



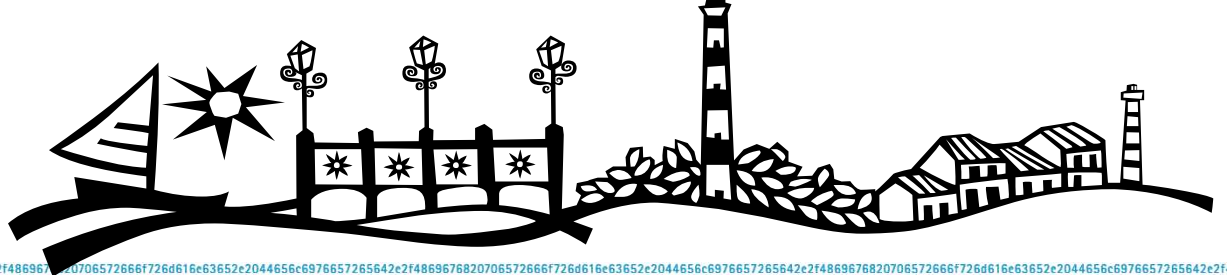
High performance. Delivered.

# Application Delivery Fundamentals: SPRING BOOT

Module 8: ORM

[illegible]





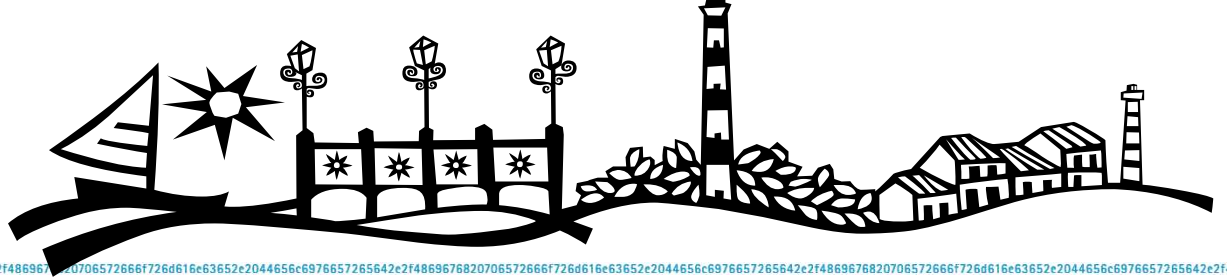
- **DICA DE LIVRO:**
- **Java Persistence with Hibernate: Revised Edition of Hibernate in Action Paperback** – November 24, 2006;





- **Object Relational Mapping - ORM:**

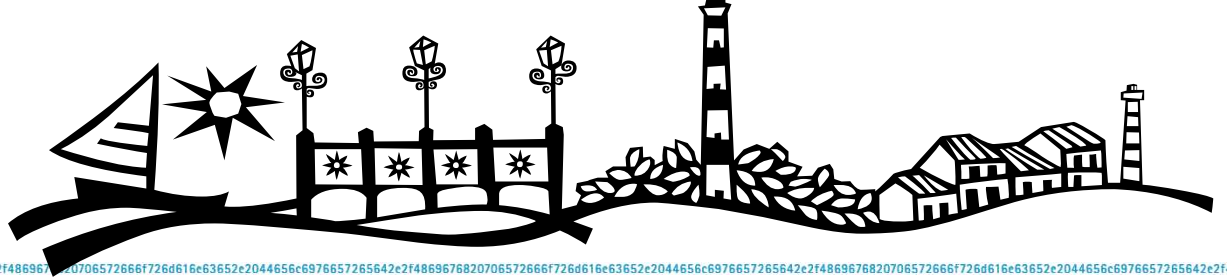
- Como iremos mapear o mundo relacional com o mundo Orientado a objeto?
- No mundo relacional os dados estão em forma de tabelas que contém linhas e colunas.
- No mundo OO os dados estão em forma de objetos.

