

PRODUCT SUPPLY MANAGEMENT SYSTEM

Submitted as a part of course curriculum for

UE19CS301 DATABASE MANAGEMENT SYSTEM



Under the guidance of

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Problem Statement:

This project focuses on managing the product supply. The products can be supplied to customers based on the availability in the product warehouse. If the product is available then the order can be placed by the customer. The estimated delivery speed can be provided to the customer according to their location.

Background:

User is the product supplier. USER stores name which has first name and last name, unique id, phone number, email id, address. User have to login, LOGIN requires id, role id, username, password, user has different set of ROLES which contains name, id, description of the role.

User requires PERMISSION which requires id, role id, name and the module, user when received an order from customer checks or manages the INVENTORY through its unique id, items, number, type of order and description, Inventory has STOCK, which contain stock id, description and its types.

After the user manages to check inventory for stocks, user supply manages the PRODUCT which has a description of the product, id, customer id, items, number and type of product.

User provides the customer two types of DELIVERY, the first type is normal delivery which stores information like type of delivery, customer id, delivery date, unique delivery id and description.

One more type is EXPRESS DELIVERY based on MEMBERSHIP of the customer which contains the purchase date of membership, id, expiry date and details of the purchase.

Express delivery has its unique id, description and delivery date.

Entries and attributes:

- **User:**

- Attributes:**

1. Name(user_name):a)first name(first_name)
b)last name(last_name)

2. user address(user_address)
3. user phone number(user_mobile)
4. email id(user_email)
5. id(user_id) user_id is key attribute

- **Login:**

1. login role id(login_role_id)
2. login id(login_id)
3. username(login_username)
4. userpassword(user_password), login_id

and login_username are key attributes

- **Roles:**

1. role id(role_id)
2. name(role_name)
3. description(role_desc) role_id

is key attribute

- **Permission:**

1. name(per_name)
 2. id(per_id)
 3. module(per_module)
 4. role id(per_role_id)
- per_id is key attribute

- **Inventory:**

1. number(inv_num)
2. description(inv_desc)
3. items(inv_items)
4. id(inv_id)
5. type(inv_type) inv_id is key attribute here

- **Stock:**

1. stock id(stk_id)
2. type(stk_type)
3. description(stk_desc) stk_id is key attribute

- **Product:**

1. Items(pro_items)
2. product id(pro_id)
3. type(pro_type)
4. customer id(pro_cus_id)
5. description(pro_desc)
6. product number(pro_num) pro_id is key attribute

- **Membership:**

1. Purchase id(purchase_id)
2. Expiry date(expiry_date)
3. purchase date(purchase_date)
4. Purchasedetails(purchase_details) purchase_id is key attribute

