Point\_of\_Retail(address,name)

IVM(serial\_number, manuf)

Shelve(serial\_number, manuf, nr, height, name)

* serial\_number, manuf: FK(IVM)
* name: FK(Category)
* RI-1: serial\_number, manuf, nr must exist in Ambient\_Temp\_Shelf and/or Warm\_Shelf and/or Cold\_Shelf
* RI-2: serial\_number, manuf, nr cannot exist in Ambient\_Temp\_Shelf and Warm\_Shelf and Cold\_Shelf simultaneously

Ambient\_Temp\_Shelf(serial\_number, manuf, nr)

* serial\_number, manuf, nr: FK(Shelve)

Warm\_Shelf(serial\_number, manuf, nr)

* serial\_number, manuf, nr: FK(Shelve)

Cold\_Shelf(serial\_number, manuf, nr)

* serial\_number, manuf, nr: FK(Shelve)

Retailer(TIN, name)

* UNIQUE(name)

Category(name)

* RI-3: name must exist in Simple\_Category and/or Super\_Category
* RI-4: name cannot exist in Simple\_Cartegory and Super\_Category simultaneously

Simple\_Category(name)

* name: FK(Category)

Super\_Category(name)

* name: FK(Category)
* RI-5: every name must participate in the has-other association

has-other(super\_name, name)

* super\_name: FK(Super\_Category.name)
* name: FK(Category.name)
* RI-6: super\_name is always diferent from name
* RI-7: there can be no circularity??????

Product(ean, descr)

* RI-8: every ean must participate in the has association

has(ean, name)

* ean: FK(Product)
* name: FK(Category)

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

* ean: FK(Product)
* nr, serial\_number, manuf: FK(Shelve)

Replenishment\_event(ean, serial\_number, manuf, nr, instant, units, TIN)

* ean, serial\_number, manuf, nr: FK(planogram.ean, planogram.serial\_number, planogram.manuf, planogram.nr)
* TIN: FK(Retailer)
* RI-9: units cannot exceed the established by its planogram
* RI-10: product can only be replenished in shelve where its category is represented

installed-at(serial\_number, manuf, address, nr)

* serial\_number, manuf: FK(IVM)
* address: FK(Point\_of\_Retail)

responsible-for(TIN, serial\_number, manuf, name)

* TIN: FK(Retailer)
* serial\_number, manuf: FK(IVM)
* name: FK(Category)

RI-11: a product can only be replenished by the retailer responsible for its category