DELUXE DEPARTMENT STORE

DATABASE DESIGN PROJECT

BY

SUMANTH MUDHAM

Entities

- Supplier

- Item

- Order

- Warehouse

- Department

Entities & Attributes

Supplier

- Supplier_no. (1-1000) → PK
- Name
- Address
- Phone

Item

- Item_no. (00000-99999) → PK
- Name
- Color
- Price
- Description

Order

- Order_no. (000000-999999) → PK

- Date the order was placed

- Date the order was shipped

- Place the order was shipped from

- Place the order was shipped to

- Date the order arrived

Warehouse

- Warehouse_no. → PK

- Manager_ID

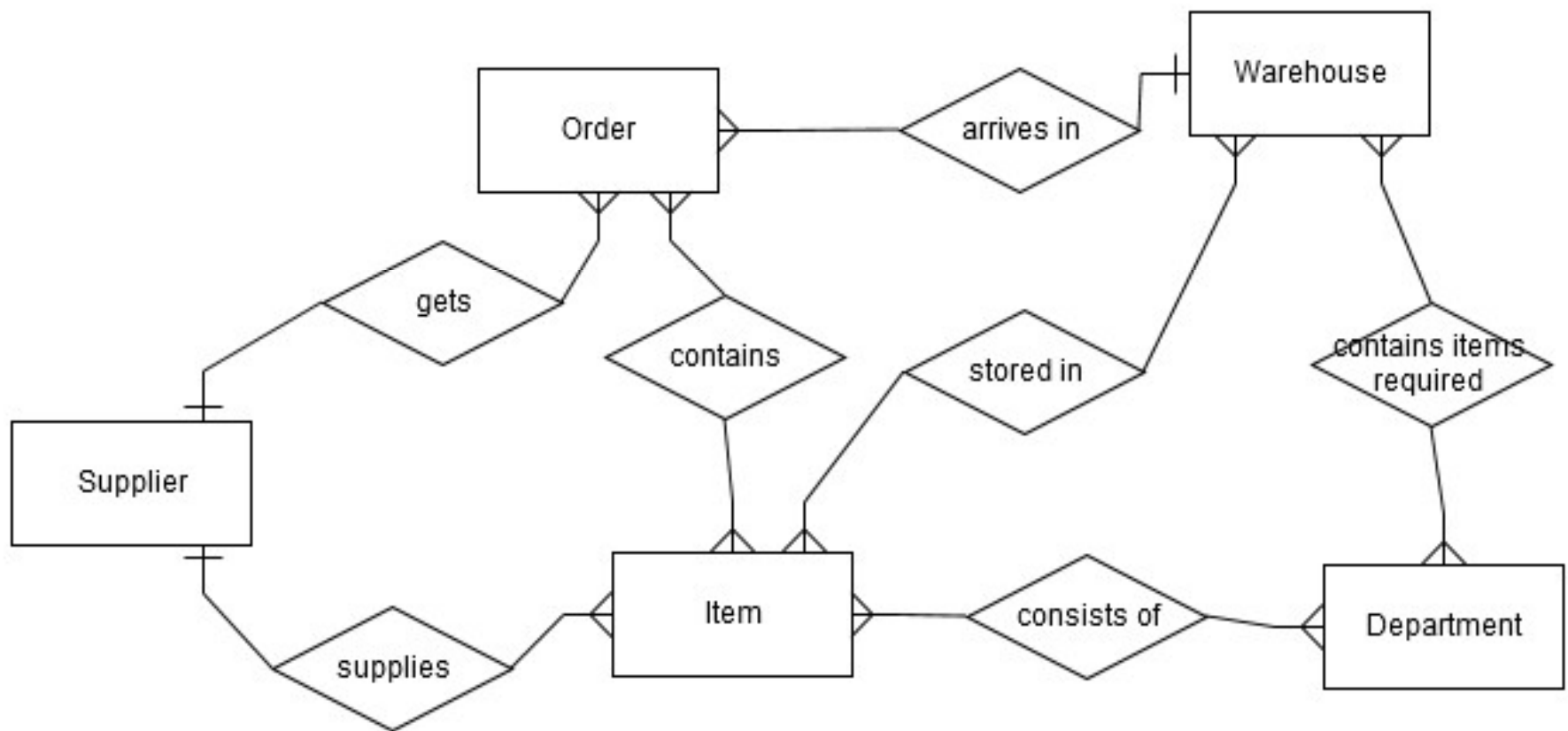- Manager_name

- Address

- Phone

Department

- Department_no. → PK

- Name

Relationships

Sl. No.	Entity Name	Entity Name	Relationship Name	Mapping	Relationship Data
1	Supplier	Item	Supplies	1:M	None
2	Supplier	Order	Gets	1:M	None
3	Order	Item	Contains	M:N	Quantity
4	Item	Warehouse	Stored in	M:N	Quantity
5	Department	Item	Consists of	M:N	Quantity sold Quantity left
6	Order	Warehouse	Arrives in	M:1	None
7	Warehouse	Department	Contains items required	M:N	None

Entity Relationship Diagram

Tables

➤ Supplier

Supplier_no.	Name	Address	Phone

➤ Item

Item_no	Name	Color	Price	Description	Supplier_no.

➤ Order

Order_no	Date the order was placed	Date the order was shipped	Place the order was shipped from	Place the order was shipped to	Date the order arrived	Supplier _no.	Warehouse _no.

➢ Warehouse

Warehouse_no.	Manager_ID	Manager_name	Address	Phone

➢ Department

Department_no.	Name

➢ Order_item

Order_no.	Item_no.	Quantity

➢ Item_warehouse

Item_no.	Warehouse_no.	Quantity

➢ Warehouse_department

Warehouse_no.	Department_no.

➢ Department_item

Department_no.	Item_no.	Quantity arrived	Quantity remained	Date the item arrived in department

Transactions

Transaction Name and Description	Frequency	Entities Involved	Read/Write	Batch/Online
