**FOR MySQL ONLY**

**NORMALIZATION**

Tables taken

-- Customer

Customer ( Cust\_ID, Cust\_name, Door\_no, Street, City, Cust\_Phone)

-- Loyalty Members

Loyalty\_members (Member\_ID, Cust\_ID (FOREIGN), Points)

-- Bills

Bills (Bill\_no, Staff\_ID (FOREIGN), Items, Amount, DoS, Cust\_ph, Discount)

-- Purchase Register

PurchaseRegister (Prod\_ID (FOREIGN), Org\_name (FOREIGN), Quantity, Amount, DoP)

-- Sales Register

SalesRegister (Bill\_no (FOREIGN), Items, Amount, DoS)

X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X

NORMALIZED TABLES

1. Customer

**A screenshot of a computer screen

Description automatically generated**

Functional Dependency

* + - Cust\_ID -> Cust\_name, Door\_no, Street, City, Cust\_Phone

There is no partial, transitive, multi-valued or join dependencies.

* + - Cust\_id is a Super Key, hence it is a Primary key
    - The other attributes are fully functionally dependent on Cust\_ID

1. Loyalty\_Members

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Functional Dependencies:

* + - Member\_ID -> Cust\_ID, Points

There is no partial, transitive, multi-valued or join dependencies.

* + - Member\_ID is a Super Key, hence it is a Primary Key
    - The other attributes are fully functionally dependent on Member\_ID.

1. Bills

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Description automatically generated**

Functional Dependency:

* + - Bill\_no -> Staff\_ID, Item1, Item2, Item3, Item4, Item5, Amount, DoS, Cust\_ph, Discount

This table has repeating groups.

This can be normalized by using 1NF.

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1. Purchase\_Register

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Description automatically generated**

Functional Dependencies:

* + - Prod\_ID -> Org\_name
    - Prod\_ID -> Quantity
    - Prod\_ID -> Amount
    - Prod\_ID -> DoP

This table needs normalization to remove partial dependencies. This can be done by using 2NF.

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A screenshot of a computer program

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1. Sales\_Register

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Functional Dependencies:

* + - Bill\_no -> Item1, Item2, Item3, Item4, Item5, Amount, DoS

This table needs normalization to remove repeating groups. This can be normalized by using 1NF.

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