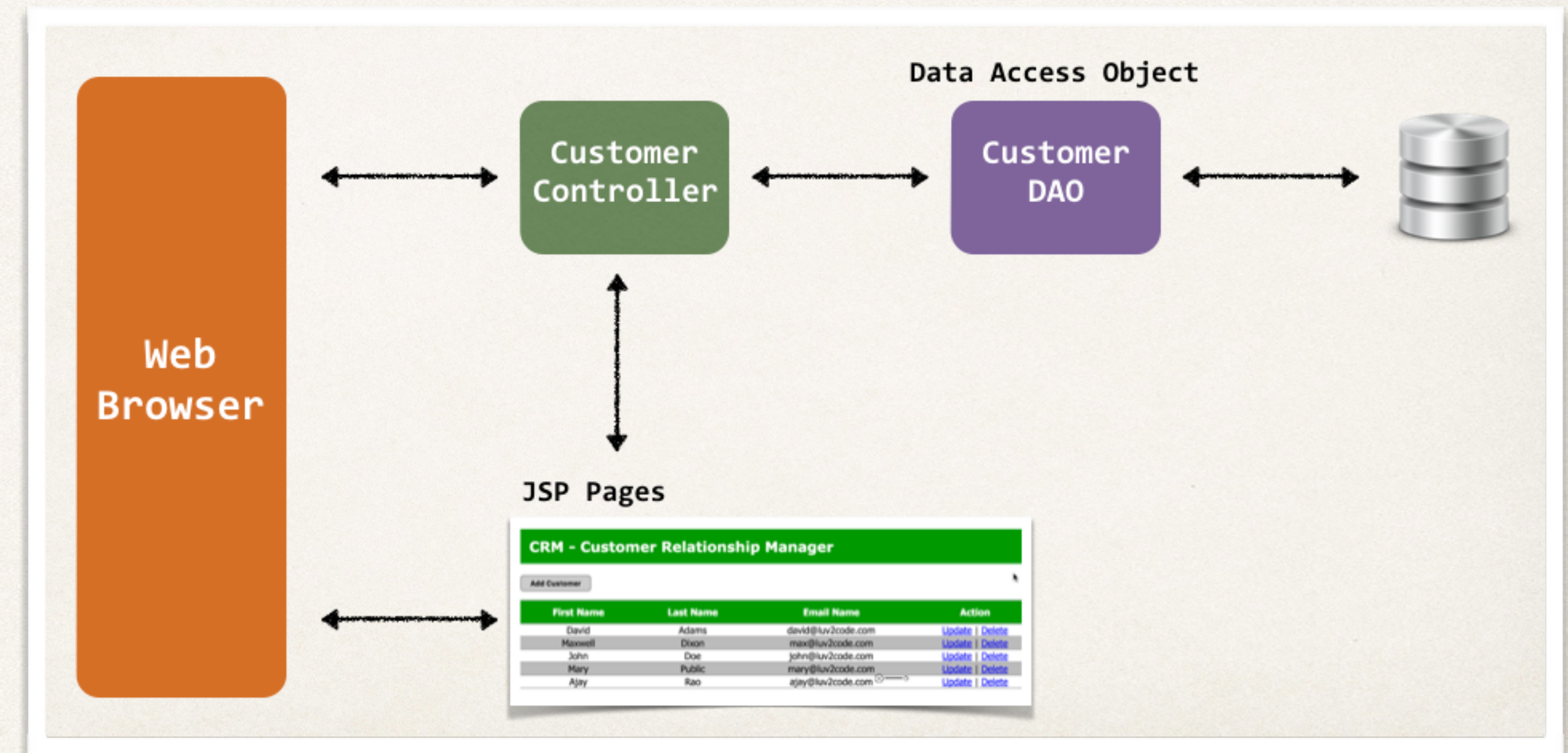


List Customers

Step-By-Step

1. Create **Customer.java**
2. Create **CustomerDAO.java**
 1. and **CustomerDAOImpl.java**
3. Create **CustomerController.java**
4. Create JSP page: **list-customers.jsp**



