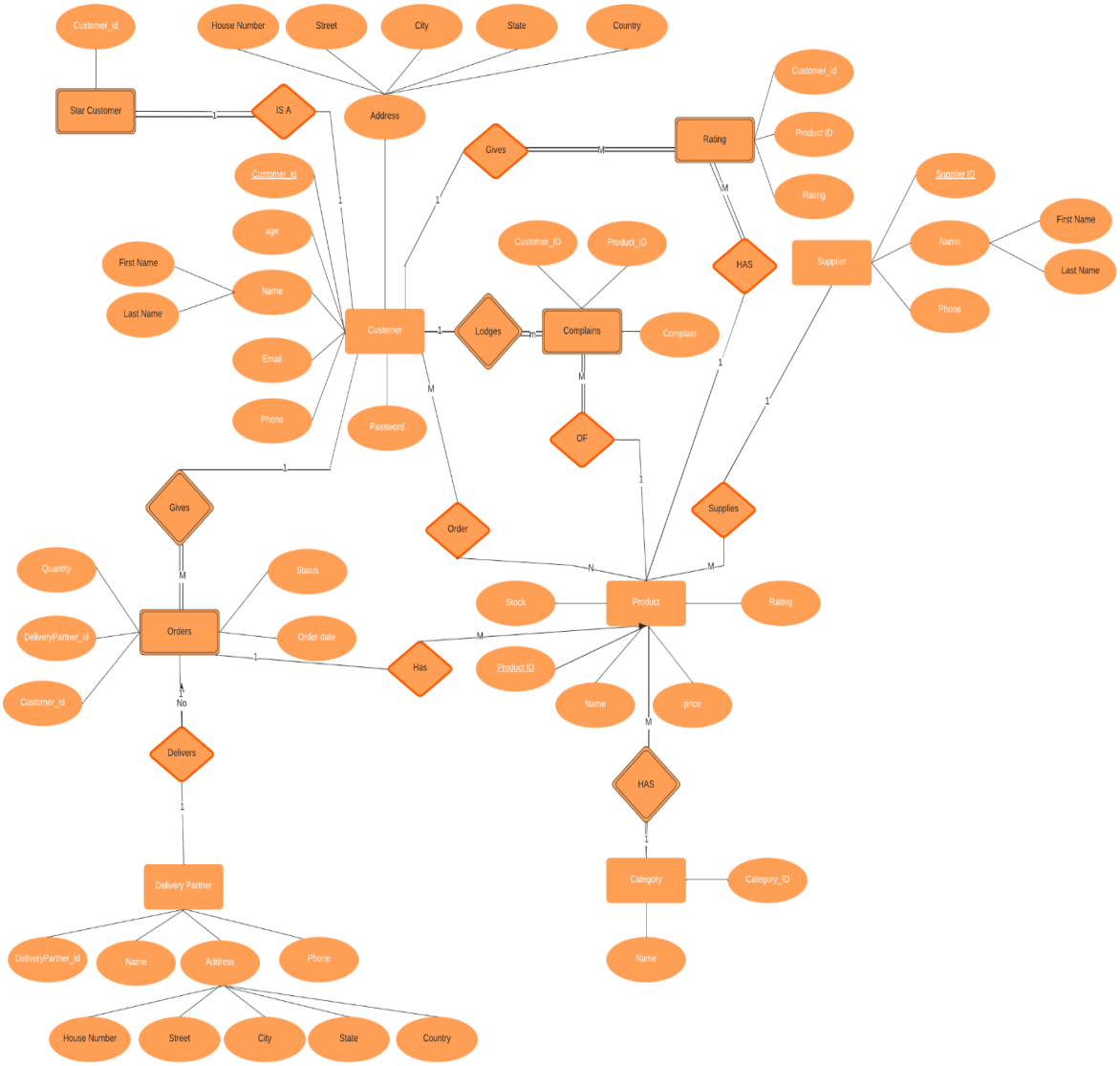
DBMS Midsem Evaluation

ER Diagram

Link


Customer_id
House Number
Street
City
State
Country
Star Customer
IS A
Address
Gives
Rating
Customer_id
Product ID
Rating
Customer_id
age
First Name
Name
Last Name
Email
Phone
Customer
Password
Lodges
Customer_ID
Product_ID
Complains
Complain
HAS
Supplier
Supplier ID
Name
First Name
Last Name
Phone
OF
Gives
Order
Supplies
Quantity
Status
DeliveryPartner_id
Orders
Order date
Customer_id
Has
Stock
Product
Rating
Product ID
Name
price
No
Delivers
HAS
Delivery Partner
Category
Category_ID
DeliveryPartner_id
Name
Address
Phone
Name
House Number
Street
City
State
Country

