INFO 6210 NUID: 001280718
Spring 2017 Krutika Deshpande

Retail Store Management System

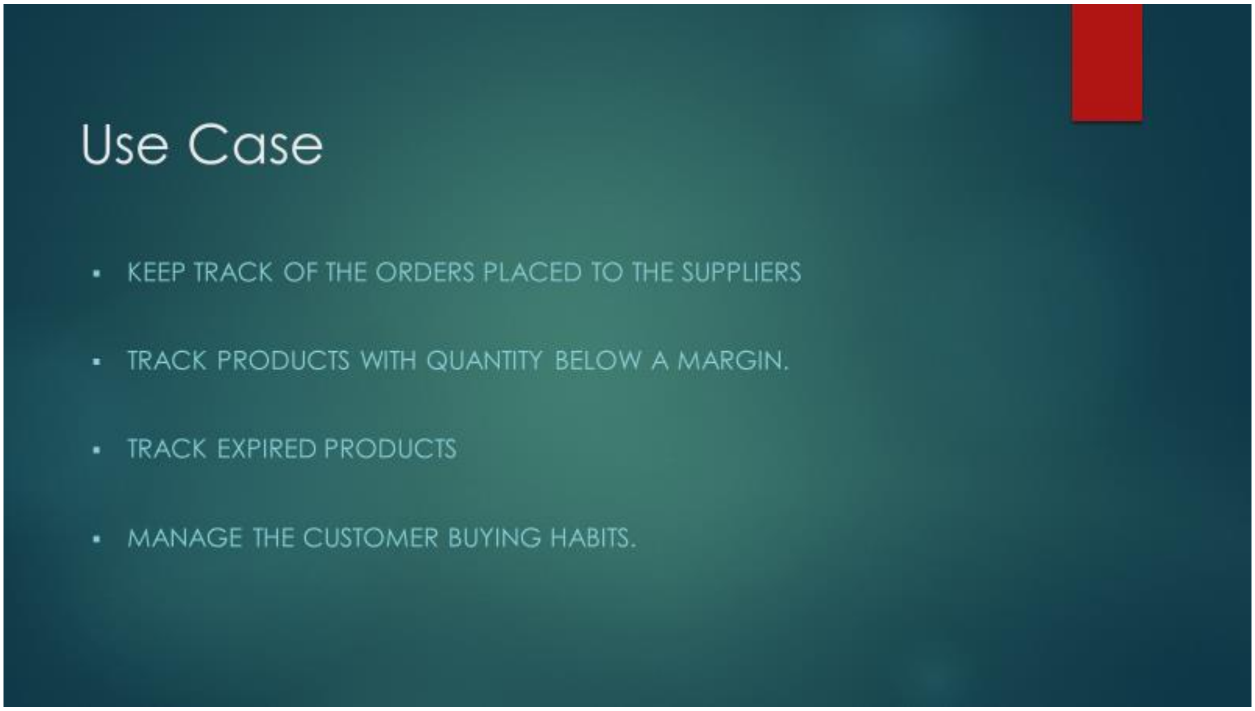
INDEX

Content **Page No.**

1. Problem Statement

A retail store sells small quantities of products or services to the public. This store generally buys products from the manufacturers in large quantities and sells it to the customer with a marked-up price. Retail businesses include large department stores and chains or individual shops located in every community. The store needs to keep track of the products to be ordered from the manufacturers. Based on the categories of products, the store should place order to the manufacturers. Customers buy products from the store as per their needs. The store wants to develop a database that will efficiently help to track the data of an entity. (i.e. Products, Supplier, ProductCategory, Orders etc.)

