Relational Schema

<u>Design Stage 2</u>
Data Prisoners

Create Table User
(SSN integer not NULL,
Name char(20),
Surname char(20),
Primary Key (SSN))

Create Table Customer
(SSN integer not NULL,
Address char(100),
Phone_no integer,
Primary Key (SSN)),
Foreign Key (SSN) references User)

Create Table Deliverer
(SSN integer not NULL,
Primary Key (SSN)),
Foreign Key (SSN) references User)

Create Table Stocker
(SSN integer not NULL,
Primary Key (SSN)),
Foreign Key (SSN) references User)

Create Table Cart
(Customer_ID integer not NULL,
Deliverer_ID integer,
Cart_ID integer not NULL,
Date date not NULL,
Total_Price real,
Delivery_status char(10),
Primary Key (Customer_ID, Cart_ID),
Foreign Key (Customer_ID) references Customer on delete cascade, ←weak entity
Foreign Key (Deliverer_ID) references Deliverer) ←one-to-many relationship b/w cart - deliverer merged here

Create Table Warehouse
(Name char(50) not NULL,
Capacity real not NULL,
Address char(100) not NULL,
Primary Key (Name))

Create Table Warehouse_Job
(W_name char(50) not NULL,
Date date not NULL,
Description char(50),
Stocker_ID integer not NULL,
Primary Key(W_name, Stocker_ID, Date),
Foreign Key(Stocker_ID) references Stocker, ←aggregate relationship (1-M) merged here
Foreign Key(W_name) references Warehouse on delete cascade) ← One-Time Job = weak entity

Create Table Truck
(Plate_no char(20) not NULL,
Capacity real not NULL,
Primary Key(Plate_no))

Create Table Truck_Used ← many-to-many relationship
(Plate_no char(20) not NULL,
Order_ID integer not NULL,
Primary Key(Order_ID, Plate_no),
Foreign Key(Order_ID) references Cart,
Foreign Key(Plate_no) references Truck)

Create Table Product
(Pnumber integer not NULL,
Description char(100),
Pname char(50),
Unit_price real,
Stock_amt real,
Unit char(10),
Bname char(20),
Primary Key (Pnumber),
Foreign Key (Bname) references Brand) ← one-to-many relationship b/w product and brand merged here

Create Table Brand
(Bname char(20) not NULL,
Description char(100),
Primary Key (Bname))

Create Table Product_In_Cart ← many-to-many relationship
(Pnumber integer not NULL,
Cart_ID integer not NULL,
Amount real not NULL,
Primary Key(Pnumber, Cart_ID),
Foreign Key(Pnumber) references Product,
Foreign Key(Cart_ID) references Cart)