Items supplied	1/week	Item, Supplier	Read	Online
Outstanding items	1/week	Item, Order	Read	Batch
Orders placed	1/day	Supplier, Order	Read	Online
Adding new suppliers and items they supply	3/month	Supplier, Item	Write	Online
Removing the supplier	1/month	Supplier	Write	Online
Cancelling outstanding orders placed from the removed suppliers	1/month	Order, Supplier	Write	Online

Transactions

Transaction Name and Description	Frequency	Entities Involved	Read/Write	Batch/Online
Returning the delivered items which are supplied by the removed suppliers	1/month	Item, Supplier, Order	Write	Online
Items particular in inventory which are supplied by removed suppliers	1/month	Item, Warehouse, Supplier, Order	Read	Online
Items placed for particular order	30/day	Item, Order	Read	Online
Current order having particular item	400/day	Order, Item	Read	Online
Outstanding orders due to transportation problems	10/year	Order, Supplier	Read	Online

Transactions

Transaction Name and Description	Frequency	Entities Involved	Read/Write	Batch/Online
Warehouse details including items and departments	1/week	Warehouse, Item, Department	Read	Online
Items asked by the departments stored in warehouse	Any time	Item, Warehouse, Department	Read	Online
Quantity of items stored in warehouses	1/week	Item, Warehouse	Read	Online
Report for each department indicating which items they have in warehouse	1/week	Item, Warehouse, Department	Read	Online

Transactions

Transaction Name and Description	Frequency	Entities Involved	Read/Write	Batch/Online
Merchandise details in each department	1/day	Item, Department	Read	Online
Quantity of each item remained and date it arrives in department	1/day and 1/week	Item, Department	Read	Online
Item details and quantity in department and in warehouse accessed by each manager	50 to 200/day	Item, Department, Warehouse	Read	Online