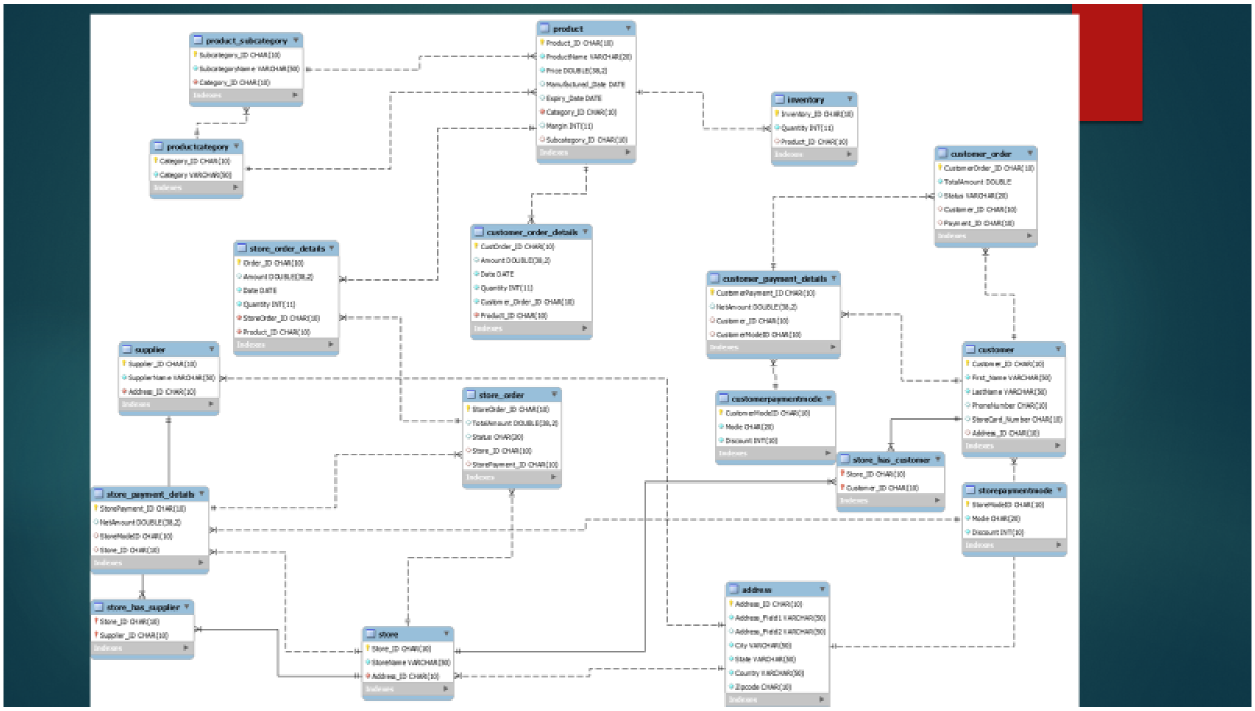
2. Use Case



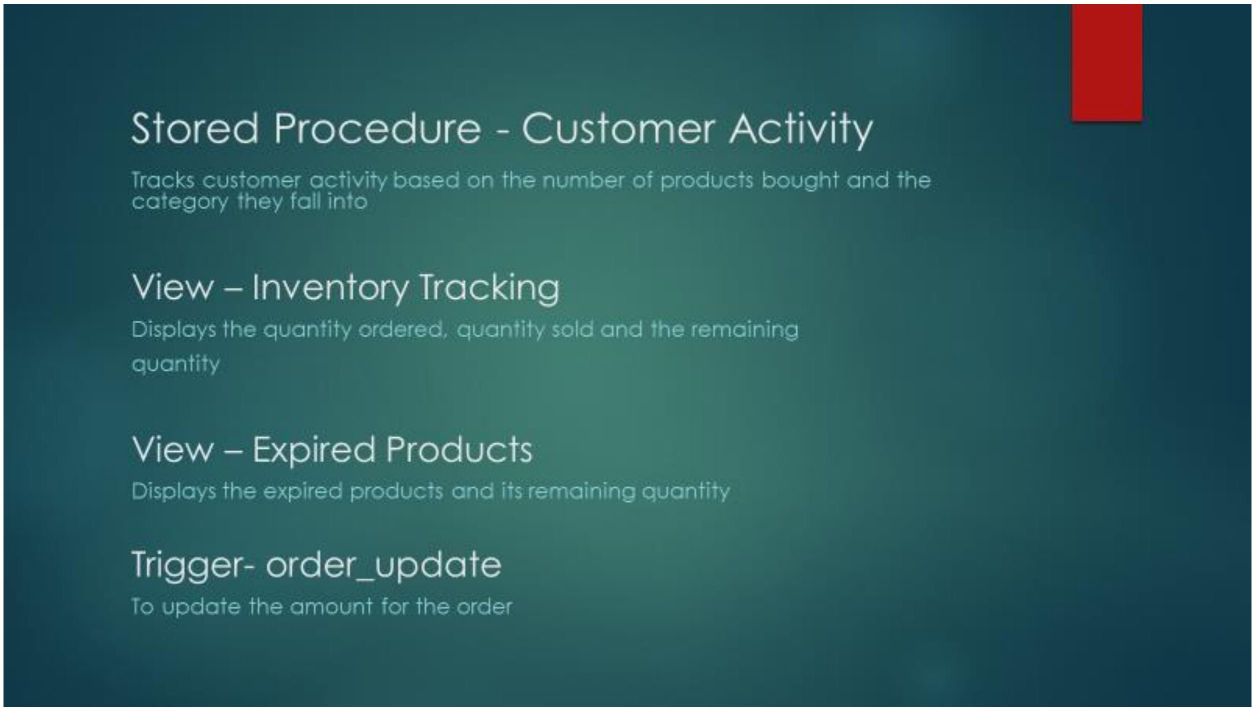
Use Case

- KEEP TRACK OF THE ORDERS PLACED TO THE SUPPLIERS
- TRACK PRODUCTS WITH QUANTITY BELOW A MARGIN.
- TRACK EXPIRED PRODUCTS
- MANAGE THE CUSTOMER BUYING HABITS.

3.EER Diagram



4. StoredProcedure/View/Triggers



Stored Procedure - Customer Activity

Tracks customer activity based on the number of products bought and the category they fall into

View – Inventory Tracking

Displays the quantity ordered, quantity sold and the remaining quantity

View – Expired Products

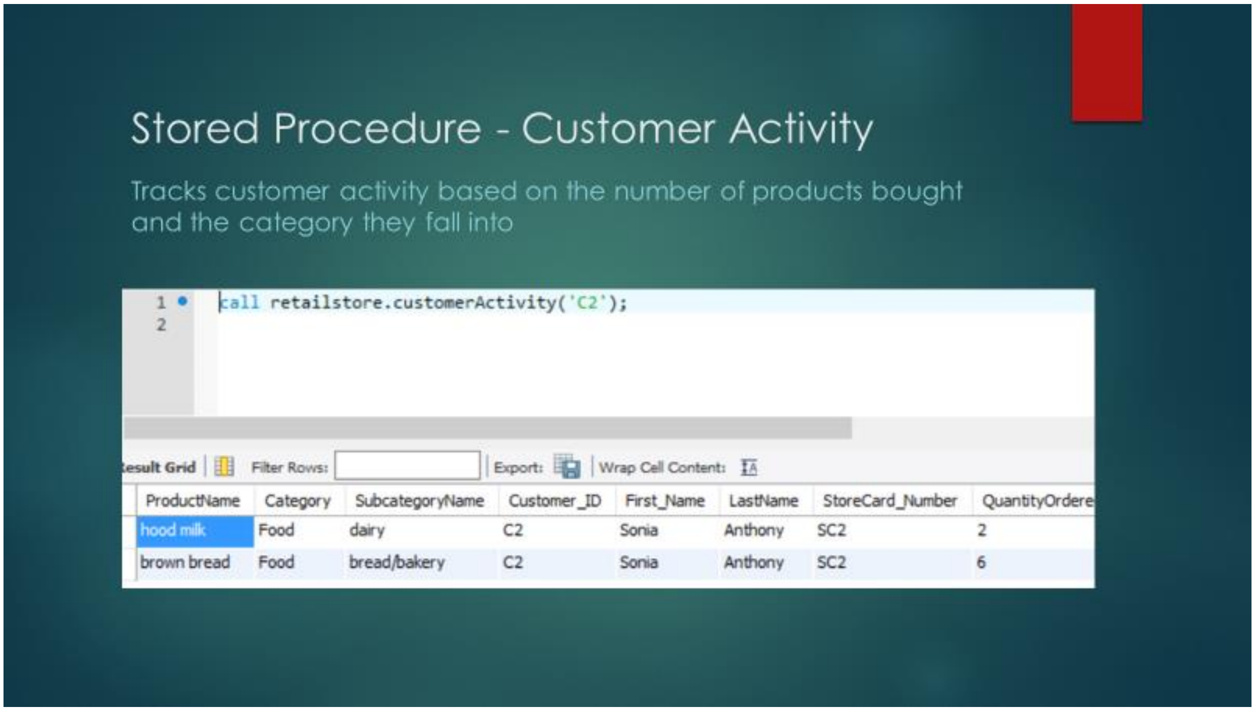
Displays the expired products and its remaining quantity

Trigger- order_update

To update the amount for the order

5. Store Procedure – Customer Activity

```sql
CREATE DEFINER=`root`@`localhost` PROCEDURE `customerActivity`(in x char(10))
BEGIN
declare customerid char(10);

select p.ProductName,pc.Category, ps.SubcategoryName,c.Customer_ID, c.First_Name, c.LastName,
c.StoreCard_Number , cod.Quantity as QuantityOrdered from product as p
join customer_order_details as cod
on p.Product_ID = cod.Product_ID
join customer_order as co
on co.CustomerOrder_ID = cod.Customer_Order_ID
join customer as c
on c.Customer_ID = co.Customer_ID
join productcategory as pc
on pc.Category_ID = p.Category_ID
join product_subcategory as ps
on ps.Subcategory_ID= p.Subcategory_ID
where c.Customer_ID = x
group by p.Product_ID;
END
```