[illegible]

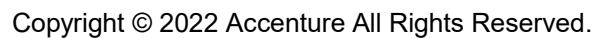
- Protege o desenvolvedor de SQL confusos;
- O Desenvolvedor não precisa entender de BD relacionais;

[illegible]

- [illegible]

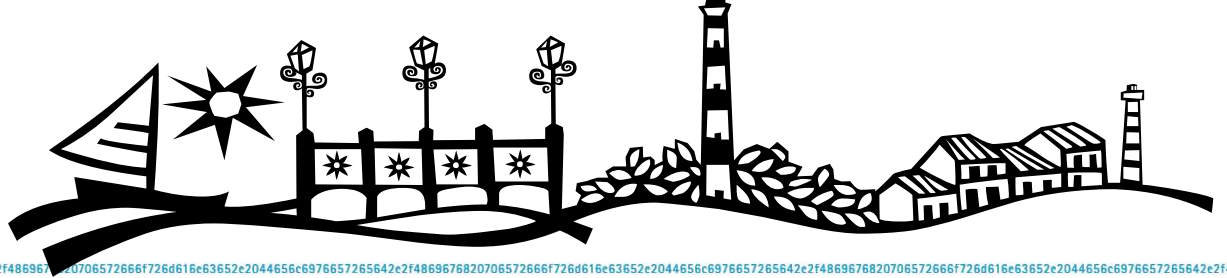


- **Object Relational Mapping - ORM:**

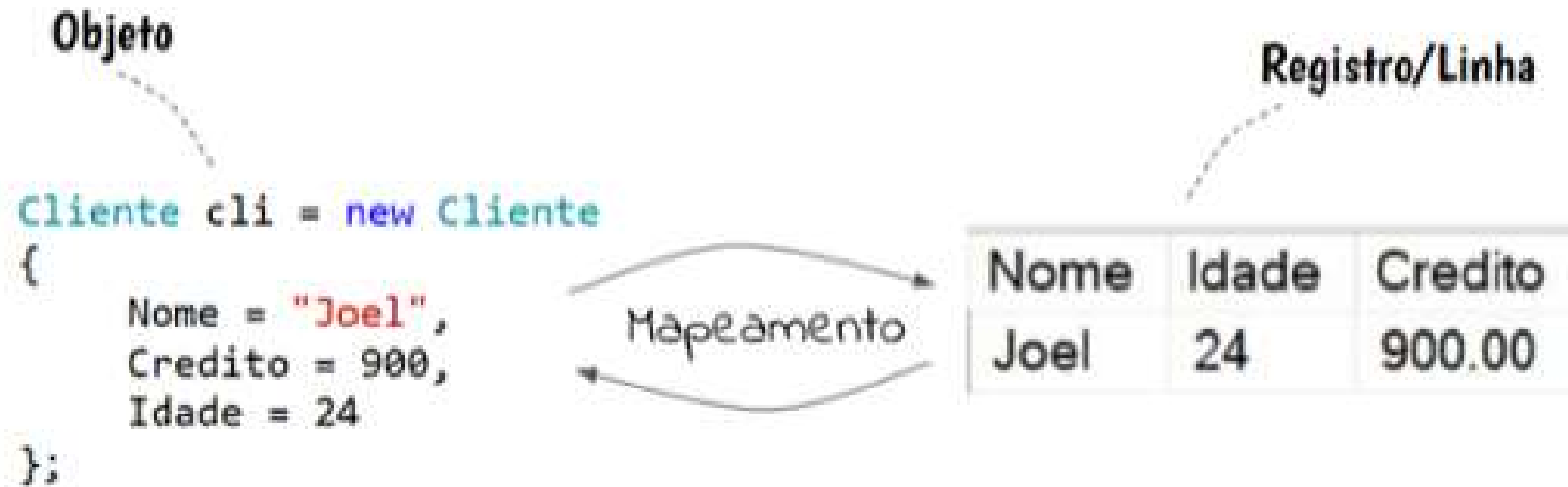


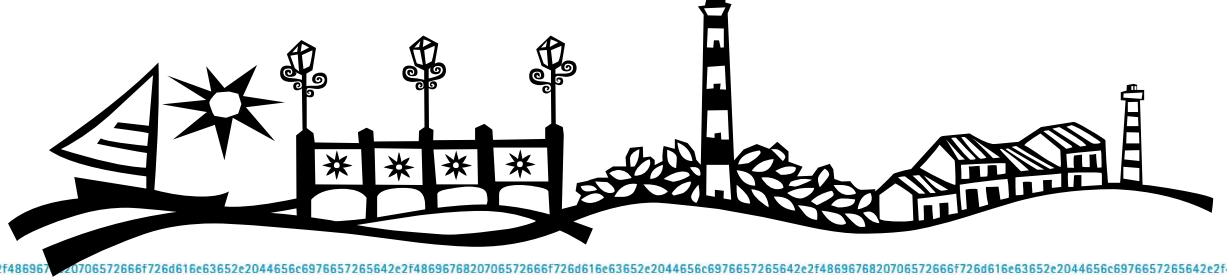
