**SQL Queries**

1. Write DDL queries to create the tables as defined in the data dictionary below:

**Data Dictionary**

Country

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Type | Default | Note |
| CountryCode | Varchar(3) |  | PK, refer to <https://en.wikipedia.org/wiki/List_of_IOC_country_codes> |
| CountryName | Varchar(100) |  | Full country name like Malaysia, Indonesia etc |

Customer

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Type | Default | Note |
| CustID | Varchar(5) |  | PK |
| CustName | Varchar(100) |  | Not null |
| **PaymentCardNumber** | **Varbinary(max)** |  | **Must be an encrypted column** |
| PhoneNumber | Varchar(12) |  |  |
| Country | Varchar(3) |  | FK references Country(CountryCode) |

Table : Order

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Type | Default | Note |
| OrderID | Integer |  | PK, identity column |
| CustID | Varchar(5) |  | FK references Customer(CustID), not null |
| OrderDate | DateTime | Current date and time | Getdate() |
| AmountBeforeDiscount | Decimal(8,2) |  |  |
| AmountAfterDiscount | Decimal(8,2) |  |  |

Table: Product

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Type | Default | Note |
| ProductCode | Varchar(10) |  | PK |
| ProductName | Varchar(100) |  | Not null |
| Price | Decimal(5,2) |  | Must be a positive value |
| CountryCode | Varchar(3) | MAS | FK references Country(CountryCode) |
| QuantityInStock | Integer |  | Must be a positive integer |
| Discount | Decimal(4,2) | Null | Sample values, 4.50%, 10.00%, Maximum is 50%, minimum 1%. Null , means no discount |

Table: OrderItem

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Type | Default | Note |
| OrderItemID | Integer |  | Identity column, PK |
| OrderID | Integer |  | FK references Order(OrderID) |
| ProductCode | Varchar(10) |  | FK references Product(ProductCode) |
| Quantity | Integer | 1 | Must be a positive integer |

1. Write DML queries to populate the tables with some sample data including the below transactions.

Note: Make any appropriate assumptions

**Sample data**

Customer 1 – from Malaysia

Yesterday he placed 2 orders

First order (in the morning) – he bought 2 units of product X, 3 units of product Y

Second order (later in the evening) – he bought 2 units of product Z, 1 unit of product Y

Today he placed another order (in the morning) – he bought 3 units of product X, 3 units of product Y

Customer 2 – from Indonesia

Yesterday he placed 3 orders

First order (in the morning) – he bought 1 units of product Z, 2 units of product Y

Second order (later in the evening) – he bought 2 units of product X, 1 unit of product Z

Third order (later in the night ) – he bought again another 2 units of product Z, 1 unit of product X

Today he placed another order - (in the morning) – he bought 3 units of product Z, 3 units of product Y

Additional details

i) Product X & Y is from Malaysia, Product Z is from Japan

ii) Product X = RM12.00, Y= RM6.50 and Z = RM99.00

iii) Product X comes with a 5% discount, product Y = no discount, product Z with 15% discount

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