Stored Procedure - Customer Activity

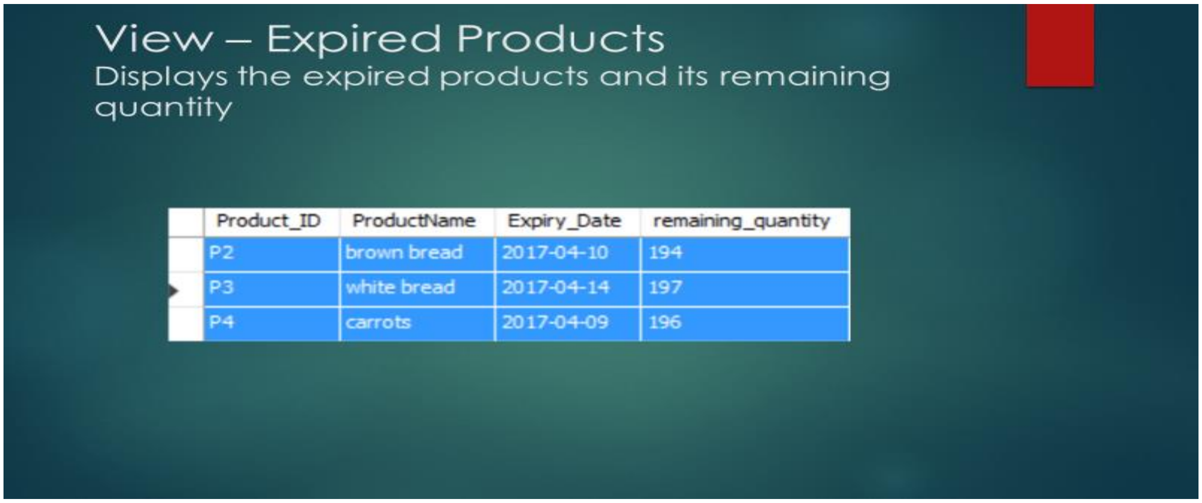
Tracks customer activity based on the number of products bought and the category they fall into

```sql
call retailstore.customerActivity('C2');
```

ProductName	Category	SubcategoryName	Customer_ID	First_Name	LastName	StoreCard_Number	QuantityOrdere
hood milk	Food	dairy	C2	Sonia	Anthony	SC2	2
brown bread	Food	bread/bakery	C2	Sonia	Anthony	SC2	6

6. View- Expired Products

```
CREATE
   ALGORITHM = UNDEFINED
   DEFINER = `root`@`localhost`
   SQL SECURITY DEFINER
VIEW `retailstore`.`expiredproductdetails` AS
   SELECT
      `p`.`Product_ID` AS `Product_ID`,
      `p`.`ProductName` AS `ProductName`,
      `p`.`Expiry_Date` AS `Expiry_Date`,
      (`supl_orders`.`Ordered_quantity` - `cust_orders`.`quantity_sold`) AS `remaining_quantity`
   FROM
      ((`retailstore`.`product` `p`
      JOIN (SELECT
         `retailstore`.`customer_order_details`.`Product_ID` AS `Product_ID`,
            SUM(`retailstore`.`customer_order_details`.`Quantity`) AS `quantity_sold`
      FROM
         `retailstore`.`customer_order_details`
      GROUP BY `retailstore`.`customer_order_details`.`Product_ID`) `cust_orders`)
      JOIN (SELECT
         `s`.`Product_ID` AS `Product_ID`,
            SUM(`s`.`Quantity`) AS `Ordered_quantity`
      FROM
         `retailstore`.`store_order_details` `s`
      GROUP BY `s`.`Product_ID`) `supl_orders`)
   WHERE
      ((`p`.`Product_ID` = `cust_orders`.`Product_ID`)
         AND (`cust_orders`.`Product_ID` = `supl_orders`.`Product_ID`)
         AND (`p`.`Expiry_Date` < NOW()))
```



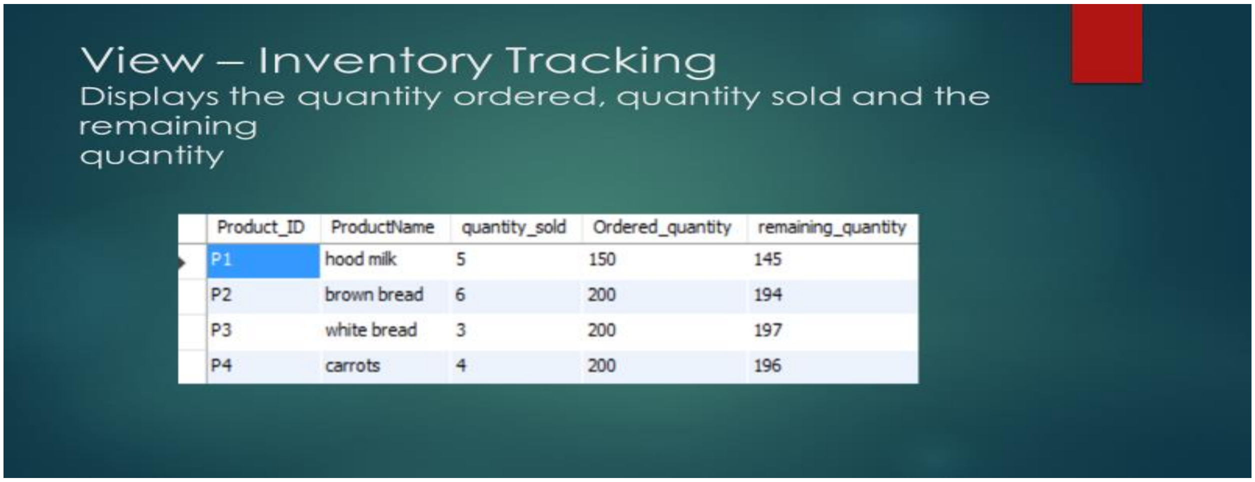
View – Expired Products

Displays the expired products and its remaining quantity

Product_ID	ProductName	Expiry_Date	remaining_quantity
P2	brown bread	2017-04-10	194
P3	white bread	2017-04-14	197
P4	carrots	2017-04-09	196