- **Delivery:**

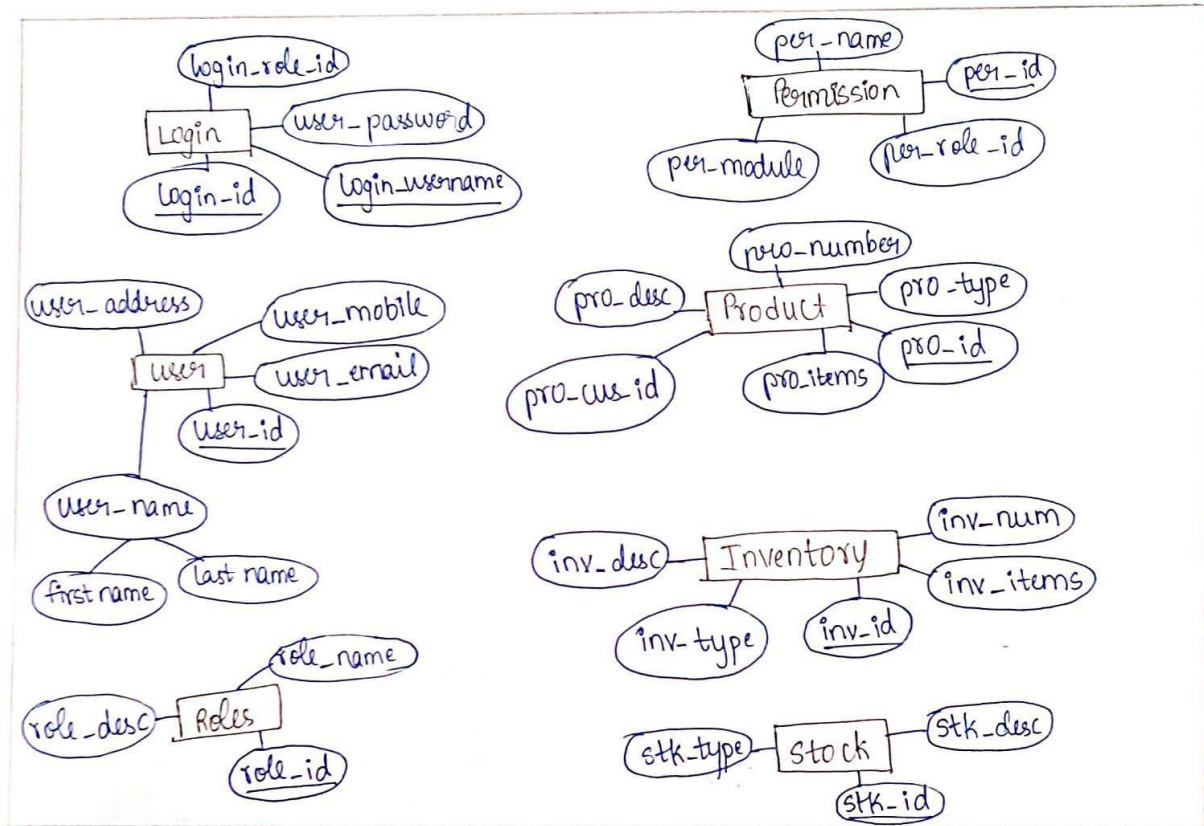
1. delivery date(del_date)
2. customer id(del_cus_id)
3. delivery id(del_id)
4. type of delivery(del_type)
5. description(del_desc) del_id is key attribute

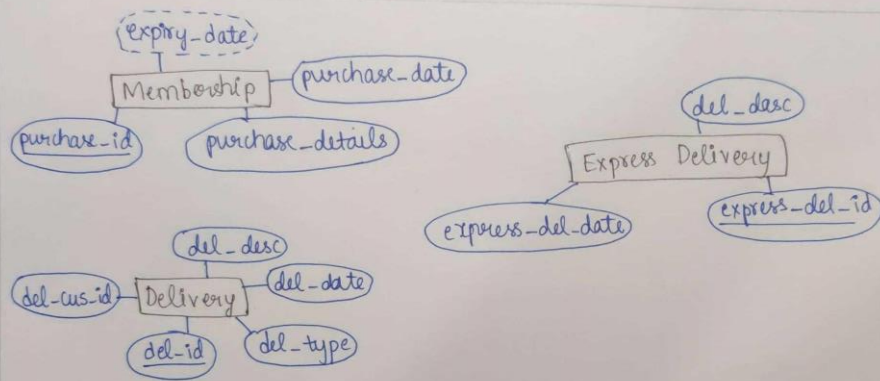
- **Express delivery:**

1. express delivery date(express_del_date)
2. delivery id(express_del_id)
3. description(del_desc) express_del_id is key attribute

All the stages of ER diagram(hand-drawn):

