**STATIONERY MANAGEMENT SYSTEM**

The relationship between the tables is displayed as a **schemas**

1. **Customer (CustomerID**, FullName, CusAddress, PhoneNumber, DateOfBirth, Revenue, RegistrationDate)  
   The **Customer** relation includes attributes such as the customer ID, full name, address, phone number, date of birth, registration date, and revenue (total value of this member's invoices).
2. **Staff(StaffID**, FullName,PhoneNumber,StartDate ).  
   The staff relation records the staff’s full name, date of employment, and contact phone number.
3. **Products(ProductID**, ProductName, UniTofMeasure, CountryOfOrigin, Price).  
   Each product has a unique product ID, a name, a unit of measure, a country of origin, and a price.
4. **Invoice (InvoiceID**,InvoiceDate, CustomerID, StaffID, InvoiceValue).  
   When purchasing, each customer receives an invoice, which includes the invoice number, purchase date, the salesperson, the total invoice value, and the customer ID.
5. **InvoiceDetails(InvoiceID, ProductID**, Quantity)  
   The **Invoice Details** relation describes the products included in each invoice and their respective quantities.

**STAFF**

|  |  |  |  |
| --- | --- | --- | --- |
| **StaffID** | Fullname | PhoneNumber | StartDate |
| NV01 | Nguyễn Văn A | 098765431 | 04/09/2002 |
| NV02 | Nguyễn Văn B | 098765432 | 07/06/2002 |
| NV03 | Nguyễn Văn C | 098765433 | 26/04/2001 |
| NV04 | Nguyễn Văn D | 098765434 | 07/12/1997 |
| NV05 | Nguyễn Văn E | 098765435 | 20/08/2002 |

**Customer**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CustomerID | FullName | Address | PnoneNumber | Date of Birth | Revenue | RegistrationDate |
| KH01 | Trần Nhật Hoàng | Khánh Hải - Ninh Hải - Ninh Thuận | 091812345 | 03-01-98 | 14000000 | 20/12/2002 |
| KH02 | Phạm Minh Hoàng | Lương Ngọc Quyến, Phủ Hà, Phan Rang | 091234551 | 05-01-99 | 33250000 | 15/05/2002 |
| KH03 | Hứa Ngọc Huân | Ký túc xá đại học FPT | 031234225 | 05-01-97 | 12350000 | 16/10/2002 |
| KH04 | Lê Thanh Huấn | Phú Hoà, Ninh Hoà, Khánh Hoà | 078512345 | 06-01-98 | 12350000 | 06/07/2001 |
| KH05 | Vũ Chí Hùng | Thôn Đắc Nhơn 3, Ninh Sơn, Ninh Thuận | 091234587 | 16-01-98 | 9500000 | 11/02/2001 |
| KH06 | Ngô Văn Hưng | Võ Trứ, Mỹ Bình, Phan Rang | 037123450 | 07-01-98 | 7500000 | 12/08/2002 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Product** | |  | |  | |
| ProductID | ProductName | | UniTofMeasure | | CountryOfOrigin | | Price |
| BD | Băng dính | | cuộn | | Anh | | 20000 |
| BG | Bảng ghim | | hộp | | Pháp | | 25000 |
| BKDN | Băng keo dán nền | | hộp | | Mỹ | | 17000 |
| BKD | Băng keo đục | | cái | | VN | | 30000 |
| BKG | Băng keo giấy | | cái | | VN | | 25000 |
| BKHM | Băng keo hai mặt | | hộp | | Pháp | | 17000 |
| BKT | Băng keo trong | | cái | | Mỹ | | 20000 |
| BKV | Băng keo vải | | cái | | VN | | 25000 |
| BKVP | Băng keo văn phòng | | cái | | Pháp | | 17000 |
| BKX | Băng keo xốp | | cái | | Pháp | | 19000 |

**Invoice**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| InvoiceID | InvoiceDate | CustomerID | StaffID | InvoiceValue |
| 1001 | 12-06-19 | KH01 | NV01 | 20000000 |
| 1002 | 29-03-19 | KH02 | NV02 | 25000000 |
| 1003 | 27-03-19 | KH03 | NV03 | 17000000 |
| 1004 | 28-03-19 | KH04 | NV04 | 30000000 |
| 1005 | 30-03-19 | KH05 | NV05 | 25000000 |
| 1006 | 07-01-19 | KH06 | NV01 | 17000000 |
| 1007 | 06-03-19 | KH07 | NV02 | 20000000 |
| 1008 | 06-07-19 | KH08 | NV03 | 25000000 |
| 1009 | 06-11-19 | KH09 | NV04 | 17000000 |
| 1010 | 20-04-19 | KH10 | NV05 | 20000000 |

**InvoiceDetail**

|  |  |  |
| --- | --- | --- |
| InvoiceID | ProductID | Quantity |
| 1001 | BD | 10 |
| 1001 | BKG | 43 |
| 1002 | BG | 12 |
| 1002 | BKDN | 47 |
| 1003 | BKG | 14 |
| 1003 | BKDN | 51 |
| 1004 | BKD | 16 |
| 1004 | BKG | 55 |
| 1005 | BKHM | 18 |
| 1005 | BKG | 59 |
| 1006 | BKHM | 20 |
| 1006 | BKHM | 63 |
| 1007 | BKHM | 22 |
| 1007 | BKT | 67 |
| 1008 | BKV | 13 |
| 1008 | BKHM | 71 |
| 1009 | BKVP | 17 |
| 1009 | BKVP | 75 |
| 1010 | BKX | 21 |
| 1010 | BKT | 79 |

**REQUIRMENTS: using sql to do the exercise**

1. Create relationships and declare primary and foreign keys of the relationships.
2. Add the **Note** attribute with data type **n*varchar(20)***to the **Produc**t relationship.
3. Add the CustomerType attribute with data type *tinyint* to the Customer relationship.
4. Change the data type of the **Note** attribute in the Product relation to *varchar(100).*
5. Remove **Note** and **CustomerType** from the Product and Customer tables
6. Insert data into the tables
7. Update name "Nguyễn Văn B" for Customer data with code KH01
8. Update the name “Nguyễn Văn Hoàn” for Customer data with code KH09 and registration year 2007
9. Show the information relevant to the customers in Ninh Thuận with information such as Customer Code, Full name, address, phone number, date of birth (displayed by day/month/year).
10. Shows a list of customers whose last name is "Lê" including information about Customer Code, Full Name, Address, Phone Number.
11. Shows the total value of goods sold in the months including information: Month, Total value
12. Shows the average amount of sales per month
13. Show what items the customer “Phạm Minh Hoàng” bought at the store. Information includes Product code, quantity, total price.