7. View – Inventory Tracking

```
CREATE
    ALGORITHM = UNDEFINED
    DEFINER = `root`@`localhost`
    SQL SECURITY DEFINER
VIEW `retailstore`.`product_qunatity_inventory` AS
    SELECT
        `p`.`Product_ID` AS `Product_ID`,
        `p`.`ProductName` AS `ProductName`,
        `cust_orders`.`quantity_sold` AS `quantity_sold`,
        `supl_orders`.`Ordered_quantity` AS `Ordered_quantity`,
        (`supl_orders`.`Ordered_quantity` - `cust_orders`.`quantity_sold`) AS `remaining_quantity`
    FROM
        ((`retailstore`.`product` `p`
        JOIN (SELECT
            `retailstore`.`customer_order_details`.`Product_ID` AS `Product_ID`,
                SUM(`retailstore`.`customer_order_details`.`Quantity`) AS `quantity_sold`
        FROM
            `retailstore`.`customer_order_details`
        GROUP BY `retailstore`.`customer_order_details`.`Product_ID`) `cust_orders`)
        JOIN (SELECT
            `s`.`Product_ID` AS `Product_ID`,
                SUM(`s`.`Quantity`) AS `Ordered_quantity`
        FROM
            `retailstore`.`store_order_details` `s`
        GROUP BY `s`.`Product_ID`) `supl_orders`)
    WHERE
        ((`p`.`Product_ID` = `cust_orders`.`Product_ID`)
            AND (`cust_orders`.`Product_ID` = `supl_orders`.`Product_ID`))
```



View – Inventory Tracking

Displays the quantity ordered, quantity sold and the remaining
quantity

Product_ID	ProductName	quantity_sold	Ordered_quantity	remaining_quantity
P1	hood milk	5	150	145
P2	brown bread	6	200	194
P3	white bread	3	200	197
P4	carrots	4	200	196

8. Triggers

1. To calculate the amount for order from the customer to store:

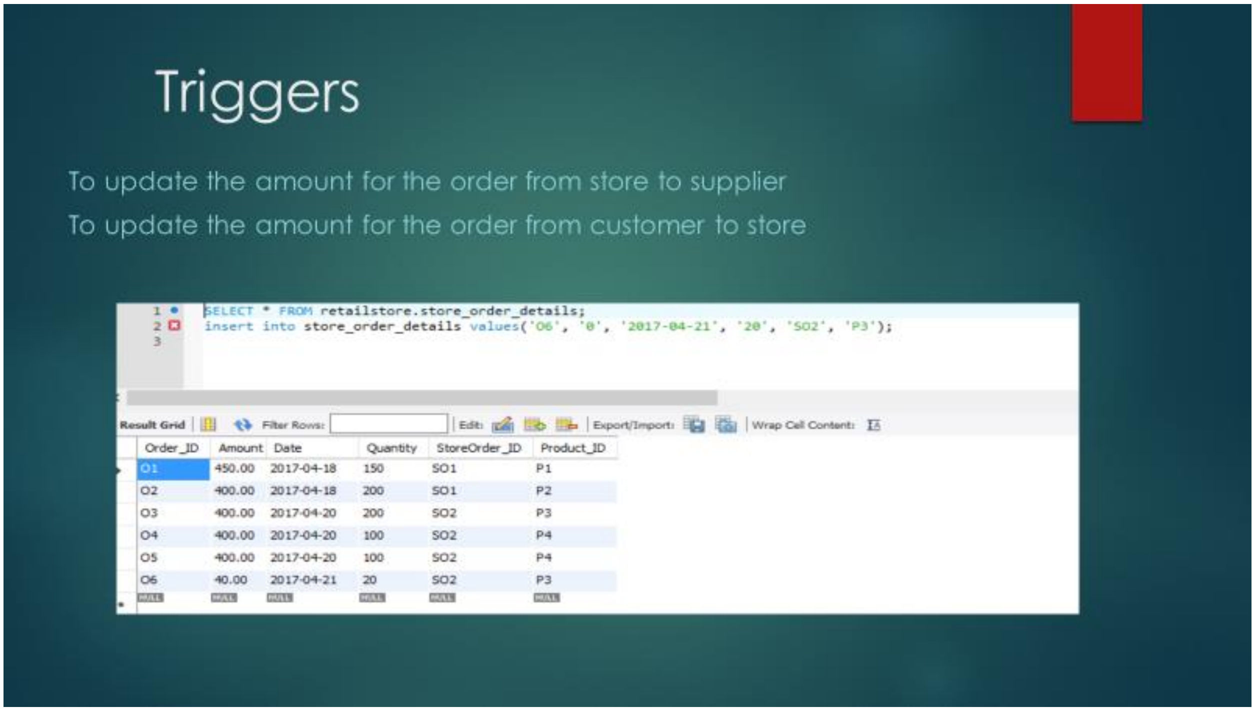
```
CREATE DEFINER=`root`@`localhost` TRIGGER `customerorder_update`
        BEFORE insert
        ON `customer_order_details`
        FOR EACH ROW
BEGIN

        set new.Amount =(select  storeOrderAmount(p.Price, new.Quantity) as Amount
    from product as p
    where p.Product_ID = new.Product_ID
    and new.CustOrder_ID = new.CustOrder_ID);

END
```

2. To calculate the amount for order from the store to supplier:

```
CREATE DEFINER=`root`@`localhost` TRIGGER `order_update`
        BEFORE insert
        ON `store_order_details`
        FOR EACH ROW
BEGIN

        set new.Amount =(select  storeOrderAmount(p.Price, new.Quantity) as Amount
    from product as p
    where p.Product_ID = new.Product_ID
    and new.Order_ID = new.Order_ID);

END
```

3. To track the remaining products in the store inventory:

```
CREATE DEFINER=`root`@`localhost` TRIGGER `update_inventory`
        AFTER insert
        ON `customer_order_details`
        FOR EACH ROW
BEGIN

        update inventory i
        set Quantity = Quantity - new.Quantity
        where i.Product_ID = new.Product_ID;
END
```



Triggers

To update the amount for the order from store to supplier

To update the amount for the order from customer to store

```
SELECT * FROM retailstore.store_order_details;
insert into store_order_details values('O6', '0', '2017-04-21', '20', 'SO2', 'P3');
```

Order_ID	Amount	Date	Quantity	StoreOrder_ID	Product_ID
O1	450.00	2017-04-18	150	SO1	P1
O2	400.00	2017-04-18	200	SO1	P2
O3	400.00	2017-04-20	200	SO2	P3
O4	400.00	2017-04-20	100	SO2	P4
O5	400.00	2017-04-20	100	SO2	P4
O6	40.00	2017-04-21	20	SO2	P3
NULL	NULL	NULL	NULL	NULL	NULL

9.Functions

1.StoreOrderAmount – Calculates the amount for a product by multiplying the price from Product Table and quantity from the customer_order_details for customer order and from the store_order_details for store order.

```
CREATE DEFINER=`root`@`localhost` FUNCTION `StoreOrderAmount`(x int, y double) RETURNS
double(38,2)
BEGIN
declare amount double(38,2);
declare v_amount double(38,2);
declare amount_cursor cursor for
select amount from store_order_details;
open amount_cursor;
fetch amount_cursor into v_amount;
set amount = x * y;
RETURN amount;
close amount_cursor;
END
```

