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**Here is the code for the schema**

```
CREATE DATABASE superMarket;  
USE superMarket;
```

```
CREATE TABLE department(  
    departmentName VARCHAR(20) NOT NULL,  
    managerID INT(5) NOT NULL,  
    vacancy INT,  
    PRIMARY KEY (departmentName)  
);
```

```
CREATE TABLE product(  
    productID INT(4) NOT NULL CHECK(productID BETWEEN 1000 and 5999),  
    productName VARCHAR(50) NOT NULL,  
    brandName VARCHAR(50) NOT NULL,  
    departmentName VARCHAR(20) NOT NULL,  
    costPrice DECIMAL(10,2) NOT NULL CHECK(costPrice > 0),  
    MRP DECIMAL(11,2) NOT NULL CHECK(MRP > 0),  
    quantityStock INT NOT NULL,  
    PRIMARY KEY (productID),  
    FOREIGN KEY (departmentName) REFERENCES department(departmentName)  
);
```

```
CREATE TABLE foodSection(  
    productID INT(4) NOT NULL CHECK(productID BETWEEN 1000 and 1999),  
    manufactureDate DATE,  
    expiryDate DATE NOT NULL,  
    quantity VARCHAR(10) NOT NULL,  
    PRIMARY KEY (productID),  
    FOREIGN KEY (productID) REFERENCES product(productID)  
    ON DELETE CASCADE  
    ON UPDATE CASCADE  
);
```

```
CREATE TABLE household(  
    productID INT(4) NOT NULL CHECK(productID BETWEEN 2000 and 2999),  
    quantity VARCHAR(10) NOT NULL,  
    category VARCHAR(50) NOT NULL,  
    PRIMARY KEY (productID),  
    FOREIGN KEY (productID) REFERENCES product(productID)  
    ON DELETE CASCADE  
    ON UPDATE CASCADE  
);
```

```
CREATE TABLE electronics(  
    productID INT(4) NOT NULL CHECK(productID BETWEEN 3000 and 3999),
```

```

        powerRating INT(1),
        warranty VARCHAR(100),
        details VARCHAR(200),
        PRIMARY KEY (productID),
        FOREIGN KEY (productID) REFERENCES product(productID)
        ON DELETE CASCADE
        ON UPDATE CASCADE
    );

CREATE TABLE sports(
    productID INT(4) NOT NULL CHECK(productID BETWEEN 4000 and 4999),
    warranty VARCHAR(100),
    details VARCHAR(200),
    category VARCHAR(50),
    PRIMARY KEY (productID),
    FOREIGN KEY (productID) REFERENCES product(productID)
    ON DELETE CASCADE
    ON UPDATE CASCADE
);

CREATE TABLE clothes(
    productID INT(4) NOT NULL CHECK(productID BETWEEN 5000 and 5999),
    category VARCHAR(50),
    size VARCHAR(3) CHECK (size IN ("XS", "S", "M", "L", "XL", "XXL")),
    season VARCHAR(20) CHECK (season IN("Summer Wear", "Winter Wear", "Monsoon
Wear", "AllTime")),
    PRIMARY KEY (productID),
    FOREIGN KEY (productID) REFERENCES product(productID)
    ON DELETE CASCADE
    ON UPDATE CASCADE
);

CREATE TABLE supplier(
    supplierID INT(4) NOT NULL,
    supplierName VARCHAR(50) NOT NULL,
    phoneNo DECIMAL(11, 0) NOT NULL,
    supplierAddress VARCHAR(200) NOT NULL,
    emailID VARCHAR(50) CHECK(emailID LIKE("%@%.%")),
    PRIMARY KEY (supplierID)
);

CREATE TABLE ordered(
    orderID INT(4) NOT NULL,
    supplierID INT(4) NOT NULL,
    productID INT(4) NOT NULL,
    orderDate DATE NOT NULL,
    quantityOrdered INT NOT NULL,
    PRIMARY KEY (orderID),
    FOREIGN KEY (supplierID) REFERENCES supplier(supplierID),
    FOREIGN KEY (productID) REFERENCES product(productID)
);

```

```
CREATE TABLE supplied(  
    supplyID INT(4) NOT NULL,  
    orderID INT(4) NOT NULL,  
    supplyDate DATE NOT NULL,  
    quantitySupplied INT NOT NULL,  
    PRIMARY KEY (supplyID),  
    FOREIGN KEY (orderID) REFERENCES ordered(orderID)  
);
```

```
CREATE TABLE employee(  
    employeeID INT(5) NOT NULL,  
    employeeName VARCHAR(50) NOT NULL,  
    DOB DATE NOT NULL,  
    phoneNo DECIMAL(11, 0) NOT NULL,  
    employeeAddress VARCHAR(200) NOT NULL,  
    emailID VARCHAR(50) CHECK(emailID LIKE("%@%.%")),  
    joinDate DATE NOT NULL,  
    salary DECIMAL(10,2) NOT NULL,  
    departmentName VARCHAR(20) NOT NULL,  
  
    PRIMARY KEY (employeeID),  
    FOREIGN KEY (departmentName) REFERENCES department(departmentName)  
);
```

```
CREATE TABLE discount(  
    discountID INT(5) NOT NULL,  
    amount DECIMAL(10,2) CHECK(amount >= 0),  
    discountPercent DECIMAL(4, 2) CHECK(discountPercent >= 0),  
    validUpto DATE NOT NULL,  
    details VARCHAR(200),  
    termsAndConditions VARCHAR(200),  
  
    PRIMARY KEY (discountID)  
);
```

```
CREATE TABLE offers(  
    discountID INT(5),  
    productID INT(4),  
    PRIMARY KEY (discountID, productID),  
    FOREIGN KEY (discountID) REFERENCES discount(discountID)  
    ON DELETE CASCADE  
    ON UPDATE CASCADE,  
    FOREIGN KEY (productID) REFERENCES product(productID)  
    ON DELETE CASCADE  
    ON UPDATE CASCADE  
);
```

```
CREATE TABLE customer(  
    customerID INT(9) NOT NULL,  
    customerName VARCHAR(50) NOT NULL,  
    phoneNo DECIMAL(9 , 0) NOT NULL,  
    customerAddress VARCHAR(200),
```

```

        emailID VARCHAR(50) CHECK(emailID LIKE("%@%.%")),
        joinDate DATE,
        moneySpent DECIMAL(12,2),

        PRIMARY KEY (customerID)
    );

CREATE TABLE bill(
    billNo DECIMAL(11 , 0) NOT NULL,
    billDate DATE NOT NULL,
    customerID INT(9) NOT NULL,
    amount DECIMAL(12, 2),

    PRIMARY KEY (billNo),
    FOREIGN KEY (customerID) REFERENCES customer(customerID)
);

CREATE TABLE sales(
    billNo DECIMAL(11 , 0) NOT NULL,
    productID INT(4) NOT NULL,
    discountID INT(5),
    quantitySold INT NOT NULL,
    PRIMARY KEY (billNo, productID),
    FOREIGN KEY (billNo) REFERENCES bill(billNo),
    FOREIGN KEY (productID) REFERENCES product(productID),
    FOREIGN KEY (discountID, productID) REFERENCES offers(discountID, productID)
);