[illegible]





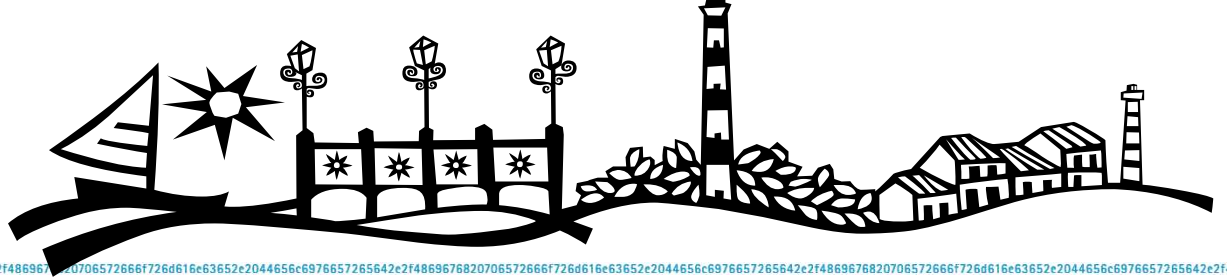
- [illegible]



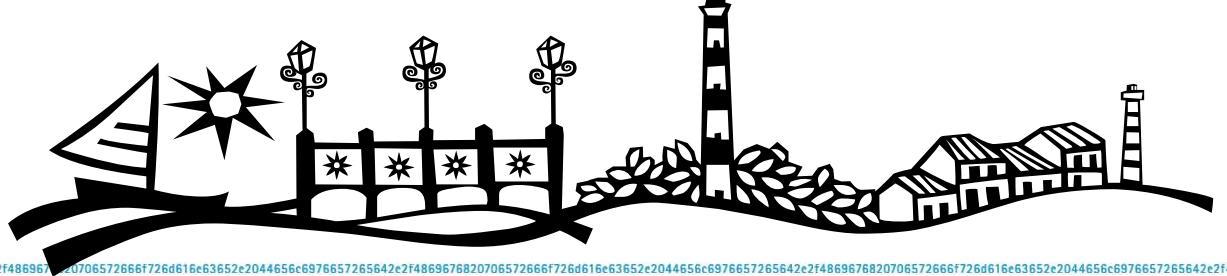


- **Associação?**

- Entidades podem ser associadas à outras entidades;
- Ou Collections;
- **One-to-one, one-to-many, many-to-one, e many-to-many;**
- Técnicas de carregamento **Lazy** e **Eager**;



- [illegible]