1.StoreOrderDiscount – Calculates the net amount for a product by discount allotted for a particular payment mode and total amount for the order placed.

```
CREATE DEFINER=`root`@`localhost` FUNCTION `StoreOrderDiscont`( x int, amt double) RETURNS
double(38,2)
BEGIN
declare netamt double(38,2);
set netamt = amt + (amt*(x/100));
RETURN netamt;
END
```

10. Code

```
-- MySQL dump 10.13  Distrib 5.7.12, for Win64 (x86_64)
--
-- Host: localhost    Database: retailstore
-- ------------------------------------------------------
-- Server version	5.7.17-log

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8 */;
/*!40103 SET @OLD_TIME_ZONE=@@TIME_ZONE */;
/*!40103 SET TIME_ZONE='+00:00' */;
/*!40014 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */;
/*!40014 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0 */;
/*!40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */;
/*!40111 SET @OLD_SQL_NOTES=@@SQL_NOTES, SQL_NOTES=0 */;

--
-- Table structure for table `address`
--

DROP TABLE IF EXISTS `address`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `address` (
  `Address_ID` char(10) NOT NULL,
  `Address_Field1` varchar(50) NOT NULL,
  `Address_Field2` varchar(50) DEFAULT NULL,
  `City` varchar(50) NOT NULL,
  `State` varchar(50) NOT NULL,
  `Country` varchar(50) NOT NULL,
  `Zipcode` char(10) NOT NULL,
  PRIMARY KEY (`Address_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `address`
--

LOCK TABLES `address` WRITE;
/*!40000 ALTER TABLE `address` DISABLE KEYS */;
INSERT INTO `address` VALUES ('A1','1167 Boylston Street',NULL,'Boston','MA','USA','2215'),('A2','360
Huntington Ave ',NULL,'Boston','MA','USA','2115'),('A3','400 Bedford Street
',NULL,'SanFransisco','CA','USA','94016'),('A4','35 Queensberry Street','Apt
23','Verona','PA','USA','15147'),('A5','1163 Boyslton Street','Apt 31','Boston','MA','USA','2215');
/*!40000 ALTER TABLE `address` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `customer`
--

DROP TABLE IF EXISTS `customer`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `customer` (
  `Customer_ID` char(10) NOT NULL,
  `First_Name` varchar(50) NOT NULL,
  `LastName` varchar(50) NOT NULL,
  `PhoneNumber` char(10) DEFAULT NULL,
  `StoreCard_Number` char(10) DEFAULT NULL,
  `Address_ID` char(10) DEFAULT NULL,
  PRIMARY KEY (`Customer_ID`),
  KEY `IX_Relationship25` (`Address_ID`),
  CONSTRAINT `FK_Customer_ID_Address_ID` FOREIGN KEY (`Address_ID`) REFERENCES `address`
(`Address_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `customer`
--

LOCK TABLES `customer` WRITE;
/*!40000 ALTER TABLE `customer` DISABLE KEYS */;
INSERT INTO `customer` VALUES
('C1','James','Bell','8677463746','SC1','A4'),('C2','Sonia','Anthony','6178374846','SC2','A5');
/*!40000 ALTER TABLE `customer` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--
-- Table structure for table `customer_order`
--

DROP TABLE IF EXISTS `customer_order`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `customer_order` (
  `CustomerOrder_ID` char(10) NOT NULL,
  `TotalAmount` double NOT NULL,
  `Status` varchar(20) DEFAULT NULL,
  `Customer_ID` char(10) DEFAULT NULL,
  `Payment_ID` char(10) DEFAULT NULL,
  PRIMARY KEY (`CustomerOrder_ID`),
  KEY `IX_Relationship37` (`Customer_ID`),
  KEY `IX_Relationship43` (`Payment_ID`),
  CONSTRAINT `FK_CustomerOrder_ID_CustomerPayment_ID` FOREIGN KEY (`Payment_ID`) REFERENCES
`customer_payment_details` (`CustomerPayment_ID`),
  CONSTRAINT `FK_CustomerOrder_ID_Customer_ID` FOREIGN KEY (`Customer_ID`) REFERENCES
`customer` (`Customer_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `customer_order`
--

LOCK TABLES `customer_order` WRITE;
/*!40000 ALTER TABLE `customer_order` DISABLE KEYS */;
INSERT INTO `customer_order` VALUES
('CO1',27,'Pending','C2','CP2'),('CO2',22,'Pending','C1','CP1'),('CO3',6,'Pending','C1','CP4'),('CO4',0,NULL,'
C2','CP3');
/*!40000 ALTER TABLE `customer_order` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `customer_order_details`
--

DROP TABLE IF EXISTS `customer_order_details`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `customer_order_details` (
  `CustOrder_ID` char(10) NOT NULL,
  `Amount` double(38,2) DEFAULT NULL,
  `Date` date NOT NULL,
  `Quantity` int(11) NOT NULL,
  `Customer_Order_ID` char(10) NOT NULL,
  `Product_ID` char(10) NOT NULL,
  PRIMARY KEY (`CustOrder_ID`),
  KEY `IX_Relationship10` (`Product_ID`),
  CONSTRAINT `FK_Product_ID_CustOrder_ID` FOREIGN KEY (`Product_ID`) REFERENCES `product`
(`Product_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `customer_order_details`
--

LOCK TABLES `customer_order_details` WRITE;
/*!40000 ALTER TABLE `customer_order_details` DISABLE KEYS */;
INSERT INTO `customer_order_details` VALUES ('O1',6.00,'2017-04-20',2,'CO1','P1'),('O2',12.00,'2017-
04-20',6,'CO1','P2'),('O3',6.00,'2017-04-20',3,'CO2','P3'),('O4',16.00,'2017-04-
20',4,'CO2','P4'),('O5',6.00,'2017-04-20',2,'CO3','P5'),('O6',9.00,'2017-04-20',3,'CO1','P1');
/*!40000 ALTER TABLE `customer_order_details` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `customer_payment_details`
--

DROP TABLE IF EXISTS `customer_payment_details`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `customer_payment_details` (
  `CustomerPayment_ID` char(10) NOT NULL,
  `NetAmount` double(38,2) DEFAULT NULL,
  `Customer_ID` char(10) DEFAULT NULL,
  `CustomerModeID` char(10) DEFAULT NULL,
  PRIMARY KEY (`CustomerPayment_ID`),
  KEY `IX_Relationship44` (`Customer_ID`),
  KEY `IX_Relationship47` (`CustomerModeID`),
  CONSTRAINT `FK_CustomerModeID_CustomerPayment_ID` FOREIGN KEY (`CustomerModeID`)
REFERENCES `customerpaymentmode` (`CustomerModeID`),