- Scope of the Project: Creating an online retail store.
- Entities: Customer,Star customer, Product, Complains ,Ratings,Supplier, Orders, Category, Delivery Partner.
- Weak Entity: Category ,Orders,Star customer, complaints,Ratings.
    - Reason: Category doesn't exist without product and order doesn't exist without the customer
    - Star customer exists only when there is a customer
    - Complaints and ratings exists only when they are registered by a user.
- No ternary Relationships as no three entities are interrelated.

Relational Schema

Customer(Customer_id,First Name,Last Name,Email,House Number,street,city,State,Country, Password,age,PhoneNumber)

Star Customer(Customer_id)

Product(Product_ID, Name, price, Stock, Category_ID)

Rating(Product_ID,Customer_id, rating)

Complaints(Product_ID,Customer_id, complaintText)

Category(Category_ID,Name)

Supplier(Supplier_ID, First Name, Last Name, PhoneNumber)

Supplies(Supplier_ID,Product_ID)

Orders(Customer_ID,DeliveryPartner_ID,Product_ID,Status,Quantity,Order Date)

Delivery Partner(DeliveryPartner_ID, First Name,Last Name,House Number,street,city,State, Country,PhoneNumber)

Queries:
Query 1: Show all details about customers who live in Uttar Pradesh

```
select *
from Customer
where state = "Uttar Pradesh"
```

Query 2: Show the name of customers whose names start with 'A'

```
select first_name, last_name
from Customer
where first_name like 'A%'
```

Query 3: Lists email ID of customer ordering products whose stock is less than 8

```
select Product.name, Product.stock, Customer.email
from Product, Customer, Order
where Customer.customer_id = Order.customer_id and Product.product_id =
Order.product_id
and Product.stock < 8
```

Query 4: Lists customer between the ages of 18 and 65

```
select customer_id, first_name, last_name, age
from Customer
where age BETWEEN 18 and 65
```

Query 5: Lists number of undelivered orders for each delivery partner

```
select Delivery_Partner.delivery_partner_id, Delivery_Partner.first_name,
Delivery_Partner.last_name, (select count(*) from Orders
where orders.delivery_partner_id = delivery_partner.delivery_partner_id
and Orders.status <> "Delivered") as "Undelivered Orders"
from Delivery_Partner
```

Query 6: Counts number of Senior Citizen customers

```
select count(*) as "Number of Senior Citizens"
from Customer
where age>65
```

Query 7: Products listed with their categories, that have the best reviews

```
select product.product_id, product.name, category.name,
(select avg(Rating.rating) from Rating
where Rating.product_id = Product.product_id)
as "Average Rating"
from Product, Category
where 7<(select avg(Rating.rating) from Rating
where Rating.product_id = Product.product_id)
and product.category_id = category.category_id
```

Query 8: Lists Phone Numbers of Customer, Delivery Partner and Supplier of orders involving Apples

```
select Customer.phone_number as "Customer Phone Number",
Supplier.phone_number as "Supplier Phone Number",
Delivery_Partner.phone_number as "Delivery Partner Phone Number"
from Customer, Supplier, Delivery_Partner, Product, Orders, Supplies
where Product.product_id = Orders.product_id
and Orders.delivery_partner_id = Delivery_Partner.delivery_partner_id
and Orders.customer_id = Customer.customer_id
and Product.product_id = Supplies.product_id
and Supplies.supplier_id = Supplier.supplier_id
and Product.name = "Apple"
```

Query 9: Lists a customer's previous orders

```
select Customer.first_name, Customer.last_name, Product.name,
Orders.order_date
from Customer, Product, Orders
where Customer.customer_id = Orders.customer_id
and Product.product_id = Orders.product_id
```

Query 10: Youngest Star Customer

```
select Customer.first_name, Customer.last_name, min(Customer.age) as
"Youngest Star Customer Age"
from star_customer, customer
where star_customer.customer_id = customer.customer_id
```