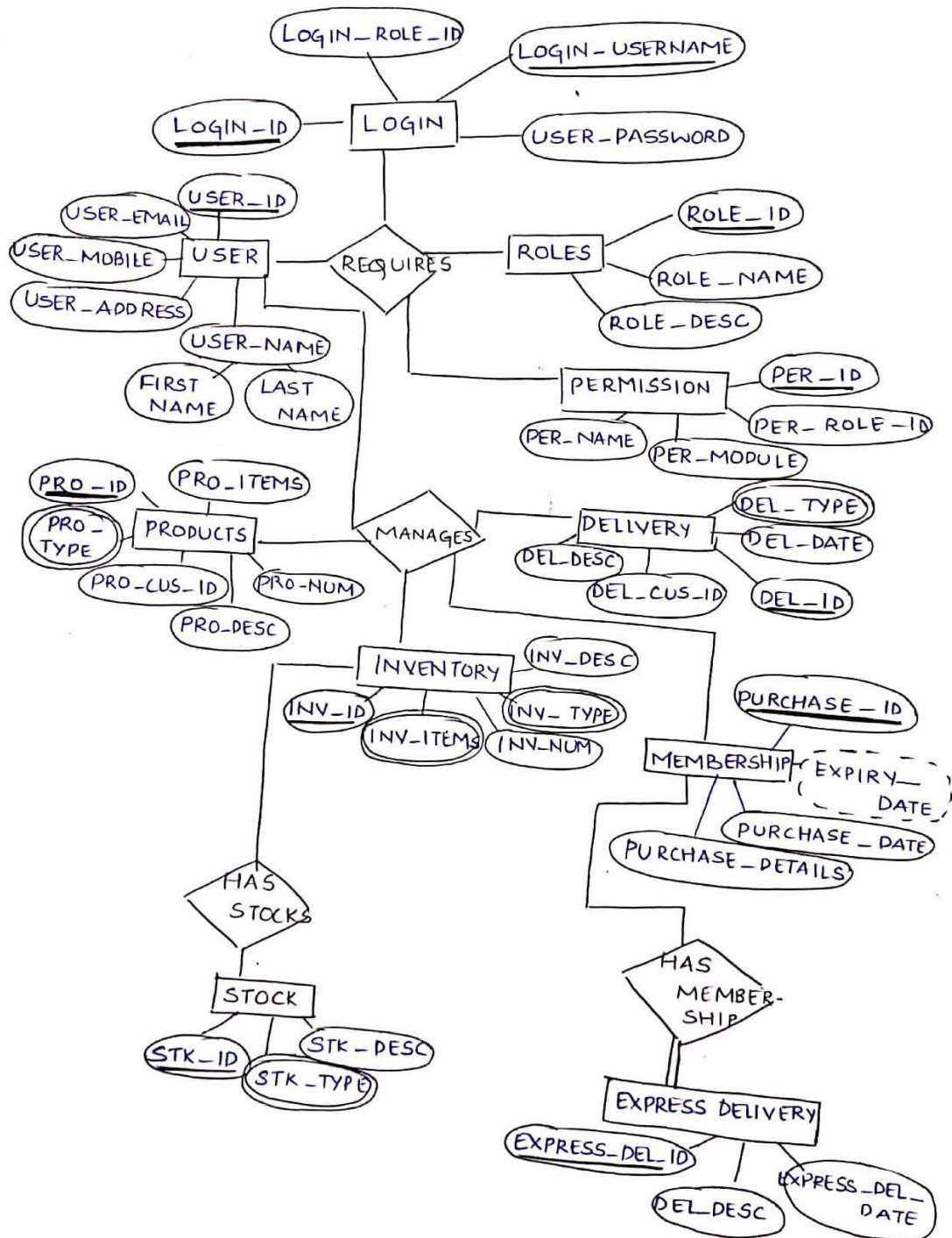
Step 1:Entity and their attributes diagrams