```

### **Here is code to insert values into the tables**

```

insert into department values
    ("Food Section" , 10000 , 2),
    ("Household" , 10001 , 3),
    ("Electronics" , 10002 , 4),
    ("Sports" , 10003 , 5),
    ("Clothes" , 10004 , 1),
    ("Manager" , 10010 , 1);

```

```

insert into product values
    (1000 , "Biscuits" , "Britania" , "Food Section" , 15.00 , 20.00 , 100 ),
    (1001 , "Maggi" , "parle" , "Food Section" , 17.00 , 23.00 , 100 ),
    (2000 , "Surf Excel" , "Rin" , "Household" , 30.00 , 60.00 , 200 ),
    (2001 , "Tooth paste" , "Colgate" , "Household" , 25.00 , 30.00 , 100 ),
    (3000 , "Trimmer" , "Philips" , "Electronics" , 800.00 , 1099.00 , 20 ),
    (3001 , "Iron" , "Usha" , "Electronics" , 1000.00 , 1220.00 , 20 ),
    (4000 , "Racket" , "Yonex" , "Sports" , 1200.00 , 1700.00 , 5 ),
    (4001 , "Volley ball" , "Nivea" , "Sports" , 600.00 , 800.00 , 10 ),
    (5000 , "Tshirts" , "Denim" , "Clothes" , 1200.00 , 2000.00 , 10 ),
    (5001 , "Jeans" , "Killer" , "Clothes" , 2700.00 , 3500.00 , 10 );

```

insert into foodSection values

(1000 , '2018-11-10' , '2019-12-31' , "100 gm"),  
(1001 , '2018-07-10' , '2020-12-31' , "200 gm");

insert into household values

(2000 , '1/2 kg' , 'Detergent'),  
(2001 , '200 gm' , 'Tooth paste');

insert into electronics values

(3000 , 5 , '2 year' , "Use for trimming"),  
(3001 , 4 , '1/2 year' , "use for iron");

insert into sports values

(4000 , '1 year' , 'Yonex racket light weight' , "Badminton"),  
(4001 , '1/2 year' , 'Nivea balls' , "Vollyball");

insert into clothes values

(5000 , 'Tshirt' , 'XL' , "AllTime"),  
(5001 , 'Jeans' , 'XL' , "AllTime");

insert into supplier values

(2000 , "Shakti" , 8281112720 , 'West bengal' , 'shakti@gmail.com' ),  
(3008 , "Yonex" , 8281112721 , 'Kerala' , 'yo@gmail.com' );

insert into ordered values

(1000 , 2000 , 1001 , '2019-01-01' , 100),  
(1003 , 3008 , 4000 , '2018-12-01' , 10);

insert into supplied values

(1100 , 1000 , '2019-01-26' , 80),  
(1101 , 1003 , '2019-01-24' , 10);

insert into employee values

(100000 , "Dharma kunwara" , "1992-06-23" , 8281112729 , "Rajasthan" , 'dharma@gmail.com' ,  
'2001-01-01' , 100 , 'Household' ),  
(200000 , "Saptdeep awara" , "1996-06-24" , 8281112291 , "bengal" , 'saptdepp@gmail.com' ,  
'2011-01-01' , 100 , 'Sports' );

insert into discount values

(80000 , 100 , 20.00 , '2019-12-01' , "By company" , "By company"),  
(80020 , 1000 , 18.00 , '2019-10-01' , "By market" , "Always applied");

insert into offers values

(80000 , 1000),  
(80020 , 4001);

insert into customer values

```
(100010100 , "Saurabh" , 181112725 , "Punjab" , "saurabh@gmail.com" , '2016-01-12' ,  
100000.00 ),  
(100010101 , "gopal" , 181112715 , "up" , "gopi@gmail.com" , '2016-11-12' , 100000.00 );
```

insert into bill values

```
( 1111111111 , '2019-01-28' , 100010100 , 50000.00 ),  
( 11111110011 , '2019-01-25' , 100010100 , 25000.00 );
```

insert into sales values

```
(11111111111 , 1000 , 80000 , 10),  
(11111110011 , 4001 , 80020 , 12);
```