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# Aplicação One To One

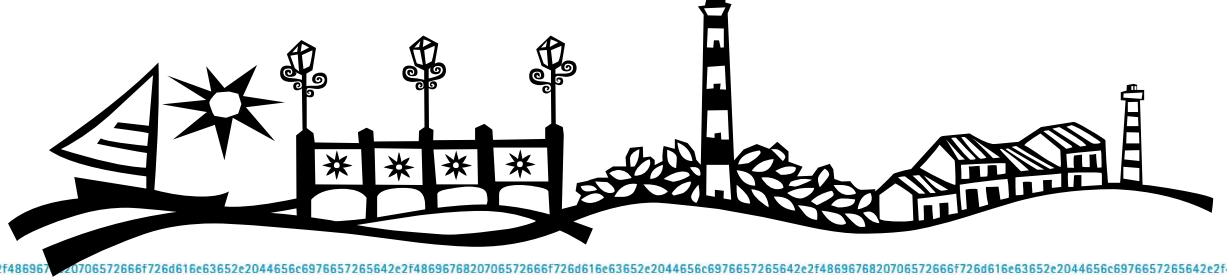




Table: <code>user</code>
--------------------------

```
9 @Entity
```

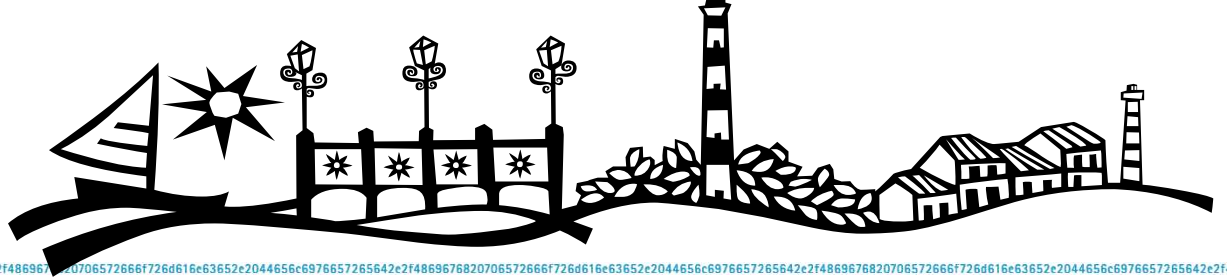
```
10 @table(name = 'Users')
```

```
11 public class User implements Serializable {
```

```
36 cascade = Cascade(ype, ALL,
```

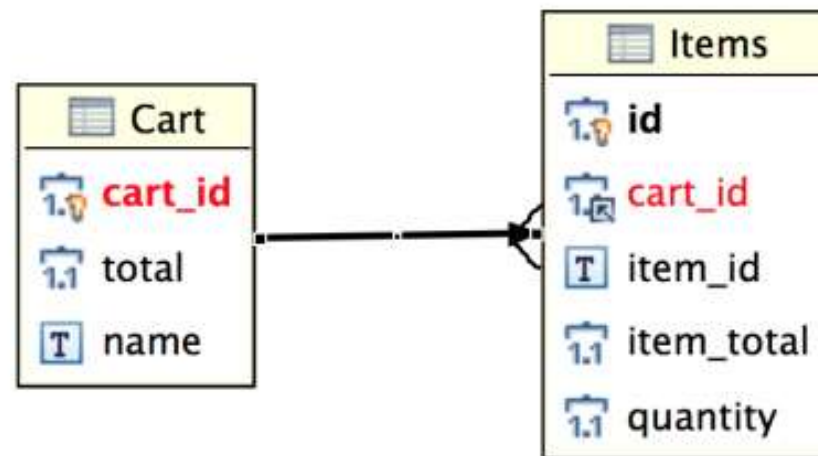


# Aplicação One To Many



- **One-to-many:**

- **@OneToMany(mappedBy="cart")**



- **@ManyToOne**
- **@JoinColumn(name="cart\_id", nullable=false)**

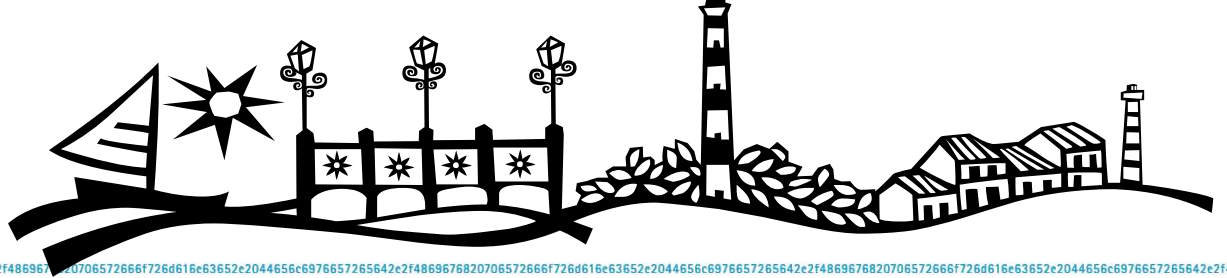
- 
- ```
erDiagram
    Stock ||--}| Stock_daily_record : "1 to many"
    Stock {
        int STOCK_ID PK
        int STOCK_CODE
    }
    Stock_daily_record {
        int Daily_Record_id PK
        decimal PRICE_OPEN
        decimal PRICE_CLOSE
        decimal PRICE_CHANGE
        int VOLUME
        datetime DATE
    }
```