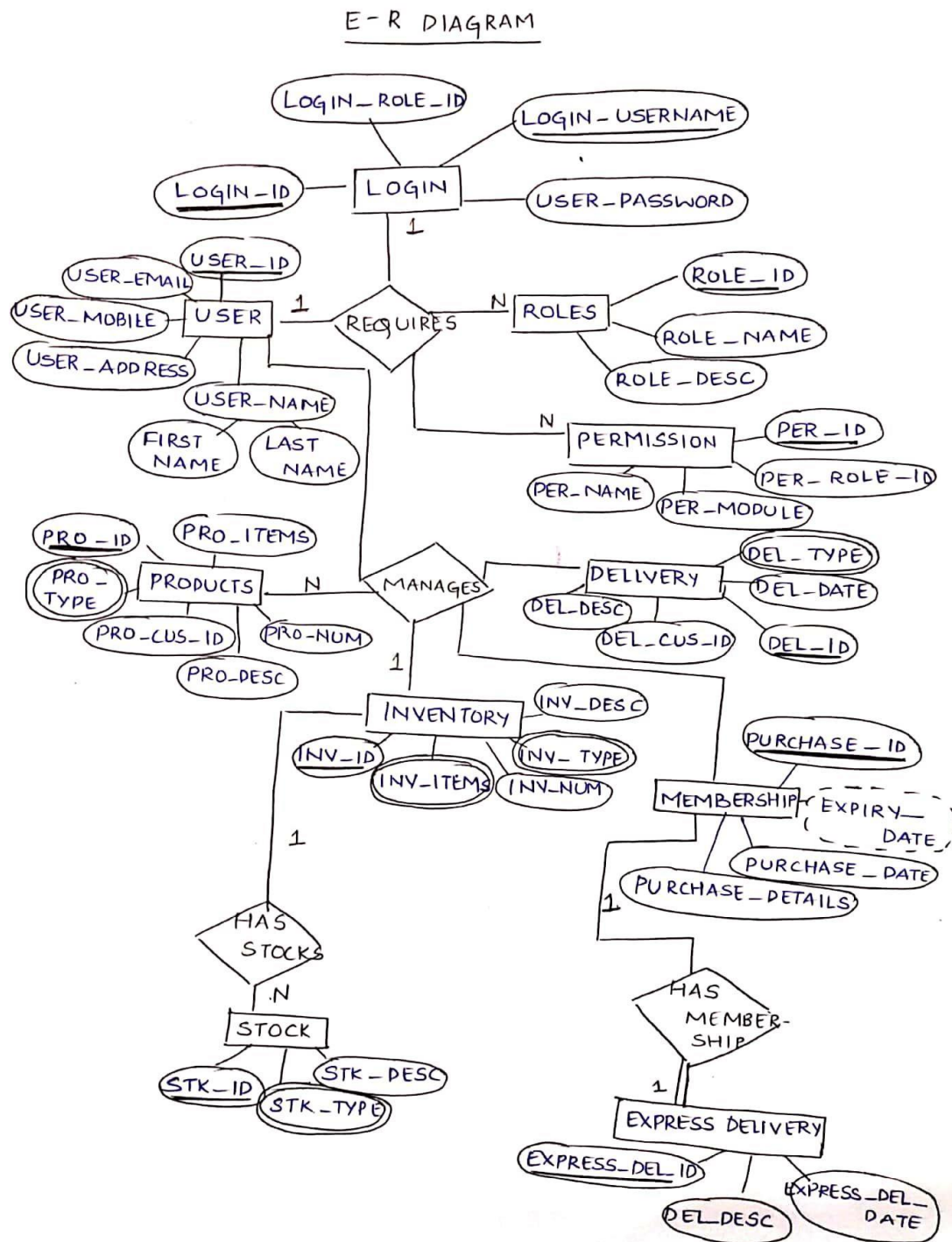


Step 2: Entities and attributes with relationships:

E-R DIAGRAM



Step 3: Entities and attributes with relations and constraints:



Er Tool used:

Lucidchart

The Er tool that I have used is Lucidchart. The reason that I picked LucidChart is because it is easy to learn and is an excellent choice for diagramming software. It has well-stocked libraries of templates and objects making it a valuable tool for non-designers. Lucidchart is a web-based proprietary platform that allows users to collaborate on drawing, revising and sharing charts and diagrams.

Reference Links and installation steps for the tool: To access the browser form of Lucidchart use: <https://www.lucidchart.com>

Final ER diagram using tool:

