

MALL BANEGA SMALL

Project Introduction:

In today's fast-paced retail environment, efficient inventory management is crucial for the smooth functioning of malls and retail chains. Our project aims to develop a comprehensive database system for managing inventory for malls, using D-Mart Mall as a prototype.

Key Features:

- **Centralized Inventory Management:**

The system provides a centralized inventory management solution for D-Mart Mall, allowing efficient tracking of items from multiple warehouses and suppliers.

- **Automated Reordering:**

The system automatically triggers reorders when item quantities fall below the reorder level. If the item is low in the mall's inventory, it places an order with the warehouse. Similarly, if the warehouse inventory is low, it places an order with the respective supplier.

- **Supplier Management:**

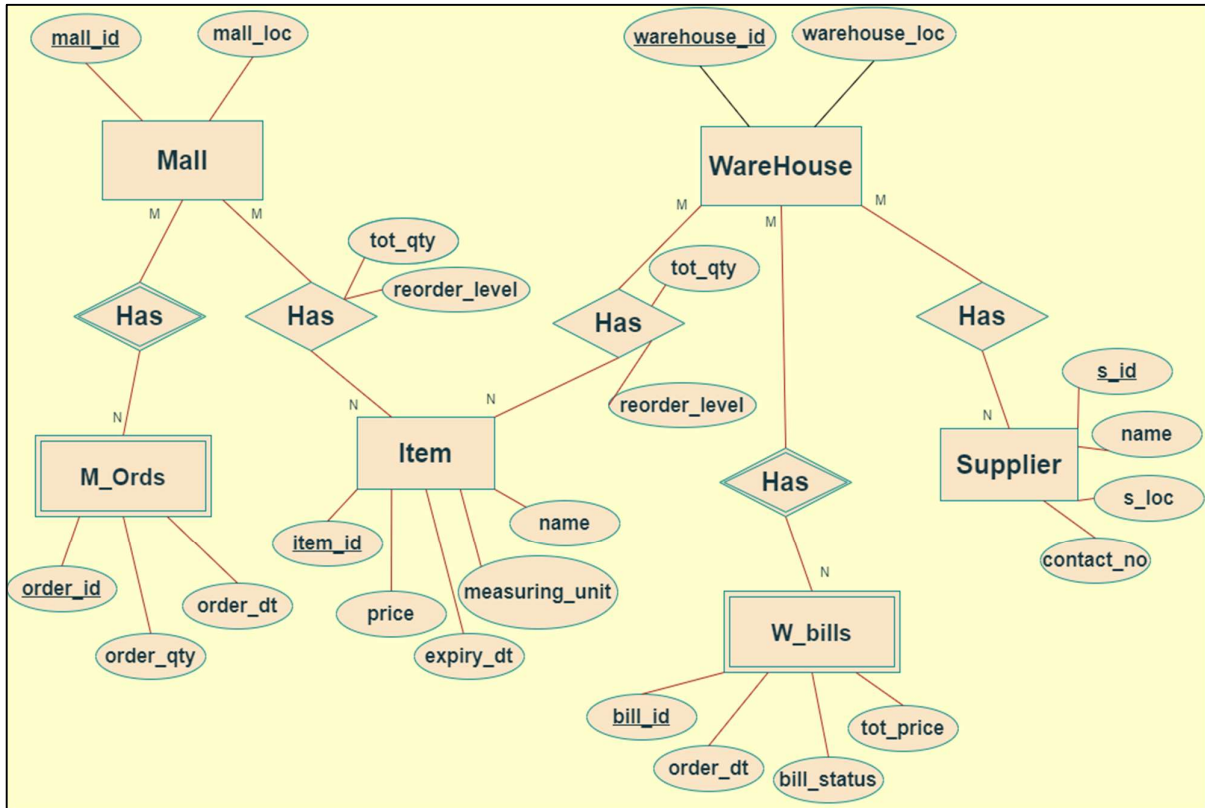
The system maintains a comprehensive database of suppliers, including details such as supplier ID, name, contact information, and product offerings.

- **Item Management:**

Details of all items including their ID, name, price, and expiry date are stored in the database, enabling efficient tracking and management.

With our robust inventory management system, D-Mart Mall can streamline its operations, ensure optimal inventory levels, and minimize stockouts. By automating the reordering process and providing real-time insights, the system empowers the mall to provide better service to its customers while optimizing its supply chain.

Entity-Relationship (ER) Diagram:



The resulting tables are:

- warehouse (warehouse_id, warehouse_loc)
- mall (mall_id, mall_loc)
- item (item_id, item_name, expiry_dt, measuring_unit, price)
- supplier (s_id, name, s_loc, contact_no)
- warehouse-item (warehouse_id, item_id, tot_qty, reorder_level)
- mall_item (mall_id, item_id, tot_qty, reorder_level)
- warehouse_supp_details(warehouse_id, item_id, s_id)
- warehouse-bills (bill_id, order_dt, bill_status, tot_price, warehouse_id, item_id, s_id)
- mall-supp-details (mall_id, item_id, warehouse_id)
- mall-orders (order_id, order_qty, order_dt, mall_id, item_id, warehouse_id)

HOW IT WORKS:

- Whenever an item table is updated, it is checked that if the resulting available qty is less than reorder level for that item or not. If it is then it will order the warehouse.
- Now when the warehouse will receive the order, it would check whether the order will be accepted or not.

If the order is accepted then it would update its item table.

Now if the warehouse item qty is less than the reorder level then it would order the supplier.

Once the bill is paid then it would again update its item table.