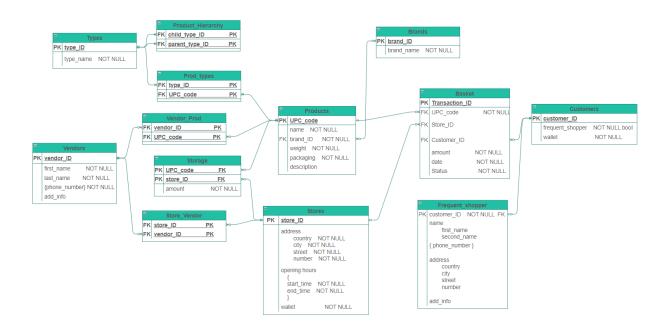
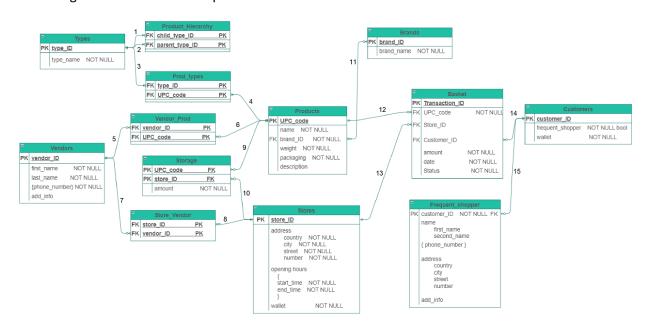
## **Project Tleusher Group**

## Updated ER-model



## numbering of relations and description:



- Types(type\_ID) Product\_Hierarchy(child\_type\_ID)
  and
- 2) **Types(type\_ID) Product\_Hierarchy(parent\_type\_ID): only 1 to 1 or many**, because children can have 0 or many parents and parents can have 0 or many children.

- 3) Types(type\_ID) Prod\_types(type\_ID) and
- 4) **Products(UPC\_code) Prod\_types(UPC\_code): only 1 to 1 or many**, because each product can be of different types.
- 5) Vendors(vendor\_ID) Vendor\_Prod(vendor\_ID) and
- 6) **Products(UPC\_code) Vendor\_Prod(UPC\_code): only 1 to 0 or many**, because each vendor can sell different products of different brands or nothing.
- 7) Vendors(vendor\_ID) Store\_Vendor(vendor\_ID) and
- 8) **Stores(store\_ID) Store\_Vendor(store\_ID): only 1 to 0 or many**, because each vendor can work with 0 or many stores.
- 9) Products(UPC\_code) Storage(UPC\_code) and
- 10) **Stores(store\_ID) Storage(store\_ID): only 1 to 0 or many**, because stores may sell multiple products or nothing.
- 11) **Products(brand\_ID) Brands(brand\_ID): 0 or many to 0 or many**, because different brands may have the same product or nothing. The product may be unbranded.
- 12) **Products(UPC\_code) Basket(UPC\_code): only 1 to 0 or many**, because customers may buy a lot of goods at the same time.
- 13) **Stores(store\_ID) Basket(store\_ID): only 1 to 0 or many**, because different customers may buy in different stores at the same time.
- 14) Customers(customer\_ID) Basket(customer\_ID): only 1 to 0 or many, because the customer can buy several items or nothing
- 15) **Customer(customer\_ID) Frequent\_shopper(customer\_ID): only 1 to 0 or 1**, because not all customers are frequent shoppers

## DG - schema project - show visualization

