The Virtual Bazaar

(Online Retail Store)

Project Deadline - 2

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Project Scope:-

As the name suggests, it's a Virtual Bazaar, an online retail marketplace (like Amazon, Flipkart etc.) where a user can buy a product from a wide range of products, and the retailers can sell their products. Also, there will be a delivery person responsible for getting those products to the customer's doorstep.
And for the customer, all these facilities are available with just a click for any product and all that being home. The platform will have various genres of products with a lot of variety, like clothes, books, electronic gadgets, furniture, etc. A person can sign up as a user to buy the product, as a retailer, or as a delivery guy who can deliver the product to the customer's doorstep. Customers can browse different products from different categories, view and update their cart, choose any favorable mode of payment, and even update their delivery address. Furthermore, retailers can add, update (make changes to the details/particulars of their products at any time they want), and delete any listed products anytime they want. Also, the delivery person can choose to accept or reject any delivery request according to them.
Our database management system will help find details and other information about retailers, delivery persons, and customers systematically by maintaining and following all the required ACID(Atomicity, Consistency, Isolation, and Durability) properties.

Functional Requirements:-

1. **ER(Entity-Relationship) Diagram:-**

   First we defined different entities and their attributes of our project all of which are indeed clearly mentioned in ER Diagram also attached with this doc-file :-

Login:-

Login_ID
Login_User
Login_Type
Login_passwd

Delivery Person:-

D_Name
First_Name
Last_Name
D_ID
D_Age ()
D_Gender
{D_Pno.}
D_DOB
D_Address

Retailer:-

R_Name

First_Name

Last_Name

R_ID

R_address

{R_Pno.}

R_Age ()

R_DOB

R_prodname

R_Prodprice

R_ProdDiscount

Customer:-

- *C_Name*
  - *First_Name*
  - *Last_Name*
- *C_ID*
- *C_DOB*
- *C_Age ()*
- *C_Address*
  - *Street No./Apt. No*
  - *District*
  - *City*
  - *State*
  - *PinCode*
  - *{C_Phone_no}*

Category:-

- *Cat_ID*
- *Cat_Name*

Product:-

- *P_Price*
- *Availability*
- *Category*
- *P_Name*
- *P_ID*
- *P_Discount ()*

Cart:-

- *Product_ID*
- *Product_Price*

Product_Name

Customer_ID

Order:-

Order_ID

P_ID

Total_Charges ()

Delivery:-

DeliveryPerson_ID

Address

Street No./Apt. No

District

City

State

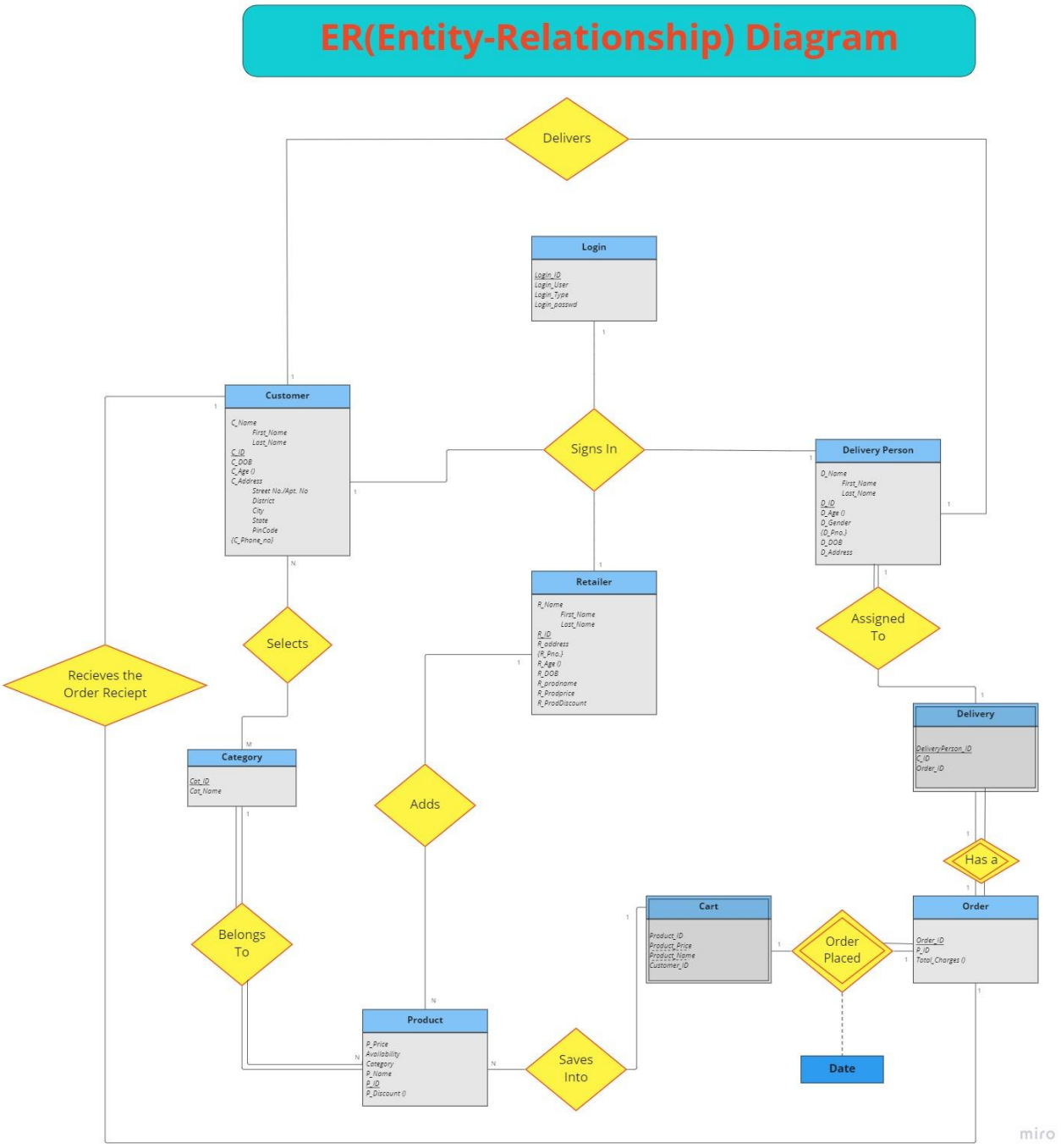
PinCode

Order_ID

About relationships and other notations:

All necessary relationships are highlighted with a diamond (according to the standard notation). Two lines are used for showing total participation while one for partial participation. Also cardinality ratios of 1:1, 1:N, N:1, M:N are assigned wherever required. Weak entities(one whose existence is dependent on another entity) are highlighted with a double rectangle and their relationships with strong entities are highlighted with a double diamond. Composite attributes are written with a tab wherever needed. Derived attributes like Age are mentioned with parentheses in front of them.

As usual primary keys are highlighted with an underline and all entities(except weak) in a rectangle. Multivalued attributes are denoted with “{ }” curly braces.



2. Relational Diagram:-

In the Relational Diagram we showed how different foreign key attributes of the entities were dependent on primary key attributes of other entities with the help of arrows as clearly mentioned in the Relational diagram attached with this doc-file. All the relationships mentioned in our Relationship schema are enough to build our robust database with the help of the design of the entity sets information we designed.