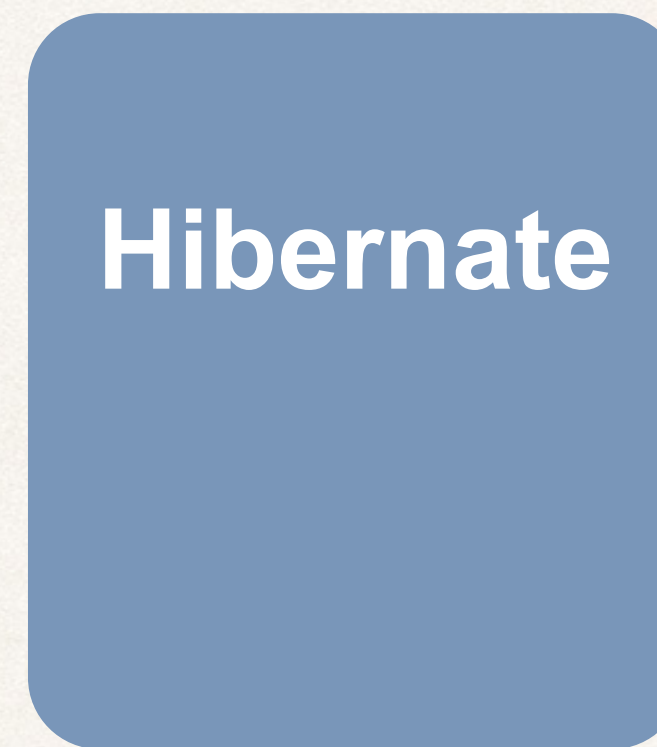
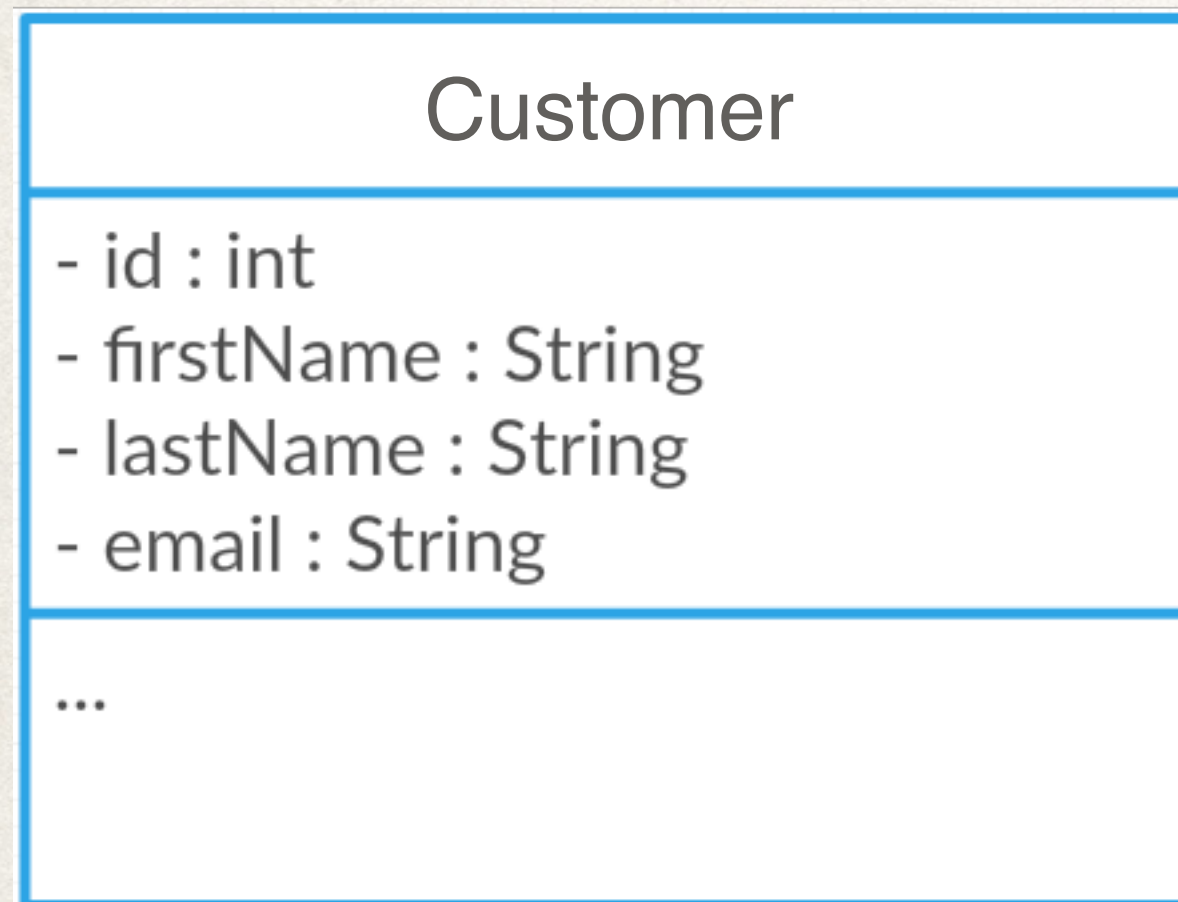
Hibernate Terminology - Refresh

Entity Class

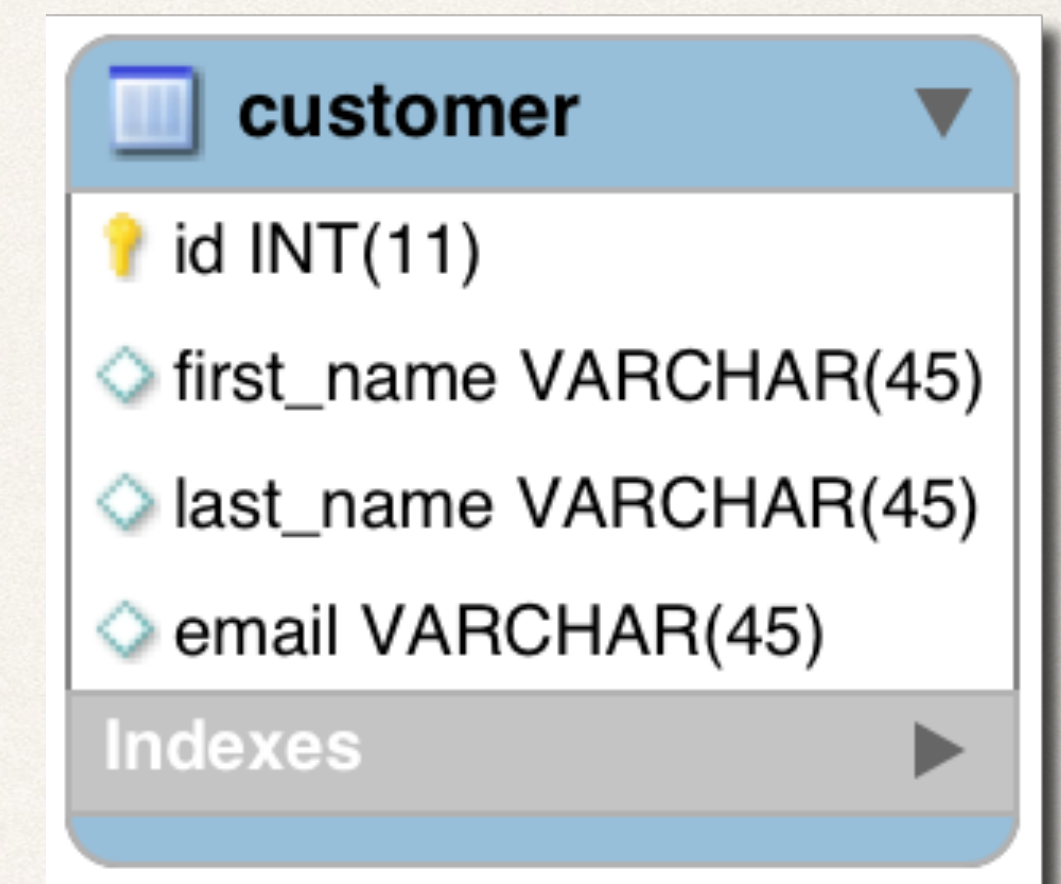
Java class that is mapped to a database table

Object-to-Relational Mapping (ORM)

Java Class



Database Table



Step 1: Map class to database table

```
@Entity
@Table(name="customer")
public class Customer {

    ...

}
```

Java Class

Customer
- id : int - firstName : String - lastName : String - email : String ...

Database Table

customer
id INT(11) first_name VARCHAR(45) last_name VARCHAR(45) email VARCHAR(45) Indexes

Step 2: Map fields to database columns

```
@Entity
@Table(name="customer")
public class Customer {

    @Id
    @Column(name="id")
    private int id;

    @Column(name="first_name")
    private String firstName;
    ...
}
```

Java Class

Customer
- id : int
- firstName : String
- lastName : String
- email : String
...

Database Table

customer
id INT(11)
first_name VARCHAR(45)
last_name VARCHAR(45)
email VARCHAR(45)
Indexes

Entity Scanning

- Remember our Spring MVC config file?

```
<bean id="sessionFactory"  
    class="org.springframework.orm.hibernate5.LocalSessionFactoryBean">  
  
    <property name="dataSource" ref="myDataSource" />  
  
    <property name="packagesToScan" value="com.luv2code.springdemo.entity" />  
  
    ...  
  
</bean>
```