**Projeto de Bases de Dados**

**2ªEntrega**

**Turno Prático 10,** Prof. Flávio Martins

|  |  |  |  |
| --- | --- | --- | --- |
| Grupo 199 | | | |
| Nome | Nº | Esforço (Horas) | Contribuição (%) |
| Gonçalo Carvalho | 99227 | 6 | 33.(3) % |
| Jaime Costa | 95595 | 6 | 33.(3) % |
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Modelo Relacional

ivm(serial\_number, manuf)

point\_of\_retail(name, address)

product(ean, descr)

shelve(serial\_number, manuf, nr, height,category)

* serial\_number, manuf: FK(ivm)
* category: FK(category)

ambient\_temp\_shelf(serial\_number, manuf, nr, height, stored\_category)

* serial\_number, manuf: FK(ivm)
* stored\_category: FK(category)

warm\_shelf(serial\_number, manuf, nr, height, stored\_category)

* serial\_number, manuf: FK(ivm)
* stored\_category: FK(category)

cold\_shelf(serial\_number, manuf, nr, height, stored\_category)

* serial\_number, manuf: FK(ivm)
* stored\_category: FK(category)

retailer(tin, name)

* UNIQUE(name)

category(name)

simple\_category(name)

super\_category(name)

planogram(ean, serial\_number, manuf, nr, faces, units, loc)

* ean : FK(product)
* serial\_number, manuf, nr: FK(shelve)

replenishment\_event(ean, serial\_number, manuf, nr, retailer\_info, instant, units)

* ean, serial\_number, manuf, nr
* IC-1: the number of units replenished can not exceed the number specified in the planogram
* retailer\_info : FK(retailer)

installations(serial\_number, manuf, address, nr)

* serial\_number, manuf: FK(ivm)
* address: FK(point\_of\_retail)

category\_hierarchy(category\_name, super)

* category\_name: FK(category)
* super: FK(super\_category)
* IC-2: a category can not be associated to itself
* IC-3: the categories can not form cycles

product\_classification(ean, category)

* ean: FK(product)
* category: FK(category)

retailer\_responsabilities(serial\_number, manuf, category\_name, name, tin)

* serial\_number, manuf: FK(ivm)
* category\_name: FK(category)
* tin: FK(retailer)

Álgebra Relacional

1.

2.

3.

4.

SQL

1.

SELECT aux\_table.ean, descr

FROM replenishment\_event

JOIN (SELECT product.ean, descr, category

FROM product

JOIN product\_classification

ON product.ean = product\_classification.ean

WHERE category = <INPUT\_CATEGORY>) AS aux\_table

ON replenishment\_event.ean = aux\_table.ean

WHERE units > 10 AND TIMESTAMPDIFF(SECOND,<INPUT\_TIMESTAMP>,instant) > 0;

2.

SELECT aux\_table.serial\_number

FROM ( SELECT product\_classification.ean, product\_classification.category

FROM product\_classification

WHERE product\_classification.ean = <input>

NATURAL JOIN ( SELECT shelve.serial\_number, shelve.category FROM category ) AS shelve\_info) AS aux\_table;

3.

SELECT COUNT(category\_hierarquy.category\_name)

FROM category\_hierarchy

WHERE category\_name = <input>

4.