  CONSTRAINT `FK_Customer_ID_CustomerPayment_ID` FOREIGN KEY (`Customer_ID`) REFERENCES
`customer` (`Customer_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `customer_payment_details`
--

LOCK TABLES `customer_payment_details` WRITE;
/*!40000 ALTER TABLE `customer_payment_details` DISABLE KEYS */;
```

```
INSERT INTO `customer_payment_details` VALUES
('CP1',NULL,'C1','CM1'),('CP2',NULL,'C2','CM3'),('CP3',NULL,'C2','CM4'),('CP4',NULL,'C1','CM2');
/*!40000 ALTER TABLE `customer_payment_details` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `customerpaymentmode`
--

DROP TABLE IF EXISTS `customerpaymentmode`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `customerpaymentmode` (
  `CustomerModeID` char(10) NOT NULL,
  `Mode` char(20) NOT NULL,
  `Discount` int(10) NOT NULL,
  PRIMARY KEY (`CustomerModeID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `customerpaymentmode`
--

LOCK TABLES `customerpaymentmode` WRITE;
/*!40000 ALTER TABLE `customerpaymentmode` DISABLE KEYS */;
INSERT INTO `customerpaymentmode` VALUES
('CM1','CreditCard',5),('CM2','DebitCard',4),('CM3','Check',10),('CM4','Cash',6);
/*!40000 ALTER TABLE `customerpaymentmode` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Temporary view structure for view `expiredproductdetails`
--

DROP TABLE IF EXISTS `expiredproductdetails`;
/*!50001 DROP VIEW IF EXISTS `expiredproductdetails`*/;
SET @saved_cs_client     = @@character_set_client;
SET character_set_client = utf8;
/*!50001 CREATE VIEW `expiredproductdetails` AS SELECT
 1 AS `Product_ID`,
 1 AS `ProductName`,
 1 AS `Expiry_Date`,
 1 AS `remaining_quantity`*/;
SET character_set_client = @saved_cs_client;

--
-- Table structure for table `inventory`
```

```
--

DROP TABLE IF EXISTS `inventory`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `inventory` (
  `Inventory_ID` char(10) NOT NULL,
  `Quantity` int(11) NOT NULL,
  `Product_ID` char(10) DEFAULT NULL,
  PRIMARY KEY (`Inventory_ID`),
  KEY `IX_Relationship27` (`Product_ID`),
  CONSTRAINT `FK_Product_ID_Inventory_ID` FOREIGN KEY (`Product_ID`) REFERENCES `product`
(`Product_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `inventory`
--

LOCK TABLES `inventory` WRITE;
/*!40000 ALTER TABLE `inventory` DISABLE KEYS */;
INSERT INTO `inventory` VALUES ('I1',0,'P1'),('I2',0,'P3'),('I3',0,'P2');
/*!40000 ALTER TABLE `inventory` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `product`
--

DROP TABLE IF EXISTS `product`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `product` (
  `Product_ID` char(10) NOT NULL,
  `ProductName` varchar(20) NOT NULL,
  `Price` double(38,2) NOT NULL,
  `Manufactured_Date` date DEFAULT NULL,
  `Expiry_Date` date DEFAULT NULL,
  `Category_ID` char(10) NOT NULL,
  `Margin` int(11) DEFAULT NULL,
  `Subcategory_ID` char(10) DEFAULT NULL,
  PRIMARY KEY (`Product_ID`),
  KEY `IX_Relationship1` (`Category_ID`),
  KEY `IX_Relationship36` (`Subcategory_ID`),
  CONSTRAINT `FK_Category_ID_Product_ID` FOREIGN KEY (`Category_ID`) REFERENCES
`productcategory` (`Category_ID`),
  CONSTRAINT `FK_Subcategory_ID_Product_ID` FOREIGN KEY (`Subcategory_ID`) REFERENCES
`product_subcategory` (`Subcategory_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `product`
--

LOCK TABLES `product` WRITE;
/*!40000 ALTER TABLE `product` DISABLE KEYS */;
INSERT INTO `product` VALUES ('P1','hood milk',2.99,'2017-04-19','2017-04-
29','1',50,'1'),('P10','iphone7',749.00,'2017-04-11',NULL,'5',50,'10'),('P2','brown bread ',1.74,'2017-04-
04','2017-04-10','1',30,'2'),('P3','white bread ',1.50,'2017-04-07','2017-04-
14','1',30,'2'),('P4','carrots',3.50,'2017-04-04','2017-04-09','1',20,'3'),('P5','potatoes',2.99,'2017-04-
05','2017-04-10','1',20,'3'),('P6','mens shirt',10.00,'2017-04-06',NULL,'2',50,'5'),('P7','wall
clock',15.00,'2017-04-10',NULL,'3',10,'7'),('P8','kellogs',5.00,'2017-04-08','2017-05-
20','1',20,'4'),('P9','womens dress',15.00,'2017-04-09',NULL,'2',50,'6');
/*!40000 ALTER TABLE `product` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Temporary view structure for view `product_qunatity_inventory`
--

DROP TABLE IF EXISTS `product_qunatity_inventory`;
/*!50001 DROP VIEW IF EXISTS `product_qunatity_inventory`*/;
SET @saved_cs_client     = @@character_set_client;
SET character_set_client = utf8;
/*!50001 CREATE VIEW `product_qunatity_inventory` AS SELECT
 1 AS `Product_ID`,
 1 AS `ProductName`,
 1 AS `quantity_sold`,
 1 AS `Ordered_quantity`,
 1 AS `remaining_quantity`*/;
SET character_set_client = @saved_cs_client;

--
-- Table structure for table `product_subcategory`
--

DROP TABLE IF EXISTS `product_subcategory`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `product_subcategory` (
  `Subcategory_ID` char(10) NOT NULL,
  `SubcategoryName` varchar(50) NOT NULL,
  `Category_ID` char(10) NOT NULL,
  PRIMARY KEY (`Subcategory_ID`),
  KEY `IX_Relationship2` (`Category_ID`),
  CONSTRAINT `FK_Subcategory_ID_Category_ID` FOREIGN KEY (`Category_ID`) REFERENCES
`productcategory` (`Category_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `product_subcategory`
--

LOCK TABLES `product_subcategory` WRITE;
/*!40000 ALTER TABLE `product_subcategory` DISABLE KEYS */;
INSERT INTO `product_subcategory` VALUES
('1','dairy','1'),('10','cellphones','5'),('2','bread/bakery','1'),('3','vegetables','1'),('4','cereals','1'),('5','mens
clothing','2'),('6','womens clothing','2'),('7','clocks','3'),('8','decorative storage','3'),('9','cookware','4');
/*!40000 ALTER TABLE `product_subcategory` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `productcategory`
--

DROP TABLE IF EXISTS `productcategory`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `productcategory` (
  `Category_ID` char(10) NOT NULL,
  `Category` varchar(50) NOT NULL,
  PRIMARY KEY (`Category_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `productcategory`
--

LOCK TABLES `productcategory` WRITE;
/*!40000 ALTER TABLE `productcategory` DISABLE KEYS */;
INSERT INTO `productcategory` VALUES ('1','Food'),('2','Clothing'),('3','home décor'),('4','kitchen and
dining'),('5','electronics');
/*!40000 ALTER TABLE `productcategory` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `store`
--
```

```
DROP TABLE IF EXISTS `store`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `store` (
  `Store_ID` char(10) NOT NULL,
  `StoreName` varchar(50) NOT NULL,
  `Address_ID` char(10) NOT NULL,
  PRIMARY KEY (`Store_ID`),
  KEY `IX_Relationship24` (`Address_ID`),
  CONSTRAINT `Relationship24` FOREIGN KEY (`Address_ID`) REFERENCES `address` (`Address_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `store`
--

LOCK TABLES `store` WRITE;
/*!40000 ALTER TABLE `store` DISABLE KEYS */;
INSERT INTO `store` VALUES ('S1','Target1','A3'),('S2','Target2','A2');
/*!40000 ALTER TABLE `store` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `store_has_customer`
--

DROP TABLE IF EXISTS `store_has_customer`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `store_has_customer` (
  `Store_ID` char(10) NOT NULL,
  `Customer_ID` char(10) NOT NULL,
  PRIMARY KEY (`Store_ID`,`Customer_ID`),
  KEY `Relationship55` (`Customer_ID`),
  CONSTRAINT `Relationship54` FOREIGN KEY (`Store_ID`) REFERENCES `store` (`Store_ID`),
  CONSTRAINT `Relationship55` FOREIGN KEY (`Customer_ID`) REFERENCES `customer` (`Customer_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `store_has_customer`
--

LOCK TABLES `store_has_customer` WRITE;
/*!40000 ALTER TABLE `store_has_customer` DISABLE KEYS */;
INSERT INTO `store_has_customer` VALUES ('S1','C1'),('S2','C1'),('S1','C2');
/*!40000 ALTER TABLE `store_has_customer` ENABLE KEYS */;
```

```
UNLOCK TABLES;

--
-- Table structure for table `store_has_supplier`
--

DROP TABLE IF EXISTS `store_has_supplier`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `store_has_supplier` (
  `Store_ID` char(10) NOT NULL,
  `Supplier_ID` char(10) NOT NULL,
  PRIMARY KEY (`Store_ID`,`Supplier_ID`),
  KEY `Relationship52` (`Supplier_ID`),
  CONSTRAINT `Relationship51` FOREIGN KEY (`Store_ID`) REFERENCES `store` (`Store_ID`),
  CONSTRAINT `Relationship52` FOREIGN KEY (`Supplier_ID`) REFERENCES `supplier` (`Supplier_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `store_has_supplier`
--

LOCK TABLES `store_has_supplier` WRITE;
/*!40000 ALTER TABLE `store_has_supplier` DISABLE KEYS */;
INSERT INTO `store_has_supplier` VALUES ('S1','1'),('S2','1');
/*!40000 ALTER TABLE `store_has_supplier` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `store_order`
--

DROP TABLE IF EXISTS `store_order`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `store_order` (
  `StoreOrder_ID` char(10) NOT NULL,
  `TotalAmount` double(38,2) DEFAULT NULL,
  `Status` char(20) DEFAULT NULL,
  `Store_ID` char(10) DEFAULT NULL,
  `StorePayment_ID` char(10) DEFAULT NULL,
  PRIMARY KEY (`StoreOrder_ID`),
  KEY `IX_Relationship9` (`Store_ID`),
  KEY `IX_Relationship38` (`StorePayment_ID`),
  CONSTRAINT `FK_StoreOrder_ID_Store_ID` FOREIGN KEY (`Store_ID`) REFERENCES `store` (`Store_ID`),
  CONSTRAINT `FK_StorePayment_ID_StoreOrder_ID` FOREIGN KEY (`StorePayment_ID`) REFERENCES
`store_payment_details` (`StorePayment_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `store_order`
--

LOCK TABLES `store_order` WRITE;
/*!40000 ALTER TABLE `store_order` DISABLE KEYS */;
INSERT INTO `store_order` VALUES
('SO1',850.00,NULL,'S2','SP2'),('SO2',800.00,NULL,'S1','SP1'),('SO3',600.00,NULL,'S1','SP4'),('SO4',NULL,N
ULL,'S2','SP3'),('SO6',NULL,'','S1','SP5');
/*!40000 ALTER TABLE `store_order` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `store_order_details`
--

DROP TABLE IF EXISTS `store_order_details`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `store_order_details` (
  `Order_ID` char(10) NOT NULL,
  `Amount` double(38,2) DEFAULT NULL,
  `Date` date NOT NULL,
  `Quantity` int(11) NOT NULL,
  `StoreOrder_ID` char(10) NOT NULL,
  `Product_ID` char(10) NOT NULL,
  PRIMARY KEY (`Order_ID`),
  KEY `IX_Relationship7` (`StoreOrder_ID`),
  KEY `IX_Relationship8` (`Product_ID`),
  CONSTRAINT `FK_Product_ID_Order_ID` FOREIGN KEY (`Product_ID`) REFERENCES `product`
(`Product_ID`),
  CONSTRAINT `FK_StoreOrder_ID_Order_ID` FOREIGN KEY (`StoreOrder_ID`) REFERENCES `store_order`
(`StoreOrder_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `store_order_details`
--

LOCK TABLES `store_order_details` WRITE;
/*!40000 ALTER TABLE `store_order_details` DISABLE KEYS */;
INSERT INTO `store_order_details` VALUES ('O1',450.00,'2017-04-18',150,'SO1','P1'),('O2',400.00,'2017-
04-18',200,'SO1','P2'),('O3',400.00,'2017-04-20',200,'SO2','P3'),('O4',400.00,'2017-04-
20',100,'SO2','P4'),('O5',400.00,'2017-04-20',100,'SO2','P4');
```

```
/*!40000 ALTER TABLE `store_order_details` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `store_payment_details`
--

DROP TABLE IF EXISTS `store_payment_details`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `store_payment_details` (
  `StorePayment_ID` char(10) NOT NULL,
  `NetAmount` double(38,2) DEFAULT NULL,
  `StoreModeID` char(10) DEFAULT NULL,
  `Store_ID` char(10) DEFAULT NULL,
  PRIMARY KEY (`StorePayment_ID`),
  KEY `IX_Relationship36` (`StoreModeID`),
  KEY `IX_Relationship39` (`Store_ID`),
  CONSTRAINT `FK_StoreModeID_StorePayment_ID` FOREIGN KEY (`StoreModeID`) REFERENCES
`storepaymentmode` (`StoreModeID`),
  CONSTRAINT `FK_StorePayment_ID_Store_ID` FOREIGN KEY (`Store_ID`) REFERENCES `store`
(`Store_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `store_payment_details`
--

LOCK TABLES `store_payment_details` WRITE;
/*!40000 ALTER TABLE `store_payment_details` DISABLE KEYS */;
INSERT INTO `store_payment_details` VALUES
('SP1',920.00,'SM1','S1'),('SP2',1003.00,'SM3','S2'),('SP3',NULL,'SM4','S2'),('SP4',660.00,'SM2','S1'),('SP5',
NULL,'SM2','S1');
/*!40000 ALTER TABLE `store_payment_details` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `storepaymentmode`
--

DROP TABLE IF EXISTS `storepaymentmode`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `storepaymentmode` (
  `StoreModeID` char(10) NOT NULL,
  `Mode` char(20) NOT NULL,
  `Discount` int(10) NOT NULL,
  PRIMARY KEY (`StoreModeID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `storepaymentmode`
--

LOCK TABLES `storepaymentmode` WRITE;
/*!40000 ALTER TABLE `storepaymentmode` DISABLE KEYS */;
INSERT INTO `storepaymentmode` VALUES
('SM1','CreditCard',15),('SM2','DebitCard',10),('SM3','Check',18),('SM4','Cash',20);
/*!40000 ALTER TABLE `storepaymentmode` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `supplier`
--

DROP TABLE IF EXISTS `supplier`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `supplier` (
  `Supplier_ID` char(10) NOT NULL,
  `SupplierName` varchar(50) NOT NULL,
  `Address_ID` char(10) NOT NULL,
  PRIMARY KEY (`Supplier_ID`),
  KEY `IX_Relationship23` (`Address_ID`),
  CONSTRAINT `FK_Store_ID_Address_ID` FOREIGN KEY (`Address_ID`) REFERENCES `address`
(`Address_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `supplier`
--

LOCK TABLES `supplier` WRITE;
/*!40000 ALTER TABLE `supplier` DISABLE KEYS */;
INSERT INTO `supplier` VALUES ('1','Supplier 1 ','A1');
/*!40000 ALTER TABLE `supplier` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Final view structure for view `expiredproductdetails`
--

/*!50001 DROP VIEW IF EXISTS `expiredproductdetails`*/;
```

```
/*!50001 SET @saved_cs_client          = @@character_set_client */;
/*!50001 SET @saved_cs_results         = @@character_set_results */;
/*!50001 SET @saved_col_connection     = @@collation_connection */;
/*!50001 SET character_set_client      = utf8 */;
/*!50001 SET character_set_results     = utf8 */;
/*!50001 SET collation_connection      = utf8_general_ci */;
/*!50001 CREATE ALGORITHM=UNDEFINED */
/*!50013 DEFINER=`root`@`localhost` SQL SECURITY DEFINER */
/*!50001 VIEW `expiredproductdetails` AS select `p`.`Product_ID` AS `Product_ID`,`p`.`ProductName` AS
`ProductName`,`p`.`Expiry_Date` AS `Expiry_Date`,(`supl_orders`.`Ordered_quantity` -
`cust_orders`.`quantity_sold`) AS `remaining_quantity` from ((`retailstore`.`product` `p` join (select
`retailstore`.`customer_order_details`.`Product_ID` AS
`Product_ID`,sum(`retailstore`.`customer_order_details`.`Quantity`) AS `quantity_sold` from
`retailstore`.`customer_order_details` group by `retailstore`.`customer_order_details`.`Product_ID`)
`cust_orders`) join (select `s`.`Product_ID` AS `Product_ID`,sum(`s`.`Quantity`) AS `Ordered_quantity`
from `retailstore`.`store_order_details` `s` group by `s`.`Product_ID`) `supl_orders`) where
((`p`.`Product_ID` = `cust_orders`.`Product_ID`) and (`cust_orders`.`Product_ID` =
`supl_orders`.`Product_ID`) and (`p`.`Expiry_Date` < now())) */;
/*!50001 SET character_set_client      = @saved_cs_client */;
/*!50001 SET character_set_results     = @saved_cs_results */;
/*!50001 SET collation_connection      = @saved_col_connection */;

--
-- Final view structure for view `product_qunatity_inventory`
--

/*!50001 DROP VIEW IF EXISTS `product_qunatity_inventory`*/;
/*!50001 SET @saved_cs_client          = @@character_set_client */;
/*!50001 SET @saved_cs_results         = @@character_set_results */;
/*!50001 SET @saved_col_connection     = @@collation_connection */;
/*!50001 SET character_set_client      = utf8 */;
/*!50001 SET character_set_results     = utf8 */;
/*!50001 SET collation_connection      = utf8_general_ci */;
/*!50001 CREATE ALGORITHM=UNDEFINED */
/*!50013 DEFINER=`root`@`localhost` SQL SECURITY DEFINER */
/*!50001 VIEW `product_qunatity_inventory` AS select `p`.`Product_ID` AS
`Product_ID`,`p`.`ProductName` AS `ProductName`,`cust_orders`.`quantity_sold` AS
`quantity_sold`,`supl_orders`.`Ordered_quantity` AS
`Ordered_quantity`,(`supl_orders`.`Ordered_quantity` - `cust_orders`.`quantity_sold`) AS
`remaining_quantity` from ((`retailstore`.`product` `p` join (select
`retailstore`.`customer_order_details`.`Product_ID` AS
`Product_ID`,sum(`retailstore`.`customer_order_details`.`Quantity`) AS `quantity_sold` from
`retailstore`.`customer_order_details` group by `retailstore`.`customer_order_details`.`Product_ID`)
`cust_orders`) join (select `s`.`Product_ID` AS `Product_ID`,sum(`s`.`Quantity`) AS `Ordered_quantity`
from `retailstore`.`store_order_details` `s` group by `s`.`Product_ID`) `supl_orders`) where
((`p`.`Product_ID` = `cust_orders`.`Product_ID`) and (`cust_orders`.`Product_ID` =
`supl_orders`.`Product_ID`)) */;
/*!50001 SET character_set_client      = @saved_cs_client */;
```

```
/*!50001 SET character_set_results     = @saved_cs_results */;
/*!50001 SET collation_connection      = @saved_col_connection */;
/*!40103 SET TIME_ZONE=@OLD_TIME_ZONE */;

/*!40101 SET SQL_MODE=@OLD_SQL_MODE */;
/*!40014 SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS */;
/*!40014 SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS */;
/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
/*!40111 SET SQL_NOTES=@OLD_SQL_NOTES */;

-- Dump completed on 2017-04-21  8:56:52
```