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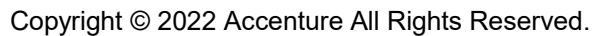
[illegible]

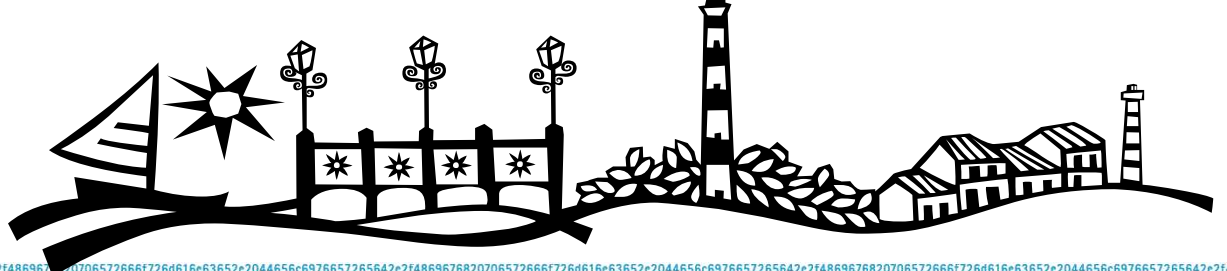
# Aplicação Many To Many





- [illegible]





## Funcionario.java

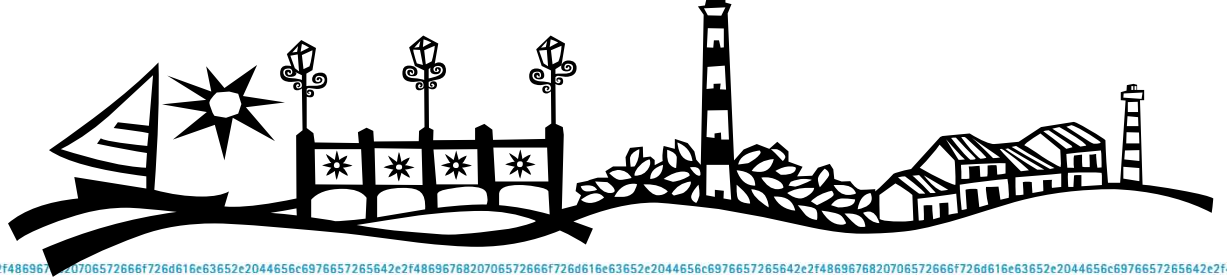
Depto.java

```

7  @Entity
8  @Table (name="depto")
9  public class Depto implements Serializable {
10     @Id
11     @Column(name="id")
12     @GeneratedValue(strategy = GenerationType.AUTO, generator = "depto_seq_gen")
13     @SequenceGenerator(name = "depto_seq_gen", sequenceName = "depto_id_seq")
14     private Long id;
15
16     private String nome;
17
18     @ManyToMany(mappedBy = "deptos")
19
20     private List<Funcionario> funcionarios;
21
22     public List<Funcionario> getFuncionarios() {
23         return funcionarios;
24     }

```

- 
- ```
erDiagram
    Stock ||--}| Stock_has_Category : "has"
    Stock_has_Category ||--}| Category : "has"
    Stock {
        int STOCK_ID PK
        int STOCK_CODE
        string STOCK_NAME
    }
    Stock_has_Category {
        int STOCK_ID PK
        int CATEGORY_ID PK
    }
    Category {
        int CATEGORY_ID PK
        string NOME
        string DESC
    }
```



# Dúvidas?

