**DATABASE TECHNOLOGIES**

Design and explain an E-R diagram for any system of your choice with at least five entity types and four relationship types

For Entity types include the following types of Attributes:

1. **Simple Attributes:-**

Category name, product name

1. **Composite Attributes:-**

Customer name

1. **Single valued Attributes:-**

Payment

1. **Multi valued Attributes:-**

Email, contact of customer ,images

1. **Base Attributes:-**

Address

1. **Derived Attributes:-**

City, state, house number

1. **Key Attributes:-**

Customer ID, category ID, product ID

**E commerce website E-R Diagram:**

BUY

PRODUCT

VIEW

BELONG

CATEGORY

CUSTOMER

servicesss

CUSTOMER SERVICE

RECEIVE

ORDER

City

**Requirement Analysis:**

* Many customer can view many products.
* For a particular product can have only one order details.
* One categories can have many products.
* A customer can place many order but a given order can be placed by one customer.
* Customer service receive feedback form from customer, so many customers can give many feedbacks and customer service can receive many feedbacks.

**RELATIONSHIP:**

PRODUCT

CUSTOMER

M N

view

* **Degree:-**  2
* **Participation Constraint:-** 1,1
* **Cardinality Ratio**:- M,M
* **Total Participation**:- customer(1,M) Product (N,1)

ORDER

PRODUCT

1 1

buy

* **Degree:-** 2
* **Participation Constraint:-** 1,1
* **Cardinality Ratio:-** 1,1
* **Total Participation:-** customer(1,1) Product (1,1)

CATEGORY

PRODUCT

M 1

belong

* **Degree:**- 2
* **Participation Constraint:-** 1,1
* **Cardinality Ratio:-** M,1
* **Total Participation:-** Product(1,M) Category(1,1)

1 M

recieve

ORDER

CUSTOMER

* **Degree:-** 2
* **Participation Constraint**:- 1,1
* **Cardinality Ratio:-** 1,M
* **Total Participation:-** customer(1,1) Order (1,M)

CUSTOMER

CUSTOMER SERVICE

M N

Feedback

* **Degree:-** 2
* **Participation Constraint**:- 1,1
* **Cardinality Ratio:-** M,N
* **Total Participation:-** customer service(1,M) Customer (1,N)