**Project Step-4 Report**

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Our project is about database of a Electronic Store/Company. Our company manufactures only Household Appliances in our factories , other items such as Televisions , Basic Electronics , Computer Parts are needed to be supplied from a supplier. Items are sold from stores. Every store has at least 2 employee and one of the employees on the store need to be Manager of that store.

**Data Requirements**

1. Item is the product our company sells. Each item has unique ID as identifier , price , brand , production year , item description , item type. An item can be either Supplied Item or Household Appliances.
   1. Our company manufactures only Household Appliances. Manufactured items are created in factory using raw materials. That raw materials are supplied from a supplier.
      1. Household Appliances has type and productivity.Type can be either Refrigerator , Dishwasher or Washing Machine. Productivity can be either A++ , A+ , A , B , C , D.
   2. Other Items such as , Television , Basic Electronics , Computer parts are ordered.Ordered Items comes directly from supplier.
      1. Ordered Item can be either Television , Basic Electronic or Computer Parts.
         1. Every Television has Screen Size , Screen Resolution. A television can be smart or not.Screen Screen Resolution can be either 720p , 1080p or 4K.
         2. Basic Electronics has Electronic Type. That can be either Coffe Machine , Hairdryer or Kettle.
         3. Computer Parts has Part Type. That can be either GPU , CPU , RAM or Harddisk.
            1. Every GPU has Model.That can be either Low-end , Mid-tier , High-end.
            2. Every Cpu has Cpu Model and Core count. Model can be Low-end , Mid-tier , High-end. Core count can be either 2 , 4 , 6 , 8 , 12.
            3. Every ram has Ram amount and speed. Ram amount can be either 2 , 4 ,8 ,16. Ram speed can be 2133mhz 2666mhz or 3200mhz.
            4. Every Harddisk has Capacity. That can be either 500GB , 1TB or 2 TB.
2. Supplier has a unique id name , country , city ,Address and phone number. Supplier supplies ordered items. Supplier doesn’t have to supply any item, but every item should be supplied by a supplier and supplier can only supply one type of item.
3. Factories has unique ID , country, city , Address and Production Capacity. Every factory should use at least one raw material and one Factory must manufacture at least one item.Every factory can manufacture only one type of item.
4. Every Store has unique ID , country, , city , Address , phone number , Rent and Revenue. Every store must have at least one employee. An item should be stored in a store. Every store must contain many items. Every Store must have a manager.
5. Employee has unique ID. And has First Name , Last Name ,phone , salary , hire date, store id , manager id .Every employee is managed by one other employee. One employee can manage many employees.
6. Order Line has unique ID Customer\_ID , Total Price , departure address , destination address, order Date . Every order line must contain at least one item, an item doesn’t have to be in a order line.
7. Every Customer has unique ID ; First Name , Last Name , Phone Number , mail address. Mail address is not necessary. Every Customer has a basket. A basket can be at most one customer’s.

**Tables**

* ITEM : Object that Company sells  
  itemid : int Primary Key  
  price : float  
  brand : varchar(50)  
  item\_description : varchar(500)  
  item\_type : varchar(50) - To determine what type of item it is
* STORE  
  storeid : int Primary Key  
  country : varchar(50)  
  city : varchar(50)  
  address : varchar(50)  
  phone : varchar(20)
* STORE REVENUE  
  storeid : int Foreign Key STORE(storeid)  
  monthly\_revenue : float  
  month\_start : Date
* EMPLOYEE  
  employeeid : int Primary Key  
  storeid : Foreign Key STORE(storeid)  
  first\_name : varchar(50)  
  last\_name : varchar(50)  
  phone : varchar(20)  
  salary : int  
  hired\_date : Date  
  Managerid : int Foreign Key EMPLOYEE(employeeid)
* STORE ITEM : Product of Normalization  
  storeid : int Foreign Key STORE(storeid)  
  itemid : int Foreign Key ITEM(itemid)  
  quantity : int
* SUPPLIER  
  supplierid : int Primary Key  
  name : varchar(50)  
  country : varchar(50)  
  city : varchar(50)  
  adress : varchar(150)  
  phone : varchar(20)
* CUSTOMER  
  customerid : int Primary Key  
  first\_name : varchar(50)  
  last\_name : varchar(50)  
  phone : varchar(20)  
  email : varchar(50)
* CUSTOMER ADRESS : Product of Normalization  
  customerid : int Foreign Key CUSTOMER(customerid)  
  country : varchar(50)  
  city : varchar(50)  
  adress : varchar(150)
* ORDER LINE  
  orderlineid : int Primary Key  
  customerid : int Foreign Key CUSTOMER(customerid)  
  order\_rpice : float  
  departure\_address: varchar(150)  
  destination\_adress : varchar(150)  
  order\_date : Date
* ORDERED ITEM : Product of Normalization  
  orderlineid : int Foreign Key ORDERLINE(orderlineid)  
  itemid : int Foreign Key ITEM(itemid)  
  quantity : int
* FACTORY  
  factoryid : int Primary Key  
  country : varchar(50)  
  city : varchar(50)  
  adress : varchar(150)  
  production\_capacity : int
* HOUSEHOLD APPLIANCES  
  itemid : int Foreign Key ITEM(itemid)  
  factoryid : int Foreign Key FACTORY(factoryid)  
  applianceType : varchar(30)  
  applianceProductivity : varchar(4)
* SUPPLIED ITEM  
  itemid : int Foreign Key ITEM(itemid)  
  supplierid : int Foreign Key SUPPLIER(supplierid)
* TELEVISION  
  televisionid : int Foreign Key ITEM(itemid)  
  screenSize : float  
  screenResolution : char(9)  
  isSmart : ahar(1)
* BASIC ELECTRONIC  
  electronicid : int Foreign Key ITEM(itemid)  
  electronicType : varchar(20)
* COMPUTER PART  
  computerPartid : int Foreign Key ITEM(itemid)  
  partType : varchar(10)
* GPU  
  gpuid : int Primary Key  
  chipset : varchar(20)  
  memory : int
* CPU  
  cpuid : int Primary Key  
  cpuModel : varchar(20)  
  cpuCoreCount : varchar(2)
* RAM  
  ramid : int Primary Key  
  memory : int  
  speed : int
* HARDDISK  
  hddid : int Primary Key  
  memory : int

**Triggers & Stored Procedures**

**Views**

There are 2 views.

- One of them shows the most expensive orders by the customers in the database

-Other one shows the items that their production year was 2 or more years ago.

