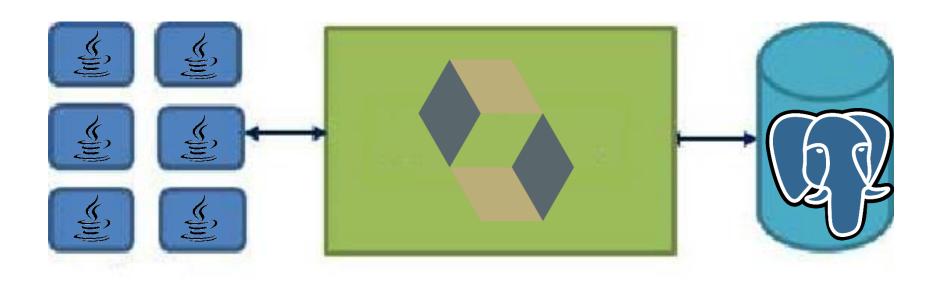
ORM. Hibernate





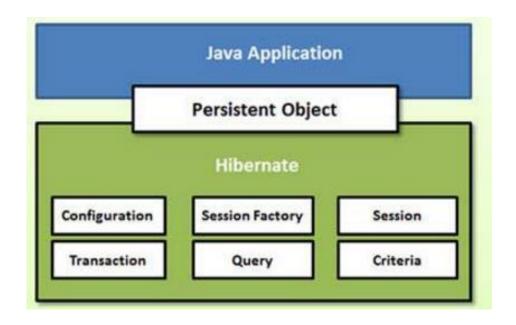
ORM. Hibernate





ORM. Hibernate





Hibernate. Configuration



- Database connection
- Mapping

hibernate.properties hibernate.cfg.xml

Hibernate. Session



SessionFactory – factory based on config

Session – factory product to get a physical connection with a database

Hibernate. Query



Query – SQL or Hibernate Query Language (HQL)

from Person person where name = 'Sasha'

from Match match where match.a is not null and match.a != match.b

Hibernate. Transaction



Transaction – unit of work (underlying JDBC or JTA)

Hibernate. Transaction



Transaction idiom

@see ru.atom.model.dao.Database

Hibernate



- 1. Implement class
- 2. Annotate class
- 3. Add mapping
- 4. Create table*
- 5. ...
- 6. Profit



Hibernate. Reference

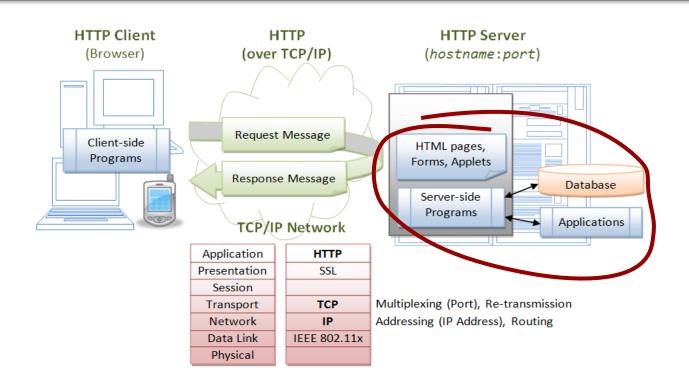


https://www.tutorialspoint.com/hibernate/index.htm

http://www.slideshare.net/vinayhulgar/manning-hibernatequickly

Tinder Server





Tinder Server



JDBC → ORM migration





Спасибо за внимание!

Сергей Рыбалкин

s.rybalkin@corp.mail.ru